

Case Study Mozambique Drillers Association

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Mozambique Drillers Association (Associação de Perfuração de Moçambique or APM)

This case study is based largely on the following report:

World Bank. 2015. [Strengthening the Domestic Drilling Industry: Lessons from the Mozambique Drillers Association](#). Water and Sanitation Program.

Summary

The Mozambique Drillers Association (Associação de Perfuração de Moçambique - APM) was established in 2006 with support from the World Bank Water and Sanitation Program (WSP). It developed a membership of drilling companies and associated institutions across the drilling and

water sector; a framework for professional certification; provided training courses; and an online groundwater database. However, after WSP support was phased out, the APM struggled to continue given the many challenges facing it, and it has not continued to operate as hoped, and it no longer has an active online presence. This case study describes its development and achievements, and some of the challenges that have limited its continued operation.

Background

In the mid 1990s, the Mozambican water industry as a whole, including the drilling sector, was privatised from the previous state-run monopoly. Following privatisation, the rate of borehole drilling increased, but this did not lead to improved coverage of sustainable water access, because many of the newly drilled boreholes failed and had to be rehabilitated.

The key reasons for this were:

- **Lack of competition in the market.** After privatisation, the drilling industry was dominated by a few large firms, often from abroad, who largely forced smaller firms out of the market. While the large firms had access to equipment, they were often hampered by lack of local hydrogeological knowledge in the areas of Mozambique they were drilling, and in the case of foreign firms, by issues of language and different technical specifications.
- **Lack of skills in the drilling sector.** This was particularly the case for the few small drilling firms, who lacked technical and business management skills, but for all firms there were few vocational training opportunities, and there was no professional certification system.
- **Lack of up-to-date groundwater data.** Without access to good groundwater data, drillers were limited in their ability to plan and carry out successful borehole drilling. For example, they couldn't easily identify areas of higher hydrogeological risk (e.g. low permeability aquifers), design and construct suitable boreholes to match hydrogeological conditions, or understand the reasons for water borehole failure..

Creation of the Mozambique Drillers Association (APM)

In 2006 the World Bank's Water and Sanitation Program (WSP) supported the drilling sector to set up a new, voluntary, non-profit organisation: the Mozambique Drillers Association (Associação de Perfuração de Moçambique or APM). It was initially composed of 25 member institutions, including drilling companies, consultants, students and NGOs.

Formal registration took time, but in August 2008 the [inaugural meeting of the APM](#) took place. This was a two day meeting that included discussions between APM members and experts and representatives of sister drilling associations from other countries in Africa and from Thailand; and a capacity building workshop to promote cost-effective boreholes, open to non-members and drilling sector partners.



The logo of the Mozambique Drillers Association (Associação de Perfuração de Moçambique - APM). Image credit: [PLAMA](#)

Aims of the APM

The APM had a number of objectives, including:

- Establishing better relationships with other actors, including better representing the drilling industry to government and donors.
- Advocating to the public, government and donors the contribution of drillers and successful boreholes in sustainable groundwater exploitation and poverty reduction.
- Promoting professionalism and building capacity among members by improving training and development opportunities.
- Promoting networks within the drilling community and between drillers and other professionals.
- Tackling the different expectations of the APM from large and small drilling companies: larger companies expected the APM to deliver a better range of services in exchange for membership fees, whereas smaller companies were reluctant to pay membership fees while they continued to perceive that corruption in the sector was advantaging the larger companies.

Achievements of the APM

Training

In 2010 the APM started to organise training, with hands-on course covering subjects like: costing and pricing; borehole siting and field geophysics; drilling supervision; procurement; and business management. Initially these were subsidised, and later members were asked to contribute. By 2015, 155 people had taken part in training courses run by APM.

As well as learning new skills, the training courses gave networking opportunities, for example between drilling companies and commercial banks, which has led to new financing streams.

Professional certification

A professional certification framework was launched in 2015. Certification levels for drilling company staff are based on documented experience, assessed by employers and peers in the industry.

Better management of groundwater data

To tackle the lack of groundwater data, an online borehole database has been set up on the APM website. The data in this was based on a study from the National Rural Water Supply and Sanitation Program (PRONSAR), and provides some hydrogeological information – although not comprehensive – from all 10 provinces and 128 districts in Mozambique.

Declining costs for drilling boreholes

The cost of drilling decreased: from over US\$14,000 per borehole in 2008 to less than US\$ 9,000 per borehole in 2009. As well as APM's influence, other factors affecting this included improved community mobilisation methods, and decentralisation of hand pump rehabilitation work to districts.

Key impacts

Some of the key impacts brought about by the APM are:

- Successfully lobbying the Mozambique government to modify unfavourable contractual terms for a major Dutch-UNICEF co-funded drilling programme. The original terms of the contract favoured international, rather than domestic, drilling companies, and the APM negotiated to have the terms adjusted so that domestic companies could also submit bids to the programme.
- Influencing lawmakers to create groundwater management guidelines that are more favourable to drillers
- Embedding the drilling industry better in the institutional landscape: for example, APM became a member of the [Mozambican Water Platform \(PLAMA\)](#), established in 2011.

Challenges and Lessons Learned

- **Look for achievable starting points, and quick wins.** For example, the APM started out by gaining buy-in from small and medium drilling companies, while demonstrating its value to larger companies. It also helped to unify competing companies by focusing on collective issues that improved things for most of the industry, not just a few.
- **Finding and keeping the right skilled staff is critical.** APM found that it could not skimp on recruiting talented people, with skills in business, negotiation and who are politically savvy, to manage and develop its activities.
- **Commitment from members has to be earned.** APM had to demonstrate its value to members in order to keep them and their membership fees as income – for example, the training courses, the value of its professional certification framework, and its provision of hydrogeological data. Ongoing issues include meeting varying expectations from different parts of the industry – for example, expectations from some larger foreign firms that APM should improve the services it offers before they are willing to pay membership fees; or perceptions from smaller firms that larger companies are getting unfair support through the APM that isn't offered to smaller firms.
- **Long term support is necessary.** Change and development – both practically and in attitudes and behaviours – take time. For example, APM's legal registration took four times longer than originally planned. Growing the membership of APM also took time, including for APM to demonstrate achievements to encourage others to join. Long term financial and other

support from the World Bank WSP has been critical to ensure the APM has developed as it has. After WSP support ended, the sustainability of APM has been a challenge, and it no longer maintains its website or groundwater database.

Sources

Marcario L. 2008. [Mozambique Drillers Association Inaugural Meeting: Cost Effective Boreholes Newsflash](#). WSP (Water and Sanitation Programme) / RWSN, Maputo, Mozambique.

World Bank. 2015. [Strengthening the Domestic Drilling Industry: Lessons from the Mozambique Drillers Association](#). WSP (Water and Sanitation Program).

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