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# WATER, SANITATION, ENVIRONMENT and DEVELOPMENT

# **Water supply in Venda RSA**

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#### Abstract

A drought relief task force was set up to deal with the drought in South Africa in June 1992. The task force was split up with teams working in each of the homelands.

The Venda group operated in both urban and rural areas.

This paper outlines the work of the northern team that worked in the rural area close to the borders of Zimbabwe and the Kruger National Park Sixty villages were identified and surveyed over an area of about 3,000 Km². The majority of the communities had inadequate water supply due to poor management, lack of community involvement and homeland consolidation policies.

The crisis of the present drought is related more to the endemic poverty of rural South Africans and poor management than simply to lack of water.

A two pronged attack was made on the problem:

- An emergency water supply programme consisting of trucking water, repairing existing broken hand pumps and drilling new wells.
- 2) A long term programme to train village level facilitators so that the villagers could manage their own affairs.

The paper will explain the rationale of working with long and short term aims simultaneously and the importance of educating the local professionals to manage the facilitation programme.

## Geography

The N.E. of Venda is semi desert with an average rainfall of 350mm and annual evaporation loss of 2,800mm

The rainfall for 1991/2 was 122mm.

Altitude varies from 400 to 1,000m; a plain to the N Limpopo Low Veld region and hilly to the south of the area (Soutpansberg Region)

Because it is the most arid part of Venda the population density is low, the average village size being about 1,000 people.

As one moves south the rainfall and population increase.

# Water supply

The rivers are non perennial and drain to the NE. They were all dry during the 1992 winter period. In view of this

and the high evaporation loss the only source is ground water.

The structural aquifers are the principal source of ground water; there are also some weathered-base and alluvial aquifers.

Motorised pumps in bore holes are not appropriate in this area in view of:

- 1) Low population density.
- Many aquifers are not recharged hence water mining should be avoided.
- Poor maintenance due to isolation and lack of community ownership and involvement (Animation).

The recommended solution is to continue with bore holes equipped with hand pumps. Our guideline for this emergency is I Bore Hole/500 people i.e. 2 Bore Hole/80 families as a maximum.

The only villages where this is not appropriate is when the water quality is poor (nitrates or high salt content). Then a motorised pump from a bore hole to a tank at a neighbouring village with a gravity pipeline is the only solution.

### Handpumps

The President Pump that has been widely used in Venda since its invention in 1976 is robust but not V.L.O.M. (Village Level Operation and Maintenance).

The maintenance has to be done with a fleet of 4 pick-up trucks! Welding cutting a heavy tripod etc.

The maintenance crew from Thohoyandou do not travel far from the capital hence the only solution is to have several repair bases and keep the President Pump or go for V.L.O.M. with full community participation.

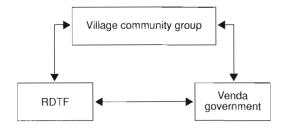
## Long term sustainable development in Venda Rural Areas

A seminar on 10.9.92 titled "Village Level Water Supply in Venda" organised by the authors was received enthusiastically and has sown seeds at Head of Department level in the Ministries.

The participants were drawn from many disciplines. It was agreed by consensus and discussion that the DROUGHT RELIEF TASK FORCE should continue after the drought as

the RURAL DEVELOPMENT TASK FORCE (RDTF) as the two tasks have a large overlap.

The RDTF should have tripartite inter-action between the Venda Government and the EXISTING village level groups:



The RDTF should have as part of its brief:

- Active participation of the POOREST in planning for sustainable development (BOTTOM UP)
- Planning in advance for future emergencies (a management system for rapid mobilisation)
- The ability to co-opt staff from ANY Venda Government Department into its team for a specific period of time (Multi disciplinary)
- 4) Start a training scheme for village level facilitators.
- 5) Publicise their activities through radio, soap operas and disk jockeys etc.

## Village level facilitators

They would encourage the villagers to:

- 1) Start water committees (to manage their own affairs)
- 2) Train pump caretakers.
- 3) Train the villagers in health, hygiene and sanitation.
- 4) Encourage the use of low interest CREDIT BANK, with easy access for the poorest etc.

The facilitators would refer back to the task force for further technical advice (e.g. agriculture, health, husbandry, forestry, soil conservation etc) as and when required.

#### Lesson learnt in 1992

- The Venda Government urgently needs more professionals and technicians as the present heads of department are very overworked.
- b) It is essential for Venda (and the R.S.A.) to draw up a register of all bore holes, both public and private and start a licensing system for private bore holes, as over abstraction could mine the water from the village wells with hand pumps.
- c) All professionals working in "emergency" situations should be familiar with the principles of animated and long term sustainable development, as the overlap between these two areas is considerable.

- This emergency was due to poor management and lack of grass roots decision making (animation) rather than the drought.
- e) Animation is not a quick fix, it takes time for seeds to sow and germinate. Decades of neglect will take time to heal.
- f) Expectations must not be raised e.g. once you start trucking water into an area the activity must continue with at least the same frequency.

### Progress since January 1993

There is no clarity regarding the department which should take the lead. Also, a heavy workload and interdepartmental redtape/bureaucracy are retarding progress.

However, in January 1993, the Water Supply Task Force of the National Consultative Forum on Drought employed three Community Liaison Officers (CLO), on full time basis, to facilitate capacity building of communities to own, operate and take responsibility of assets created during emergency operations. The roles of CLOs include:

- Mobilization and organisation of communities around water issues.
- Facilitation of establishment of representative water committees.
- c) Creation of awareness of resources available to communities through workshops, community meetings etc.
- d) Referral of communities to relevant organizations for long term development projects.
- Assistance in selection of village level operators and maintenance officers for training.
- f) Ensuring that training takes place soon after pump installations.

There has been a reasonable progress in achieving these goals. One capacity building and maintenance training workshop has been undertaken in May 1993. The second workshop follows in mid-June 1993.

#### Lessons learnt in 1993

- The government has learnt the importance of a sociotechnical approach to improvement of water supply.
- b) Communities are always willing to get involved in projects aimed at improving their lifestyles if approached.
- c) Co-operation between the government and non-government organizations has improved, hence networking has started.
- d) The Government's previous "hands off" our scheme's policy is making way to co-ownership with communities.