



13th WEDEC Conference

Rural development in Africa  
Malawi: 1987

### DISCUSSION GROUP REPORT

Hand pumps - selection, operation and maintenance

Chairman: R.D Kafundu

Rapporteur: J.S. Sutton

Discussion papers: (i) L. Elias

(ii) J.M. Yarsiah and O.B. Kulah

The two discussion papers outlined the organisation, present status and future programmes or rural water supply in Mozambique (Cabo Delgado Province) and Liberia. In both countries while overall policy and feasibility are treated at national level, implementation is more the responsibility of provincial level organisations while maintenance is further devolved to district and perhaps village levels. General problems of coordination also arise from a diversity of funding agencies and sometimes from a promotion of donor country interests or short term involvement of the funding agencies.

In the specific area of handpump selection it was agreed that while national or regional level standardisation was an ideal it was not a practically attainable one and in pump selection due attention had to be paid to a number of points, both physical and human. The main points noted were:-

- 1 Depth to groundwater (height of water lift required)
- 2 Water quality (aggressivity, tendency to precipitation)
- 3 Well construction and type of well.
- 4 Availability of spares.
- 5 Level of local manufacture feasible.
- 6 Level of maintenance sustainable.
- 7 Ability to local community to support the installation.
- 8 Anticipated level of usage.

With respect to maintenance discussion concentrated around the level of training and servicing that could be sustained and the forms of reward that should be offered to local maintenance staff and payment that might be expected from the local community. It was agreed that due regard must be given to the local political system and the ability of communities to pay. Payment for maintenance services can in part be linked to status but must remain within the means of the local community and it must perhaps be accepted that some level of institutional support particularly for major repairs will be required throughout the foreseeable future. Additionally the dangers of the local community attempting repairs beyond their abilities were noted.

In conclusion the need for sharing experiences both within countries and regions was emphasised and the desirability of exchange of experiences and ideas on a level less formal than occasional international conferences was stressed.