



## Exit strategies for resettlement populations

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THROUGHOUT THE WORLD welldrilling in drought prone areas creates unnatural settlements which have a high dependency on the water supply. A number of agencies in Africa have been working with displaced populations (through conflict or environmental factors) to restart communities in home areas or in new areas. These programmes have involved creating water points which are magnets for returnees. The communities become dependent on the new water supply and are vulnerable to its breakdown. This causes a challenge for creating sustainable maintenance systems. Handover of maintenance from the NGO to local government is often difficult and it is at this point that much of the gains of the agency can be undone. Agencies use a variety of participatory approaches, village level maintenance structures, standardised pumps to fit government recommendations, organisation of spares supply and training of local government teams. This paper presents the work of an interagency project funded by the British Government (DFID) which compares and contrasts recent variations on these approaches. The project is undertaking a thematic comparison of three case studies in Africa. This is for the practical objective of identifying common elements of a successful exit strategy for resettlement programmes that have introduced new water supplies.

### Method

The project was to involve three programmes in Mozambique and Angola, implemented by three different agencies.

### Characteristics of the programmes in Mozambique.

Organisation	Care	World Relief
Province/Area	Inhambane/Vilankulo	Gaza
No of wells	170	163
Start date	1993	1993
Average depth	60m	63m
Average dynamic water level	50m	46m

Security difficulties in Angola have forced the project to identify a new programme for inclusion. At the time of writing (May 99), the location of this third programme is not yet known. In Mozambique, surveys have been completed on two programmes.

15 communities in Gaza Province were surveyed. These communities had water points installed between 1992 and 1997 by the NGO World Relief. In each community interviews were undertaken with key informants and groups of users. Key informants included water committees, water

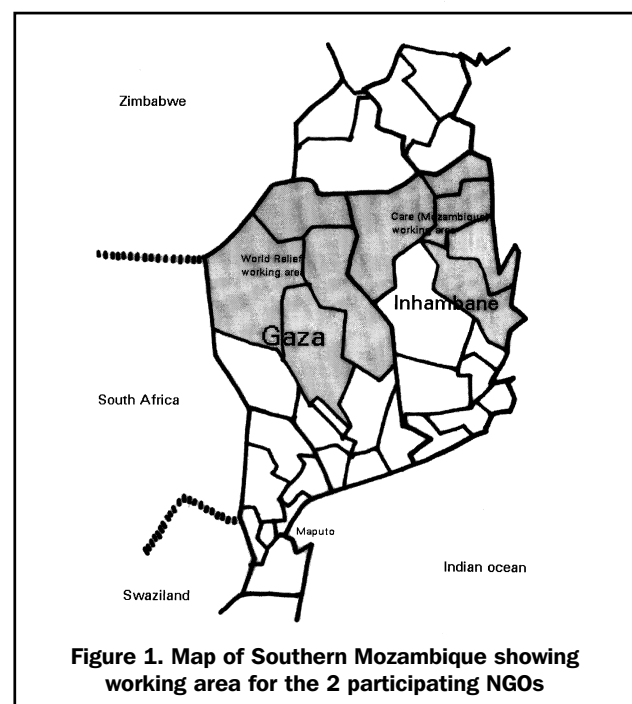
maintenance person(s), local authorities (President of community, Treasurer, etc.). District authorities were also interviewed.

15 communities in Inhambane Province (Vilankulo) were also interviewed. These communities had water points installed between 1992 and 1997 by the NGO Care. The process for these interviews was identical to those in the Gaza Province.

In both cases the programmes had undergone a transition from an "emergency phase" to a "development phase". Both programmes co-operated with the national and local water authorities. Both programmes have installed the approved national pumps, i.e. the Afridev and the Volanta. The Volanta is used for deeper wells.

Both programmes evolved in their strategies.

Care during the "emergency" phase offered to drill for water to communities with very little predrilling dialogue. Care had had participation on the proposal plan from the start, but the practical dictates of working in a country recovering from thirty years of war, necessitated only very brief dialogue with the community during the "emergency" phase. Then as an evolution of their programme they introduced a "development" phase where considerable predrilling discussion took place with the community.



**Figure 1. Map of Southern Mozambique showing working area for the 2 participating NGOs**

Greater cost recovery was also introduced. The community were asked to collect money to purchase the handpump head, and only when the community had purchased the head was the drilling undertaken.

In Gaza, initially the returning population tended to cluster in a few areas along the river. World Relief during the early stages were asked by the authorities to drill in more isolated areas with small communities, in order to draw the population away from the clusters. For longer term rehabilitation it was important to encourage people back to their origins, to access suitable farm land. The water points were often installed in small communities with very limited predrilling dialogue, and were used as a magnet to attract returnees.

Both programmes therefore gradually evolved a more "developmental" approach, responding to the changing situation of Mozambique. Community participation was discussed more fully. The shift on both programmes has been:-

- a growing emphasis on community level pump maintenance,
- increasing levels of cost recovery and
- greater involvement of the private sector.

### Issues arising

There are a number of issues arising from the findings. These are consistent with the general literature on good practice for Water and Sanitation. The specific issues for the project currently include:-

- *Resettlement and the draw of the water point.* The distribution of returnees (particularly in Gaza) was to some extent dependent the new water points. Do the pumps attract too many people? If on exit of the NGO these water points failed due to lack of repair, would the community be committed to the location, or would people leave to find a reliable water supply.
- *Pump installation and community involvement.* How much does the success of the exit strategy depend on the process of pump installation? Is it critical to the sustainability of the supply that there is sufficient dialogue with the community prior to drilling?
- *Pump ownership and maintenance (including issues of downtime, etc.).* Could the community take on the ownership and maintenance of the pump (Village Level Operation and Maintenance VLOM)? What are the outcomes of practical differences such as the makeup of the community maintenance group, or the village steering committee? What are the gender issues involved? Is it realistic to expect actual preventative maintenance? Is there a need for a second tier of local mechanics to replace rising mains or fish for dropped tools?
- *Pump usage and impact on community.* How is the use of the pump controlled? How does the control affect

the sustainability of the system? The health gains from the use of the water are linked to sanitation - what are the longer term impacts of water use?

- *Technology options and policy.* Programmes attempt to install standard pumps that are approved by the Government. Are these the best options for the exit strategy? What are the implications when an NGO introduces minor changes to the system, or uses pumps which are approved but not commonly used?
- *Involvement of private sector.* Sustainable supply of spares using the private sector. There are different approaches to involving the private sector. What are the issues surrounding each approach.
- *Organisation and linkages, networks.* Involvement of local government. Interagency co-operation. How do these networks and links affect the longer term sustainability, and how can they be included in the exit strategy?

The above is by no means an exhaustive list, however these are the main issues already identified from the first two field visits.

### Preliminary results

It is not possible to undertake a full discussion of each issue in this paper, however the preliminary analysis presents some interesting findings for :- Pump ownership and maintenance (including issues of downtime, etc.)

Preliminary analysis of the interviews seems to indicate a varying commitment to ownership and maintenance of the water points (as expected). However of some surprise is the comparison between the "emergency" phase water points and the "development" phase points. As we have said above, Care during the "emergency" phase offered to drill for water to communities with very little predrilling dialogue. They introduced a "development" phase where considerable predrilling discussion took place with the community. The community were asked to collect money to purchase the handpump head, and only when the community had purchased the head was the drilling undertaken.

One would expect a much greater ownership and commitment to the water point from the latter development phase communities than from the emergency phase ones. However during the development phase, the Care workers spent some time in discussion/extension/animation with the emergency phase communities, encouraging them to take up ownership of the water point (set up water committees, etc.). Preliminary analysis seems to indicate that this post drilling dialogue was as effective in stimulating ownership as the predrilling dialogue and financial requirements.

On the other hand, ownership and commitment seem to be far more linked to pre water point conditions than to the fine detail of the process of participation and dialogue.

Predrilling conditions were often surface water points, shallow open wells, or in some cases "old" boreholes and pumps. Communities that did not have water during a significant portion of the year, and therefore had to walk several kilometres, have tended to organise and maintain the new pumps. This is not to say that this is a spontaneous action. During the emergency phase, communities (with some exceptions) tended to rely on the NGO for repairs, and there was virtually no maintenance except by the NGO or its contractors. If the predrilling conditions were unfavourable, then when the NGO (postdrilling) stimulated discussion of operation, maintenance and repair, the community tended to respond positively. Organisation consisted of formation of a maintenance and repair group, regular meetings, contributions on a regular basis, etc.

In both programmes there is some correlation between maintenance and depth. If the borehole is shallow then breakdowns are infrequent, and the community tends not to be concerned with maintenance. As depth increases the potential for breakdowns increases and the community learns (often through initial painful experience) to do maintenance on a regular basis. The cut off point for this tentative correlation is with very deep boreholes. Afridev pumps are said by both agencies to be installed up to 60m depth. However as that limit is reached, the rising main fails so frequently that in some cases the pumps have been abandoned.

On the Care programme 40% of pumps had suffered no breakdowns since installation (according to the 1997 inventory), and included some pumps installed in 1993 (Afonso et al 1998). This claim was consistent with the limited survey of the project.

The Volanta pump is designated as a deepwell pump. However there are a number of factors which work against the success of the Volanta pump. Maintenance of the Volanta is relatively difficult and more expensive than the Afridev. Supply of spares through the private sector has not been very successful. By definition the deeper wells tend to be in the more isolated regions, away from the main roads (which follow the rivers or coast), thus access to spares and expertise is difficult. These factors combine so that the majority of installed Volanta pumps in both programmes spend a great deal of time not functioning.

There are a number of other issues that could be discussed. The collection of money for repairs occurs in some communities. However holding the money in an inflation proofed form is a challenge to remote communities with no banking facilities.

## Conclusion

This interim paper is presented before the project is completed. The above analysis has discussed some of the points to be considered within the issue of Pump ownership and maintenance (including issues of downtime, etc.). Each of the other issues presented needs further analysis and discussion to find the recommendations for future programmes. Space precludes such a discussion here. The next step is to complete the analysis of the data and to hold a workshop for those involved, and those interested, to discuss the results, to agree an interpretation and to document some recommendations for the future. The purpose of the project is to identify elements of a successful exit strategy for water programme with resettlement rural populations.

This paper has been presented as a means of including other interested parties in that discussion. We would welcome feedback and opinions on the subject of exit strategies, and would encourage contact with the authors.

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