

RURAL WATER SUPPLY IN MOZAMBIQUE

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1. Organisational framework:

The implementation of rural water supply programmes is, in Mozambique, a task of the Provincial Governments, the provincial Directorates for Construction and Water (DPCA).

Within the structure of the DPCA's a number of so called "Sanitary Workshops" have been or are being established. These parastatal organisations are in charge of shallow well construction, handpump installation and repair and assistance with operation and maintenance of small piped systems. The planning, control and financment of their work is a task of the DPCA itself. The state-owned drilling company Geomoc is in charge of borehole drilling. At central level in Mozambique the rural water supply programme is coordinated by the "National Rural Water Supply Programme Cabinet" (PRONAR), within the structure of the National Directorate for Water (DNA) and therefore the Ministry of Construction and Water (MCA). The Mozambican rural water supply is supported by about 15 foreign organisations providing technical assistance, equipment and material supply for about 30 projects.

2. Technologies applied:

For about 70-80% of the Mozambican rural population shallow wells may serve as a reliable water source. If maintenance and repair can be guaranteed, handpumps are installed; if not, a bucket, rope and pulley system is installed or no provisions are made.

If geohydrological conditions are not favourable for shallow well construction, boreholes are drilled and equipped with handpumps. Piped water schemes are maintained operationable or are constructed for district capitals and other important rural centers and where neither boreholes nor shallow wells provide a reliable water source.

Policy is to standardize on India Mark II (chain-link) handpumps for boreholes. They are locally manufactured. A suitable type of handpump for shallow wells, that can be locally manufactured, is still looked for. As a pilot project on a strong participation of the community in the planning, construction and maintenance phase was quite a success, it is therefore now extended to other provinces. Special attention is also payed to hygiene linked with water. This community participation and education component is implemented in close cooperation with other entities and organisations, like the Ministry of Health, the Mozambicans Women's Organisation, etc.

3. Some figures:

About 80-85% of Mozambican population, i.e. about 11-12 million, lives in the rural areas. Policy is to have one safe water source for each 500 consumers (100 families) within a distance of about 500 m. In certain cases 1000 m however has to be accepted.

From 1980 to 1986 about 1700 wells and boreholes were constructed, the number of people served increased from about 150,000 to about one million. In the same period the number of people served, as a percentage of the total rural population, increased from 5.7% to 12.9%.

THE PROJECT OF RURAL WATER SUPPLY IN THE PROVINCE CABO DELGADO/MOZAMBIQUE

The province Cabo Delgado is situated in the northeast of Mozambique. The province borders Tanzania to the north and the Indian Ocean to the east. The land area is 82,625 Km² and the estimated population in 1987 is 1.07 million inhabitants. 4.6% of them are living in urban areas and 95.4% in the country: 200,000 people of this rural population are living on the plateau of Mueda, which is supplied with a piped water system.

The project of rural water supply in Cabo Delgado started in 1981, with the objective to provide one safe water-source for 100 families (500 inhabitants). This programme was based on the construction of shallow wells with prefabricated concrete rings or boreholes (with drilling machine or hand-drilling equipment). At the beginning of the project, hand pumps were installed on the wells, but later, because of difficulties in operation and maintenance, an easier technology was used, i.e. the installation of a rope and bucket system. Meanwhile the process of finding a more appropriate handpump was going on. For depths of 10 m and more a solution seems to have been found with the handpump India Mark II, which since 1985 has also been produced in Mozambique.

Until the end of 1986 the project constructed 716 water sources in the province. The Swiss government financed, through the non-governmental organisation HELVETAS, foreign exchange costs, technical assistance, imported materials and equipment worth about 3 million US \$ until the end of 1986. In the same period, the Mozambican government contributed 83.45 million of Meticaís, about 2.1 million US \$, for salaries and the purchasing of local materials. That means, that the average costs of a constructed and maintained water source were about 7122 US \$, which benefits on average about 500 people.

In the year 1984 the project introduced a very important new component, the community participation and education programme. It had already been seen that many water sources were damaged or misused by the villagers, as they thought that the water would be bad, not being used to this type of water supply. Through this new programme of participation and decision making before and during the construction work, the villagers gained a new consciousness for a good operation and maintenance of the water source.