

**Sustainability of water systems in Oruchinga Valley***Charles Rwabambari, Dunstan Ddamulira and Fred Bangu, Uganda*

ACORD (AGENCY FOR Cooperation and Research in Development) has been promoting and supporting rural development in Oruchinga Valley of Mbarara district since 1987, through capacity building of local communities. Major activities addressed include, training in poverty alleviation issues rural credit scheme, environmental protection, AIDS awareness, gender issues etc.

In 1990 the communities requested to be assisted to address water development as their most felt need. This resulted into ACORD carrying out a needs assessment through Participatory Rural Appraisal (PRA). The results indicated that the demand for water was the biggest challenge to the development of the area.

In September 1991, ACORD employed a hydrogeologist consultant to assess the water situation in Oruchinga valley. He worked together with the water committees, key people in community, Government representatives and other NGO's. He came out with a comprehensive report, detailing the water situation, possible technologies and relevant costs involved.

Local organization

Each water source has a water committee with a democratically elected leadership. On most committees, gender is always considered. ACORD encourages at least a 30% women representation on these committees. During the construction, women also participate e.g. in collection of local materials and cooking meals for the working groups.

Before a site is selected for development, an agreement between the landowner and the committee is endorsed and supported by the local authorities, resistance councils (RC's). The water committees formulate rules governing the water points and works together with the local political leadership (RC's) to implement them. ACORD has trained the committees in elementary management skills, related to the planning, construction operation and

maintenance of the water systems. In addition the committees have been exposed to other successful water projects so as to enhance their ability, confidence and morale to manage their water projects.

Construction of water facilities

Culturally water collection is the work of women and children who often walk long distances over hills in search of water. After the water-well, other tasks await them at home i.e. cooking meals, washing clothes and dishes etc. Time and efforts that would have been otherwise been invested in other productive activities was hence wasted. The community's response to this in Oruchinga, was to plan the construction of water facilities near their homes so as to reduce the walking distances to under 1.5km. This has caused both the women and men to actively participate in the planning and construction of the facilities, which in turn has increased their responsibilities to ensure their sustainability. ACORD tops up, the traditionally, locally available materials gathered by the communities with the non-locally available materials as shown in the Table 1.

During the process of construction, ACORD technicians train and discuss with the village technicians, new techniques of construction hence preparing them to take over the responsibility of the future maintenance of the completed installation. The village technicians are paid for their services, through the water committees, by the communities in cash or and in kind.

Technology development

The hard conditions in Oruchinga valley, compelled the communities to become very initiative in solving their water problems by developing their own indigenous technologies. ACORD has tried as much as possible to build into and improve on these so as not to destroy these initiatives.

Table 1. Community's vis-a-vis acord's contributions

<i>Community</i>	<i>Acord</i>
Sand	Reinforcement
Bricks	Cement
Stones	Pipes
Skilled-labour	Plumbing equipment
Unskilled-labour	Tools
Poles	Transport of above to site
Other locally available resources	Technical supervision/advice

Table 2. Technologies that are currently being implemented by communities and acord

• Rocktanks	• Artificial pavement catchments
• Ponds	• Handdrilled wells
• Handdug wells	• Valley tanks
• Roof rainwater tanks	• Dams



Hard conditions have made communities become very initiative in solving their water problems

Each of the technologies in Table 2, work in different areas and it is upon the community with technical advice from ACORD, to choose the most appropriate one for development, suitable for their situation.

However experience has shown that communities are less enthusiastic with the artificially paved catchments and hand drilled wells because, the former is entirely a new technology, initiated by the hydrogeologist-consultant and in the latter communities are more used to the automobiles powered drilling of deep bore holes. Where the communities have shown some interest for the above two, demonstrations are being put up, well aware that it may take some time before they finally adapt to them.

National policy

The Government of Uganda promotes and supports water development in the Country. The ACORD-Mbarara water programme is being implemented with the Governments blessings.

Currently under the decentralisation policy, powers are being shifted from the centre to the districts and down to the grassroots, i.e. people to manage their own re-

sources. ACORD is supporting this by building the capacity of the communities it works with, to manage the affairs of their water projects.

Conclusion

The community of Oruchinga valley expressed availability of water as their first priority need. ACORD intervened and is working together with them trying to improve on their own indigenous technologies, training village technicians, and water committees to ensure sustainability of the water systems. In addition ACORD is providing non-locally available materials while the communities provide the locally available ones, for the construction of the water infrastructures.

With the improving economic situation in the country we hope that the communities will be able to afford the materials currently provided by ACORD, after the end of the water programme in three years time.

By that time, we hope that both the managerial and artisan skills will have been firmly implanted in communities and could be called up on to be utilised for the sustainability of the water systems.