

## *Rural water access and management in southern Africa: Does community involvement offer alternatives?*

### Overview

Water scarcity is a major problem for Namibia and South Africa as both countries are classified as 'water stressed' based on their per capita water availability, which is below the threshold of 1 000–1 666 m<sup>3</sup> per person per year (Wallingford 2003). The situation is exacerbated by the increase in water demand in excess of supply. Water provision in both countries has traditionally relied on supply-side approaches, and the potential for expansion is becoming dim, making efforts towards demand-management approaches more necessary and feasible (Karuaihe et al. 2012).

Findings show that community-based management (CBM) of water points offers alternatives to improve water access and management in rural communities. This requires a coordinated approach by communities, governments and, where possible, the private sector to establish the required infrastructure and support effective institutional arrangements in communities. Both Namibia and South

Africa have prioritised water services in their respective constitutions, with access to water classified as a basic human right. Encouraging community involvement in rural water management would not only improve access, but also contribute towards the national development agenda through improved livelihoods. This policy brief reviews current and past approaches to rural water access and management in southern Africa, and suggests recommendations, using Namibia and South Africa as case studies.

### Background

#### *Historical approaches to water provision in both countries*

While water scarcity remains one of the main challenges to socioeconomic development in both Namibia and South Africa, rural communities carry the brunt as reliable access to water is limited (Heyns 2005; WWF 2013). This is worsened by the lack of infrastructural maintenance and by inefficient management at local authority and community levels. The historical supply-side approach to water provision is unsustainable given other development priorities. In the early 1990s, the democratic regimes in both countries needed to improve access to basic services such as water and

sanitation for the majority of the rural poor while addressing the challenges of poverty and inequality. Therefore, water provision became a priority in the face of water backlogs that needed to be addressed as a matter of urgency (Karuaihe et al. 2014), forming part of the national development agenda and the Millennium Development Goals (MDGs) (NPC 2013; Stats SA 2013). The two governments then introduced policies, programmes and institutions to integrate the fragmented water markets to allow water users of different income and ethnic groups to access water at acceptable and equitable rates for all (Karuaihe et al. 2012). An evaluation of MDG progress towards improved access to water in both countries shows that over 90% of the urban population had improved access to water by 2013, while the situation was different for rural communities (NPC 2013; Stats SA 2013). This confirms the current prevailing rural water challenges that need government intervention through the review and/or introduction of relevant and targeted pro-poor rural water policies and regulations.

#### *Water institutional arrangements in South Africa*

In South Africa, the Department of Water and Sanitation is the custodian of water resources and is responsible



for infrastructure development and maintenance, while the respective district and/or local municipalities are responsible for water provision in rural communities. In addition to other water policies and regulations, the Strategic Framework for Water Services makes provision for various institutional models such as full municipal provision; community-based provision; local municipal-owned utilities; water boards; integrated regional water utilities; and private sector involvement (DAFF 2003). This is an indication that there is provision for community involvement in rural water management, which should be enhanced and encouraged where possible.

Before South Africa instituted local authorities as providers and managers of water provision across the country in 2002, CBM models had been operating in various parts of the country, especially in rural areas. These common models included three types: (i) stand-alone schemes; (ii) group schemes; and (iii) subregional schemes (WRC 2000).<sup>1</sup> Review of these models shows that the CBM approaches were, and continue to be, effective in improving access to water, even where district or local municipalities are responsible for water provision. Under current institutional arrangements prevailing in different rural communities, some municipalities have water portfolio committees responsible for identifying and addressing community needs.

## ***Water institutional arrangements in Namibia***

After independence in 1990, the Namibian government established the Directorate of Rural Water Supply (DRWS) in the Ministry of Agriculture, Water and Rural Development (MAWRD) to manage water provision to rural communities. In 1997, institutional reforms through the CBM programme were introduced to give communities the responsibility of managing rural water points, while government was responsible for major repairs (MAWRD 2006).

In terms of institutional arrangements, all rural communities are required to establish water-point associations (WPAs) to which they belong, and then elect members to key positions of chairperson, secretary, treasurer, water-point caretakers and two additional members, who constitute the water-point committee (WPC). These local structures are recognised at all government levels and form part of the regional water boards that operate through the DRWS (DRWS interviews 2002, 2006). There are two sources of rural water supply in Namibia: (i) boreholes, under the DRWS; and (ii) the water pipeline scheme, provided by the bulk water provider, NamWater. In both schemes, rural communities are responsible for managing the water points through the WPAs, to which they make financial contributions to access the water points.

## **Key findings**

### ***Limitations of the supply-side approach in the face of water scarcity***

Evidence from both countries shows that the supply-side approach of water provision is limited and unsustainable. The challenge of water scarcity, combined with poor infrastructure maintenance at local and regional

authority levels, calls for greater community participation in the management of water services. With very low rainfall and high evaporation rates in the south-western part of Africa, the potential for groundwater recharge is low (Wallingford 2003; WWF 2013). Another challenge stemming from the South African situation is that communities are sometimes at the receiving end of approaches that do not have any formalised community involvement, which is especially problematic in situations characterised by water rationing due to excess demand. This sometimes leads to water shortages for a few days. The net results are often communities seeking alternatives through illegal water connections, lack of a sense of ownership, and potential vandalism of infrastructure in some areas – conditions aggravated by poverty and high unemployment rates. All these issues pose challenges in terms of sustainability of the current water provisions in both countries, which requires a closer look and further research to unpack the problems and potential solutions.

In Namibia, communities are still responsible for rural water management, but their involvement comes at a cost of monetary contributions to and participation in the WPAs. The challenge that threatens the effectiveness and efficiency of CBM programmes for rural water management arises from socioeconomic considerations of affordability, given the low income, high unemployment and poverty rates in rural communities. As a result, the Namibian government has kept on hold the complete handover of water points to rural communities, due to the high costs of repairs and the great distances between villages and main centres (MAWRD 2006). The government has gone further to reconsider the introduction of water subsidies for water operations in future (Shipanga 2012).

<sup>1</sup> A stand-alone scheme is a community-owned water source (e.g. a spring protection or borehole) that serves one village of up to 1 000 people. A group scheme serves several villages (up to 5 000 people) within close proximity in a district or geographical area. A subregional scheme is a community-owned source that serves many villages spread over a large geographical area using a gravity-fed system.

## Cost-recovery issues

Successful implementation of CBM programmes for water management is dependent on the empowerment of communities and, in particular, community water forums, WPCs and WPAs through capacity building in order to operate and maintain infrastructure and conserve water. Despite the positive results from the reform of water management, Namibian government is concerned that cost recovery of rural water supply puts a high burden on water users. Therefore, the micro impact of rural water supply on rural livelihoods needs to be carefully assessed. In the case of South Africa, the limited available evidence indicates that some municipalities are not able to recover their costs. Experiences from some case studies have shown benefits through partnership between a bulk water provider, the local municipality and the communities. These benefits were in the form of efficiency and cost-effective ways of rendering water services; access to technical resources of the bulk water provider; compliance with legislation and customer care services; training, skills development and transfer to local communities; and financial management systems (Van der Merwe & Ferreira 2001).

## Potential benefits of community involvement in rural water management

Although there are mixed experiences from community management of rural water schemes in both countries, the benefits from CBM programmes outweigh the costs associated with them. This is true in situations where communities have taken initiatives to manage their own water resources and are willing to contribute financially and otherwise towards the success of their schemes amid the prevailing challenges. Findings from CBM programmes show potential benefits in terms of improved

access, social cohesion, capacity building and sense of ownership (Karuaihe et al. 2014). Since the water legislation allows for such arrangements, partnerships between communities, governments and bulk water providers should be encouraged to ease the burden of rural water provision in both countries.

## Recommendations

1. **Review and update existing water policies and regulations to make provision for rural water issues.**
  - Both countries need to design rural water policies and frameworks aligned with community needs and national priorities in order to ensure effective implementation at the community level.
2. **Include issues of affordability in the cost-recovery principle of water provision.**
  - Evidence shows that water provision in both countries is based on a cost-recovery principle at the bulk water level, but issues of affordability at the community level need to be considered in policy formulation in order to ensure improved access and sustainability of rural water for all.
3. **Take into account pro-poor rural water provision in water policies and strategies.**
  - There is a need to include pro-poor provisions in rural water management policies and strategies in order to address issues of poverty and other socioeconomic challenges facing rural communities.
4. **Identify the main challenges affecting water provision in both countries and draw lessons for best practice.**
  - The challenges affecting water provision in both countries relate to infrastructure development and maintenance, sustainability

and scarcity. Both governments must therefore identify issues and draw lessons for best-practice models through coordinated community participation.

5. **Encourage and support CBM efforts in rural water projects for sustainable water management.**
  - Evidence from the literature shows that partnership between the communities and private and public water providers has led to mutual benefits in the past. Given the capacity constraints facing local authorities, such partnerships between the respective stakeholders and communities should be encouraged and developed.

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- from Namibia was part of Selma Karuaihe's PhD research at Washington State University in the US.
- The authors also acknowledge the Directorate of Rural Water Supply in Namibia for interviews on rural water provision in 2002 and 2006 and for all support provided.

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## Acknowledgments

The authors would like to acknowledge the National Research Foundation in South Africa and the Namibian Commission on Research, Science and Technology for funding the bilateral research project between the HSRC and the University of Namibia. The main study is currently in progress and the findings from the literature form part of this policy brief. The 2002 data collected