

NYAMARIMBIRA WATER PROJECT: THE CHALLENGES AND CONSTRAINTS

Thematic Area: Climate and Energy

by

The Intermediate and Technology Development Group (**ITDG**)

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Background and Introduction

Nyamarimbira is a tiny perennial stream tucked in the mountains of Nyanga in the area under the chieftainship of the Tangwenas. The area came to national and international prominence during the struggle for independence in Zimbabwe due to the strong resistance offered by the late Chief Rekayi Tangwena when he and his people were asked to leave the Kaerezi Ranch to pave way for commercial farmers.

The area lies in the agro-ecological Natural Region I which receives the highest average annual rainfall of 1400mm. Due to the relief in the area the terrain is so rugged and entails going down very steep slopes in order to fetch water for drinking and other domestic chores.

In the wake of the 1982-83 drought, Chief Rekayi Tangwena had a vision of a piped water scheme to take advantage of the perennial streams in the locality as well as ensuring that teachers and pupils at the local Tsatse Primary School would spend more of their time teaching and learning respectively. The idea was shared widely within the community but there was little that could be done for lack of skill to determine the feasibility of the idea as well as the funds to realize the project.

Several years went by until another drought hit the country in 1992-93. During that period elders who had originally bought into the now late chief's idea began to explore ways of realizing his vision. Three individuals then set out to champion the project with the intention of providing water for the school. The main motivation at that stage was to retain key teaching staff who would otherwise have left due to the difficult conditions in the area. The three included two villagers and the local school headmaster.

Several meetings were then convened within the community to mobilize support and solicit financial contribution towards implementing the project.

In 1994 ITDG commenced work on the Nyafaru Micro Hydropower Project five kilometers away from the Nyamarimbira community. The work was undertaken with participation of the Cold Comfort Trust (CCT) which owned the land as well as the Nyafaru Development Company, which was directly responsible for managing the farm activities as a subsidiary of the CCT. The three initial proponents managed to mobilize community support for the initiative as well as some financial contributions. Each member paid Z\$5 about US\$2.00 then.

The proponents sought assistance from local authorities and extension agents on how to take the idea forward. Councilor Hazangwi whose area of representation covers both Nyafaru and Nyamarimbira then approached ITDG to assist with technical expertise as well as fund raising for the initiative. He was building on an existing relationship with ITDG through mutual involvement in the Nyafaru project. This link would prove to be the vital link that led top the realization of a long cherished dream, twenty years on.

A series of needs assessment workshops were then convened with the wider community and confirmed domestic water as the main development priority for the two villages of Tstatse and Madziwanzira which were the main proponents and beneficiaries of the proposed scheme. The project objectives were then agreed as follows:

- To improve household income through small scale irrigation;
- To strengthen local institutional capacity to plan, implement and monitor local resource utilisation initiatives;
- To promote social responsibility for local resource management;
- To provide electricity for domestic enterprise and educational purposes; and
- To provide a forum for social exchanges, awareness raising and training on environment and development issues.

Direct beneficiaries were 300 households, 500 pupils and teachers from Tstatse and Madziwanzira Villages and Tstatse School respectively.

The project commenced in earnest in 1997. The physical targets were set as the provision of domestic and irrigation water and the localisation of skills to manage the scheme by the end of 2001.

The plant was finally finished in April 2002 and commissioning set for July 2002. The project was completed on the backdrop of crippling fuel shortages, price escalations, rising social stress due to AIDS and political violence. Concerted effort by traditional leadership, local project management committee, women and children saw the project through.

National and International Context

The energy sector in Zimbabwe accounts for about 15% of GDP and public revenue mainly through excise duties on liquid fuels. However it only contributes 1% to formal employment.

Fuelwood remains the most important domestic fuel in the country. It is the major source of energy for cooking, lighting and heating for over 80% of the population in the rural and peri urban areas.

Prior to 1980, the energy supply policy was meant to support the generation of economic benefits for the country. Electricity, roads, rail and other energy supply infrastructure was largely restricted to commercial farming, mining and urban areas. To date only 20% of the population are connected to the national electricity grid. There are current efforts under the Expanded Rural Electrification Programme to increase this proportion with an ambitious target of electricity for all by the year 2020. This initiative comes after three other rural electrification programs in the early eighties and nineties. The three do have one common feature of the dominance of grid based electrification.

The Chairman of the Commission on Sustainable Development said, “Eradicating poverty, hunger and promoting sustainable livelihoods are central

to the achievement of sustainable development. Actions required to realize the poverty related goals contained in Agenda 21 and the Millennium Declaration include:

- Initiating a global plan of action to reduce by half the number of people unable to reach or to afford safe drinking water;
- Improve access to modern energy services in rural and peri-urban areas through rural electrification and decentralized energy systems by intensifying regional and international cooperation, including financial and technological assistance, with a view to providing by 2015 energy services to half of the two billion people who currently have no access to modern energy services;
- Promote sustainable agriculture and rural development to ensure food security, diversification of rural economies and improved access to markets and market information as well as provide financial and technological support for rural infrastructure, enterprise development and access to credit for the poor; and
- Develop multi-stakeholder approaches to public-private cooperation to improve outreach in basic sustainable agricultural techniques and knowledge to farmers with smallholdings and the rural poor.

Zimbabwe was one of the first countries to sign and ratify the UN Framework Convention on Climate Change (UNFCCC) in quick succession, and by doing so affirmed its commitment to the global principle of common and differentiated responsibility. To that extent, the country has committed to honour its obligations towards realising the above goals.

DETAILED ANALYSIS

An irrigation and domestic water pipe network was successfully installed. Beneficiaries contributed all the labour in trenching, local material gathering, back-filling and local management. A total of 21000 man-days were committed to see the project through. Such contribution was possible due to several factors among them local commitment, influence of traditional leadership and multi-stakeholder contribution.

The Nyamarimbira Water project was implemented in a very dynamic context that changed by the month. Escalation of material prices fuelled by a runaway inflation dwarfed initial budgetary allocations. Aside from inflation, fuel shortages, threats of political violence, changes in project scope and seasonal priorities of beneficiaries all contributed to a delay in realizing the project according to the originally set time frame.

ORGANISATIONAL AND MANAGEMENT SYSTEM

NWP was a multi-stakeholder effort with inputs from government departments, private companies and ITDG as the implementing agency. Management of the project was stratified in response to the various levels of co-ordination required. ITDG through a field office in Nyanga coordinated activities of the project at district level, ensuring that district level stakeholders

make their contribution and the project in turn makes a contribution and is represented at district level.

At the community level, an elected project management committee (PMC) took charge of the day to day running of project affairs. The committee underwent specific training on leadership and project management. This included project monitoring, and progress reporting.

The project management committee organized on a half-yearly basis a stakeholders workshop to review project progress as well as share planned activities for ensuing six months. This arrangement enabled stakeholders to determine their level of involvement for the planning period as well as highlighting the resource implications in terms of finances as well as expected community contribution. To a large extent this worked as planned except on few occasions when the community for some reasons could access services from government departments. One of the major reasons cited often was the reduction in budget allocation to the department which required that officers limit the level of fieldwork they undertook. This affected AGRITEX and DDF mainly.

The PMC was also represented at district level through the Water and Sanitation Subcommittee where two committee members were co-opted and participated in district level meetings to update the local authority under whose auspices the committee was constituted. In the multi-stakeholder context in which the project was implemented, the participation by the PMC in the committee enabled the project to establish links with similar initiatives within the district. It also gave voice to the community in terms of their priorities in the water sector and what expectations they had of each of the stakeholders represented.

On water-related issues the Project Coordinator who is also the local school headmaster was elected into the Nyanga East Catchment Water Users Body. The election provided an opportunity for the project to access the latest news in what was then an unfolding revision of regulation and legislation governing the use of water resources in the country.

These various engagements exposed the PMC to a broad range of institutions and issues regarding their project. It also greatly enhanced their organizational abilities as they sought to run their affairs more along the lines of these professionally constituted bodies such as the WSSC and the users body.

Besides maintaining contact and interest at the district level, ITDG leveraged information across a number of institutions and sectors at the national level. The organization facilitated technical input and the sharing of emerging lessons with partners and the rest of the development constituency. The organization leveraged information and skills from NGOs, private companies, research institutions and others and channeled them into the project.

INSTITUTIONAL CAPACITY

Managing and implementing a project of this magnitude required a relatively higher threshold of institutional capacity given the multi-faceted nature of the inputs and technologies to be applied. To that end a substantial amount of resources was expended on building the necessary institutional capacity to be able to deliver on the set objectives.

At the community level, there was little practical activity undertaken in the first year of the project as the project management received training in project management, leadership and financial reporting. Over the period of implementation some important lessons about the capacity of community based institutions emerged:

- Traditional leadership is an important institution player where it concerns mobilization of community effort;
- Continuity is important in project leadership to maintain focus and vision;
- Community institutions can report and account for resources provided they are adequately trained; and
- There is still a negative view among extension agents towards community based organisations demanding service from their institutions which severely curtails the ability of CBOs to effect change in their communities.

CHALLENGES

Harnessing Community Effort

In the agreement for the implementation of the Nyamarimbira Water Project, the community undertook to provide all the unskilled labour components of the project. The time allocated for the project was framed as an estimation of participation by the community on a steady and continuous rate. Events and experience during implementation revealed that the community underestimated the amount of labour that was required in realising the project.

The turnout during some phases of the work was lower than previously envisaged. ITDG attributed this to the delicate balance that members have to make between contributing their labour and fending for their families amid the prevailing economic hardships. Reflected, the underestimation as admitted by some community members provided a key learning point for future project planning processes in the community.

Changes In Project Scope And Funding

In September 1998, after the devaluation of the local currency against all the hard currencies, the project funds agreement was under tremendous strain since it was signed and fixed in local currency. Prices of materials mainly PVC and steel pipes and accessories went up. Some re-engineering was then done to tailor the deliverables with available funds. This involved revision of project scope. Key highlights were the inclusion of the two micro-hydro plants, some funding to support expert technical input, reduction of the number of

tanks but now with greater individual capacity and the removal of the proposed project truck.

Seasonal Variations in Community Priorities

Generally the community is available to work on the project for five months in a year from June to November. From mid-November to mid- May community members who are predominantly peasant subsistence farmers are tending their fields from where they address their immediate survival needs for food and household income. During the same period the summer rains have set in and very little practical activities could be carried out.

External Contractors

Because of the specialised nature of some of the installations in the project, it was necessary to engage external contractors and experts to provide inputs on it. One of the requirements in these contractors' terms of engagement was that the community would provide all unskilled labour to bring the price down. However quite often there was a mismatch between the urgency of private contractors who were time and cost sensitive and the community who on their part wanted the longest time possible with the contractors to learn from them. The result was some pieces of hurriedly executed work of sub-standard quality. In one case a contractor was instructed to take out 700 metres of laid pipes and re-do the whole section. The community members were adamant that the contractor had to do it while the contractor maintained that the reason for the work being so poor was that the trench had not been properly prepared and that there was no community contribution when requested for ferrying sand for bedding and local backfilling.

During the early stages of the project when local management capacity was still weak, external contractors ended up recruiting and paying some community members to put the work in hand as quickly as possible. This set a precedent, which persisted for a significant part of the project implementation that the arrival of external contractors is an employment opportunity. This applies to both the general membership and even the leadership. Each time an external contractor participated on the project, there were problems in getting the unskilled labour contribution from the community probably for the reason mentioned above. This delayed activities and led to the sliding of targets.

The biggest problem around engagement of local community members by external contractors was that the Project Committee members were the first to benefit from these arrangements. Questions on how equitable the payment of some community members was, were raised by the wider community whose majority did not get any financial benefit from the project activities. Resentment emerged especially after the incident of the 700 metres of pipes mentioned above. Community contribution to even those pieces of work which required only their input took a nosedive. A general meeting was convened and this issue was thrashed out and things returned to normal.

Where external input is required on a project, care must be taken not to entrench power and information disparities between beneficiary groups. This is especially important where such contractors may require to recruit local labour on a temporary or sometimes permanent basis.

Political Instability

The operating context for this project and quite possibly all other projects over the implementation period could be described as transient and highly unpredictable. Variations were largely driven by political instability during the constitutional review process and the run up to parliamentary and presidential elections in June 2000 and March 2002 respectively. Community members were more reserved than before in airing their opinions and would shun public contribution and gatherings most probably for fear of victimization by fellow members from different or opposing political persuasions.

An air of suspicion on the intentions of outsiders such as ITDG personnel prevailed among political leadership. This could be attributed in part to the increased political awareness brought about by the constitutional reform process and the coming onto the scene of a new and strong opposition. Public meetings were generally discouraged thereby reducing forums at which the team's partner communities could effectively engage with the team and among themselves to forge ahead with the set objectives.

Funerals and Social Gatherings

Socially, AIDS has surfaced as a serious threat to development in the rural sector. This scourge which has reached pandemic status is increasingly decimating able-bodied men and women. There is evidence of reduced community productivity in terms of contribution to project implementation due to funerals. In the Nyamarimbira area, by custom, a funeral means a loss of at least three days of work by the community for ordinary citizens and a week for a death in the royal family. The community witnessed a number of funerals that derailed progress against planned activities.

The Sense Of Community

One of the biggest tests the project has had to face is that of clearly defining the 'project community'. One easy definition would be all the direct beneficiaries of the project in the ward. The first challenge regards the spatial distribution of these beneficiaries. The project is covering two villages of which the first, Tsatse, is separated into two by a valley through which the Nyamarimbira stream passes. Initially there was effort to have all these beneficiaries working on the same piece of work for visible collective effort. Due to the technical configuration of the scheme Tsatse B has its own water mainline and hence they refused this idea preferring to work only on their branch of the infrastructure.

For the other branch, which supplies both Tsatse A and Madziwanzira villages, there was initial communal effort in trenching and other pieces of

work relating to their mainline. However due to the distance involved of approximately six kilometers for the lower end beneficiaries their participation was rather erratic. The adopted position was that those from the lower end concentrate on that portion while Tsatse A concentrate on the upper part of the mainline. Once the work was cut into distinct village based portions, the question that arose was 'is this still a community?' Some members felt that this move distanced them from each other thereby defeating original logic of an empowered community able to tackle its own livelihood problems.

Contribution From Government Service Providers

The project was designed with inputs for particular inputs coming from government service departments such as AGRITEX, DDF and RDC. However with reduction in government funding to each of these institutions, these inputs required a lot of facilitation by ITDG. The institutions required transport and with the project staffing arrangement it was very difficult to balance these inputs with other commitments. There is also a perception by these institutions that ITDG and not the community should request for service, which were in contradiction to our project objectives to an extent.