

Taking Care of Water

Rural Water Supply Schemes in Northern and Eastern Ethiopia

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GLOSSARY

ADCS	Adigrat Diocesan Catholic Secretariat
ADDA	Adigrat Diocesan Development Action
CHF	Swiss Francs
EPRDF	Ethiopian People's Revolutionary Democratic Front
ETB	Ethiopian Birr
HCS	Hararghe Catholic Secretariat
Kushet	Village
MUWA	Multiple Use of Water Approach
NGO	Non Governmental Organisation
NPV	Net Present Value
O&M	Operation and Maintenance
PA	Peasant Association
PCM	Project Cycle Management
QCA	Qualitative Content Analysis
RWS	Rural Water Supply
SDPRP	Sustainable Development and Poverty Reduction Program
Tabea	Municipality
TPLF	Tigray People's Liberation Front
UNCED	Nations Conference on Environment Development
UNEP	United Nations Environment Program
VA	Village Administration
WMC	Water Management Committee
Woreda	District
WSS	Water Supply Scheme
WTP	Willingness To Pay

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Exchange rates on 31st January 2006¹:

USD to 1 ETB = 0.18

ETB to 1 USD = 8.51

CHF to 1 ETB = 0.15

ETB to 1 CHF = 6.66

¹ Source: www.exchangerate.com, access: 02.02.06

Abstract

In the year 2000 about 24% of the rural population in Ethiopia had access to pure water. Due to the lack of means the Ethiopian government cannot provide all rural areas with safe water. The formulated "Sustainable Development and Poverty Reduction Program" (SDPRP) in 2002 by the Ethiopian Government cannot be implemented without external funds (e.g. the World Bank). Rural Water Supply (RWS) is therefore heavily dependent on external investments and developing programs. In order to improve the living conditions in rural areas, Caritas Switzerland has been cooperating for about 30 years with local partners in Adigrat and Mekelle (North Ethiopia) and Dire Dawa (East Ethiopia). The improvement of the rural water supply is a main focus of the implemented developing programs by constructing hand dug wells (with hand pumps), drilled wells (with hand-, solar- or motorized pumps), spring catchments and cisterns. A long-term cooperation with local partners a close relationship between Caritas Switzerland and the "Adigrat Diocesan Catholic Secretariat" (ADCS) as well with the "Hararghe Catholic Secretariat" (HCS) has been established. Both organizations are well known by the local people in Ethiopia and are important contact points for rural communities.

Participatory approaches and the development of a "sense of ownership" in order to enhance the sustainability of water supply schemes (WSSs) are central elements of RWS project implementation. During the realisation of the projects the rural people contribute to the implementation by participatory actions such as planning, decision-making, providing manpower and local materials to the construction works and adapted to their financial facilities, as well by funding. After the construction the communities stay involved in the project by selecting Water Management Committees (WMCs) on local level which are responsible for the operation and maintenance (O&M) of the WSSs. Especially the election of female WMC members has been enhanced for several years because the fetching of water is a women's domain. Furthermore, the community contributes to the O&M through the payment of monthly water fees in order to finance future repairs of the WSSs. A guard is employed and if possible paid with a monthly salary. In most of the visited villages the communities agreed on the payment of 1 ETB (= approx. 0.15 CHF) per household per month. The accountant of the WMC is responsible for the administration of the water fees and puts them, with the help of social workers from the NGOs, on a bank account which was opened in the name of the village.

The members of the WMCs are trained on local level among others in technical and financial domains in order to be able to cope with simple damages of the WSSs (e.g. exchanging spare parts). If the repairs are beyond the capacities of the WMCs, the local NGO provides the communities with technical skills and, if necessary, with financial contributions. At a later stage this responsibility for the WSS-maintenance on higher level is shifted to the regional respectively zonal water authorities.

The implementation of RWS projects and the establishment of sustainable O&M is a complex task. It influences the rural communities on social, financial and as well on technical domains. Whereas some

villages cope with the demands of the implemented WSSs others have more difficulties to accomplish sustainable O&M. Therefore some of the implemented WSSs are non-functioning. Within the scope of this thesis was searched for reasons why some of the WSSs are well functioning and why others stay without maintenance. The data collection of this evaluation is based mainly on interviews with villagers, members of the WMCs, regional or zonal water authorities and with staff from ADCS and HCS. Furthermore, literary research contributed to the understanding of the implemented methods and practices of RWS projects.

Totally 21 WSSs were visited in Northern and Eastern Ethiopia from which 10 were functioning and 11 out of order, respectively. Financial reasons play an important role in order to keep the WSSs maintained. On the one hand the availability of money is a decisive factor. On the other hand the willingness to pay for the water points plays a key role in O&M processes. Some of the checked account books show remarkable amounts of saved water fees while other communities do not collect the water fees regularly or even did not start the collection. The cultural background is one factor which influences the dealing with the monthly raising of money. It was found out that among the visited villages, communities from different ethnic groups judge the value of saved money differently. While some communities think it is strange to save money for something that probably may happen in the future (e.g. in former times nomadic people) other villagers are familiar with monetary precautions due to already existing traditional systems which have the task to save money for future events in the village (e.g. marriages, funerals etc.). If a monthly water fee of 1 ETB per household is collected dutifully, small repairs and a monthly salary for the guard can be paid. The presence of a guard and a well functioning WMC are essential for the continuity of the WSSs. But the 1-Birr-per-household-model is not able to overcome maintenance works of higher level such as the substitution of hand pumps or spring catchment systems, occurring after several years of running period.

Beside financial aspects the thesis evaluates the perception of the communities about responsibility and ownership of the water points. The term "ownership" respectively "a sense of ownership" (the feeling to be the owner of something) are discussed and their components evaluated. It results that "ownership" and "a sense of ownership" consist of more than a relationship between "things" and "persons". The term involves a web made of "things" and "actors" whose connections result from intended or unintended actions.

Because of the interviews it can be concluded that basically the WMCs are aware of their responsibility for the O&M of the WSSs while among the villagers the opinions about responsibility vary. Furthermore, some of the villagers feel insecure about the use of the collected money. Due to the collected data it can be concluded as well that "a sense of ownership" is more linked with "controlling the water" than with "being responsible" for the water points. Within the scope of the thesis this correlation is explained by "A Theory of Access" from Ribot and Peluso (2003).

Another field playing a decisive role for the sustainability of the WSSs includes technical factors. E.g. the availability and accessibility of spare parts is not guaranteed for every type of water point. Spare parts can be bought in urban areas only and mostly in full sets. The villages often depend on the technical support of the NGOs as well for small repairs (e.g. exchanging taps, rubbers and the like). Furthermore, the governmental water authorities themselves do not dispose of adequate technical and financial skills whereas they themselves have to contact the organizations in order to get the needed equipment or know-how. Most difficult is the maintenance of WSSs with higher techniques such as motorized or solar driven pump systems. Basically it can be stated that the simpler the equipment of the WSSs the more sustainable are the water points. Therefore the establishment of a local spare part market could contribute to the sustainability of the WSSs. Such market should concentrate on already existing trading centres in rural areas (e.g. the villages Dawhan in Tigray and Alaamaaya near Dire Dawa). It is recommended to ADCS and HCS to initiate a state-controlled spare part market by discussing its importance and structure with regional respectively zonal authorities. Furthermore, the roles and duties of both actors, the NGO and the governmental authorities, has to be defined more clearly including a proper time schedule for future developing processes (e.g. phase out period). The local partners can support helpfully the establishment of a relationship of trust between the governmental authorities and the rural people.

Another recommendation within the technical domain concentrates on the spatial distribution of the water points. On some sites several WSSs were constructed near to each other by different projects. This influences the sustainability of the WSSs negatively. Instead of maintaining damaged water points, the communities just shift to the next functioning one, fetching water there until the breakdown of all WSSs. A proper planned spatial distribution of the WSSs is therefore in favour of the single water points and finally of the communities.

Further recommendations focus on the broadening of the WMC-trainings. They should be repeated regularly and used as well as panels for discussions where the communities are able to share their experiences and to discuss specific problems with regard to the WSSs. ADCS and HCS can support the information exchange acting as facilitators. This should contribute to increase the communities' "know-how" combined with fundamental "know-why". Many communities dispose of the knowledge on "how" a specific O&M process has to be conducted but often they do not understand "why" it is important to execute specific actions (e.g. the regular collection of water fees, the involvement of female WMC members, the payment of the guard etc).

Since the change of the government in 1991 and the proclamation of the Federal Democratic Republic of Ethiopia in 1995 more attention to the development of the RWS is paid. In the coming years more funds will be raised for the implementation of rural WSSs in Ethiopia (e.g. by the implementation of the SDPRP). Hence, a better understanding of the processes and factors, influencing the sustainability of rural water points and the proper definition of the roles of the single actors can be of great help for the future implementation of successful RWS projects.