A wealth of useful statistics have been collected, but these have not yet been used to formulate a more specific proposal (or proposals) for an organizational set-up and procedures of community participation in water projects and health education, that can be tried out in practice. It is only through "learning-by-doing" of project and local workers together, that a workable system can be developed. Research has its place in such an approach, but one large study cannot take the place of period studies on specific issues, preferably combined with small-scale experiments.

Also, to what extent have Kenyan staff been involved in the study design, implementation, analysis and drawing of conclusions, as an on-the-job training in the use of social research for programme evaluation and planning?

Chapter I Ownership
The necessary link between ownership and (all or most) maintenance work and financing of recurrent costs as one of the basic principles of a large-scale handpumpwell (HPW) programme, may mean that these supplies in future will only be affordable (in financial as well as organizational sense) for larger groupings with a legal status and a sufficiently high and reliable income e.g. institutions, local authority, markets. Thus, other, less formal groups with a less reliable status or income (household clusters, women groups etc.) may either not be served at all, or find that in the long run they cannot maintain their supply.

I therefore wondered if it would be possible to turn the present approach (i.e. start with HPWs as given and look for suitable ownership structures) around and assist the people by

1. inventorization of all groupings with a felt need (application procedures)
2. development of a simple procedure to determine the technical, social and economical feasibility of an improved water supply for these groups, considering different types of technology and degree of outside support, e.g. a handdug well with pulley, but with DHV doing the siting, a DHV drilled well but with an Intermediate technology handpump (lower cost, but more maintenance work), a DHV-drilled well with SN 80 pump, rainwater collection and storage for drinking purposes only, etc.
3. working out with the group concerned (or its leaders) what is the best-fitting solution, with regard to the groups needs, capacities, technical feasibility, outside support (e.g. easy access to spares and trained technicians for more complicated repairs and checks) etc.
4. making a detailed plan and time schedule for the activities of both parties

Such an approach would fit in with the reported preference for communal well ownership and sharing of responsibilities (p. 21) but reduce the risk that the future owners underestimate the long-term consequences of the present type of HPWs. At the same time it would start this shared responsibility already very explicitly in the planning stage, and provide additional training for the community/organization leaders in good planning techniques.

Chapter II Local Organization
Missed in this section is more descriptive information about the history and functioning of the local organizations mentioned (in particular for community wells). Experiences from these cases would be valuable for the organization of more formal management arrangements. The involvement of women in these less formal arrangements would also be of value for their effective involvement in new water committees. A small, informal study by a female social scientist (or a team of male and female) would probably suffice, since the places with interesting cases can be identified from the present data.
Another issue for further, more informal consultation of women is the reported pollution behaviour (table XXIII). The fact that the highest percentage (71.5%) is for bathing and washing together indicates a need of the women to reduce their workload by washing and bathing at the source: bringing oneself, one's children and one's washing to the HPW is less work than carrying all the water needed for these purposes to one's house. When the latter is demanded by the project, the reduction of energy and time for the women may be less than maximal.

(Compare also the findings from Tanzania, Ref. 1, p.5-6, p.11, Ref. 2 p. 25,33 and 45-46)

Another observation regarding the role of the women is that it is a pity that the present answers of the two samples have not further been distinguished into those given by male and female household heads. With many questions one wonders if the views of the women would have differed significantly from the views of the men, for instance because women have direct experience with many of the topics studied.

Chapter III Maintenance

It is difficult to form an opinion about the various proposals for maintenance in this chapter because none of them includes details on manpower and transport requirements, number of visits to each well, distances to be covered, inaccessibility of certain areas during the rainy season, costs, and socio-educational aspects of the village maintenance organization. Comparison is only possible by looking at each proposal with the same set of organizational, financial and sociological questions.

However, some questions that already emerge regarding the use of commercial mechanics and pump attendants are:

(1) Will the services of a full-time mechanic who (also) repairs handpumps in his area be as affordable for the smaller and lower income groups as those of a group-based part-time attendant who is trained by the project to replace broken parts, and enabled by the group to go and acquire the necessary parts (and tools) from the manufacturers, the project agency or whatever distribution point is decided upon? Is there a risk of monopolization of HP technology which raises the price of repairs unnecessarily? And will women (who with the traditional system were involved in the maintenance, lower though it may be) also have access to this work? (E.g. what linkage with training at technical colleges?)

(2) Will pump attendants really function if they are not able to do any "real" work apart from cleaning gutters, slashing grass, repairing fences and reporting problems? And will the communities be willing to compensate the important preventive maintenance, which has nevertheless less prestige than real repairs? Or will the HPWs be left as they are, until they have broken down, before any care is applied? Also, if pump attendants are dependent on the mechanics for technical training, it is unlikely that they will get much training, since that would not be in the interest of the mechanics themselves. Since health education is also not seen as a task for the attendants (p. 132), what compensatable tasks are left? And if tasks are not compensated and supervised in any way, will they be done systematically and regularly? Similarly, training by spare part dealers (p.79) seems rather far-fetched unless they are trained as trainers (but even then, the dealers will not go to the communities themselves for refresher courses and replacement training). Also, it is unlikely that dealers will be able to cover the socio-educational aspects of well maintenance and use, which in rural areas is a necessary supplement to any technical training.
The example of the bicycle (p.68) does in my opinion not apply here: not only are bicycles privately owned, but they are also extensively used by men, while HPWs are public (or have public access) and used by women. When those HPWs break down the men themselves are not affected as they would be by a bicycle breakdown: their wives simply have to go back to the old sources to get water for the meals, beer and daily bath of the husband.

Finally, no mention is made of the ways in which the HPWs are introduced in the communities (From some tables later on it emerges that the people have been hardly involved, but a description of the usual procedures, as far as communication is concerned is lacking). This could then in turn have been related to the attitudes on maintenance and financing expressed by the people in the various cases. The conclusion for instance that "The understanding that it (i.e. water) turns into a commodity which can be valued in terms of money has not yet dawned in the majority of the communities" (p. 38) may reflect most the way in which the projects are introduced and carried out.

Chapter IV Charges

The establishment of the kiosk system (p.96) may under some circumstances mean an increased instead of reduced collection burden for women and children, although the use of safe water for drinking purposes reduces the health risks, of course. Also, the number of users may be lower than for wells in which only annual charges for maintenance are made (or any other periodic payment system geared to the local seasonal income pattern).

Chapter V Local Involvement

Here, the evaluation of the existing procedures and the experiences with new procedures in Tanzania may be of relevance. In the field-testing use was made of the already existing Tanzanian village staff (community development, health) who with a standard, but general approach (so that adaptation to local situations remained possible) promoted and assisted a greater involvement of the communities in planning and maintenance of water supplies as well as planning and implementation of locally specific and participatory health education programmes (Ref.1,3,4).

Chapter VI Distribution of Benefits

The chapter clearly shows the disadvantages of siting at schools and on private farms without communal ownership and management arrangements. This is also reflected in the data on utilization of HPW capacities (p. 185).

Chapter VII Health

In Tanzania, the way in which safe water was drawn from the (separate) storage vessels for drinking water was found to be one important additional health risk that continued to exist after the introduction and acceptance of HPWs. Also, alternative routes for transmission of faecal-oral diseases (excreta disposal, handwashing, food hygiene) continued to exist. Observations on presence of handwashing facilities and soap in or near latrines are a useful check on reported handwashing behaviour (p.126: from the question it is not clear if the interviewers only asked or also observed). Observations on hygiene conditions in the latrines are also a useful indicator on the prevalence of other transmission risks of water and sanitation related disease.
The conclusion that the lack of health knowledge is quite high (bottom, p. 129) can also be reversed into the conclusion that a knowledge of 92.4% of one or more water-related diseases in HPW villages and 86.5% in control villages (Table DXI) is a very good basis for local discussions on how this general knowledge relates to the people's daily conditions and behaviour (See also ref. 1)

Here, too, experiments with participatory health education, using the channels that are already present in the area, will help to make project and Kenyan agencies to find out what works best in what circumstances. The health education material developed in Tanzania for this purpose can also be valuable for Kenya (Training/Job Manual "Understanding and Improvement of Village Hygiene").

For a most effective health education, as many local people should be involved (committee, pump caretakers, teachers, adult educators, dispensary staff, LBDA/DHV project teams, church workers, village health workers etc.) because (a) they can strengthen each other and (b) chances are greater that all households are reached, including the more marginal ones, who do not participate very actively in meetings, classes etc.

(Of course, not every channel will cover all health aspects, some can do more than others, and in a more participatory way, but in principle as many people should be involved in health discussions as possible).

Compare in this regard the present proposal: the leaders very much stress the role of the formal, non-local organizations and not the more local people, who know local circumstances best, have a smaller gap with the other participants and are always present in the community (Table DXIV).

Chapter VIII  Allocation

The survey clearly shows that the people themselves have a need for a clear-cut allocation policy based on objective criteria of "need" and "feasibility". The present procedures through their vagueness and unknown criteria allow for nepotism and leave the communities in doubt about their actual chances: they must lobby, and then wait and see, which isn't a good start for any real community participation. For a good discussion of this particular issue see Vol. 12 of DANIDA's Water Master Plan for Iringa, Mbeya and Ruvuma Regions in Tanzania, Chapter 12. (Copy available from IRC).

Chapter IX  Water Collection

Table DXXIII shows that from 9 to 40% of the HPW users still use traditional sources for consumption (alone or combined). This is a serious constraint on the potential health impact (although boiling practices can of course reduce risks, see ref.2).

In Tanzania, non-exclusive use was clearly related to the siting procedures used by the projects (MAJI and DHV) and I assume that this is also the case in Kenya seen the present allocation to schools, markets etc. However, a small additional study in the 7 villages with community wells could further clarify this (Compare also p. 185).

On water use at the well site (p.176-177) see my earlier remarks on clothes washing and bathing by women

Bibliography

The "Step by step programme " mentioned on page 1 is made by the PMO/IRC Project, not DHV.

With PMO/IRC Manual for Pump caretakers I assume "Understanding and Improvement of Village Hygiene: Training/Job Manual for Trainers, Pump caretakers, Village Water Committees and Village Health Staff, Second Draft, March 1983, is meant. (also as Annex II in Preliminary Report, see Ref. 3)
References


(2) Impact of Water Supply on Hygiene Improvements in Rural Tanzania: A Study in 8 Villages in Morogoro and Shinyanga Regions.

(3) PMO/IRC, Preliminary Report

(4) PMO/IRC, Summary of Activities and Results of the Project since the Preliminary Report. Paper presented at the Interministerial Meeting on Community Participation and Education in the Tanzanian Rural Water Supply Programme, held at Morogoro from 19-20 December, 1983.