



## Rethinking capital cost contributions

*Edward D Breslin, Mozambique*

COMMUNITY CAPITAL COST contributions for improved water supply has become a cornerstone of the Demand Responsive Approach (DRA) internationally. And while other components of DRA remain important, such as community choice, water point management at the lowest level, and the centrality of the community in the planning and implementation process, it is clear that many projects will either proceed or be cancelled depending on whether the community can provide its capital cost contribution. Failure to pay often means the end of a project.

WaterAid (Mozambique) has been operating in Niassa Province, northern Mozambique since 1995. WaterAid's partners are the Niassa Provincial Department of Water and Sanitation (DAS), the District Directorate of Public Works and Housing in the districts of Maúá and Nipepe (DDOPH – Maúá and Nipepe), ESTAMOS (a local Mozambican NGO) and private sector construction companies.

This paper focuses on our recent experiences with capital cost contributions in the district of Maúá. Maúá has been selected by DAS as a Provincial pilot site for the government's new National Water Policy and (Draft) "Implementation Manual". Both are based on the principles of DRA, and signify a considerable change of approach in the Mozambican water sector (see Breslin, 2000; and DNA, 1995 and 1999).

### Policy in Mozambique

In the past, government, donors, and NGOs identified Mozambican communities for improved water supply support. Communities often awoke one day to find a technical team in their villages, organising the community into work teams, providing educational lectures on the linkage between water, sanitation and health, and arranging management teams that would be responsible for sustaining the water points after construction was completed. Communities were given Afridev handpumps in return for some basic labour (excavation of wells, food and lodging for construction teams) regardless of whether Afridevs were appropriate to the situation.

Unsurprisingly, this approach has had little success in Niassa Province, or in Mozambique in general. Communities were only nominally involved in the process and felt little ownership of the infrastructure after the construction teams left, regardless of the fact that they had to dig the well, and feed and house the work teams. Many communities felt

that their contributions were simply part of the process – dig a well, feed some workers and get a handpump.

Most importantly, the community contribution had no relationship to what would be required to sustain a handpump.

As a result, the life of the water point was based on how robust that particular pump was rather than how effective the management teams were in sustaining the pump. Once the system experienced serious technical problems the pump was abandoned and people returned to unprotected water sources.

A recent survey of water points funded by WaterAid using the past approach to project development highlights these points. In a spot survey of 25 water points constructed around Lichinga, the Provincial capital, since 1997 it was found that 24% of the water points funded by WaterAid had been abandoned, and 72% of those still functioning were experiencing technical problems that were not being addressed. Only 8% of the water maintenance teams surveyed had funds set aside for O&M, although even these did not have enough money to actually buy the necessary spares when needed. No maintenance team had actually ever purchased spares on their own.

The reason most often cited for failure to maintain water points was not the inability to access spares – even though this is clearly a problem – but rather that communities argued that these were government pumps and not their responsibility. Many said, "we never asked for these water points", while others stated that they were aware government would one day return and fix the pump, so they were willing to wait for this to happen.

WaterAid-funded projects are hardly the only ones failing in Niassa. Broken handpumps have become a common feature of the Niassa landscape, regardless of donor. And while the lack of spares in the Province is clearly a problem, it is also clear that most communities do not believe that handpumps in their villages are their responsibility. Furthermore, it is unclear whether rural communities characterised by weak economies and limited cash actually have the means to sustain handpumps even if spares were readily available.

The Government's new Policies recognise these problems and take positive steps towards addressing the question of community ownership and local decision-making. The "Manual" makes it clear that communities must decide on levels of service, maintenance arrangements and tariff structures. They also have responsibility for choosing

water point sites and, ultimately, maintaining the system over time.

In perhaps the biggest departure from previous policy, communities must make an up-front capital cost contribution to their new water systems. Communities must demonstrate, through this contribution, that they can sustain the desired system over time. The new Policy recognises that water has economic and social value, and that communities need to acknowledge their understanding of this through an up-front payment (which should also engender “ownership”).

The government also recognises that the situation in Moçambique is complex, and that many communities are extremely poor. Consequently, the Draft “Implementation Manual” states that the *maximum* rural communities would be asked to contribute is 2% of the average cost of a water point (DNA, 1999: 27).

The “Implementation Manual” is also clear that responsibility for O&M lies with communities. Participating communities are therefore responsible for 100% of the operation, maintenance and replacements costs of these systems (DNA, 1999: Section 7.1).

The issue of technology choice has also been expanded, so that communities can now choose between a range of options – from handpumps to protected wells. Provisions are also made for rainwater harvesting and small piped systems, although household and community contributions to these systems are considerably more than for communal handpumps and wells.

The DAS/DDOPH – Maúá and Nipepe/WaterAid programme in Maúá followed the guidelines established at National level. The following section provides a brief overview of how these guidelines were implemented in Maúá, with particular reference to capital cost contributions.

## From policy to practice

Maúá is a rural district in the southern part of Niassa Province. The area is overwhelmingly agricultural, and infrastructure is poor and transport into and out of Maúá can be difficult. Rainfall is heavy from December – April, and crop yields are very high. Markets to sell excess crops are however scarce. As a result, cash is quite limited in the district. “Communities” are generally weak and many are still reforming after years of civil war. Households tend to live quite far from each other in smaller village sub-clusters, creating significant problems with communal water points.

Water is abundant in Maúá, with a large number of rivers and shallow, unprotected hand-dug wells providing families with their water. Interest in improved sources is high however as women in particular would like water supplies that are closer to their homes. Traditional water sources require a great deal of maintenance as well – from re-excavating shallow wells to removing stagnant water that builds up in both river catchment points and shallow wells. Women speak of backaches and other ailments resulting from the constant need to excavate shallow wells.

Importantly, local knowledge of water technology options remains extremely limited. Some were aware of handpumps but few had ever seen a well that was effectively protected from children and animals.

During 2000-2001, the programme in Maúá targeted an initial 14 villages for water supply support. A total of 16 water points were constructed, and one project was stopped because the private sector company responsible for this village failed to fulfil its obligations.

A series of PHAST exercises were used to allow communities to clarify water problems and identify a range of possible solutions to these problems (see Breslin 2000 for more details on how this process unfolded at local level). It should be reiterated that the programme in Maúá is applying DRA in general, and not merely focusing on the question of community payment even though this is the particular subject of this paper.

Communities were given a range of capital cost contribution options that were consistent with government policy (see Table 1). Given the paucity of cash in Maúá, it was decided that communities could make in-kind contributions by paying with sacks of maize instead of with cash. The idea was to give communities a range of payment options from which to choose.

Two protected wells were constructed, with participating communities contributing 9 sacks of maize for each well. Afridev handpumps were installed at the remaining 14 sites. Community groups paid 16 sacks of maize for each handpump as their capital cost contribution. Interestingly, all participating communities decided to pay for their water points rather than contribute labour as was the case in the past.

The creation of contribution options and the responses we have seen thus far suggest that the 2% capital cost contribution is affordable. All communities paid their capital cost contributions. Initial investigations with communities who received water points as part of this process suggest that the question of ownership is being resolved by this approach as members using water points state that the pump is theirs because they selected the water system and paid for it. This is in sharp contrast to the responses we have seen at other WaterAid-funded projects where communities contributed their labour and were given no choices on technology options or contribution methods, and thus felt that they had a government pump in their village.

Yet, the question facing us is whether the capital cost contribution as applied in Maúá is a sufficient indicator of project sustainability? Are we any more confident that we will return in 5 or 6 years and still see operating handpumps in villages that paid their capital cost contribution? The answer is unfortunately “no”.

## Lessons learned and new ideas

There is no doubt that communities have a greater sense of ownership than was the case in the past, but the capital cost contribution model used in Maúá this year has masked hard sustainability questions.

**Table 1. Possible payment options in Maua**

Type of System	Payment Options
Handpump Option 1	16 sacks of maize (960, 000 MT; ~US\$59)
Handpump Option 2	9 sacks of maize (540, 000 MT; ~US\$34) <b>and</b> excavation of well, collection of construction materials and food/housing for workers
Protected Well Option 1	9 sacks of maize (540, 000 MT; ~US\$34)
Protected Well Option 2	Bucket, Chain/Rope <b>and</b> excavation of well, collection of construction materials and food/housing for workers

People in Maúa have little problem contributing agricultural products to an improved water source, and in that sense the programme was designed with local conditions in mind. Yet, at some point these communities will have to convert their agricultural goods to cash in order to buy spares, and we have not developed the capital cost contribution model to reflect this hard reality.

Converting crops to cash is not easy to do in Maúa. On top of this, people will have to know that spares are available in Cuamba (140 kilometres away from Maúa Centre), and they will have to have information on the cost of these spares. This is almost impossible in an area with almost no communication capacity. Transport will have to be arranged to Cuamba, which is expensive.

It should be noted that considerable effort has been made to address the spares problem in Maúa. DDOPH – Maúa and Nipepe have spares but have yet to sell/distribute any despite broken handpumps in the immediate vicinity because people cannot pay. Exchanging agricultural goods for spares is not a promising prospect for DDOPH as they would then be responsible for the sale of the crops. And a recent World Bank Supply Chains Study in Niassa found that private vendors in Niassa in general have little/no interest in selling handpump spares because they know there is no market for handpump spares.

Given these constraints, it is unlikely that these handpump projects will be sustained, regardless of the greater sense of ownership apparent at village level.

Community capital cost contributions are designed to demonstrate at least 3 different things. First, a community that contributes to the up-front cost of a water system is demonstrating (by their actions) interest and commitment to the project. They are not simply recipients of external aid, but are actively participating and contributing to a process they value.

Second, communities are showing (by their actions) that they have the organisational capacity to arrange their

contribution. This is an indicator that suggests that this capacity could be drawn upon in the future to resolve technical and social problems that will undoubtedly emerge. By collecting their contribution, the community and external agents are also able to assess what organisational capacity actually exists at that moment. Capacity gaps can be addressed at an early stage, rather than later on when external support has been withdrawn.

Third, the capital cost contribution is an indicator of a community's capacity to sustain a system over time once external support is removed. When handpumps are included, this means that hard questions of cash are required. By allowing communities to contribute maize – with all the best intentions – we have not in fact helped communities realise what is actually required to sustain a handpump in Maúa.

The problem with our approach was that residents of Maúa were given choices of technology options and capital cost contributions. Yet these choices were done in a way that allowed communities to avoid hard sustainability questions because the technology choice was not linked to a meaningful and realistic capital cost contribution. Communities decided on handpumps despite considerable discussions on the problems associated with accessing spares.

Communities, in the end, selected handpumps because 1.) The capital cost contribution for a handpump was too low to reflect what it will really cost to sustain a handpump (communities saw this as a cheap purchase); and 2.) People had not seen protected wells and believed these to be an unsafe option.

The implications of this are considerable, because Moçambique has correctly established a maximum contribution level that is designed to be accessible to the poor. Yet, as we are seeing in Maúa, the poor will not really be helped if the capital cost contribution has no relation to the reality people will face when problems eventually emerge. Poor people will return to unprotected water points if they

can not resolve inevitable problems with the handpump, regardless of whether they met their capital cost contribution requirements.

The programme in Maúa is now changing based on these lessons. We are now experimenting with different capital cost contribution models that create the condition for the poor to participate, are consistent with government policy, and give communities a better idea of what is necessary to sustain a system so that their choice is better informed. We have also built some protected wells and people are now seeing that this is a safe, hygienic option. Demand for protected wells is growing as a result.

One idea is to ask communities who want a handpump to actually purchase the spares they will eventually need. Communities will then have to transfer crops into cash and find the spares. They will, in the process, learn what is actually required to sustain their handpumps into the future, and will be able to make a choice based on this experience.

Another idea is to give communities budgets which they manage and decide how to spend. Communities will explore ways to expand the number of water points constructed in a village based on how much they are willing to

contribute themselves. The contributions would have to reflect, at one level, what would be required in the future to keep the system(s) running, but communities will have greater say in their development than is the case now, and their decisions would have greater meaning. Initial interest in this idea is considerable.

The challenge in Maúa is to develop a DRA programme that takes account of local conditions, allows the poor to participate and choose between different systems but does not create unrealistic situations that set the poor up to fail.

## References

- BRESLIN, E.D., 2000, "Lessons from the field, Update Series: Maúa and Nipepe", Numbers 1-9. WaterAid, Moçambique.
- DNA, 1995, *Política Nacional de Águas*. DNA, Maputo, Moçambique.
- DNA, 1999, (Draft) "Manual de Implementação". DNA, Maputo, Moçambique.

---

EDWARD D BRESLIN, WaterAid, Mozambique.

---