

Assessment of Institutional Capacity of Shebedino Wereda for Water Supply and Sanitation Development

Final Report

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Plan Ethiopia



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Acronyms

CFT	Community Facilitators Team
CSA	Central Statistical Authority
DS	Developed Spring
DW	Deep Well
HDW	Hand Dug Well
MDG	Millennium Development Goals
NGO	Non Governmental Organization
RWSS	Rural Water Supply and Sanitation
RWSSHP	Water Supply, Sanitation & Hygiene Program
SNNPRS	South Nations and Nationality Peoples Regional State
SW	Shallow Well
ToR	Terms of Reference
UNICEF	United Nations Children's Fund
WARCR	Wereda Action Research Community Representatives
WART	Wereda Action Research Team
WATSAN	Water and Sanitation
WSPC	Wereda Strategic Planning Committee
WWT	Wereda Water Committee
BOH	Bureau of Health
BOWRD	Bureau of Water Resources Development
BOE	Bureau of Education

CHAPTER ONE: BACKGROUND

1.1. General

Provision of clean and safe drinking water supply is considered as one of vital development lever through improving the health and living standard of the people and in turn increasing productivity.

In Ethiopia provision of improved water supply services in an organized manner was started in the 1950's when the water resources department was established. During these 50 years considerable lessons were learned and achievements were gained. But still only 29% of the population in the country has access to clean and safe drinking water supply, and this ranks the country fifth from the last in Africa. The population having access to potable water supply services is low and an even much lower percentage of the population have access to better Sanitation Services. This is mainly due to Technical, Institutional, Financial and Other factors, which directly or indirectly affects the sector. Further to this, the presence of high number of breakdowns within the developed rural water services has added to the existing problems and makes the actual coverage even lower. The major reason identified for this high number of breakdowns is lack of proper community management system. Even some of the very limited numbers of community management systems, which are said to be successful, are not well documented and replicated.

Millennium Development Goals and the associated water sector development plan of the Ministry of Water Resources were developed to realize the objective of supplying safe drinking water and providing basic sanitation and enhance development. To reach these targets scaling up of community managed water supply and sanitation services are timely and even urgent.

It is for this reason that a group of stakeholders with the secretariat role of Plan Ethiopia initiated action research for scaling up of community managed water supply and sanitation services for two major objectives:

1. To conduct Action Research on community managed water and sanitation services so as to bring up coverage to 100%.
2. Contribute for indefinite sustainability of community managed rural water supply and sanitation services.

Steering Committee and Technical Advisory Groups were established at National and Regional levels. At the wereda level a wereda Action Research Team (WART) and a wereda Action Research Community Representatives (WARCR) were established. The Action Research is already underway at the Shebedino wereda of Sidama zone. But, an important part of the Action Research will also take place at Regional and National levels, to disseminate the lessons learned from the wereda, to establish links of the Action Research to ongoing programmes & strategies.

As part of the Action Research process, a training and capacity building workshop was carried out at Adama/Nazareth town in December, 2004. During this workshop, the following activities were planned,

1. Situational Analysis of the Pilot Shebedino wereda
2. Meta-Evaluation at the National Level
3. Specific sector experiences of different stakeholders.

Then, an inception Workshop with participation of Government, and Non-governmental institutions was held in Awassa town in April 2005. During the workshop the Meta-Evaluations, Situational

Analysis of the wereda and other stake holder's experiences were discussed and future Action Plan was developed.

Accordingly, assessing the capacity of the intermediate & other support structures were some of the major activities that were proposed to be executed at the Regional Level. This is to determine the need for the backup support required, the supply chain, and institutional capacity gaps so that a comprehensive Capacity Building Measures, which ensures the sustainability of the community managed water supply & sanitation services and for self-reliant development in terms of the managerial, technical, administrative and research capabilities required to formulate and implement water supply and sanitation development plans and policies. Moreover, the assessment can help to clarify the linkages within the institutions and other parallel sector institutions as per the decentralization policy of the country. Therefore, this Institutional Capacity Assessment is required to explore the status of the sector institutions from different angles with regard to the Action Research process.

Plan Ethiopia has selected Desta Horecha Water Supply Engineering Service in a competitive bid to carryout the Institutional Capacity Assessment of Shebedino wereda. This report is a final report on the Institutional Capacity Assessment of Shebedino wereda to achieve the MDG Targets.

1.2. Introduction

1.2.1. Location and Topography

Shebedino wereda is one of the ten weredas found in Sidama zone of SNNPRS. It is located at about 27km South East of Awassa and 302km south of Addis Ababa. The wereda has 50 rural kebeles and 3 town kebeles located at the main town of the wereda, Leku.

1.2.1 Climate and vegetation

The mean altitude of the wereda varies from 1760 to 3000 m amsl. According to climatic classification of Ethiopia (Lemma Gonfa, 1996), the wereda is categorized as Tropical Climate, and Warm Temperate Rainy Climate. The average rainfall is estimated to vary from 1000 to 1300 mm and wet and dry season of the wereda are June to September and October to May respectively. The wereda covers a total area of 411.7 square kilometer characterized by rugged terrain, ever green, covered mainly with Inset (tuber plant), coffee and different type of indigenous trees and increasingly expanding eucalyptus trees.

1.2.2 Demographic characteristics

The total population of the wereda is about 324,664 where 51% are male and 49% are females in 2005. The wereda, with an estimated 500 people per square kilometer and is the second most densely populated wereda in Ethiopia. The average house hold size is 5 and extends to 7-10 persons in poorest house holds. From the total population of the wereda only 3% live in towns like Leku and the rest 97% live in rural areas where there are no adequate socio-economic infrastructures like potable water, health and education facilities (WWT, WSPC in collaboration with Tolingyo Consult, 2005).

1.2.3 Social Characteristics

The majority of the population belongs to Sidama ethnic group (93%) and "Sidamigna" is the official language of the wereda. A social system "OLA" exists where people show solidarity by mobilizing support (material, labor and financial) to the family members of the deceased. "Fiche", Sidama's New Year is observed in a very traditional manner (WWT, WSPC in collaboration with Tolingyo Consult, 2005).

1.2.4 Economic situation

The wereda has an area of 411.7 square kilometer, where 0.2% of it is covered with forest, 72.3% under cultivation, 19.6% grazing land and 3.4% of potential land for future development. The major source of livelihood in the wereda is crop production, live stock rearing, petty trade, unskilled labor and semi-skilled labor like carpentry. The major crops grown are Inset, coffee, chat; maize, barely, wheat, and bean coffee and chat are cash crops. The livestock raised in the area are cattle, sheep, horse, donkey goat and poultry and contributes in significant income. Inset followed by maize and potato constitute the staple food short falls in food production and seasonal food insecurity and malnutrition characterized the wereda.

1.2.5 Water Resource

Shebedino wereda is situated in two topographically distinct areas, i.e. eastern escarpment and the floor of the Ethiopian Rift system. As a result of this the areas which are situated on the Eastern escarpment are characterized by locally undulating topography with the general topography descending towards west. As a result surface water and ground water flow from East to West towards the Awassa Lake and Gidabo River basins. The areas, which are situated on the floor of the rift system, are characterized by plain topography associated with ridges. As mentioned above the climatic conditions of the Wereda varies from Tropical Climate to Warm Temperate Rainy Climate. The water supply sources vary with the climatic condition which is related to the elevation of the area.

All Kebeles which are located on the high land (Warm Temperate Rainy Climate) zone of the Wereda use protected and unprotected springs and streams for their domestic and house hold consumptions, so most of these kebeles are dependant on the unprotected springs and highly contaminated streams. Tropical Climate zone Kebeles of the wereda, use traditional hand dug wells, traditional ponds, hand dug well and shallow wells fitted by the hand pumps and deep wells.

1.3. Objective of the study

The objectives of the study is to assess the institutional capacity of the water and sanitation sub-sector of Shebedino wereda and identify the gaps and recommend capacity building measures to meet the WATSAN MDG targets.

1.4. Scope of the work / The TOR

Scope of the institutional capacity assessment includes the following activities

1. Rapid assessment of institutional capacity at the Water and Health bureaux and desks with established benchmarks and
2. The consequent capacity gap assessment and,
3. Developing a comprehensive capacity building plan.

The assessment will address;

- Local Government from villages to the region, their function in planning, budgeting, implementing, managing, monitoring etc.
- Local indigenous organizations like cooperatives and different associations that are relevant for WATSAN development.
- Local NGOs and International NGOs active in WATSAN.
- The legal status and function of the WATSAN committee.
- The working relationship of all these institutions to achieve the MDG.

1.5. Structure of the report

The report is structured in seven chapters. The first chapter consists of the background information, introduction to the study area, and the objectives and scope of the work. The second chapter describes the methodology used in carrying out the work. The existing situation of water supply and sanitation sectors at various levels from communities to regional level are described in chapter three. Chapter four contains the gaps identified within the institutions to achieve the MDG target in the sector and recommendations based on the gaps identifies are stipulated in chapter five, the capacity enhancement action plan is presented in chapter six and finally conclusion is presented in chapter seven.

CHAPTER TWO: METHODOLOGY

2.1. Methods of data collection

Rapid Institutional capacity assessment was undertaken through collection of primary and secondary data from Regional, Zonal and wereda level institutions involved in water supply and sanitation sector such as water resources and health offices and other stakeholders and the community.

Relevant documents were obtained from Action research secretariat office at the head office of Plan Ethiopia. Based on the documentation and TOR for the study, checklists were prepared for field level data collection and submitted to the client and later modified as per the comment from the client. The checklist for group discussion and individual interview is shown in annex 1.

Field level data collection was made at community, wereda, zone and Bureau at Shebedino and Awassa from both water and health sectors. The major secondary sources include a strategic plan of the next five year and achievement report of last ten years in the water sector in the SNNPR. Plans and reports of wereda water desk and wereda Health Office were collected from respective offices. The plans and reports of the two NGO's involving in the sector in the wereda, Goal International and Water Action were also collected. Data of complete inventory made in March 2006 was obtained from Plan Ethiopia Shebedino office. Human power plan and existing resources were identified. Policy and legal documents relevant to the sector were checked.

Group discussion, individual interview and observation were used to collect relevant information. Group discussions were undertaken with wereda and zone Water resources development office, D/head of zone Health office, Deputy Head of Water Resources Development Bureau and Heads of departments in the bureau including water resources and water supply and sanitation departments. Individual interview were also took place at Wereda Water desk, wereda Health Office, Community Facilitators of the WaSH program and WATSAN committee members on water points. In addition, discussion was made with representatives of Plan Ethiopia Shebedino Unit and Water Action Shebedino office. The list of discussants and their affiliation has given in Annex 2a.

Individual discussions were undertaken with Administrator of Shebedino wereda, Head of Sidama zone water resources development office with representatives of some of the water committee members on spot. The list of individuals interviewed has also shown in annex 2b.

The inventory data was collected by Plan Ethiopia Shebedino office and government partners and this was utilized for the study. A total of 5 motorized, 10 hand dug wells, and 10 springs were visited by the team and beneficiaries were contacted through water committee members to cross check the status of the schemes randomly at different parts of the wereda. The team has observed the physical condition of these water points and identified relevant management capacity of the community including their financial status.

Summary of the draft of the capacity assessment report and capacity enhancement plan was presented to the II Action Research Learning Workshop and important feedbacks were received from the participants.

2.2 Methods of Data Analysis

Capacity gaps were identified through the following analysis:

6/ Institutional Capacity Assessment of Shebedino Wereda

- Production rate analysis: the production rate at wereda and regional level was estimated based on recent inventory data for Shebedino wereda and database of the region on the provision of water supply services. A production factor of typical scheme was considered based on a study made by Ernest and Young for MoR to estimate the volume of water to be produced to satisfy the per capita demand of the inhabitants. It was also used to estimate the safe water supply and sanitation coverage of the wereda and the region, respectively.
- The population at the wereda, zone and Region was projected at 2015 and was considered to identify the gaps to meet MDG.
- Institutional capacity gaps were identified through the analysis of the existing policy environment, structures and systems, physical facilities, human resources, financial resources and collaboration of stakeholders in WATSAN sector.
- Based on the inventory data and sample observation, the human resources, technical and financial capacity of the water committees were assessed and gaps were identified.
- Based on the gaps identified broad recommendations for the long term and short term action plans were developed.

2.3. Limitations

- It was difficult to get information from the Health Bureau regarding existing sanitation situation and future direction in the region. This was because the expert of the sanitation department to whom we were referred to collect such data was not available in the Bureau during our repeated visit to the bureau and the zone.
- The information on the coverage of sanitation is not consistent as shown in section 3.5.2 of this report. For example the report compiled by WWT, WSPC in collaboration with Tolingyo Consult for Shebedino Wereda Strategic Plan indicates the coverage of pit latrine as 49.5% and that of the Health office is 65%. The consultant used the wereda coverage data from the wereda health office which is line department. The regional figures on sanitation coverage provided by Region water Bureau indicates that sanitation coverage is only at 17% (water resources strategic plan, 2005). On the other hand the report from health bureau indicates that coverage on human waste disposal in the region has reached 80% (Demissie Bubamo, May 2006).

CHAPTER THREE: EXISTING SITUATION/BENCH MARKS

3.1 Policy and Regulation Frame Work of the Water Sector

Appropriate policy and regulatory frame works are essential for the utilization and management of natural resources such as water resource and the like. Policies and regulations provide the framework for the planning, developing and managing, administrating and conservation of resources as well as for achieving sustainability of the services.

Lack of proper policies and strategic direction would lead to fragmented actions, absence of coordination and inefficiency.

3.1.1. Water Resource Management Policy

The Regional level policy and regulatory functions are those functions that constitute the instruments, directives and frameworks that are required to guide and influence the water development and the fulfillment of sanitation facilities. However, the regional water policy and related regulations are not yet developed and approved. So, in absence of clearly articulated water and sanitation policies for the region, one can refer to federal Water Sector Policy and Strategy.

Accordingly the fundamental principles and relevant issues of the water sector policy and objectives of the water sector Strategy are described briefly in the following paragraphs.

- Water is the common and indivisible natural endowment and asset of all the peoples of Ethiopia
- Every Ethiopian citizen has the inalienable right to have access to sufficient water of acceptable quality, to satisfy basic human needs
- Water shall be recognized both as an economic and a social good as well as a private and public good for all round, viable, fair and sustainable management
- Water resources development shall be under pinned on
 - an integrated framework
 - needs assessment
 - objective oriented and capacity based planning
- Management of water resources shall recognize and incorporate social equity norms including equity to access for water use
- Economic efficiency in water resources management shall be insured
- System reliability and sustainability shall form the basis of plans, programs, projects, infrastructures and schemes in water resource
- Environmental integrity shall constitute a central part of water resources management
- Stake holder's participation including community and women participation in the relevant aspects of water resources management shall be promoted and ensured and the participatory approach, involving users, decision and policy makers, planners, implementers and donors shall be promoted

- The principle of "some for all and not all for some" shall be adopted and promoted

In particular the following integrated water supply and sanitation policy was developed and is under use.

3.1.2. Integrated Water Supply and Sanitation Policy

- Recognize that water supply and sanitation services are inseparable and integrate the same at all levels through sustainable and coherent framework.
- Promote the "User Pays" principle for urban water supply and sanitation services.
- Promote as far as possible, that the development as well as the operation and maintenance of water supply and sanitation systems are carried out at decentralized and appropriate body.
- Ensure efficient and sustainable management of water supply and sanitation system by avoiding fragmented management on one hand and at the same time by avoiding over-centralization of management.
- Create conducive situations for the participation of all stakeholders in integrated water supply and sanitation activities and legalize the same.
- Develop national standards, guidelines and procedures on the different aspects of water supply and sanitation.
- Work in partnership with all concerned for water supply, drainage and wastewater master plans in major urban areas and prepare water supply and sanitation strategies in rural and other urban centers.
- Ensure that water supply and sanitation financing is based on established set of criteria that incorporate the relevant factors and prioritizes them

With regard to creating enabling environment the following policy on institution and stakeholders and capacity building is adopted

Institutions and Stakeholders

- Ensure that the management of water supply systems to be at the lowest and most efficient level of institutional set up, which provides for the full participation of users and to promote effective decision making at the lowest practical level.
- Develop coherent and streamlined institutional frameworks for the management of water supply at the Federal, Regional, Zonal, Wereda and Kebele levels and clearly define the relationships and interactions among them.
- Develop coherent and appropriate guidelines, standards, principles and norms for streamlining the intervention of ESAs, NGOs loans, grants and other donations.
- Develop a framework for the sustainable and effective collaboration amongst all stakeholders including the public sector, donors, communities and the private sectors at all levels as well as create and legalize forum for the participation of all stakeholders.
- Define and implement the respective roles of the various institutions and stakeholders at all levels including Federal, Regional governments, ESAs, NGOs, private sector, etc.

Capacity Building

- Build technical capacity in terms of water source investigation, design, engineering, water quality control; operation and maintenance, construction technology and facilitates.
- Develop streamlined and coherent legislation and regulatory framework for improving water supply as well as to control pollution, degradation and depletion of water sources.
- Promote objective oriented training with special emphasis on trades-level training, community

participation, administration and finance, and operation and maintenance.

- Assist in the establishment and strengthening of water users associations.
- Equip water supply organizations with the necessary facilities.

3.1.3. Water resources management strategy

To translate the water sector policy, water resource strategy has been formulated with the following objectives of water supply and sanitation.

- Improving the living standard and general socio-economic well being of the Ethiopian People
- Extending water supply and sanitation coverage to large segments of the society, thus achieving improved environmental health conditions
- Enhancing the contribution of water resources in attaining national development priorities
- Promoting the principles of integrated water resources management

The major conclusion from the sector policy and strategy statements is that any water supply institution should be able to provide reliable and sustainable service, should cover the cost of providing the service, the role of the Water Service and the supervising office must be clearly defined, an arrangement for monitoring and evaluation of the operation of the Water Service shall be constituted and the private sector and the Users (consumers) should play an important role in the whole process.

3.1.4. Proclamations

Experience from other regions show, some regions has started issuing proclamations to manage the Urban and Rural water supply Systems. One of these regions is the Council of the Amhara National Regional State who issued Proclamation No. 82/2003 for Reorganizing of Urban and Rural Water Supplies and Sewerage Services on February 3, 2003. The organization and responsibilities of the water committees of rural water resources are set in this proclamation and several issues were treated. According to the proclamation a water desk at Wereda Level follows the rural water supply planning and construction activities and it also organizes communities to participate in the constructions and operation and maintenances of schemes. Some amendments and improvements were made on this proclamation recently. The desk is replaced with a team and its responsibilities also include other water source developments such as small-scale irrigations. However there is no such proclamation in South Nations and Nationality Peoples Regional State. Three major legal issues need attention for the betterment of sustainable service provision of water and sanitation. Theses are issue of ownership of the water system, tariff setting and collection of fee and legal status of water committees.

Legal status of water committees:

There is no system in place that gives water committee a legal status. Even have no byelaw that governs committee members and the community for the functioning of the system as legal entity.

Ownership

Even though there is a handing over of schemes to the community, the ownership of water supply system is still unclear as it is not legally documented.

Tariff setting, collection of fees and Cost recovery

Similarly tariff setting goes with legal status of the water committee as a result once the community set the tariff there is no revision and there is also problem in the collection of the water fee. At some incidents the chairman of the water committees collects the fee and there were also no financial records. In general;

- Tariffs are inadequate to cover operation and maintenance costs. As a result scheme level maintenance capacity is being lost;
- Monthly collection of contribution is ineffective and unsatisfactory;
- The mechanisms of controlling embezzlement is inadequate
- Spare parts supply and maintenance is still free through government structure. It is not available in the market from the private sector.

Referring to the Amahara region proclamation Article 31/3 of Regulation of Urban and Rural Water Supply and Sewerage Services Regulation No. 82/2003, the water committees are obliged to keep financial records and bodies designated through Wereda Administration Council and Wereda Water Desk shall audit the records. However, this experience lacks in SNNP region.

Government and donors may bear the cost of initial investment but, from the point of view of the present situation it would be too difficult even to cover the cost of operation and maintenance.

In general to cater for the eventuality of a requirement of ownership of assets by the community in any of the legalizing organizational options the region has to make a policy decision and issue proclamations.

3.2. Major actors in water supply & sanitation sector in Shebedino Wereda

Different governmental bodies and non-government organizations are involving in the water supply, sanitation and hygiene promotion sector of Shebedino wereda. These are;

Wereda Administration

- Coordinates all sectors (political, social and economic) in the wereda,
- Allocate wereda budget to sectors,
- Coordinates World Bank Assisted WaSH program on Water supply, sanitation and hygiene promotion. That is, the Wereda administration chairs the Wereda Water Team (WWT) where relevant government sectors (water, health, and education etc.) and Toligyo Consult steers the WaSH program; and community level activities are underway by community facilitators recruited for the purpose.

Wereda Water desk, recently re-organized as an office,

- Undertakes water schemes maintenance works and report to the zone Water development desk and follow up the action to be taken,
- Organize water committees, train them, advice and follow up their proper functioning.
- Identify potential water resources in the Wereda and set priority for intervention.
- Takes periodic inventory and assesses the safe water coverage level of the wereda.
- Plan, contract out and supervise small community water supply schemes
- Assist the Studies and construction of new water schemes by Regional Water Bureau, Zonal department and NGOs.

Wereda Health Office

- Coordinates sanitation (especially human waste disposal) and hygiene promotion works.
- Assign health extension agents to most of the kebeles in the wereda and guide and follow-up their activities.
- Collaborate with NGOs in training community health promoters and follow up their activities. The community health promoters in turn educate the community on preventive measures including sanitation and hygiene education.

NGOs

The other important actors for rural water supply are NGOs that provide goods, services and financing to the communities.

- Plan Ethiopia: Shebedino wereda Child Focused Development Unit-- support Water Action financially in water supply, sanitation and hygiene promotion works. Support the training of community hygiene promoters and follow up activities.
- Goal: South Ethiopia Branch office--- water schemes construction, organize water committees, provide trainings to water committee and community hygiene promoters.
- Water Action: Construct water schemes, organize committees, provide training to water committees,
- ASHE: Training of community hygiene promoters

The Private Sector Capacity and Role in Rural Water Supply

Involvement of the local private sectors, such as technical specialists, contractors, operations and maintenance providers, and spare parts suppliers is important in supporting communities to plan, construct and maintain their facilities. Thus private sectors are also essential to the provision of cost effective and sustainable rural water supply facilities. However there is no private sector involvement in rural water supply at community level except Toligyo consulting firm who advise and guide the wereda administration and community facilitators group, respectively, for the proper implementation of the World Bank supported pilot community based water supply, sanitation and hygiene promotion program.

Community

In general, participatory approaches are now being adopted as the cornerstone for rural development in all sectors including water supply schemes. Communities choose the facilities they want, decide how to manage and finance them, and pay part of the capital cost is becoming a widely accepted fundamental fact to sustainability. Community based management is now accepted by professionals in all sectors across the World as the only sustainable approach to village water supply and sanitation and increasingly to town water supply. However, communities are not homogeneous in the rural settlement areas; thus community based management needs to be designed to be socially inclusive – giving voice and decision making responsibility to women. When attention is not paid to the issues of social inclusion, groups of poor women may be excluded, and investment choices and scheme managements may not reflect the true needs of the poor women. Women have a prominent role to play in both planning and managing of the rural water supply facilities. In case of water schemes considered during this study:

- The community participates at the implementation stage the community contributes labor and materials in kind. The community also determines the water tariff and the mode of payments.
- The communities elect water committees who are responsible to manage the scheme including operation and maintenance and water fee collection.

3.3. Stakeholders Collaboration and Coordination in the Sector

It is expected that water supply, sanitation and hygiene promotion works are to be coordinated at wereda and kebele level so that maximum impacts and sustainability of the service will be achieved. However, the observation during the assessment shows that there are uncoordinated efforts both at wereda and kebele levels.

At wereda level:

- The Wereda water desk focuses on the provision of water supply service, gives little attention to hygiene promotion and is silent on sanitation. The water desk involve in community mobilization and training of water committees while NGOs are constructing new water schemes. Even if the water desk involves in water resources identification and technology selection, its role in sanitation and hygiene promotion is not clearly defined. The water desk is a member of WWT, a team organized from the representatives of different sector offices including health, education, and women's office and chaired by wereda administrator. However, the role of the desk in WaSH program is not significant since there is no direct reporting or follow up by the desk.
- The Wereda Health Office focuses on promoting latrine construction and health education, but gives little attentions to other sanitation activities. The involvement of the health office in WaSH program is also minimal except participating in WWT as committee member.
- The wereda administration is a focal point for World Bank supported pilot project guided by Wereda Water Team (WWT) established to lead the process at wereda level. The heads of wereda health office and wereda water desk and others are members of the WWT, but activities of this project are not integrated into the regular institutional woks. The wereda water desk and wereda health office don't follow up the activities of the WaSH program as a major partner nor do they incorporate the experience gained in such project in to their organization.
- Tolingyo consultants PLC (Private) is working with Wereda administration, WWT and CFT as a Wereda support group.
- Local and international NGO's are mainly involving in water supply and sanitation activities in collaboration with Wereda water desk and Wereda health office for respective issues. Goal Ethiopia, Plan Ethiopia and water Action are involving in water supply and sanitation. Wereda water desk mainly involve in community mobilization and training.

At Community level

- In general, the linkage and collaboration of water committees' with other actors in the community is not clearly articulated.
- There is no clear coordination and collaboration between water committees and community hygiene promoters.
- PA health workers have no work relationship with community facilitator groups (CFT) of the WaSH pilot project.
- The work relationship among water committees, community promoters, CFT and Wereda water desk is not clear.

3.4. Institutional Management (Existing Situation)

This section presents a short description of the organizational structure, process, system and human resource development of the water & sanitation sector in the SNNPR.

3.4.1. Institutional Set-up

In principle, the water and sanitation sector in the SNNPR has a four tier institutional set-up,

- 1 Regional level Bureaus
- 2 Zonal level water resources development desk & sanitation section in the health department
- 3 Wereda level water desk & sanitation section in the health office and a separate;
- 4 Community level institution, namely the Water and Sanitation Committee

This set-up largely reflects the prevailing political administration of the region.

The first and the second tiers are the SNNPR Water Resource Development Bureau and Health Bureau as well as the Zonal Water Resources Development Office and Health Department. The third levels are Shebedino wereda Water Desk and Health Office which are located in Leku town. The fourth levels are the local water and sanitation committees.

The water committees are accountable to the communities who elected them and in principle, they are independent and autonomous and are the 'operating units' and they are responsible for production and distribution of safe water, cash collection and basic maintenance activities. They are also in charge of the installation of new service connections and to a limited extent the planning and implementation of projects of new schemes.

The different institutional setup of the water sector tiers in the SNNPR are described hereafter.

3.4.1.1. Community Level Management

Community management of water supply and sanitation starts from project identification and goes deep into contribution in cash and kind and monitoring during implementation and managing the scheme. The user community participates in monitoring the works of different development actors and finally takes over the management and operation of the water schemes and promoting sanitation and hygiene education in their own community.

The community level institutions in the sector are water committees which are volunteers and elected by community members to serve a given community members.

Water committees are elected by community mainly with the support of wereda Water desk, community promoters. When the scheme is constructed by an NGO, the level of involvement of the wereda water desk in the establishment of the committee varies. In some cases, committees are organized without the knowledge of wereda water desk.

Based on the number of members and mandates given to them as practiced by different stakeholders in Shebedino wereda the WATSAN committees can be grouped into three. These are:

- a) Water committees, organized with the support of wereda water desk, are purely responsible for water supply and are mostly five in number. As a general rule, 2 or 3 women's are expected to be committee members. But, in practice the gender balance is not adhered to materialize the general rule. Most of the community managed water schemes are managed by this type of committee.
- b) WaSHCO are Committees that organized with the support of community facilitators of wereda WaSH program. The number of committee members is ten. The committees are responsible not only for water supply but also for sanitation and hygiene in their kebele. The committees are organized at kebele level where more than one scheme will be materialized. The committee members involve in the process from the beginning and they are at forefront to educate community members and mobilize them for community contribution.
- c) WATSAN are committees that are organized by Water Action, a local NGO operating in the wereda. The committee members are seven in number and serve for the whole kebele where there is more than one scheme. WATSAN committees are also responsible not only for water supply but also for sanitation. One of the challenges of such arrangements are that selecting committee members where they are not beneficiaries. In such cases, the level of management and follow-up is not as effective as that of selecting committee members from among beneficiaries of a given scheme.

The water committees have direct contact with the wereda water desk. In case of maintenance and any problems with its functioning, committee members report to the wereda water desk. The committee members are usually five, but when a water scheme is big and has more than one water points the number of committee members could be seven or ten based on the size of population it serves.

In most cases water committees are trained how to manage the scheme. But, in some cases committee members are simply elected and given little orientation on their tasks and starts serving the community.

Major tasks of the committee include,

- initiate the community to get access to safe and potable water supply and sanitation services.
- mobilize the community for participation (such as cash and/or labour contribution) at the construction stage.
- manage the water scheme as a responsible body for the common property of the society.
- coordinate the community to keep the water points clean and protected from damage.
- recruit guards and tap attendants and manage where needed.
- set and revise water tariffs in community meeting and at the presence of wereda water desk representative.
- collect the water tariff and keep the money in safe place.
- report breakage and any problem beyond their capacity to the wereda Water desk regarding the functioning of the scheme.

Based on the result of the inventory conducted in the beginning of 2006, the schemes which have water committees are 81 out of which only 7 (8.8%) are non functional. The rest 124 schemes don't have water committees and 21 (17.6%) of them are non functional. Most of the schemes which do not have water committees are developed springs.

Pilot WaSH Program

The WaSH program is a World Bank financed, special intervention towards community managed sustainable water services provision implemented at community level for several weredas in the country. The pilot program is planned for two years. One of the weredas benefiting from this program is Shebedino Wereda. Under the wereda WaSH pilot program the community is initiated to be part and actor in the processes starting from pre-planning period. The program has integrated water supply, sanitation, and hygiene into one unit. The Wereda administration is a focal point and Wereda Water Team (WWT) is a committee consisting of sector offices heads like Wereda Water Desk, Health, Education, Women and representatives from the community. The community facilitators team (CFT) is composed of three members each responsible for the following three major activities in the pilot Kebele. These are: a) community promotion, (b) Water supply, use and care and (c) sanitation and hygiene promotion. These facilitators were selected from their respective communities and employed to serve their own communities and reporting to WWT.

3.4.1.2. Wereda Level

The Wereda water desks and the Wereda health office form the third tier of the SNNPR Water Resource Development Bureau and Health Bureau structures.

As indicated in Wereda strategic plan, the existing low level of rural water Supply, Sanitation facilities and hygiene practices are the main causes for the poor health of the productive force of the

community in Shebedino wereda. Organizational structure of Wereda water desk is described as follows.

Up until the time the consultant team visited the Wereda, the water desk is organized under Wereda Rural Development Office, with duties and responsibilities of planning, organizing and implementing Wereda water supply and sanitation activities. Under such set up, it comprises technical service functions which include study and design, operation and maintenance as well as community participation promotion service function.

Internal service functions, such as administration and finance, audit and the like are provided centrally from Wereda supporting service pool.

The Head of Wereda water desk has a direct reporting line to the Head for the office of Wereda Agriculture and Rural Development. Under the previous organizational structure, there is no clearly indicated direct reporting line between wereda Water Desk and Zonal Water Resource Development Desk.

Community Participation Promotion Service

The main interface between Wereda Water Desk and the water committees is the Community Participation promotion service. The CPPS is responsible for community mobilization and back-up services.

The community promoters visit the communities more or less regularly to identify problems in the water supply area, promote the concept of local accountability for reliable water supply services and sanitation practices, support the establishment of water committees, train and monitor the members and the operational staff in the execution of their duties, sensitize the villagers on water and sanitation related issues and provide advice on administrative and financial matters to the water committees.

In nutshell, community promoters are responsible for the following activities.

- Conducts community awareness creation and mobilization
- Carry out sanitation and hygiene education programs in cooperation with Wereda health workers
- Train Water Committees, motor operators and pump caretakers and
- Provides back-up services.

Operation and maintenance

The second important interface to the water committees is the O&M service. The team is responsible for performing major maintenance and repair work with the regional maintenance and operation department to RWSS on request.

Study and Design

As per the Wereda water desk organizational set up the Study and Design Section exists. However, this section is not functional as there is no manpower; budget and facility are not allocated to conduct the study and design.

3.4.1.3. Zonal level

The Zonal Water Resources Development Office and Zonal Health Department forms the second tier of the SNNPR Water and Health Bureaus structures. Organizational structure of the Zonal water resource development office is described as follows.

Zonal Water Resource Development office is directly reporting to the Zonal Administration. It is responsible for planning, organizing and implementing of Zonal water supply, Sanitation and Irrigation activities. (Irrigation is out of the scope of this report)

The newly approved Zonal water Resource Development office organizational set-up comprises four technical service functions (water Resource Development Team, Study & design team, Operation & Maintenance Team, Mineral & Energy Resource Development Desk), one service function (Community Participation Promotion and Training service) and one internal service function (i.e. Administration Service).

The Head of Zonal water resource development desk was directly reporting to the Zonal Rural Development Coordination Department Head. However, according to the new organizational structure at present he is directly reporting to the Zonal Administrator.

On the existing organizational structure, there are no direct reporting lines between wereda water desk and Zonal water resource Development Desk, and between Regional Water Resource Development Bureau and Zonal water resource Development Desk. The main interface between zonal water desk and the water committees, at present, is the operation and maintenance team. The team is responsible for performing medium maintenance and repair work to rural water supply schemes on water committee's request.

The Community Participation, promotion and training service is new, which exists only at skeleton level on the new structure, is expected to involve in the zonal communities participation, promotion and training activities through provision of back-up services to the wereda and communities.

Sanitation under Zonal Health Desk is charged with the responsibilities of provision of back up services to the wereda Sanitation teams.

3.4.1.4. Regional Level

Regional Water Resource Development Bureau and Regional Health Bureau form the first tier in the regional water and sanitation sector organization.

The regional Water Resources Bureau has responsibilities regarding regional water Resources.

- Formulation/Legislation and enforcement of Policies, Proclamations, Regulations and guidance.
- Undertaking water supply and sanitation study, design, develop, manage and documenting & disseminating of information.
- Promoting the organization of water user associations, training of artisans and administrative committees of Water Institutions.
- Setting and controlling standards of water quality and preventing of water resource pollution.
- Supervising and controlling the balance of distribution and utilization of regional water resources.
- Preparation of bid and contract documents and selection of the contractors for water supply and irrigation development projects and follow up their implementation.
- Undertaking of surveying and designs for small and medium scale irrigation development Schemes.

- Preparation of water resource related standards, licensing and registration of water resource consultants

The current organizational Structure of Water Resource Development Bureau shows two Deputy Bureau Heads, namely water Supply Development Deputy Bureau Head and Irrigation Development Deputy Bureau Head, which report directly to the Bureau Head. (Irrigation is out of the scope of this report, so it will not be dealt with).

Accordingly, the three technical departments (Water Resource, Water Supply and sanitation and operation and Maintenance) report to water Supply Development Deputy Bureau Head.

The following service functions are directly report to the Bureau Head.

- Planning, Civil Service Reform and NGOs Coordination Service
- Pool of Supporting Staff
- Community participation Promotion and Training Service

The main interface between the regional water Bureau and the community or water users is Community Participation Promotion and Training Service. Its main responsibilities include;

- Training of wereda and zonal community participation promoters
- Organizing awareness creation work shops, and the development of promoters' manuals, procedures and guidelines for weredas and zonals.
- Under taking of monitoring and evaluation duties on the trainings conducted by promoters for community motor operators and hand pump caretakers.
- Providing back up services to the weredas and zones.
- Involving communities at all levels of project cycle in rural water supply.
- preparing guidelines and manuals

The second interface between the regional water Bureau and the community or water users is Operation and Maintenance department which is responsible for performing major maintenance and repair work, which are beyond the capacity of other tiers of the sector. All departments and services of the regional water resource are dealing with the rural water supply committees, to the extent of their respective duties and responsibilities.

The regional Environmental Sanitation team has responsibilities regarding regional sanitation and hygiene situations. The team gives back up services to the zonal and wereda health offices based on the ratified regional public health proclamation. The following strategies are in use (Demissie Bubamo, 2006).

- community mobilization for sanitation and hygiene promotion:
 - Broad based household centered approach through promotion of volunteerism in the community
 - Reviewing situations, identification of barriers and planning and implementation of sanitation and hygiene interventions at village level by participation of all members of the community;
 - Introduction of new approaches in Community Health promotion system and exemplary role played by Community Health Promoters (CHPs);
 - Use of existing social and cultural organization systems in the community;
 - Expansion of positive developments achieved during pilot phase to all parts of the region;
 - Advocacy and community mobilization discussions at all levels (region-village levels) based on concept papers that lead to consensus building on major public health issues;

- Integration of sanitation and hygiene education with other development activities:
- Schools: – conducting H.E. sessions in schools;
 - supporting schools to construct sanitation facilities;
 - Assessment of data on school water supply and sanitation (ongoing);
- Activities of water sector:-
 - Joint assessment, planning and reviewing in project areas;
- Signing of Memorandum of understanding between BOH, BOWRD, BOE at regional level for inter sectoral collaboration.

3.4.2. Human resources

3.4.2.1. Staff Situation

At almost all of the three intermediate levels, the actual staff numbers are quite below the target. The turnover rate is high. This may be due to the salaries paid by the sector institutions and other reasons. In addition, there is less number of qualified manpower, especially at wereda water and sanitation desks level.

A) Community Level System

As indicated earlier, from the total schemes existing in Shebedino wereda, the schemes which have water committees are 81. The rest 124 schemes don't have water committees and most of the schemes which do not have water committees are developed springs. These schemes are managed and operated by a locally elected Water Committee's comprising of 5-10 members.

- Water committees, organized with the support of wereda water desk, are purely responsible for water supply and are mostly five in number. As a general rule, 3 men and 2 women's are expected to be committee members. Only Midregenet motorized water supply schemes have 9 committee members (3 women and 6men). Midregenet scheme has a subcommittee with 4 male and 3 Female. The reason is because the scheme serves more than one village.
- WaSHCO are Committees that are organized with the support of community facilitators of wereda WaSH program. The number of committee members is ten. The committees are responsible not only for water supply but also for community mobilization and sanitation and hygiene in their respective kebele. The committees are organized at kebele level where more than one scheme will be materialized.
- WATSAN is a committee that is organized by Water Action, a local NGO operating in the wereda. The committee members are seven in number 3 women and 4 men and serve for the whole kebele where there is more than one scheme. WATSAN committees are also responsible not only for water supply but also for sanitation.

Depending on the complexity of the scheme management, one or more employed staff (pump attendants, guards, water sellers etc.) are directly accountable to a locally elected Committee's.

- Health extension agents are assigned in 33 kebles and are assisting the community in educating health and practice protective measures and collaborate with health promoters in pit latrines construction.
- Community health promoters are leading a group of 30 households and educate the community on preventive measures including sanitation and hygiene education and construction of pit latrines.

Water Sector

b) Wereda Water Desk

The planned and existing staff of Shebedino Wereda water and sanitation desk is indicated below.

Table 0-1. Planned and existing staff of Shebedino Wereda water desk

No	Description	Planned	Actual no.	Difference
1	BSc degree in Water Supply/Civil/Hydraulic Engineering	3	-	-3
2	AID Engineer	4	1	-3
3	Social Worker	2	2	-
4	Mechanic	2	1	-1
5	Other technical Staff	2	2	-
	Total	13	6	-7

c) Zonal Water Resources Development Office

The planned and the existing (available) staff of Sidama Zone Water Resources Development office has also indicted below.

Table 0-2 Planned and existing staff of Sidama zone water desk

No	Job Title	Planned	Actual no.	Difference
1	Head, Zonal Water desk	1	1	0
2	Secretary	1	1	0
3	Head, administrative Service	1	-	-1
4	Personnel Officer	1	-	-1
5	Archive clerk	1	-	-1
6	General Service officer	1	-	-1
7	Guard, Gardiner, cleaner, office Boy	as required*	-	-
8	Service Head	1	-	-1
9	Training expert	1	-	-1

Table 0-3 Continued

No	Job Title	Planned	Actual no.	Difference
10	Community Promoter	1	-	-1
11	Water Supply Improvement expert	1	-	-1
12	Water Resource development Team Leader	1	1	0
13	Hydrologist	1	-	-1
14	Water Supply Engineer	1	-	-1
15	Sanitary engineer	1	1	0
16	Design Team leader	1	-	-1
17	Hydro geologist	1	1	0
18	Hydraulic engineer	1	1	0
19	Geologist	1	1	0
20	Surveyor	1	-	-1
21	O&M team Leader	1	1	0
22	Mechanic	1	1	0
23	Electrician	1	1	0
24	Plumber	1	1	0
25	Chemist	1	1	0
26	Laboratory Technician	1	1	0
27	Community Promoter	1	1	0
	Total	26+*	14	12

d) Regional Bureau

The existing number of staff of Regional Water Resources Bureau of SNNPR is also shown below.

Table 0-4 Existing staff of SNNPR Regional Water Resources Bureau

No	Description	Actual
1	Head, Bureau	1
2	Secretary	2
3	Coordinator	1
4	Community promoter	2
5	Women's affairs coordinator	1
6	O&M service Head	1
7	Tools Keeper	1
8	Maintenance Section head	1
9	Purchaser	1
10	Senior mechanic	1
11	Plumber	1
12	Electrician	
13	Welder	1
14	Machinery and Vehicles Maintenance head	1
15	General Mechanic	1
16	Mechanic	1
17	Auto electrician	1
18	Crane Operator	5
19	Crane Electrician	1
20	Service Rig Operator	2
21	Service Rig A/Operator	2
22	Service Rig Mechanic	1
23	Service Rig Electrician	1
24	Rig mechanic	2
25	Rig Operator	1
26	Rig Electrician	1
27	Rig A/operator	1
28	Plumber	1
29	Driver-mechanic	4
30	Water resource Dep Head	1
31	Secretary Typist	1
32	Water resource team leader	1
33	Hydro-geologist	2
34	Water supply expert	1
35	Geologist	1
36	Water Supply Engineer	1
37	Metrology Team Leader	1
38	Water Quality Team leader	1
39	Chemist	2

40	Environmentalist	1
41	Laboratory Technician	1
42	Water supply & sanitation Dep. Head	1
43	Secretary	1
44	Study and Design team leader	1
45	Hydraulic Engineer	1
46	Hydro geologist	1
47	Geophysist	1
48	Sanitary Engineer	1
49	Civil Engineer	1
50	Surveyor	2
51	Draftsman	2
52	Construction supervision team leader	1
53	Hydraulic Engineer	1
54	Civil Engineer	1
45	Hydro geologist	1
	Total	70

Health sector

a) Health Bureau

Only one expert is currently available in the Health Bureau to coordinate environmental sanitation in the region. Given the wide area and high demand for expertise in the sector the activities expected are far beyond the capacity of one expert. In this sector there is a major deficit in manpower and this is reflected also during data collection during this study as well.

b) Zonal health department

Basic sanitation is organized under Hygiene and Environmental Sanitation in Health Department of Sidama zone. There is no staff assigned for hygiene and environmental sanitation only. An expert responsible for disease prevention and control coordinates sanitation. He/she has many other responsibilities including surveillance, TB, Malaria, Leprosy controls and others. Therefore, the focus to hygiene and environmental sanitation is very minimal. In addition, there was no budget allocated for hygiene and environmental sanitation by government.

c) Wereda health Office

For sanitation and hygiene education there is only one sanitarian responsible for health programs and service desk. The major focus is promoting the construction of latrines, waste disposal pits and health education. The expert is also responsible for the activities in controlling communicable diseases and is pre-occupied with this activity. However, no government budget has been allocated for sanitation.

3.4.2.2. Training and Development

Training programs can be used as incentive for the workforce. It is recognized in all places as an important strategic component in the process of institutional building. However, there is no strategic plan for human resource development in the water and sanitation institutions of SNNPR. As a result there is inadequate skill proficiency in the sector. Specific methods of identifying the organizational training needs were not observed in water and sanitation sector as a whole. Situations of each institution are described as follows.

A. Community Level System

At community level there are certain trainings which were identified, prepared and given for Water committees, operators and pump care takers. However, training program on job training, and advanced trainings that are tailored made for specific organizational needs such as Operation & Maintenances, Sanitation and hygiene education, financial management, and water resource management (how to manage the scheme) should be formulated and implemented at community level.

B. Wereda water Resource Development Office

At wereda water Resource Development Office, there was no training program and budget that was prepared for the staff, even at skeleton level.

The only type of training that was identified was training given to one of the staff (rather it is formal education) at Arba Minch university. This type of supply driven training (education) is relevant to the water institutions. However, training program that are tailored made for specific organizational needs should be encouraged.

C. Zonal water resource development office

Since Zonal water Resource Development Office was under establishment as a new office, during the time of the team of consultant visit, there was no information about training activities.

D. Regional water resource development bureau

At regional water resource development bureau, training policy, structured and planned training activities are evident at a skeleton level. There are also supply driven training and formal education at higher level. However, there are no training programs that are based on training need assessment for specific organizational needs. This means that identification of training requirements and their relevance to the objectives of the organization have not and could not be evaluated.

Management Development does not exist even on a skeleton level in all the institutions mentioned above. As result the professional and managerial growth of the managers and especially middle level management is blocked.

Consequently, parts of organizational process are hampered because the professional managers lack managerial skills such as organizational planning, leadership qualities, motivational skills, the ability to use teamwork, etc.

3.4.2.3. Incentive system

One of the issues that was mentioned constantly and at each tiers of the sector was the lack of an incentive system. An incentive system is a tool for rewarding and motivating workers who contribute to the organization. This system has a special importance specially when regular payments are relatively low, and the salary system itself is a poor motivator, as is the situation in the organization under study.

Lack of incentive system results in lack of employees taking initiatives and lack of motivation. When there is no incentive simple problem that could be solved on site with local resources are not solved because of the absence of self initiatives or self motivation from the workers.

Therefore a well established and elaborate incentive system is a powerful managerial tool, using it managers can reward their subordinates according to their performance.

Lack of incentive schemes and fringe benefits causes indifference. This is reflected by a high turn over rate especially in the case of professional workers and water committee members.

3.4.2.4. Process, System and Procedures

An over all assessment indicates the following existing situation of Process, System, Procedures and operation capacity of WS&S sector.

There are different types of Systems, process and procedures that are expected in the water and sanitation sector. However, this report focuses only on the followings areas.

3.4.2.5. Management Information System (MIS)

The Management information System (MIS) indicates a system set up using manpower for collecting, storing, organizing and then disseminating the processed data. This type of system would make important data available to the heads of all division, in every organizational structure which would in turn in making better more informed and accurate decisions. The MIS could also be used as an effective planning tool. The managers need this type of system in order to assist their decision making process.

Usually the tools that serve the information system are computers because of their ability to handle a large amount of data and process it rapidly. This would enable the managers and other information users to get the required information.

Where and when computers are scarce and handle to use, other tools can be used. Tools such as indexes, cards, files and so on are useful. The important thing is to have a conception of a uniform information system.

It was found when trying to compile even simple information such as the number of RWSS, job description on the different organization levels, number of functional and non- functional RWSS, maintenance situations, sanitation situations, even organizational structures and distribution of salaries, qualified and non-qualified number of workers at each tier of the water and sanitation sector. It was hard to find the information recorded in a systematic manner, and required an enormous effort to acquire in almost all institutions mentioned above.

Computers exist at some offices, and even then they are used mostly for word processing, despite the possibility of using them for data processing. Data base programs are relatively inexpensive and can be run on relatively simple PC's.

However, due to the scarcity and the poor condition of the technical communication systems (telephone, computer, etc.) means that written reports are the most efficient form of communication, especially at wereda level. Because of this, there is lack of quick information flow.

3.4.2.6. Decision making process

The quality of a particular decision depends on the quality of MIS that supported the decision making process, due to a hierarchical relationship that exists between data, information, knowledge, and decisions. The process begins with the collection of raw data (e.g. facts associated with some type of measurement or observation). The results are combined and analyzed to provide useful information. That information is combined with other information sources to provide the knowledge. Conclusion drawn from this entire process gives rise to well-informed decisions.

As indicated above MIS is an effective tool in decision making process.

Therefore, the quality of decision depends on the quality of MIS that supported the decision making process. Lack of organized and uniform information system will hampered the smooth decision making process.

In many organizations it is the method and organization of decision making (for both key and routine matters) which cause trouble. Excessive centralization of operational decisions can deprive the organization of flexibility needed to react to the required situations.

In spite of declared objectives, concerning community Management decentralization and autonomy of weredas and, there is poor delegation of autonomy and power to the lower units.

All water institutions organizational structures are designed by focusing on tasks, people, jobs etc., but not on processes. Because of the fragmentation of processes and responsibilities, it is extremely difficult to make quick decisions.

In another case, an autocratic managers (institution heads) are taking decisions without conferring with professional experts on their own staff, who could easily prove that many of their decisions were based on wishful thinking rather than rational analysis. This is common practice any where in country, including WS&S institutions of the SNNPR.

3.4.2.7. Organizational autonomy

Organizational autonomy is critical in terms of an organization's ability to manage and respond to its external and internal customers' needs. As WS&S is a public government utility, salary and other related rewards are subject to the civil service office regulations, therefore, Water and Sanitation institutions, can not raise salaries and reward to motivate their staff. This indicates that these institutions have insufficient autonomy to manage effectively and efficiently.

Effective organizational autonomy can be categorized as the authority to make decisions about budgets, tariffs, revenues, hiring levels, pay and incentives, control of personnel, institutional policies and systems, planning of projects, and organizational goals.

3.4.2.8. Management and administration systems

Management and administration System is demonstrated by the capacity to get the most out of the resources available (human and other) in a deliberate or planned manner. Good managers have a clear sense of objectives and priorities; they know who to rely on to get a job done and how to delegate to them the means to do it.

An effective management climate is characterized by team-work, co-operation, and good communication among staff. To enable managers to perform effectively an efficient administrative system is required. This includes the policies and procedures which regulate, guide, and facilitate the actions of managers.

However, as indicated above, a large number of operational rules and regulations have not been fixed in writing, especially, in community managed scheme areas. In addition, when there are the required systems and procedures in place they are not followed and implemented in practice.

3.4.2.9. Technical capability

Technical capability is the measure of the institution's competence in conducting the technical work required to carry out the responsibilities of the institution. Most of the technical work is performed directly by skilled, qualified employees, as well as outside specialists supervised by the institution's own staff.

At the regional level and to some extent at zonal level, there are skilled and qualified employees who can perform technical works effectively and efficiently. However, at wereda and community level it is difficult to find skilled and qualified workers that can perform technical work as required.

Most of the rural water supply schemes source site selection, design and construction is undertaken by the regional and zonal technical staff. Here also there is lack of equipment to conduct the detail investigation for ground water. Lack of data such as remote sensing image, meteorological data, well trained professional in the field. Even though most of the rural water supply system designs are becoming standard

3.4.2.10. Relationship with key external institutions

Relationships with key external institutions are judged by the capacity to influence positively and strategically those institutions which affect the financial, political, and legal ability of the institution to perform effectively.

However, one observes that the water and sanitation institutions have good relation ship with the state and national government departments, NGOs and with other donors, concerning water and sanitation issues.

3.5. Plans and Achievements

3.5.1. Population

Since the indicator for access to safe water supply coverage is shown by percent of total population that are accessed to safe water supply, population projection is a detrimental factor. The population projection for the region is based on the 1994 national census and proposed growth rates. The national growth rates proposed for urban 4.11% and for rural 2.33% are used to project the population.

Table 0-5 Population projection for the region, zone and wereda

Year	1995	2000	2005	2010	2015
SNNPR	10554242	11879455	14346222	16146812	18185889
Sidama zone			2828551	3184391	3587534
Shebedino wereda		276791	317310	355879	399295

Source: CSA, Statistical Abstract 2002, Ethiopia.

Some of the Kebeles that were in Shebedino wereda at the time of the census were reallocated to neighbouring weredas and the population of the wereda does not much with the 2003 CSA projection. Therefore, the projection of the wereda population is based on the information from the wereda strategic plan, 2005.

3.5.2. Community Level

At community level the practice of self-initiation and active participation in water and sanitation is very minimal. In most cases, communities request for water scheme development to be developed by government. Water schemes have developed by minimum contribution and participation of the community. But after the completion of the construction especially communities with motorized schemes are actively managing their schemes in tariff setting and revision, recruitment of employees, maintenance, financial management and the like it has been documented in Mider Genet motorized schemes.

Recently, the wereda WaSH pilot project has started the active involvement of the community from the very beginning. The communities in three Kebeles are given general awareness on their role in the sustainable water supply, sanitation and hygiene and overall management of the process and outputs. They have been involved in establishing WASHCO to manage the process from its beginning. The communities are collecting 10% cash contribution for the water scheme to be constructed. With the help of community facilitators, the communities in the three Kebeles have prepared their plan for water scheme development, sanitation and hygiene. The experience from this pilot exercise will be very good ground for the development of community managed integrated water supply, sanitation and hygiene services for maximum impact on health.

3.5.3. Shebedino Wereda

3.5.3.1. Achievements of the last 5 years

a) Safe water supply

The Water desk was organized under rural and agriculture development Office of the wereda during the restructuring process of 2003 and is the responsible body for the safe water supply in the wereda. The major tasks to be implemented by the desk are the following;

- Assessing the water resources potential of the wereda by itself and in collaboration with Zonal experts,
- Mobilize community for the construction of new schemes, organize Water committee and provide training for the committee and care takers. Provide training on safe use of water.
- Construct limited number of shallow wells and developed springs,
- Provide maintenances by itself and in collaboration with the Zonal office when it's beyond its capacity, especially in case of major maintenance and spare parts.

Major water schemes developed in the wereda were done by the regional and/or zonal government and NGOs. Based on the inventory conducted in March 2006 by Plan Ethiopia and zone water resources development office, the major two actors in water schemes development were Government and Sidama Development Program who have been developed 79 and 49 water schemes, respectively. A total of 154 schemes that accounts for 76% of the schemes developed in the wereda are by non-governmental organizations and community based organizations. Among these NGOs, SDP, UNICEF and Irish Aid are the significant ones. However, the currently operating NGO, Goal International, Plan Ethiopia, and Water Action are actively involving in the ongoing interventions in the sector.

The overall performance of the wereda for last five years was evaluated based on the inventory data. No comprehensive plan was available that accommodate the intervention of Regional and Zonal water sector government body nor that of NGOs operating in the wereda. However, the production rates were calculated based on the type and number of schemes and production factors based on the study conducted by Earnest and Young for MoWR (Earnest and Young, 1997).

b) Basic sanitation

The wereda health office is responsible for communicable diseases including sanitation and hygiene. However, the office has not clearly indicated the targets for sanitation in its strategic plan and there is no allocated budget to the sector for the last five years either.

The wereda desk for communicable diseases control is responsible also for sanitation and there is no particularly staff assigned to follow the sanitation activity. The wereda health office works in collaboration with NGO's regarding the sanitation and hygiene promotion. The collaborative NGOs are Plan Ethiopia, Goal Ethiopia and ESHE. A focal person from the health office works with these NGO's.

Sanitation facilities

A total of 42,085 traditional pit latrines were constructed in the wereda. But no information is available on the utilization level, hygiene practices and environmental sanitation. The major focuses of the health office with regard to sanitation are the construction of pit latrines and waste disposal pits.

Table 0.6 Plan Verse Achievements of Sanitation in Shebedino wereda

Year	Activity	unit	Plan	Achieved
2003/04	Traditional pit latrine construction	No	20600	21750
	Waste disposal pits construction	No	60	48
2004/05	Traditional pit latrine construction	No	7550	10196
	Waste disposal pits construction	No	24	41

Source: Wereda Health Office

Coverage of Health Extension

In line with the preventive health strategy of the federal government, the wereda health office has started to materialize the strategy by assigning two extension workers for each kebele. Since mid 2004, a total 33 health extension agents have been working in 33 kebeles where 20 kebeles are still remained without health extension agents. The wereda health office has planned to fulfill the targeted number of health extension agents gradually. In addition, community health promoters who trained and serve the community in voluntary bases are also promoting community based education on sanitation and hygiene among others.

Table 0.7. Community health extension promoters trained by NGO's & operating in the wereda (2004/2005)

NGO	Male	Female	Total	Number of kebeles covered
Goal	362	344	706	15
Plan	45	45	90	2
ESHE	101	102	203	9
Total	508	491	999	26

Even though latrine coverage is high about 65%, the sanitation sub-sector has the following challenges. These are;

1. Logistics
2. Equipments
3. Community collaboration
4. High staff turnover
5. No budget for sanitation

3.5.3.2. Strategic Plans of Shebedino Wereda**a) Safe water supply**

The five year strategic plan for Shebedino wereda is not comprehensive. It shows only the five year strategic plan of the WASH program that is supported by the World Bank. Interventions by the Regional government and NGO's are not included. Therefore, information obtained from the wereda Water Desk, and two NGO's; Water Action and Goal International are included to indicate the involvement of potential stakeholders in the sector.

The information obtained from Wereda Water Desk, Wereda Support Group and the two NGOs is compiled to show better targets for the three years (2006-2008).

Table 0-8. Water Supply Service Targets for three years

Type of Schemes	2006	2007	2008
Deep well	3	3	4
Shallow wells	4	4	10
Hand dug well	8	2	0
Large springs development	2	0	0
Small Springs development	18	9	6
Total	35	18	20

The plan of Water Action and Goal International is only for two years (2006 and 2007). Of the total of 73 schemes planned for the three years to be accomplished by different actors in the wereda, 28 are planned to be constructed by NGO's (Water action and Goal international). The remaining 36 schemes are planned to be accomplished by Wereda Water Desk and 9 schemes by WWT under WaSH Program. In addition, under WaSH program it is planned to develop 2 deep wells and 10 shallow wells for 2009 and 2010 which is included in its five years plan.

The largest number of schemes planned by wereda water desk which consists of the drilling of 6 deep wells is planned to be covered by government capital budget.

However, experience of the last two years (2004 and 2005) has shown that none of the capital budget planned at wereda level has been materialized. The level of accomplishment of the recurrent budget was also far below plan. For example, the total requested budget by the wereda Water Desk for 2005 was Birr 3,069,785 out of which Birr 2,790,600 was capital budget allocated to develop water schemes and the remaining 279,185 was allocated for recurrent budget. But, only Birr 78,198 was approved and disbursed for recurrent cost of the wereda Water Desk in the year which is only 28 % of the planned budget line. No money was disbursed from the proposed capital budget during the year.

To accomplish the three years plan of the wereda targets a total of Birr 25.67million is required. Among these Birr 6.46 million is expected from government at wereda level of which 12.7% is recurrent and the remaining is capital budget. The WaSH program financed by World Bank has allocated Birr 11.1 million which accounts for 43.1% of the total budget for the three years. A total of Birr 6.16 million is expected to be covered by Plan Ethiopia to be implemented by water Action and Birr 1.97 million is allocated by Goal International.

b) Basic sanitation

Most of the plans and achievements on sanitation and hygiene are planned by NGO and WaSH program. The WaSH program has allocated a total of Birr 874,600 for sanitation and hygiene in the three years (2006-2008). A lump sum amount is also allocated by Water Action for sanitation activities. However, the active involvement of Government body is required in promoting sanitation and hygiene for coordinated work and sustainability. The main responsible government body for sanitation so far is the wereda health office. But, still there are gaps in defining clear direction and allocation of appropriate resources.

3.5.4. Sidama Zone

3.6.4.1. Achievements of the last 5 years

a) Safe water supply

Safe water supply coverage of Sidama zone in 2005 has reached 30.02%. The five year strategic plan (2005-2010) of the Zonal Water Resources Department has indicated that the target for the plan period is to achieve a coverage level of 45%. As indicated in the Regional strategic plan, it is

planned that in Sidama zone a total of 534 water schemes are planned to be developed in the five years plan period.

b) Basic sanitation

Basic sanitation is organized under Hygiene and Environmental Sanitation in Health Department of Sidama zone.

- No reliable data on sanitation coverage of the zone. The Zonal office has the intention of conducting, at least sample survey to estimate the sanitation coverage of the zone and this is considered as a first step towards the knowledge of the coverage.
- There is no staff assigned for hygiene and environmental sanitation only. An expert responsible for disease prevention and control coordinates sanitation. He/she has many other responsibilities including surveillance, TB, Malaria, Leprosy controls and others. Therefore, the focus to hygiene and environmental sanitation is very minimal.
- No budget allocated for hygiene and environmental sanitation by government.

3.5.5. SNNP Region Water and Sanitation Sector

3.5.5.1. Achievements of the last 10 years

a) Safe water supply

Data from the Water Resources Bureau of SNNP Regional State shows that the region has accomplished its plan in the sector successfully during the last 10 years (1996-2005). Based on the number of schemes planned to be developed during the period under consideration, the accomplishment rate ranges from 56.1% for hand dug wells to 157.6% for springs as compared to the plan. The achievement level of deep wells and shallow wells are 64.8% and 115.5%, respectively.

During the 10 years period (1996-2005) a total of 5,409,806 people accessed to safe water supply. A sustainability factor of 0.78 is considered to accommodate the non-functioning schemes of 22%. That brings the coverage level to 41.2% by 2005 that was 15% in 1995 as per the data from the Regional government. Based on the water supply service production estimate (Ernest & young, 1997), the safe water coverage level becomes 30% of the population by 2005.

A total budget of Birr 283.7 million was allocated to accomplish the planned activities for 1996-2005 and 82.6 % of the budget was utilized. Of total expenditure of the years under consideration (Birr 234.5 million), Government has covered 66.1% and the remaining source of fund were 14.1% loan and 19.7% grant. Resources from NGO sources were not indicated.

b) Basic sanitation

According to the information from the regional health bureau potential health service coverage is only 50% of its population. Access to human waste disposal systems-more than 80% (mainly Traditional Pit latrines); it was only 16% in 2002. The graph below shows a drastic change in pit latrine coverage in the region.

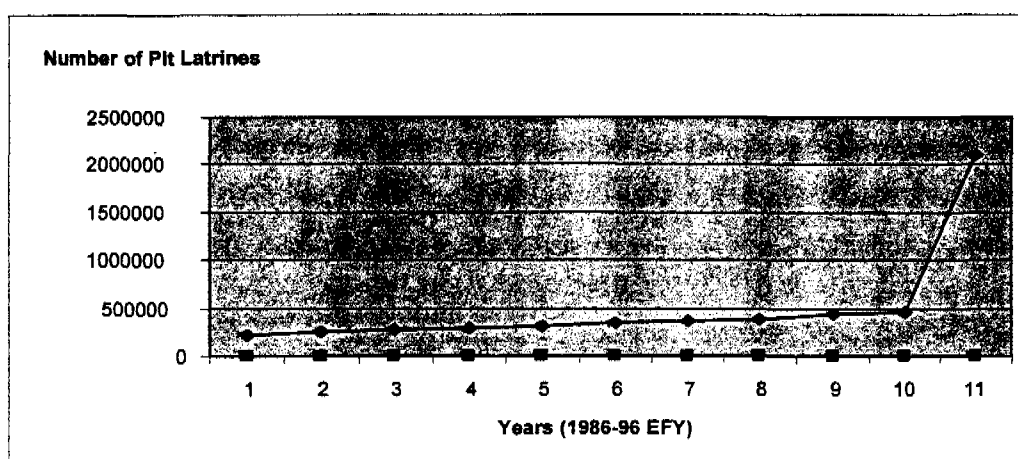


Figure 0.1. Trend of progress in sanitation services

As per the information from the SNNPR health bureau, the following are the challenges in environmental sanitation sub-sector in the region.

- Low level of awareness of the community about the impacts of hygiene and environmental sanitation on the health development;
- Low priority to Environmental Health;
- Weak institutional capacity at all levels;
- Weak level of integration among stakeholders in implementation of water supply, sanitation and hygiene education

3.6.5.1. Strategic plans for the region

The region has prepared a five year strategic plan covering a period of 2006 to 2010. The target for the five year is to raise the current coverage of safe water supply which is 41.2% to 70.2%.

Table 0.9. Water supply targets of the five years strategic plan for SNNPR

Type of Schemes	2006	2007	2008	2009	2010
Deep Well	24	25	33	33	10
Shallow Well	408	391	389	242	200
Hand Dug Well	42	43	64	51	20
Large springs development	35	38	54	50	7
Small Springs development	25	25	30	21	0
Total	534	522	570	397	237

It is planned that a total of 2,200 schemes will be developed in the region to be materialized in different zones and weredas. Among these 125 schemes are deep wells and 1630 schemes (72%) are shallow wells. In addition, the strategic plan has targeted to increase the implementation capacity of the sector by 75% and increase the sustainability of schemes to 95%. It is planned to enhance the capacity of the community members for the proper management of 4,736 water schemes.

It is indicated that to realize the five year strategic plan a total of Birr 917 million is required from government, community, loan and grants. From the total fund required 31.2% is planned to be materialized at the regional level and the remaining 68.8 % at zone and wereda levels. However, the targets and financial resources from NGOs are not either separately indicated or missed or it can be due to lack of such long term plan by NGO's to be incorporated into the plan of the Region..

a) Basic sanitation

Strategies to improve environmental sanitation

The process followed during ratification of Regional Public Health proclamation helped to review the situations of Environmental Health, conducting advocacy and it also outlined mechanisms to address issues of inter-sectoral collaboration; Change of strategy in community mobilization for sanitation and hygiene promotion and broad based household centered approach through promotion of volunteerism in the community are focus areas of the strategy. In addition, introduction of new approaches in Community Health promotion system and exemplary replication of the experience of Community Health Promoters (CHPs) is a focus too.

The health extension package has covered the major elements of environmental sanitation. These are;

- Emphasises on Environmental sanitation (6 packages out of 16);
- Solves problems related to institutionalization of Environmental Sanitation at kebele level;
- Create opportunities to promote hygiene education at household level;
- Integration of sanitation and hygiene education with other development activities:
- Conducting hygiene education sessions in schools;
- Supporting schools to construct sanitation facilities

3.6. Coverage

3.6.1. Water Supply

The inventory

Inventory of water supply schemes of Shebedino wereda was conducted in March, 2006. The raw data of the inventory was obtained from Plan Ethiopia program unit of Shebedino wereda. The inventory data contained information of the names of the Kebel, village and schemes, the schemes type and their location and altitude, the depth of the schemes, their yield, status (whether they are functional or not), number of beneficiaries, year of construction, pump type, their distance from the users, the name of the institution who constructed the schemes and whether the schemes are managed by water committees or not. However all of the above mentioned information are not completed in the inventory data. Some are missing and some may not be available.

The data reliability

As the inventory data is collected by visiting the schemes (on site), the reliability of the data is obviously better than that of sampling technique. However, out of the 53 kebeles found in the wereda, the data covered only 48 kebeles. This may be either due to the rest of the kebeles do not have water supply schemes at all.

To verify the inventory data, the consultant has visited 10 samples of hand pump fitted shallow and hand dug wells, 10 samples of developed springs and 5 boreholes. All the visited samples are selected randomly. The schemes visited are listed in the following table.

After visiting some of the schemes randomly, the consultant used the inventory data collected from Plan Ethiopia unit Shebedino Wereda for detail analysis for water supply coverage.

Table 0.10. Visited Water Schemes

No	Kebele	Village	Schem Name	Scheme Type	Status	Year of const (EC)	Women in WC (No)
1	Dila Anferara	Shila	Shila	SW	F	1999	2/5
2	Dilla Gunde	Gedemu	Gedemo/Debola	SW	F	1996	2/5
3		Insaka	Insaka/Yosse	SW	F	2000	2/5
4	Dobe Bute	Gobaro woyo	Goboso woyo spring	DS	F	1998	
5		Gebaro	Gebaro spring	DS			
6		Gobaro	Gobaro spring	DS	F	1998	
7		Gobaro	Ayele spring	DS	F	2004	
8		Gobaro	Tura spring	DS	F	2004	
9	Gara Gallo	Catholic Church Comp		DW	F	2005	
10		Chuchula	Chuchula	HDW	F	1999	2/7
11	Gemeso Kenera	Kenera Benana	Kenera spring	DS	F	1997	
12		Kenera town	Kenera HDW	HDW	F	2004	2/5
13	Gobo Hebisha	Wome	Wome Bore Hole	DW	F	2005	3/7
14	Gonowa Gebalo	Burama	Burama BW	DW	F	2005	4/7
15	Haysa Witta	Regicho	Regicho spring	DS	F	2006	2/5
16	Leku Town	Leku	Leku BH	DW	F	2004	
17	Midregenet	Midre Genet	Midre Genet motorized scheme	DW	F	1981	3/9
18	Abomsa	Ambomsa	Abomsa Hand pump	HDW	F	2004	2/5
19	Taramesa	Hofa	Hofa SW	SW	F	2003	2/5
20		Sedina	Sedina	SW	F	2005	2/5
21		Sintaro	Sintaro	Sw	F	2005	2/5
22	Telamo	Allo	Netta spring	DS	F	1987	
23		Kantise	Kantise	SW	F	1987	2/5
24	Telamo	Bululichu	Bululichu Spring	DS	F	1987	
25	Kentise	Tercha	Terche spring	DS	F	1997	

The Schemes

The water supply schemes found in Shebedino wereda can be categorized in four types. These are deep wells (DW), Shallow Wells (SW), Hand Dug Wells (HDW) and Springs, both developed (DS) and undeveloped. The following figures (Figure 3-2 to Figure 3-4) show the schemes by type, by status and combination of type and status.

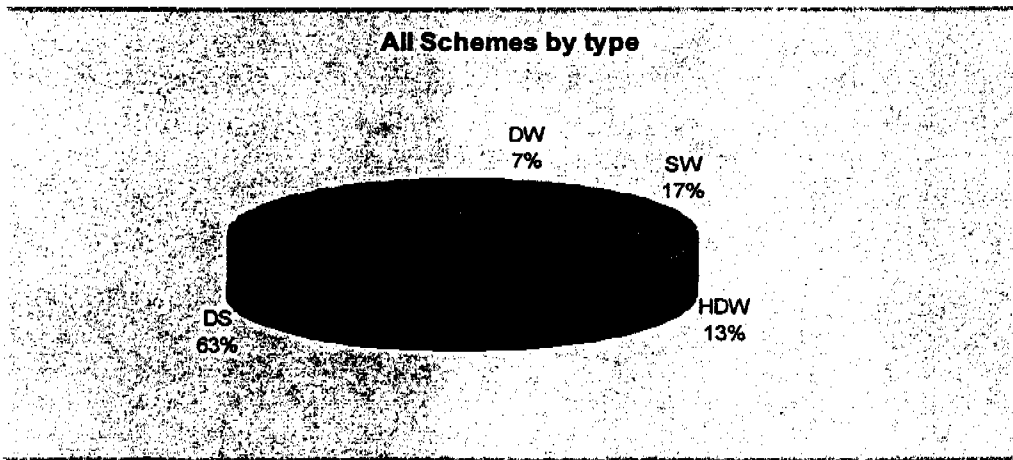


Figure 0. 2. Water supply schemes of Shebedino wereda by Type

According to the inventory data and as shown in the above figure, more than half (about 63%) of the schemes are developed springs where as deep wells, shallow wells and hand dug wells cover 7%, 17% and 13% respectively.

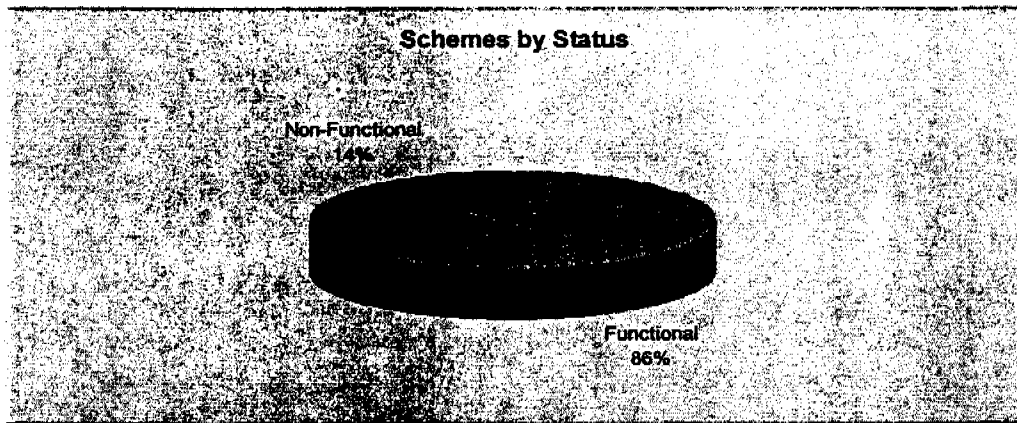


Figure 0.3. Water supply schemes of Shebedino wereda by Status

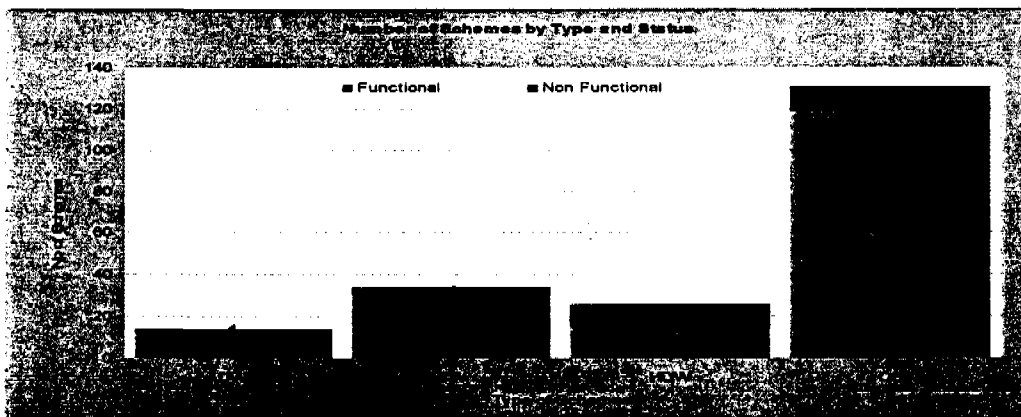


Figure 0.4. Water supply schemes of Shebedino wereda by Type and status

The inventory data analysis shows that only 14% of the schemes are non functional. This figure is very small compared to the national and regional figures for non functioning schemes which are between 30 - 40%.

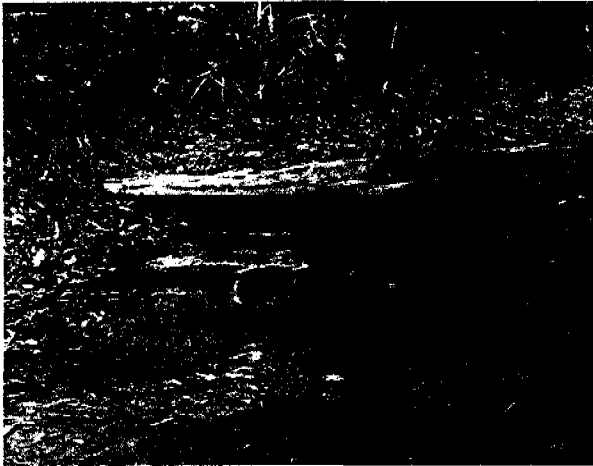


Figure 0-5. One of the springs

Most of the developed springs though functional, they are in a very poor condition to be considered as potable water supply schemes and are located in deep gorges. However, because the community doesn't have other alternative they use the springs as their water supply sources.

The schemes which have water committees are 81 out of which only 7 (8.8%) are non functional. The rest 124 schemes don't have water committees and 21 (17.6%) of them are non functional. Most of the schemes which do not have water committees are developed springs.

The schemes are also classified by year of construction. The number of schemes constructed until 2000 are accounted for 68% (138 schemes) out of which 22 are non functional. The schemes constructed in the period 2001 – 2005 are accounted for 28.1% (57 schemes) out of which 4 are not functional. The rest 3.9% (8 schemes) are constructed since 2006 and all are functional.

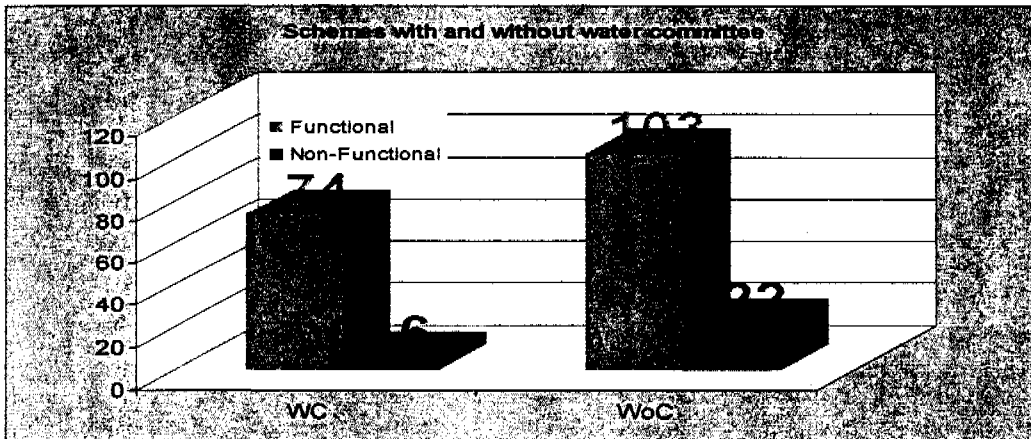


Figure 0.6. Water supply schemes with and without water committees

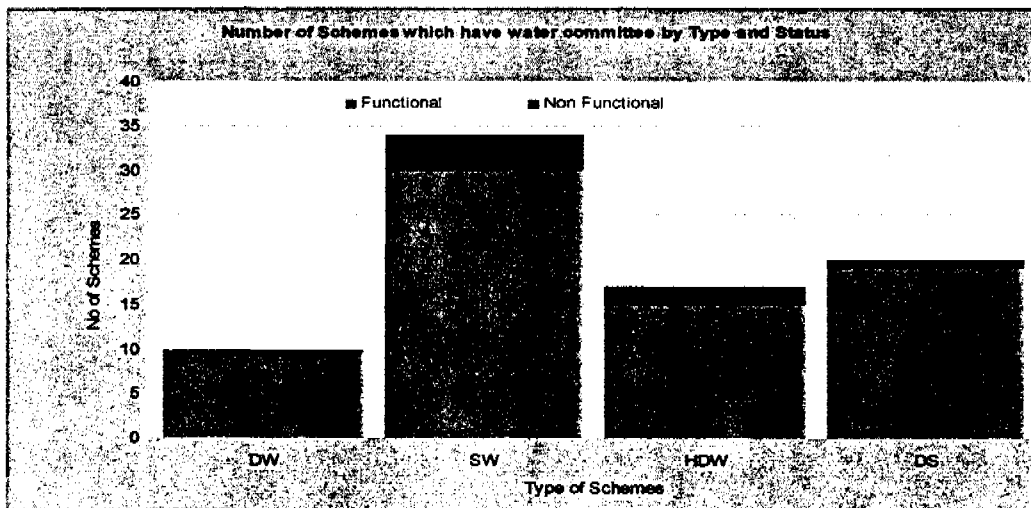


Figure 0.7. Water supply schemes with water committees

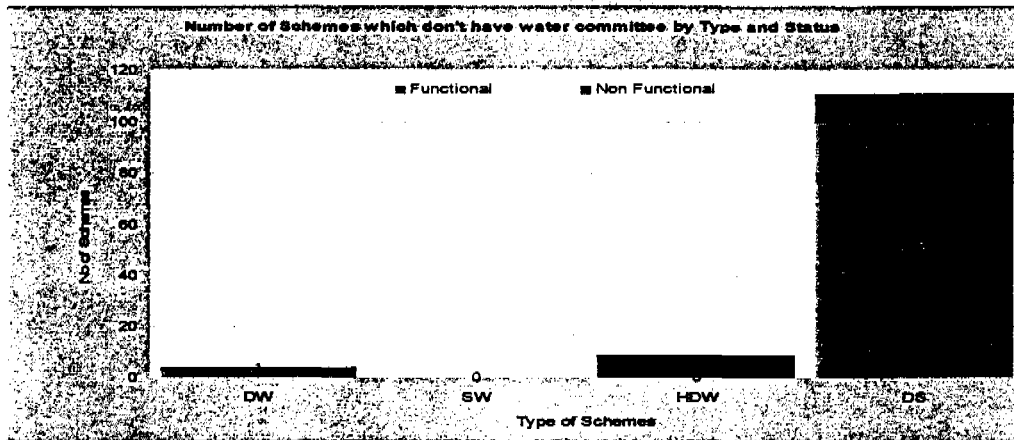


Figure 0-8. Water supply schemes without water committees

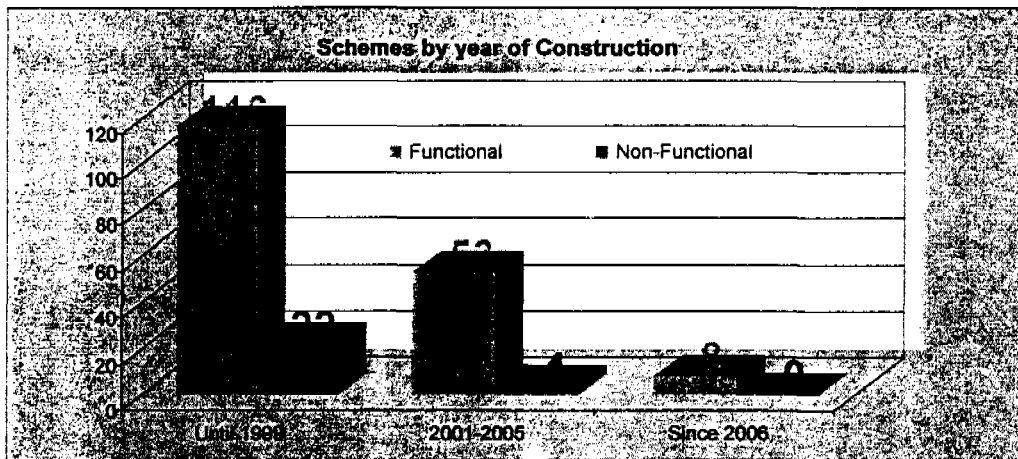


Figure 0.9. Water supply schemes by year of construction

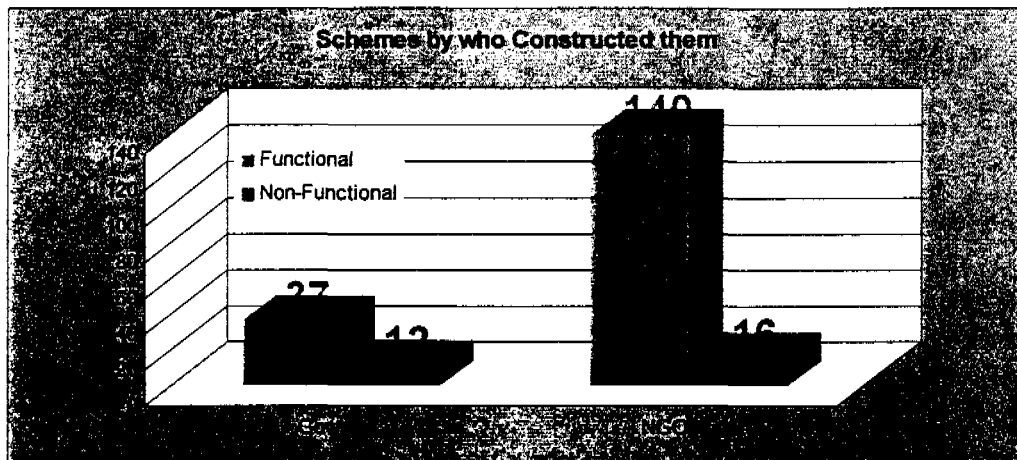


Figure 0.10. Water supply schemes by who constructed them

Other classification of the schemes is by who constructed them. Out of the total number of schemes, 49 are constructed by government and the rest 156 schemes are constructed by local and international NGO's.

Table 0.11. Schemes constructed from 2000/01 to 2004/5EC by type, status and water committee

Year	Type of Scheme				Total	Functional	Non Functional	With Committee	With out Committee
	DW	SW	HDW	DS					
2004/05	4	11	2	2	19	17	2	18	1
2003/04	1	3	2	9	15	15	0	10	5
2002/03	0	2	0	2	4	4	0	2	2
2001/02	0	0	3	4	7	5	2	4	3
2000/01	0	0	0	12	12	12	0	1	11
Total	5	16	7	29	57	53	4	35	22

Water production (Yield)

The water production of the schemes is assessed from the yield indicated in the inventory data. The yields of the shallow wells, hand dug wells and springs are very low ranging from 0.02 to 1.67l/s. The average yields of the three types of schemes for which records are available are shown in the following table.

Table 0.12. Average and Standard Production rate for each Scheme Type

Scheme Type	Average Yield (l/s)	Production rate (m ³ /day)	Standard Average production rate (m ³ /day)
DW	-	-	57.6
SW	0.38	3.65	2.4
HDW	0.35	3.36	4.0
DS	0.26	2.5	9.6

The production rate is calculated assuming each scheme would work for 8 hours per day. Records of yield for the deep wells are found only for two out of fourteen deep wells. The average of these two records will not represent the average yield of the deep wells and hence it is not used for calculating the production rate.

Water demand

The average water demand for rural areas is assumed to be 15 l/c/d where as the minimum average water demand is 10 l/c/d. The assumed per capita demands for urban areas for different mode of connections are as follows: 70 l/c/d for house connection, 30 l/c/d for yard connection, and 20 l/c/d for water fountain users.

For Shebedino wereda the urban population is estimated to be 3%. Assuming 30% of the urban population has yard connection and 70% uses public fountains, the per capita demand for the urban population is calculated as follows.

Population of the wereda = 324,664

Urban population (3%) = 9,740

Population with yard connection = 2,922

Population using public fountains = 6,818

Total domestic demand = (2,922*30) + (6,818*20) = 224,018.2 l/d

Assuming public and commercial demand and industrial demand to be 20% and 5% of the domestic demand respectively, the total daily demand will be 280,022.7 l/d. Therefore, the urban per capita demand will be $273675\text{l/d} / 9519$ which is equal to 28.75l/c/d . The weighted average per capita demand calculated for the whole population of the wereda will then be 15.4l/c/d .

Water supply coverage of the wereda

The figure for water supply coverage of Shebedino wereda varies as the source of the information. For example according to the SNNPRS Water Resources Development Bureau it is about 44.6% () where as this figure according to the five year water supply, sanitation and hygiene strategic plan document prepared by the wereda Support Group is only 20%.

The water supply coverage of the wereda calculated from the inventory data are presented in the following two tables. The first table shows the coverage if the actual production rate (the average yield for each type of schemes calculated from the recorded yields in the inventory data) will be considered. The yield of the water sources could be different from place to place as well as depends on the technical considerations needed to develop the source. In the absence of specific yield records and if indicated yield records look suspicious, from experience it can be assumed that the springs, hand pumps as well as boreholes will function for an average of 8 hours per day with the respective average yields $9.6\text{m}^3/\text{d}$, $4.06\text{m}^3/\text{d}$, and $57.66\text{m}^3/\text{d}$. The second table shows the coverage if the above production rates for the different types of schemes are considered. A distance factor of 0.76 is taken to calculate the actual water supply coverage. How do we reach to this distance factor is explained in the following two paragraphs.

The distance factor is a ratio of required theoretical number of schemes to the total number of functional schemes. The required theoretical number of schemes is calculated considering the total travel time and the area of the wereda. From practice it has been observed that the maximum total travel time usually accepted as reasonable by rural community is about 30 to 45 minutes. Taking the are of the wereda and assuming a homogenous distribution of the sources within this area the total number of sources required that will meet the water demand will be total wereda area divided by the area served by a single source with the assumed travel time.

Taking the total travel time to be 45 minutes and assuming the a rate of travel 4km per hour, the community within 1.5 km radius from a source will be served from that source. The area that will be covered by one source assumed to be located in the center of an area with 1.5km radius will be 1.76 km^2 . Then the required theoretical number of schemes would be $411.7/1.77 = 233$. The number of functional schemes in the wereda is 177. Therefore the distance factor will be $177/233 = 0.76$

As shown in tables below, the water supply coverage of the wereda is about 25.73% when the actual water production is considered and when the standard production rate is considered the coverage grows to 39.63%. This shows that the yields of the schemes in general and those of the on spot springs in particular are very low.

It is our believe that the actual coverage is even below 24.29% due to the reason that most of the schemes (63%) are springs and the locations of most of the springs are in small valleys which makes access to them difficult. This will reduce the distance factor and this in turn reduces the actual coverage.

Table 0.13. Rural Water Supply Coverage for Shebedino Wereda
Rural Water Supply Coverage for Shebedino Wereda

Wereda Population		317,310	
Wereda Area (Km ²)		411.7	
Distance of Source (Km)			
Available Water Sources	Average Estimated Yield per Source (M ³ /day)	Number of Functional Water Sources	Total Yield (M ³ /day)
Boreholes	91.9	13	1195.20
Shallow Wells	3.6	30	109.44
Hand Dug Wells	3.4	15	50.40
Springs	2.5	120	299.52
Total Available Water Production (M³/day)			1654.56
Water Demand			
Assumed per capita demand (l/c/d)			15.40
Assumed minimum per capita demand (l/c/d)			10.00
Total Demand (with average per capita demand) (M ³ /day)			4886.57
Total Demand (with minimum per capita demand) (M ³ /day)			3173.10
Water Demand Coverage in percentage (with Average per capita demand)			33.86
Water Demand Coverage in percentage (with minimum per capita demand)			52.14
Distance factor			0.76
Actual Water Demand Coverage in percentage (with Average per capita demand)			25.73
Actual Water Demand Coverage in percentage (with minimum per capita demand)			39.63

Table 0.14. Rural Water Supply Coverage for Shebedino Wereda

Rural Water Supply Coverage for Shebedino Wereda

Wereda Population		317,310	
Wereda Area (Km ²)		411.7	
Distance of Source (Km)		1	
Available Water Sources	Average Estimated Yield per Source (M ³ /day)	Number of Functional Water Sources	Total Yield (M ³ /day)
Boreholes	86.4	13	1123.20
Shallow Wells	2.4	30	72.00
Hand Dug Wells	4.0	15	60.00
Springs	9.6	120	1152.00
Total Available Water Production (M³/day)			2407.20
Water Demand			
Assumed per capita demand (l/c/d)			15.40
Assumed minimum per capita demand (l/c/d)			10.00
Total Demand (with average per capita demand) (M ³ /day)			4886.57
Total Demand (with minimum per capita demand) (M ³ /day)			3173.10
Water Demand Coverage in percentage (with Average per capita demand)			49.26
Water Demand Coverage in percentage (with minimum per capita demand)			75.86
Distance factor			0.76
Actual Water Demand Coverage in percentage (with Average per capita demand)			37.44
Actual Water Demand Coverage in percentage (with minimum per capita demand)			57.66

3.6.2. Sanitation

When we come to the existing sanitation coverage of the wereda, inventory data of the existing sanitation facilities is not available to the Consultant. The Consultant tried to get coverage from

secondary data sources. One such data source was a report paper on a five year (2006 – 2010) water supply, sanitation and hygiene strategic plan of Shebedino wereda prepared by the wereda administration and the Wereda Support Group.

From the above report it was stated that from field survey about 49.5% the total population of the wereda own individual pit latrines which are traditional types with out hand washing facility.

The other information about the sanitation coverage was that obtained from the weredas Health Office which indicated that 65% coverage of pit latrines. [The Consultant took the coverage obtained from the wereda Health Office to calculate the MDG target].

If 'basic sanitation' means just having a pit latrine without hand washing facilities with adequate water, then it can be said the sanitation coverage is better than the water supply coverage contrary to the country situation and even other countries situation.



Figure 0.11 One of the latrines

3.7. The MDG Target

Millennium Summit at New York in 2000 and the World Summit on Sustainable Development at Johannesburg in 2002, governments explicitly recognized the importance of increasing access to safe drinking water and basic sanitation as essential prerequisites for development and the reduction of poverty and set goals, called the Millennium Development Goals (MDGs) to be achieved for the provision of these amenities.

To achieve Millennium Development Goal, the government of Ethiopia set a target to raise the national safe water coverage from the 42.3% to 71.2%, and from 85% to 96.9% and 34% to 65.6% for the urban and rural population respectively. Concerning sanitation Ethiopian Government set target to raise the national coverage from the current 11.5% to 56% and from 50% to 75% and from 4% to 58% for the urban and rural populations, respectively.

However, to achieve these targets it requires concerted effort of Government water and sanitation sector institutions both at federal and Regional, international and Bilateral Donors, NGOs, Private sectors, and the community at large

Experience in developed countries and results from innumerable studies in the developing ones have shown that the cost of delivering safe drinking water and basic sanitation is far lower than the cost of treating the diseases that occur in their absence.

The primary goal for safe drinking water was established in the Millennium Declaration (of the Millennium Summit, New York, 2000) as part of the Millennium Development Goals (MDG): to halve the proportion of the world's population that does not have safe access to drinking water by 2015. This was reiterated in the WSSD Action Plan (Johannesburg, 2002) and expanded to include

basic sanitation: to halve the proportion of the world's population that does not have access to basic sanitation amenities by 2015. The baseline year for drinking water was specified as 1990 and it is assumed that the same baseline year applies for sanitation.

There are wide definitional variations of what constitutes "safe drinking water" and "basic sanitation". And each has widely different cost and effort implications. A further complication arises from different views of what the terms "access to" and "sustainable" mean for these amenities and what the term "safe" means for water and "basic" means for sanitation. Access is often taken to be a facility such as a standpipe, well, or public toilet within reasonable distance.

In one of the UNICEF websites access to safe drinking water and basic sanitation are described as follows.

Access to safe drinking water is estimated by the percentage of the population using improved drinking water sources which are household connection, public standpipe, borehole, and protected dug well, protected spring and rainwater collection. Similarly, access to sanitary means of excreta disposal is estimated by the percentage of the population using improved sanitation facilities. Improved sanitation facilities are those more likely to ensure privacy and hygienic use. These includes connection to a public sewer, connection to a septic system, pour-flush latrine, simple pit latrine and ventilated improved pit latrine

In the MDG, while the drop in percentages of people without access is defined precisely, it is quite difficult to determine what this means in actual numbers, which is after all what the plans and actions are aiming to achieve. None of the MDG websites provides such numbers. For example: how many people were without drinking water and/or sanitation in 1990 and how many will there be in 2015 if the Goals are met.

For our calculation we took the current year population as a base line and calculated the percentage of the population without safe water supply coverage and basic sanitation facilities.

The current population of the wereda is estimated to be about 317,310. The population without access to safe water supply is estimated to be about 198,509 and that of basic sanitation is 111,059. These figures are about 63.4% and 35% of the wereda population respectively.

Table 0.15. Population projection and coverage of water supply and sanitation

Basic Need/Amenity	Drinking water	Basic sanitation
Population in 2004/05	317,310	317,310
Population without Amenity in 2004/05	198,509	111,059
% of People without Amenity in 2004/05	62.6%	35%
% of people without Amenity in 2015 [MDG]	31.3%	17.50%
Population in 2015 [projected]	399,295	399,295
Population with Amenity in 2015	274,396	329,418
% of people with Amenity in 2015 [MDG]	68.72%	82.50%
Population without Amenity in 2015 [MDG]	124,899	69,877

The wereda population is projected to be 399,295 by year 2015. Therefore, to half number of people without safe water supply and sanitation services by 2015 we need to provide safe water supply for 274,396 people and basic sanitation for 329,418 people including the present covered population. This mean we need to provide 155,595 people with safe water supply and 123,167 people with basic sanitation.

Production rate

The production rate of the wereda is calculated from the past five year's production of safe water. To determine a sustainable factor, the numbers of functional and non functional schemes are used. From the inventory data it is shown that 14% of the schemes are non functional. Although secondary data sources put the proportion of non functional schemes to higher values (up to 40%), the sustainable factor is taken to be equal to the proportion of the functional schemes which is 0.86 (86%).

Table 0.16. Production Rate

Year	Type of Scheme				Total
	DW	SW	HDW	DS	
2004/05	4	11	2	2	19
2003/04	1	3	2	9	15
2002/03	0	2	0	2	4
2001/02	0	0	3	4	7
2000/01	0	0	0	12	12
Total	5	16	7	29	57
Yearly average	1	3.2	1.4	5.8	11.4
Average production rate in m³/day	57.6	7.7	5.6	55.7	126.6
Actual average production rate (taking sustainable factor = 0.86) in m³/day					108.88

The average production rate is 108.88m³/day, which can cover only 8676 people. However, we need to cover about 15,560 people per year for the next ten years to meet the MDG. This mean we need to increase our capacity of supplying safe water nearly by double ($15560/8676 = 1.8$).

In terms of sanitation the average yearly coverage for the next ten years must reach 12,317 to meet the MDG.

3.8. Technical Capabilities of the Institutions

The technical capabilities of the institutions which are responsible for water supply and sanitation from community to Regional level are assessed in areas of study and design, contract administration and construction supervision, planning and operation and maintenance in terms of manpower, equipment, data and logistic.

At community level there are water committees established to operate and carryout simple maintenance activates for their schemes. In some of the water committees there are scheme care takers who are trained to do simple maintenance works for their schemes, however these trained scheme care takers are not equipped with enough tools which are necessary to carry out the maintenance activates and they do not get needed spare parts nearby. Apart from that there are no any operation and maintenance manuals prepared for them in a local language (Sidamigna) or there was no rigorous training to so that they can understand and memorize the procedure involved.

In the wereda water desk, there are no working procedures and systems adopted for study, design and construction control as there are no such activities carried out. The major duty of the wereda water desk is the operation and maintenance activity. There are no equipment, logistic and enough manpower to conduct study, design and contract administration and construction supervision activities. For operation and maintenance activities there are four scheme care takers and one electrician as far as manpower is considered. In terms of equipment, there is a maintenance kit supplied by UNICEF and it suggested from the water desk that it is not enough. There is also one

personal computer for data storage. In terms of logistic, there are only two motor cycles. Considering the number of schemes developed and additionally will develop these are not enough.

The challenges which hampered the activities of the water desk are budget constraint, unavailability of sufficient maintenance equipment, professionals and spare parts.

In the Zonal water development desk study, design and construction supervision are carried out. In study and design a team of consisting one engineer, one geologist, one socio-economist and sometimes one chemist participate in field data collection and design work is carried out in office by the engineer. Construction supervision is carried out according to contract agreements. In case of operation and maintenance, the committees inform the wereda water desk when their scheme broke down and if the maintenance is beyond the capacity of the wereda water desks; it is reported to and carried out by the Zonal desk.

In the Zonal water desk available equipment which are used for study and design, maintenance and operation, and data analysis and logistic are one altimeter, one GPS, one surveying equipment (theodolite), three computers, one Toyota mobile workshop, one field vehicle and one laboratory test kit. According to the information obtained from the zonal office, other equipments mentioned above are not enough to carry out the activity of the office let alone to double the effort to meet the MDGs.

Considering the number and type of already developed schemes and those planned to be developed and strategies set such as:

- Establishing water quality monitoring program
 - Ensuring safe water supply chain from source to the households
 - Detail investigations on the chemical water quality of sources
 - Disinfection of new schemes
 - Disinfection after rehabilitation, expansion or maintenance of water supply systems, (Report on water quality assessment made in Shebedino wereda, May 2006) to meet the MDG targets
- water quality monitoring laboratory will be essential for the zone.

At regional level the capacity is assessed in terms of availability of policy and regulations, design manuals, standard designs, water supply schemes operation manuals and guidelines, maintenance manuals and guidelines and availability of management information system regarding the water supply schemes in the region. In this regard there are no any regional water policy and regulations and no any manuals, and guidelines for design.

CHAPTER FOUR: IDENTIFIED GAPS

4.1. Analysis of the Existing Situation (The Gaps identified)

The focus of this report is institutional development (institutional strengthening) of the WS&S sector as a whole. In order to address the problems the WS&S sector faces or to indicate the gap within the institutions, it is important to understand the main problems impairing the proper functioning of the WS&S sector. The problems are pointed out as follows.

- Institutional deficiencies
- Organizational problems
- Personnel management problems
- Training and development problems

4.1.1. Institutional Shortcomings

The major institutional deficiencies that the consultant observed at all levels include:

- Absence of proper documentation on water supply and sanitation in almost all institutions of water supply and sanitation sector.
- Until recently there was loose communication between Bureau and zones, zones and wereda water desk, due to improper decentralization (there were no direct hierarchical reporting systems between the water supply and sanitation institutions), which might hinder smooth information flow between and among the institutions.
- Limited maintenance works on water supply schemes, due to Shortage of skilled manpower.
- All institutions of water supply and sanitation sector, except UWSS, are part of civil service and they are subject to the civil service and the public financial administration regulations, so that they are not in a position to attract, develop and maintain qualified and competent personnel in the competitive human power market.
- Lack of organizational autonomy in main decision making processes such as human resource management areas, which consequently jeopardize the idea of autonomy. (E.g. Due to insufficient delegated authority, all personnel issues are sent to the Regional Civil Service Agency (RCSA) to get approval. However, the process of getting approval takes long time that leading to stagnation of activities and to de-motivation of responsible personnel officers).
- Lack of skilled manpower to do the maintenance works at the water supply level
- Operational rules and regulations have not been fixed in writing, and adequately implemented fully in each water supply and sanitation sector institutions.

4.1.2. Issues Pertaining to Organization

As indicated earlier, the SNNPR WS&S facilities management amounting to four tiers, which includes, the regional bureau, the zonal desk, wereda desk and village or community management. The following are the major shortcomings of the organizational structure.

- The number of committee members varies due to lack of coordination among different actors.
- In certain RWSS areas community members are selected to be the members of the water committee from non-beneficiary.
- At zonal and wereda levels, the shortage of skilled manpower is acute. The actual staff numbers are quite below the target at especially zonal and wereda WS&S desks.
- There is overlapping or fragmentation of responsibilities.
- In spite of declared objectives concerning decentralization and autonomy to wereda's desk and WaSHCO levels, there is poor delegation of authority and power to these levels. When we interviewed personnel from these areas, satisfaction was observed concerning the process decentralization, but in reality this is not translated into practice.

- The reporting systems are of special concern. Reports are submitted on a regular basis (quarterly, annually), but the way they are analyzed and processed leaving much to be desired. For instance, there is very limited feedback and discussions may be held at the highest executive level, but all this without serious impact on the field. Instead of being an organizational and managerial tool, reports and the system in general, is more like a form of red tape, more procedures to follow, than an away to address problems.
- There is discrepancy between the formal organizational chart and the actual existing operating units and how they function and interact.

4.1.3. Personnel Management Problems

There is an absence of adequate tools for personnel management, mainly from the standpoint of development, monitoring, control and follow-up of personnel and their function. Consequently, obtaining data for data processing and for the resultant summaries to be used as a basis for decision-making is nearly impossible.

This absence of development, monitoring and follow-up tools prevents the strategic use of individual workers, for instance, in terms of identifying workers suited to promotion, or rewarding outstanding workers etc.

Personnel records are non-existent or unusable for personnel planning or for drawing conclusions, because there are no adequate tools (forms, databases) for working with gathered data or for data processing. Computerized means do not exist in most institutions.

There is not enough data concerning the skill level of the staff and the extent of their ability and their compatibility to their positions.

There is no modern personnel management procedures such as appraisal interviews, formal agreements based on targets or performance indicators. Apparently there is inappropriate manpower planning and utilization.

As was mentioned, an incentive system does not exist. This results in lack of employees taking initiatives and lack of motivation. For instance, when there are simple maintenance and/or installation problems that could be resolved on a local level or with local resources, but are not because of the absence of self-initiative or self-motivation from the worker. The fact that this is not done may indicate that workers are not given the incentive to use their initiative, and may be there is a lack of technical understanding of how this machinery operate also.

However, we have to know that low salaries lower the motivation level of the employees and causes indifference; this is reflected by a high turnover rate especially in the case of wereda WS&S desks.

As a result of the high rate of turnover due to lack of good fringe benefit and incentive, especially at the wereda level, there is low skill level in the managerial ranks.

4.1.4. Training and Development Problems

Training plans and training budget procedures exist on a skeleton level, although they should be an integral part of personnel management procedures. As a result, there is lack of appropriate skill proficiency in the staff at different level.

In order to improve the training plans and budgeting procedures, these procedures should be elaborated on to make them an integral part of the institutional system.

Specific methods of identifying the organizational training needs were not observed. The only types of training that was identified were training that are prepared at community level to train WaSHCO and other related areas. Even though, this type of training is relevant to the community's, needs, training programs, on the job training and advanced training courses that are tailored made for specific organization needs should be formulated and implemented at each WS&S institutions. Training programs can be used as incentives for the work force.

Training policy, structured and planned training activities are also are evident at a skeleton level and should be reinforced. This means that identification of training requirements and their relevance to the objectives of the organization should be evaluated.

Management development does not exist even on a skeleton level. Consequently, part of the organizational processes are hampered because the professional managers lack managerial skills such as organization planning, leadership qualities, motivational skills, the ability to use team work, etc.

4.2. Planning and Program Accomplishment - Gaps Identified

- The plans at wereda level in the water and sanitation sector is not comprehensive. The wereda Water desk, The wereda Support program and NGO's all have their own separate plan in water supply development.
- The capital budget planned for the last two years at the wereda water desk has not been materialized.
- The plan for NGO sector is short term not more than two years and it is difficult to predict for the long term plan.
- The sanitation sub-sector focus only on the construction of latrines and waste disposal pits. Other aspects were not planned for.
- No budget has been allocated for sanitation in the wereda health office.
- Even if the achievement in providing safe water in the Region is promising, the targets for the five years plan (2006-2010) falls below the requirement of the rate required to meet MDG.
- The regional strategic plan does not clearly indicate the activities and resources that are expected to be done by NGO's and CBO's.
- Loose coordination and collaboration among the government sectors themselves with NGO's regarding the ongoing WATSN programs in the wereda.
- Limitation in database and documentation both in the water and health sectors.
- Limited maintenance capacity of the wereda water desk and non-availability of spare parts.
- Only 38% of the Water schemes have water committee.
- The role of water committees was limited to the management of the water points only. Sanitation and hygiene are not included as mandate of the committee.
- Water committee establishment has not been supported by legislation that gives them legal personality.
- No clear relationship of water committee with Kebele health extension workers and community health promoters
- No bylaw to regulate the collective activities of the committees
- Turn over of Committee Members

4.3. Technical Gaps Identified

As indicated in the technical assessment of the institutions responsible for water supply and sanitation, the identifies technical gaps are as follows;

At community level

- Unavailability of operation manuals and guidelines,
- Unavailability of maintenance manuals and guidelines,
- Unavailability of tools for maintenance activities,
- Unavailability of spare parts nearby,
- Unavailability of reporting systems,
- Lack of training for water committee members.

At wereda level

- No any Management Information and database systems for water supply schemes,
- No enough maintenance tools such as tripod and chain block,
- No maintenance and operation manuals,
- Unavailability of spare parts nearby,
- Insufficient logistic support.

At Zonal level

- No any Management Information System,
- No enough equipment for study and design activities,
- No enough maintenance tools,
- No water quality test laboratory.

At Water Bureau level

- No regional water policy
- The following documents are not prepared and disseminated to zone, wereda and communities
 - Design manuals and guidelines and standard designs of water schemes,
 - Operation manuals and guidelines,
 - Maintenance manuals and guidelines
- No scheme inventory and data base system developed for water schemes in the region.

CHAPTER FIVE: RECOMMENDATIONS

The Institutional development or strengthening program should focus on the following important areas.

5.1. Policy and Regulation

Recent thinking on the role of governments in the water sector has favored the concept of an 'enabling environment', which means concentrating on setting up the right legal and institutional framework, and stepping back from actual operation (Win penny, 1997a).

Water resource development bureau should focus on establishing appropriate policies and regulations governing the management of water resources, the provision of water sanitation, irrigation and for commercial purposes.

Policies and regulations that provide legal basis for the participation of all stakeholders, including private sector (local service providers, area scheme care takers, and artisans) water users' associations, the community, in particular women and marginal groups, so that, they may play the central role in water resources management in general, and water supply and sanitation in particular.

The team of consultant is aware of the fact that at present it might neither be feasible nor wise to propose an abrupt withdrawal of the Bureau from all operational activities; but in particular, the activities in the field of, such as operation and maintenance which presently feature very strongly should have to gradually loose importance.

5.2. Organizational Structure

a) Community Management Level

Before proposing areas of community level organizational improvement, it is necessary to select working definition for 'Community Management' concept.

Community Management is a very broad concept, therefore it is difficult to find one description that covers it. However, for the purpose of this report, definition which is provided by PAID-WA is selected.

Community management can be defined as decision making, taking of responsibility and control of the use of a common facility or resource by people having a common interest with the understanding that the facility or resource belongs to them. The process of decision making must involve all stakeholders, which include men, women, poor and rich. In the context of rural water supplies implementation of decisions is the responsibility of the structure such as a committee made up of elected members. Feedback must be regularly given to the general assembly, which is the supreme decision making body. A legal framework and a sound policy that protect and supports the management system should prevail in order to create an enabling environment.

From the above definition, one can see the importance and the requirement of legal structure and frameworks, and sound policy to protect and support the management system of community management.

Therefore, to Strengthen Community Management systems of RWSS&S, the following issues need urgent attention, in addition to capacity building process.

- The Regional government should develop and enact suitable legislation that will create an enabling environment and will secure the legal status of WaSH committees.
- There should be a regulation that sets or defines:-
 - the criteria for the committee membership
 - the number of the committee members to be selected etc.
- The committee should be delegated financial and managerial authority, in order to respond to the prevailing situation of RWSS, for instance, to attract and retainable and experienced WaSH committee members and operators, by providing incentives and benefits. The question of giving incentives of some kind to the water committees is an issue which is often raised in discussions. The options which are presented most often are to pay them a fixed amount of cash (compatible with the financial strength of the scheme), to arrange a system where the users will take care of the farming activities of the committee members (provision of labor) or to provide them with free access to the water from the schemes.
- Any attempt to strengthen the community management of Rural Water Supplies & Sanitation schemes should involve in equipping the schemes with essential equipment, instruments, tools, and other required facilities.

b) Intermediate Levels (Zonal and wereda Desks)

In SNNPR WS&S sector, for about the past four years, the zonal and wereda water and sanitation desks were organized under the zonal Rural Development Office and wereda Rural Development Office, respectively. Because of this, the Zonal water and sanitation desk was directly reporting to the zonal Rural Development Office and the wereda Water and Sanitation desk was also reporting to the wereda Rural Development Office. As a result, communication gap has been created within water and sanitation sector.

However, at present the zonal and wereda Water and Sanitation desks are re-established as offices with semi-organizational autonomies. That is, the zonal Water and Sanitation desk is reporting and accountable to the regional water bureau and wereda Water and Sanitation desk is also directly reporting to the zonal water desk.

Therefore, in order to strengthen WS&S sector institutions, providing clear channels of communication up and down the organizational structure is important to avoid confusion and to create smooth interaction among the intermediate institutions that are within the same sector.

5.3. Human Resources Development

5.3.1. Staffing

There is insufficient qualified man power specially, at Zonal and wereda water desk. Zonal and wereda water desks have no sufficient and required qualified man power. Therefore, to achieve the required Millennium Development, at Zonal and wereda water desks the required skilled manpower be fulfilled.

5.3.2. Incentive Scheme

One of the issues that was mentioned constantly and at each tiers of the sector was the lack of an incentive system. An incentive system is a tool for rewarding and motivating workers who contribute to the organization. This system has a special importance specially when regular payments are relatively low, and the salary system itself is a poor motivator, as is the situation in the water supply and sanitation.

Lack of incentive system results in lack of employees taking initiatives and lack of motivation. When there is no incentive simple problem that could be solved on site with local resources are not solved because of the absence of self initiatives or self motivation from the workers.

Therefore a well established and elaborate incentive system is a powerful managerial tool, using it managers can reward their subordinates according to their performance. Accordingly, this can be resolved by implementing the civil service reform program in an appropriate and an efficient way, in all water sector institutions. Human Resource Management Improvement sub program is one of the main civil service reform sub programs, which deals with human resources management components such as performance measurement, performance evaluation, promotion & transfer, HRD and employee's compensation & benefits systems.

5.3.3. Training and Development

a) General

Training has crucial importance in the intended institutional development of the water sector (WS&S). This is true, in general, but in times of organizational change it becomes vital. Although awareness of the need for training and development programs exists at all tiers levels, and some activities are carried out, but not much has been done. This might be mainly due to the lack of budget allocations, due to the lack of incoming revenue and lack of human development planning.

The type of training that is urgently needed is training suited to the specific requirements of the jobs, tailor-made for the organizational needs. One example of this sort of training is usually called "Job enrichment" or "Job enlargement". This entails, for instance training, O&M workers to perform troubleshooting, preventive maintenance, and small and medium maintenance tasks relating to their specific job. Another example would be to institute, for the Zonal and wereda Heads of WS&S desks, for instance, enhanced training programs geared to the job definition and job descriptions in their respective organizations. This would give them the opportunity to advance and/or improve their managerial skills on-the-job.

The importance of training as a prerequisite for employee's advancement cannot be overemphasized. Training programs are designed to achieve goals that meet particular instructional needs. The temptation often exists to begin training without a thorough analysis of these needs. However, conducting a training program without a complete assessment of tasks, behaviors and the environment they are found in would not be efficient. The objectives, criteria and design of the program all stem from these assessments. Goals and objectives are crucial in determining the training environment and unless they are specified, there are no means of measuring success.

In view of the fact that training programs are perceived by employees as benefits related to terms of service (thereby constituting a source of commitment and motivation), and in light of the importance of these activities in improving personnel performance, it is essential that a structured and operational training system be established immediately. Therefore it is recommended that major effort must be made to improve the skills and know-how of the existing staff, using them as the basis for the achievement of the Millennium Development Goals (MDGs).

b) Training Process Activity

The training process activity should be undertaken as follows:

- A Comprehensive Training Needs Program shall be systematically carried out by concerned unit/Personnel Head in collaboration with the other units' heads. The Annual Performance Evaluation Reports can be used in a more structured manner for training purposes.
- A Training program shall be established, based on the findings and Constant follow-ups shall be

conducted to evaluate the effectiveness of the training programs. Evaluations shall include:

- Determining whether the programs meet their objectives.
- Identifying strengths and weaknesses in the training process.
- Calculating the cost/benefit ratio of a program.
- Determining who benefited most from a program and why.
- Establishing a data base for future decisions about the program.

c) Training for Senior Staff (Bureau, Zonal and wereda)

A training and development program for senior staff has to be established in the near future. The aim of the training and development program is to improve managerial skills. To formulate the program, it is suggested that a detail survey be conducted in order to assess the training needs of the target population. It is further proposed, that at the implementation stage, local and expatriate experts in Management Development Programs and Behavioral sciences be brought in as instructors and advisors (World Bank or ILO assistance may be instrumental in such programs).

Seminars and workshops that can be recommended at this stage are:

- Participative Management
- Decision Making Processes
- Team Work
- Inter-Personal and Organizational Communication
- Motivation
- Leadership Development in Organizations
- Time Management
- Performance Evaluation
- Organizational change and development

Each of the above workshops should be of approximately two-three days duration, with no more than 15 participants.

d) Specific Training

Specific training and orientation are recommended for the following positions at all levels:

- Community promoters
- Water Engineers
- Maintenance Engineers
- Personnel Officers – managerial skills
- Leaders -Managerial skills
- Financial and Supply Officers

e) Community level (Grass root level)

At community level (Water committee members, operators, caretakers, and private sector such as artisans, area mechanics etc.) has to be trained. Developing and implementing training programs, concerning the following issues is important.

- Strengthen technical capacities of local community and private sector, in:
 - Planning and design of schemes,
 - O&M of schemes,
 - Contract administration,
 - Financial management,
 - Information management and
 - Monitoring the systems.
- Promoting and encouraging experience sharing tours to strengthen the technical and managerial

capacity of the local community and private actors.

5.4. Planning and Program Accomplishment

- Strengthen the planning and implementation capacity of the wereda water and health offices so that comprehensive plans will be produced and implemented with efficiency and cost effectiveness.
- Realistic plans should be developed and approved by respective authorities so that resources could be committed for its implementation.
- The sanitation activities should be comprehensive and should be linked to safe water so that it will have significantly contribution to the improvement of community health. Resources allocation for the sanitation sector also deserves attention.
- Involve the participation more stakeholders in the water sector to meet MDG including NGO's, CBO's and the private sector.
- Enhance the coordination capacity of wereda government sector actors for effective works.
- Draw lesson from the ongoing WSSP pilot program supported by World Bank and replicate the experience in the wereda and elsewhere.
- Promote private sector to involve in spare parts provision in the short tem and take over maintenance works at wereda level in the long run.
- Prepare a legal ground for water committees and provide appropriate orientations and trainings.
- The role of health extension expert and environmental sanitarian could define and linked to each other with the help of relevant training.
- Capacity building trainings are essential to upgrade the experts so that they will focus on building the capacity of health extension workers at grass root level.

5.5. Technical

Regarding technical capabilities, based on the identified gaps shown in the past chapter. To enhance the capacity gap the following are recommended at various levels.

At Community level

- Supply maintenance tools,
- Providing operation and maintenance manuals prepared in a local language the communities can understand or giving rigorous training to help them memorize the procedures involved in minor maintenance,
- Developing a reporting and recording mechanisms,
- Providing training for scheme care takers and equip them with required tools.

At wereda Level

- Equip the wereda water desk with enough maintains tools,
- Make available operation and maintenance manuals and guidelines,
- Providing technical training for wereda staff
- Create a mechanism for establishment of revolving fund to private spare parts dealers so that spare parts for water supply schema maintenance are available in their stock.
- Create a mechanism for training and strengthening of private service providers like artisans, area mechanics etc

At Zonal Level

- Providing enough equipment for study and design activities,

- Providing enough maintenance tools,
- Establishing water quality test laboratories,
- Providing manuals, guidelines and standards for study, design, operation and maintenance of water supply schemes.
- Development of water supply schemes inventory and data base systems.

At Bureau level

- Conduct inventory of all the schemes
- Developing a data base and management information system for the schemes in the region,
- Prepare and disseminate manuals, standards and guidelines for study, design, operation and maintenance of water supply schemes,
- Carryout training need assessment,
- Equip the bureau with study and design equipment.

CHAPTER SIX: CAPACITY ENHANCEMENT ACTION PLAN

6.1. Objective

To strengthen the capacity of key stakeholders in water supply and sanitation so that MDG will be achieved.

6.2. Expected Outputs

The Implementation capacity of the Region, zone and weredas under study will be enhanced. That is:

- a) Community management capacity enhanced
- b) Database and MIS capacity enhanced at all level
- c) Maintenance capacity at wereda and Zonal level enhanced
- d) The capacity to develop new water schemes enhanced at wereda and Zonal level
- e) Study and design capacity enhanced and Regional and Zonal offices
- f) Policy and regulatory role of Bureau enhanced
- g) The involvement of NGOs and private sector in the sector enhanced.

6.3. Description of Proposed Activities

6.3.1. Community level

- Organize general awareness and skill training to 1915 community members to enable them manages the water scheme and keeps them sustainable. The training will include scheme management, financial management, minor maintenance and the likes.
- Provision of hand tools for minor maintenances at community level
- Establish Database system at community level. The documentation will cover the status of the scheme, report of any problem and maintenance, water quality status, active committee members, tariff condition, fee collection, financial status and bank statements etc.

6.3.2. Wereda level

- Organize training for 40 experts who will have stake in the sector in general awareness creation on the program implementation and critical technical issues.
- Design and manage MIS and Database system in both water and health sector. Major area of concern includes inventory and up-to-date database, water quality data, community reporting system and documentation, periodic assessments and feedback system. Training needs assessment and follow-up human resources development records are also parts.
- Provide revolving fund for private actor in spare part supply for water schemes,
- Organize awareness creation workshops for 40 potential private actors in the wereda.
- Provision of physical facilities
- Provide one set of maintenance tools,
- Provision of one set tripod and chain blocks
- Provision of one GPS
- Provision of two 4WD field vehicle, one for the water and the other for the health sector
- Provision of one set of water quality monitoring kits
- Provision of 5 motorbikes for both water and health sector
- Provision of 3 computers with printers for both water and health sector
- Provision of 2 photocopy machines for both water and health sector,
- Organize managerial and leadership trainings to senior staff in the wereda.

6.3.3. Zone Level

- Organize training for 70 senior staff within the zone on leadership skill development for both water and health sector.
- Design and manage MIS and Database system in both water and health sector,
- Physical facilities
- Provision of one set of survey equipments
- Provision of one set of geophysical equipments
- Provision of water quality test laboratory equipments
- Provision of full maintenance tools
- Provision of one service rig
- Provision of one mobile workshop
- Provision of one dewatering pump and generator
- Provision of two 4WD field vehicles

6.3.4. Region Level

- Organize local seminars and workshops on program implementation, monitoring and evaluation for 500 experts from wereda, Zonal and regional offices in the water and health sector
- Organize international experience sharing program for 30 senior staff members in the water and health sector.
- Design and manage MIS and Database system in both water and health sector Prepare design and operation manuals
- Prepare and/or revise policies and regulation that facilitate efficient program implementation.
- Prepare community level operation and maintenance manual
- Prepare maintenance manual for technical staff
- Physical facilities
- Provision of 3 sets of survey and design equipment
- Provision of 3 sets of geophysical equipment

6.4. Implementation Strategy

The implementation of the proposed activities will be directed by the action research committees at each level and implemented by respected sector offices. Purchase of major equipments both for the health and water sector will be handled at regional level. Inventory and Database development and documentation issues will also be implemented by respective sector Bureaus at regional level, zonal level and wereda level with the help of consultants and technical support from funding agencies. Policy issues, manual and guidelines are also to be handled by regional Bureaus with the help of consultants and research institutes. Minor purchases and trainings are to be undertaken at respective stage of the tiers, at Zone and Wereda level.

To promote the involvement of private sector especially in the provision of spare parts, interested community members will be trained and provided revolving fund through Wereda water office. The Wereda water office also advise and supervise the proper functioning of the spare part providers so that in the long run they could able to handle it by themselves.

The implementation order is proposed to be as follows:

Inventory of existing schemes, database base development and development of systems and procedures is crucial and is proposed to be implemented first. After establishing such systems and

procedures human resources development can proceed, using already developed systems and procedures. The purchase of equipment can follow and the training of manpower as the trained manpower can operate the equipments.

6.5. Timeframe

The proposed activities will be implemented within two years of period. Training and purchase of the equipment and materials will be accomplished in year one. But system designs will take two years to be completed and tested.

6.6. Financial Resources Requirements

To materialize the activities proposed above it is estimated that a total of Birr 12.67 million (including 5% overhead cost), which is equivalent to USD 1.44 million, will be required. Out of which 5.4% is proposed at community level, 15.0% at wereda level, 57.7% at zone level and 22.0% at Regional level. With regard to types of interventions, 15.1% goes to training, 59.6% to physical facilities and 25.3% to the development of policy, manuals, MIS and Database systems. More than 57% of the fund is required at Zonal level, which is mainly for the purchase of heavy machineries such as service rig and mobile workshop to strengthen the maintenance capacity of the zone at the economics of scale.

Table 0.1. Summary by Institutional tier and major intervention areas

	Training	Physical facilities	policy, manuals & systems	Total	Percent
Community	650000			650000	5.4
Wereda	62000	1246000	500000	1808000	15.0
Zone	210000	5950000	800000	6960000	57.7
Region	900000		1750000	2650000	22.0
Sub total	1822000	7196000	3050000	12068000	
Percent	15.1	59.6	25.3		

Source of Fund: Funding agencies or back donors who are collaborating for the action research for scaling up of community managed water supply and sanitation service delivery are the major sources for funding. The government of Ethiopia and bilateral funding agencies who are not member of the action research are also potential donors to materialize the proposed action plan.

Table 0-2 Details of the cost estimation

No.	Item	Unit	Qty	Amount
Community level	Trainings	no.	1915	650000
Wereda Level	Technical training	no.	20	50000
	Awareness creation for private actors		10	12000
	Revolving fund for spare parts	no.		100000
	Database and documentation			400000
	Physical facilities	no.		
	Maintenance tools	set	1	50000
	Tripods and chain blocks	set	1	50000
	GPS	no.	1	20000
	Field vehicle	no.	2	900000
	Water quality monitoring kits			50000
	Motorbikes	no.	3	90000
	Computer with printer	no.	3	36000
	Photocopier	no.	2	50000
	Sub total			1808000
Zone Level	Training on leadership skill development		70	210000
	Physical facilities			
	Survey equipments	set	2	250000
	Geophysical equipments	set	1	100000
	Laboratory for water testing			1500000
	Full Maintenance tools	set	3	100000
	Service rig	no.	1	1800000
	Mobile workshop	no.	1	1000000
	Dewatering pump and generator	set	2	200000
	Field vehicles	no.	2	1000000
	Database and documentation			800000
	Sub-total			6960000
6. Region Level	Local seminars and workshops	no.	500	750000
	International experience sharing		30	150000
	Prepare design and operation manuals		2	300000
	Prepare policies and regulations			450000
	Database and documentation			1000000
	Sub-total			2650000
	Total			12068000
	Overhead (5%)			603400
	Grand total			12671400
	Total USD			1439931.8

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ANNEXES

Annex 1: Interview and discussion guides

Community Level

1) Discussion with WATSAN committee

- Number of committee members (male _____, female _____)
- Major tasks of the committee
- Legal status and independence of the committee? Existence of by law?
- Communication and work relationship with Kebele Adm.
- What training was given to committee members? For how many day? Where? When? By whom?
- Are there comity members who caretaker for the scheme?
- How do you manage the operation (in the case of motorized) purchase of fuel, operator etc.
- Tap attendant? Guard? Any other employee, if any
- Communication with wereda water desk and any support received
- How to maintain the system. How to request support from wereda water desk
- What is the role of WATSAN committee on sanitation (Clearing the area, fencing, hygiene education, latrine promotion etc).
- Is there any water tariff? Who set the rate? Do the community involved? What is the base for tariff setting
- Who collect money? Is there documentation? What is the expenditure system? Who approves?
- Do spare parts available? How do you find it?
- Accountability of the committee in case of failure to accomplish the given mandates.
- How long do the committee operate? How do replace them after their service period? How do one replaced if withdrawn earlier
- Do cooperative involve in WATSAN?
- Do the committee meets? How do they make collective decisions?
- Where do you keep money? How much? What are the major expenses? How much is monthly/annual income and expenditures?
- Was there any conflict with regard to water resources use?

Wereda Level

1 Wereda Council

- Major institutes involving in WATSAN in the wereda
- Their plan and budget for the coming five years
- Their achievements (plan VS achievement) for the last five years (2001-2005)
- Who coordinates the wereda WATSAN activities in the wereda? How?
- What are major constraints?
- What are possible solutions for the constraints or challenges
- What are the major activities of wereda support program?
- Do they have role in coordinating the works of WATSAN in the wereda? How?
- Wereda support to WATSAN committee (in finance management maintenance, spare parts provision) etc.
- How do the private sector is to involve in WATSAN (spare part, artesian etc)
- How do cooperative involve in WATSAN activities
- Is there legal ground for spacing well and latrines apart?
- Is there licensing of maintenance and construction of new water schemes at wereda level?
- Collaboration of Government, NGO's and other actors in the sector.

2. NGO's at wereda

- Water schemes constructed by an NGO

- Sanitation interventions
- Schemes with water committee (established before or after construction,)
- Major roles of the committee
- Training given to the committee members
- O&M capacity of the committee and any capacity enhancement work
- By law or guideline to the committee
- Spare part availability and means of supply
- Collaboration with government and other NGO in WATSAN
- Capacity building to the government existing structure
- Office facilities, equipments
- Plan VS achievement up to and of 2005.
- Plan for the next 5 years
- Monitoring the functionality of the scheme and WATSAN committee after completing the scheme
- Do cooperatives have any role in WATSAN activities

3. Community representatives

- What are major activities on which community members were participated
 - At planning stage – Site selection, technology selection etc
 - At implementation stage – Community contribution in kind (labour, stone, sand transporting etc) and cash
 - Tariff setting
 - WATSAN committee selection and replacement
 - Operation and maintenance
 - Tap attendance and guarding
 - Sanitation (clearing, fencing, drainage, proper utilization of water source, washing basin, cattle trough etc.
 - Monitoring the WATSAN service and the committee itself?
 - How do service or other cooperative involve in WATSAN

4. Wereda Water desk

- Major roles of the desk – construction, community mobilization and organization.
- Number and types of water schemes constructed by Government by budget source (government, NGO's, WB, UNICEF,
- Any structure of the desk down the grass root?
- Plan and achievement of last five years; budget & utilization
- Next 5 years plan & budget allocated
- What major supports are to be provided to WATSAN committees (O&M, spare parts, training)
- How many of the schemes have water committee & functional training given?
- How do the office follow & monitor the functionality of the committees? Is there responsible body in the office for the task?
- What are major constraints of the office to provide
 - a) Water to the whole community?
 - b) Strengthen water committees?
 - c) Overall functioning of the office?
 - d) Satisfy the O&M needs of the water schemes? Provide spare parts?
 - e) In promoting sanitation & hygiene education?
 - f) Training of artesian?
- The role of the wereda water desk

- In planning water & sanitation works
 - Fund allocation and implementation of WB & UNICEF and other funds
 - In negotiating to increase budget share of the wereda
 - Mobilizing community contribution, participation organizing water committees?
- What is the reporting of the committee and feed back of wereda water desk for information exchange, O&M etc.
- Who decide on the maintenance requests from villages?

5 Wereda Sanitation Desk

1. What are major activities of the desk?
2. How do mobilize and participate the community?
3. How do you ensure the sustainability of the sanitation works?
4. Is there any means of follow up and monitoring at Kebele level?
5. What supports are provided to community efforts?
6. How do you promote sanitation in Kebele cat grass roof level) – any means of training & education
7. Human resources (number and qualification) and transport facilities offices and office furniture's at Kebele level?
8. Support form zone & region technical, financial, material?
9. NGOs working in the area? Their major works and fund allocated?
10. Funds allocated to the sector (by government, NGO, WB, UNICEF or other organizations)
11. Role of the wereda sanitation desk/health office in coordinating the NGO activities in sanitation?
What supports and communication required to the desk.

Annex 2a: List of participants on group discussions

No.	Group	Name & position	Issues
1	Discussants Action Aid Shebedino office	Ato Syoum Ato Daniel Ato Dawit	On the activities of the action research and what is expected form the capacity assessment exercise?
2	Shebedino wereda water desk	Ato Birhanu Wella, Ato Thomas Araya	Role & Responsible of different actors in the water
3	Shebedino wereda Health office	Ato Mengstu Darimo, head Tesfaye Afne-sanitarian	On sanitation & hygiene
4	Midre Genet motorized scheme	Ato Mulugeta Dgne-secretary of the water committee W/ro Sara Sorsa- member	On community activities
5	CFT (Community Facilitation Team)	Hirut Tefera-community participation Lemlem Endale-safe water supply Asres Dora-community participation Wondimu Obisa-Safe water supply Ledamo Dogiso-sanitation & hygiene Lamrot Mulat-sanitation & hygiene	They are community facilitators working in three kebeles Muranchio guxala Jilla change Galuko hereye
6	Water Committee of Diramo Anterara HDW	Elias Kabiso contrd & motor operator	Activity of the committee & level of water service
7	Dala Anterara HDW	Marimo oromo and demisie Dallo Committee members	Activity of the committee & level of water service
8	Telamo HDW	Menina Megene, Almaz Awera, Teshale Shibiru, Birtikuan Heliso water Committee members	Activity of the committee & level of water service
9	Water Action Shebedino project office	Ato Debre Dheresa project coordinator	Activities, results plans of water action
10	Gonowa Gabalo Borehole water committee	Dogiso Doesha Markos Almaz Birhira water committee members	Activity of water committee
11	Gobo Ebisha Borehole water committee	Shitaye Gujo water Committee members	Activity of water committee
12	Dilla Gumbie HDW water committee	Ato Sidamo Netoo, Committee member	Activity of water committee
13	Midre Genet HDW water committee	W/ro Genet Daniel Ato Bimbessa Berqo	Activity of water committee
14	Gameso Kenera HDW water Committee	Mengesha Melgie Committee member	Activities of the committee
15	Regicho Spring, in Hai sabita water committee	Ato Bekele Bala Committee member	

Annex 2b: List of individuals interviewed

S.No	Name	Institution	Position
1	Ato Seyoum	Plan Ethiopia	Water Officer
2	Ato Birhanu	wereda water desk	Acting Head
3	Ato Abru Dekemo Danisa	Sidama zone WRD office	Head
4	Ato Agosa Abate	SNNPR WRB	Deputy Burea Head
5	Ato Nuredin Assaro	SNNPR WRB	Head, Water Resources Dep.
6	Ato Gelebo		
7	Ato Kare Chawita	Health Bureau	Deputy Bureau Head
8	Ato Tomas Arusa	Shebedino wereda Administration	Administrator
9	Ato Fantahun Getachew	Toligyo Consult	General Manager
10	Ato Mengistu Daremo	Wereda Health Office	Head

No.	Name (individuals)	Position	Issues
1	Ato Agosa Abate	D/Bureau Head of water supply SNNPR	Water supply plan & achievements in the region
2	Ato Karee Chawicha	D/ Bureau head health programs & services	Sanitation plan & strategies of the region
3	Ato Thomas Aruse	Chief wereda Administrator	Overall coordination of the water & sanitation sub-sectors
4	Ato Fantahun	Tolingiyo expert	Highlight of the progress
5	Shitaye Wordefa	Sidama zone health dep't	