

# Drilling for capacity

Improving access to safe drinking water and adequate sanitation, some argue, is the very development goal on which the achievement of all MDGs depends. Clarissa Mulders discusses the challenges facing the water sector in Uganda and how research could help.



**Clarissa Mulders** has an MSc in physical geography from the University of Utrecht, the Netherlands. She worked for several years as a hydrologist with a consultancy company in Kenya and for a UN programme for borehole water supply in the Central African Republic. In 1996, she co-founded Water Environment & Geo Services Ltd, a consultancy firm based in Uganda, which has since expanded to Mozambique. Since 2006, Mulders has become increasingly involved in national water policy issues in Uganda, through assignments for the Austrian Development Agency, the lead donor to the water and sanitation sector, and as a local consultant for the Swedish Embassy.

## **What is the scope of your work and what challenges do you encounter?**

We at Water Environment & Geo Services operate as a local company serving the local market. Yet we've brought in international experience and a major part of our work is about providing on-the-job training for our locally recruited staff – capacity building in short. Our practical work includes carrying out topographic and water resources surveys, investigating the best sites to drill boreholes and supervising the drilling. Many of our clients are international NGOs, but we also work for district governments and the occasional flower farmer.

The challenges in Uganda are related to the government's difficulty in reaching its target of supplying water to 77% of the rural population. Coverage was increasing, but over the past three years it has stagnated at around 63%. More than a third of the population still do not have access to improved water sources within reasonable walking distance. The coverage is even less because many boreholes and water pumps don't function. These are awful figures considering that every other hospital patient in Africa is suffering from diseases related to contaminated water or poor sanitation.

In Uganda, where there has long been a strong political divide between the relatively well developed south and west and the largely neglected north, inequity of water supply is a tricky issue. Within the districts the problems are aggravated due to the lack of capacity, local political interference or the rampant corruption that further reduces the funds available for the construction of new water sources.

## **How are policy makers responding to these issues, and does research play a role?**

The Ministry of Water and Environment occasionally commissions research, which is mostly carried out by local consultancy firms. In response to one of those studies the government is now looking into the equity issue and has started adapting its formula for allocating grants to the districts. Further, hydro-geological mapping is helping district water officers to understand where cheaper technologies can be used. But in general, the follow-up of research recommendations leaves a lot to be desired.

Today, the situation is worsening as policy officers at the Ministry are torn between the strong ideas of the donors –

focusing on the (urban) poor, the MDG targets, gender sensitivity and decentralization – and the government’s vision about the way forward. The government has changed its focus from poverty reduction to wealth creation. It wants to put Uganda on the map and is full of ‘water for production’ – meaning big plans to build dams, irrigation schemes and water provision for cattle. Donors fear the creation of ‘white elephants’ and hesitate to go along. But ultimately basic services lose out. Only 2% of the national budget now goes to water supply.

**When sounding the alarm about the water situation worldwide, Michel Camdessus, former director of the IMF, jokingly asked: ‘Why is it that ever since the Romans, no politician has wanted his or her name attached to a sewage system?’ Based on your experience, which issues most urgently need focused research?**

On the technical side there are at least three issues. First, there is an urgent need for innovative, low-cost water supply and irrigation technologies that are affordable for the rural poor. The problems in areas that are now ‘underserved’ should be the point of departure for the development of such technologies. One example is shallow borehole drilling as an alternative to deep drilling. This needs to be tried, tested and the results analyzed. If it works, it would mean a great reduction of costs.

A second issue is how to develop alternative ways to improve the functionality of water sources. Community-based operation and maintenance is seen as the best way forward. Yet often it doesn’t work. Water is a public good – or as some believe, a human right – and this makes it a sensitive issue. But research into alternative forms of social or commercial marketing would be really helpful.

Third, site investigations and research to identify the most suitable techniques are often inadequate. This is partly because knowledge of how to conduct such research is not available locally, but perhaps largely because many international NGOs are inflexible and simply stick to set quotas: ‘50 deep boreholes this year for this district’. Uganda will achieve the MDG of doubling the proportion of people with access to safe drinking water and basic sanitation, even if only because the country started from such a low position. But what does this really amount to? Perhaps half of those

pumps don’t function because the boreholes were drilled in the wrong place to begin with, or broke down because the community has no money to maintain them.


This applies even more to urban water supplies. Very expensive boreholes are often drilled in the wrong places. Their subsequent failure is easily dismissed as ‘no groundwater potential’, which is often not the case. Meanwhile, they will start tapping water from reservoirs, incurring massive extra costs for purifying it and transporting it to the city.

Studies of best practices are needed to prove the usefulness of solid, site-specific research and to show that with more time but eventually less money, you can be more successful and serve more people. Unfortunately, the government rarely gets worked up about this; it lets donors do their thing under the motto ‘never look a gift horse in the mouth’.

**And what are the most challenging issues on the capacity side?**

Our experiences across Africa tell us that the differences in capacity in the water sector are huge. In Uganda, the government’s capacity is increasing, as are the numbers of local consultancy firms and drilling contractors. In Mozambique and especially southern Sudan, however, there is an enormous need for people with experience. In response to the lack of local drilling companies, foreign-based firms move in, which automatically increases the costs of boreholes. It would be wonderful if the lack of capacity could be remedied through South–South exchanges of knowledge. But very few African companies currently work outside their own countries. Research could tackle this issue by mapping the obstacles as well as ways to remove them, and studying best practices.

We have started exporting the knowledge of our trained Ugandan personnel by posting them on assignment to work with local staff in Mozambique and Sudan. This is more cost-effective than bringing in expatriate staff from outside Africa. There is a market for providing practical training for African technical personnel. Even so, countries have to find ways of building their own national knowledge base. ■

 A longer version of this interview can be found at [www.thebrokeronline.eu](http://www.thebrokeronline.eu).