Starting a discussion on water

Pinto Francisco Fiel and Miguel Angel Gonzalez Alonso on water-well drilling in Angola and training for the sector

The 2014 Angolan census (INE, 2016) states that 43.6% of the Angolan population has access to an improved water source. This places Angola as the country with the third-lowest access rate in the world (after Papua New Guinea and Equatorial Guinea).

In rural areas, only 22% of the population uses an improved drinking-water source. Efforts are being made by the government to improve drinking-water access, with considerable investment going into borehole drilling.

However, published information about the geology and hydrogeology of Angola is very limited, with much information dating from colonial times (before 1975).

Given the tremendous need to improve drinking-water access in Angola, Unicef and the Skat Foundation have carried out initiatives in the quest to improve the efficiency and sustainability of groundwater abstractions in rural areas of the country. This includes raising the professionalism of the sector.

Among the activities already carried out are a study on the state of the water-well drilling sector in Angola, a workshop to reflect on the study, and a training course on professional drilling management.

STATE OF THE SECTOR

The study on the water-well drilling sector was the first of its kind in Angola and found that:

- Despite the large number of boreholes that are being drilled across the country, there is no database of drilling companies, no regulation that requires the certification of a drilling company and no association of drillers.

Water-well drilling in Angola (above and below)

- There are no technical guidelines or defined or national standards for drilling. In most cases, the projects are not preceded by hydrogeological or geophysical studies.
- There is no central hydrogeological database.
- The National Directorate for Water (DNA) has only one hydrogeologist, while the Provincial Directorates for Water and Energy have very few specialists, and as a result there is very little supervision of drilling.
- Almost all the drilling companies do not have geologists or hydrogeologists on their staff.
- The average age of a driller is 50 years, and there is no infusion of fresh entrants into the profession.

The stakeholder workshop in early November 2017 was attended by members of the DNA, National Institute of Water Resources (INRH), Provincial Directorates of Energy and Water, Angola Geological Institute, companies and professionals from the drilling sector, as well as the university academic community. The participants corroborated the findings of the study, highlighting the need for training to raise technical skills, especially during the project planning and supervision phase.

TRAINING

Unicef and Skat Foundation ran a training course at the Tundavala Polytechnic Institute in Lubango, in November 2017, entitled 'Understanding groundwater, cost-effective boreholes, procurement and contract management and costing and pricing of boreholes'. It was attended by 28 participants, including technical higher education students interested in the groundwater sector; professionals and technicians of companies and NGOs that are involved in the

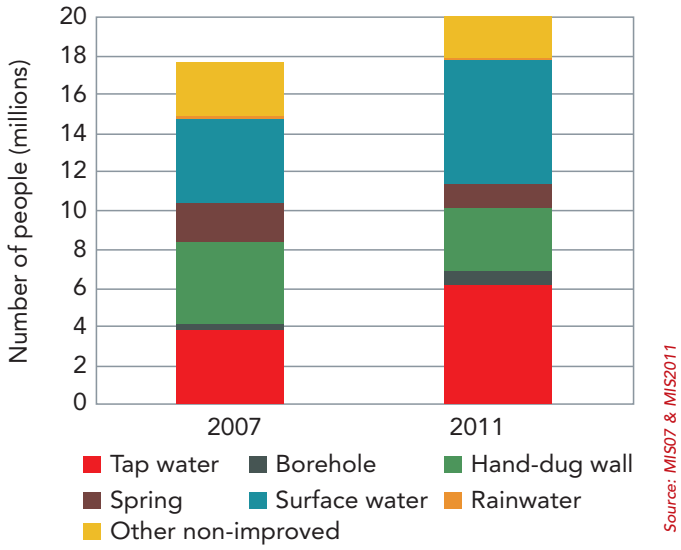
execution of boreholes; and technicians and specialists from the central and provincial administrations, which are responsible for improving rural water supplies in Angola.

During the course there was a great interest among the new generation to be trained on groundwater and its professional development. Given the lack of professionals under 50 years of age, it is important to continue training and qualifying new professionals and to involve the educational institutions.

The course has also opened communication channels between different agents involved in the abstraction of groundwater. The sharing of points of view is a major step in improving the professionalism of the sector. By the end of the course, it was agreed to try to form an association of groundwater professionals and technicians in Angola.

It is vital to involve the state administrations in the professionalisation of the sector, and particularly the young generation, so that access to drinking water for the Angolan population can be improved.

Pinto Feil has a masters in mineral resources and environment, with eight years of experience in the execution of hydrogeological, geophysical and drilling accompaniment studies in different regions of Angola. He is the author of the study of the Angolan drilling sector. Miguel Angel Gonzalez Alonso is a hydrogeologist. Based in Angola from 2009, he is the project manager on the construction of new well-fields in Lubango. He was one of the lead trainers for the course to raise drilling professionalism in Angola



Drinking-water sources in Angola

Further reading

- The Unicef Guidance Note on Professional Water Well Drilling: http://skat.ch/book/professional-water-well-drilling
- Angola Training Course Report: http://skat.ch/book/angola-training-course-report-2017