COMMUNITY PARTICIPATION

Observations from the Manicaland Integrated Rural Water Supply and Sanitation Programme

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TABLE OF CONTENT

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Sidsel Saugestad: COMMUNITY PARTICIPATION.

1. INTRODUCTION: THE PROBLEM OF SUSTAINABILITY

> THE GIFT: "There once was a man living in a certain village, whose son was working in Lusaka. His son came to visit him, and brought him a gift: a new shirt and trousers. The father was happy and thanked him profusely. Six months later the son received a parcel containing the shirt and trousers. The accompanying note from the father read: 'Please, the shirt and trousers need to be washed and mended. I am waiting for your action since I have nothing to wear'".
> This story is told during community mobilisation in the WASHE programme, Western Province, Zambia.

Compared to most Rural Water Supply Programmes, the Zimbabwe Integrated Rural Water Supply and Sanitation Programme has a simple and logical structure, has a good implementation rate, is integrated in the national administration and local extension services, and is using very appropriate technology.

In all water supply programmes, however, **maintenance** has proved to be the crucial problem. Speedy implementation is of little value if the installations cease to function after a while. It is therefore not possible to estimate the success of the programme design at the time when the construction of physical installations are completed. Monitoring over a long period is needed to assess the sustained functioning, and hence the value for the users, of water point installations.

This report addresses the question of sustainability through an extended case study. A 1988 in-depth study of implementation and effect of the Water Programme in one ward i Makoni, (presented in the report Patterns in Water Use) has been reassessed and revised through a follow up study in 1990.
In 1988 the water points in five neighbouring wards were also surveyed, and in one ward a sample was surveyed again in 1990.

Most of this report is fairly descriptive : Data from 1988 and 1990 are combined for a presentation of the state of the Water Points and the Water Point Committees; the composition and functioning of the WPCs in relation to the community and the second and third tier in the maintenance structure. Changes over these two and a half years are discussed.

2. A FOCUS ON COMMUNITY PARTICIPATION AND WATER POINT COMMITTEES.

The last part of the paper discusses the conditions which may foster community participation. In the context of the Water Programme in Zimbabwe, the Water Point Committees are expected to serve two sets of purposes:

1) On a more practical level they are supposed to do preventative maintenance, i.e. certain tasks that contribute to the unimpeded functioning of the pump and other installations at the water points.

2) On a more general level, the committees are anticipated to contribute to at least two highly cherished development aims: community participation and a strengthening of the role of women.

The specific duties of the WPC are usually spelled out in a list which includes some or all of the following components:

- sweeping and cleaning pump surrounds
- greasing
- tightening bolts and nuts
- formulating and monitoring rules about usage
- reporting breakdowns
- assisting PM and DMT in maintenance
- collecting money for grease (future plans for cost recovery)

These activities (in the Logical Framework Analysis terminology: 'outputs') are assumed not only to contribute to the upkeep of the water point('immediate objectives'), but also to foster certain attitudes in the community: responsibility and a sense of ownership ('development objectives').

This argument can also be turned around: responsibility and sense of ownership can be seen as the main motivating factors for

doing the sweeping, greasing, tightening etc. This circular, or systemic, relationship is the point of departure for my analysis. There is clearly a relationship between activities and attitudes, but how do they connect? When does the actions of the Water Point Committees achieve something, that is to say make a difference to the sustained functioning of the pump, and when does the actions of the WPC express something, e.g. care, concern or sense of ownership. This may sound theoretical. Let me present some observations before we return to an attempt at analysis.

3. WATER POINT REGISTRATIONS 1988 AND 1990.

Makoni District was one of the first districts where a Water Programme as outlined in the National Master Water Plan was implemented. It was not strictly an 'integrated' programme when it started in late 1985, as some of the services were provided by a consultant. However, the programme components have gradually been transferred to the regular ministerial extension services on district level, and by 1989 it was run by the district entirely. All main elements, as they are defined in e.g. MLGRUDs District Coordination Handbook (1990) were included.

Community mobilisation started in late 1985. Both in Pamberi and Zororo wards the sequence in programme activities have followed the same pattern. [1]

I Some wells were dug before the programme started.

II The boreholes and wells completed 1986-87.

III The boreholes and wells completed 1988.

IV Natural springs recommended for protection (a separate exercise run by MoH)

V Additional wells sited by LWF 1988-90

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[1] The names "Pamberi" and "Zororo" are fictitious. I am well aware that the reader may easily identify the wards by their real names. However, by adhering to the anthropological convention of using a constructed name, I stress the analytical importance of a case study: the data is not only a description of one or two wards, but is used to elicit some general trends that may be representative for a much larger area.

The implementation in two main stages was not planned, but was due to budgetary constraints from the donor, and a subsequent increase in funding. This means that when the first survey was made in 1988, work teams were still in operation in Pamberi ward, and had unfinished business also in Zororo. By the end of 1990, the Programme was still in operation in Makoni District, but drilling and well sinking teams had moved to other wards. The small number of installations (24) in the 1988 survey in Pamberi shows that the programme was not fully implemented, while in 1990 a total of 42 waterpoints were in operation. In Zororo the 1990 survey covered a sample of 24 water points. The following table sum up some of the findings:

Maintenance survey 1988:	Pamberi	Zororo	1990: Pamberi	Zororo
No of water points	24	41	42	24
Dry	2	3	4	-
Out of order	1	1	4	6
Problems	1	3	6	2
Needs attention			5	7

We find that in 1988 a total of 7 wells (11%) were dry/out of order. In 1990 a total of 16 wells (24%) are dry/out of order, which is more than the double.
We also see that the number of 'problem' wells have increased, from 4 in 1988 to 8 in 1990. 'Problems' usually means that some water is provided, but that the well runs dry in the afternoon.

In addition, 12 water points (18%) visited in 1990 were in a bad state of repair and needed some sort of attention. These were problems that not immediately affected the provision of water, but if unattended to may lead to a breakdown. While a breakdown may be caused by factors totally beyond the control of the WPC, the significance of these 12 cases is that they show lack of input that the WPCs can and should contribute. We will return to this point in a later section.

3.1 Other research

In this research we should not be too concerned about the

numbers. The sample is small. My assessment of what constitutes 'problems' may be arguable. The stress must be on the trend that emerges, not on the exact percentages. Still, the results are not too different from another recent study:
Cleaver (1990), with a sample of 480 handpumps in 8 districts come up with 83% in working order, and 32 % of these again needing some repair. Since the 1990 study in Makoni was done towards the end of the dry season, including some wells that probably would fill up with the rains, the 24% compares reasonably well with her figure of 17% out of order.

3.2 What do the numbers signify?

There is a significant increase in numbers 'out of order/dry'. Part of the explanation for this increase is the fact that construction teams were active in the area in 1988. I observed several cases of minor repair, and even deepening of wells, done in-between regular well sinking and pump-fitting assignments. As the high level of activities associated with the implementation was phased out the 1990 registrations probably gives a more true picture.

However, the research show that many of these cases are not registered by the Pump Minder and/or the DMT. It means that the only way to get the 'real' numbers is by physically visiting the water points. It also means that the official figures on breakdowns necessarily are too low. We will return to the methodological problems of keeping reliable statistics on the matters.

Does this indicate that the programme is becoming a failure?. Certainly not. Even a critical investigation comes up with results that compares very favourably with other programmes. (For a recent case study see Therkildsen: Watering White elephants? 1988).

It is clear, however that the level of maintenance that has been targeted has not yet been achieved. And it is disturbing to see

the trend moving in the wrong direction.

The aim must be to explain this pattern in a way that gives us concepts and strategies to improve the situation. And with a focus on community participation the crucial questions become:
1) to what extent can community participation, i.e. the water point committees contribute to rectify the situation? and
2) to what extent are the problems (and solutions) beyond the control of the WPCs?

4. THE ROLE OF THE WATER POINT COMMITTEES

The Water Point Committees, (the Village Water and Sanitation Sub-Committees) represent the user community, and mobilise the user community in construction and maintenance. Moreover, the requirement (sometimes formulated as a rule, some times as a suggestion) that three out of the four members should be women, is a main instrument to ensure the "involvement of women" in the Water Programme.

A committee representing the community and dominated by women, may be a contradiction in terms. If we look at the main reasons given, namely that fetching water is mainly done by women, their participation follows logically. It is also in line with official government policy on involving women in public affairs. However, according to traditional norms for male and female behaviour in Shona culture, it is customary to expect women to exercise their influence within the confines of kinship and family, and the men to represent the family on public occasions. Active participation on WPCs represents in this respect a new role for women. It is a role encouraged by the government. but the traditional authority system provides few role-models.

It follows that both the composition and the functioning of the WPCs may give valuable information about how the objective of involvement is being achieved.

4.1 Composition.

Data from Pamberi in 1988 include all wells and boreholes completed in 1986-87, and the committees for some of the water points under construction 1988, a total of 32 WPCs.

Four committees had members representing special user communities; the "Clinic" included community leaders, plus the nurse in charge, the "Dip" consisted of five Kraalheads from the communities using the dip, and the two "Business Centres" were dominated by businessmen, with a teacher thrown in. These four committees were dominated by males (90%).

Of the 'regular' 28 committees we found a ratio between males and females corresponding quite closely to the suggested ratio of three women and one man in each committee: 86 women (77%) and 26 men (23%).

However, if we look at the chairmen and chairwomen, the picture changes drastically: Only 11 committees (40%) were chaired by a woman, while 17 (60%) were chaired by men.

The picture became even more interesting when we looked at the personal characteristics of the women who sat on the Water Point Committees. In the family background of the female members, we found a very high proportion of single women (widows and a few divorcees), and women whose husbands were away working (normally in Harare or Bulawayo, or on commercial farms):

1988: Family background of women on WPCs (n = 86)		
Women whose husbands are a migrant workers	46	(54%)
Single women (widows, divorcees)	25	(29%)
Women with husbands working at home	15	(17%)

This preference for electing women whose husband was not present became even more pronounced if we look at the 11 female chairwomen: 6 were women with husbands away working, 3 were widows. The two remaining represented somewhat special cases:

the one was a VIDCO member, and the husband a teacher, in other words a very resourceful couple. In the other instance the husband was disabled, which may mean that the woman was taking on a more 'male' role in the family.

A conclusion seems close at hand: the dilemma of having to choose between two conflicting roles: the old one of staying home and letting the husband represent the household outside the family circle, and the new system calling for participation and active involvement, was solved by as far as possible selecting persons who did not have a husband 'to answer to' in the course of daily routines.

The prototype of this category is of course the single women, the widows and divorcees, who are clearly over-represented on the committees. But even with the generally high ratio of migrant workers in the communal lands, the number of women whose husbands work in Harare or Bulawayo was disproportionate to their incidence in the community as a whole.

In other respects, the composition of the committees reflects very much the guidelines which were given during the community mobilisation exercise. The members were all adult, married and active members of the community. I only came across very few instances where a member was described as "old" (and presumably inactive). There was a fair share of VIDCO members, kraalheads etc. on the committees, but perhaps less than expected: about half the committees had such members.

4.2 Changes from 1988 to 1990.

The most striking positive finding when revisiting some Water Point Committees in 1989 and all of them (a total of 42) in 1990, was that at least in a formal sense all committees were functioning. In all cases where a person had died or moved away (I checked the names I had in my notes) I was given the name of a new person who had been elected as replacement. Even a few wells sited by LWF towards the end of the implementation phase,

and a site where digging had been discontinued end where DDF moved in later and fitted a pump had their WPC in place.

Evidently the concept of a 4-member Water Point Committee is well established, and the committees were referred to as a matter of course. The Village Community Workers and in some cases the local Kraalhead were mentioned as the persons taking a lead in the establishment. In male-female ration and in the preference for choosing 'single' women there was no changes from 1988.

If the existence of WPC seem to be a well established fact, the activities are another matter. The most striking negative finding i 1990 was that several water points were visibly badly maintained. They are referred to in the table above as five water points in Pamberi 'needing attention'. Now, there has always been a wide variation in the way the water points and their surroundings are kept, from the elaborate line of thorns and thriving banana plants in a well-swept space, to shabby surroundings with the banana plants chewed away by goats. But aesthetics does not directly affect the working of the pump. In 1990, however, I observed for the first time three Bushpumps with very loose bolts, causing a shaky movement when working the handle of the Bushpump. With two other bushpumps the bolts looked OK, but the lack of grease caused a squeaking sound when working the pump. The tidy and well swept surroundings of most of these pumps gave the impression that this sorry state was not a sign of negligence. Upon questioning representatives from the committees readily admitted the lack of grease and claimed that collection was already planned among the user community for money to buy grease. Although this is a standard answer at least they recognised this as a central duty for the WPC. We were more surprised when committee members explained that they could not deal with the loose bolts as a) they did not know how to do it right and b) thought this was the duty of the pumpminder.

The morale of this story is possibly to be found in the fact that

all five cases 'needing attention' were new pumps installed in 1988. If I had not kept my own registrations of water points in Pamberi in chronological order I would probably not have noticed that this was a difference between 'old' and 'new' WPCs. This indicates that the WPCs had received a less thorough training than the first batch of WPCs In fact several members referred to plans for receiving training in the future. It also shows that the Pump Minder has not supervised the water points in this area the way he/she is supposed to do.

A few special cases may also be mentioned.

4.3 The schools.

The IRWSSP is meant to pay special attention to the needs of schools and clinics. For a number of reasons this has been difficult to achieve. A main reason has been the location of schools on elevated points in the landscape. All over Makoni schools are easily visible on hillsides or elevations that gives them a raised position in the landscape. This is especially the case with older schools started up by the Missions. The elevated locations give a good view, but bad conditions for drilling or sinking of wells. This same problem is often encountered for churches, and community/meeting houses, for the same reasons.

All the three primary schools in Pamberi have this problem:
School A had originally a open well inside the school yard, built by DDF, probably in 1981. A hand pump was removed during the drought of 1987 to get at what little water was left. No Water Point Committee. The nearest good well in the village (1986) was some 400 metres distance, and the school used this. No teachers on the committee. This village well had to be moved (problems with anthill) and as the new site (1988) was even further (600-700) metres from the school, the LWF sited and dug a new well inside the school yard (1989). This, of course, was very much according to the wish of the teachers. Unfortunately, by September/October 1990 the well was dry. No WPC, but the

headmaster pointed out that he looked after the pump as a valuable school property. Two open tanks for hand washing facilities was put up between the school and the latrines (Sedze Primary School model, as advocated by SIDA), unfortunately not in use as there is no water.

School B has similar problems. An old, unprotected well within the school yard dries up in winter and is presently not being used. A borehole some 400 meters from the school served the school and the neighbouring community. As this borehole had a low yield a new borehole was drilled somewhat closer (1988) in the direction of the school gardens.In neither of the WPCs did teachers participate.

School C again had a well inside the school yard that went dry in 1987, and the pump was removed. The LWF are said to have deepened it in 1987, but (I am told) the diameter is now too narrow for further deepening. A new well is located a few hundred meters from the school. The old well had a WPC with no teachers on, according to the headmaster this WPC also goes for the new well. The VCW says that there is no committee, as the headmaster does everything himself. Presently no families from the communities use the new well.

The secondary school has an old bucket pump, presently undergoing repair. No WPC. Insufficient water for a school with many hundred pupils. A borehole some 4-500 metres away serves the clinic, and is also used by the pupils. This borehole has no WPC (as yet) and the teachers do not perceive themselves as responsible on behalf of the school user community.

All these cases have two points in common. 1) In all cases the provision of water inside the school area is insufficient for hydro-geological reasons and new good wells can not be provided close to the school. 2) When schools have to share a waterpoint with the neighbouring community, relations become unclear and uneasy.

There are two, or rather three, very different user groups who share these waterpoints.

- The local community may feel weak compared to the teachers who have education, salary and a certain standing. Several claimed to have tried getting teachers involved in the WPC but with little effect. "They just talk". They certainly feel resentful towards the schoolchildren who use and abuse the installation. It is a standard explanation, not only from WPCs near the schools when something breaks down that "this was done by the schoolchildren"
- The schoolteachers express a whole range of different attitudes. One headmaster, who in fact constituted a very efficient one-man committee himself, insisted upon the community organising a committee "It is their duty to serve the school, because the school is serving the community". It seems that when the WP is outside the actual school grounds the teachers feel less involved, even if the school. as a user group remains the same. Some teachers do not feel personally involved, since they use other wells at their home, and those who have housing inside the school grounds often see themselves as temporarily in the area.
- The schoolchildren may certainly be guilty of abuse, since they, as a group, usually behave differently than they do when they are with their families.

The basic differences in interest can not be eliminated. But the community mobilisation team/VCW could do a lot by simply taking up this a as special problem that needs to be discussed. Both parts have legitimate views. Still, it is hard to see why there should not be teachers and community representatives on the same committee, which in fact would provide a meeting ground for sorting out differences.

A further point is that the schoolteachers by being more involved in/committed to the water programme could make an important contribution by teaching the schoolchildren about hygiene and maintenance, also in the practical sense of maintaining the water point that the school is using.

4.4 The clinic.

The local clinic differ very much from the schools in that links to the community, and contacts about water related issues are well established. The staff at the clinic played a leading part in community mobilisation for a new well at the clinic, involving kraalheads to collect money from the all over the three wards using the clinic, and planning installations like a washing slab, bathrooms and new VIP-latrines .

The clinic now has a new well (1989) right outside the building. This takes care of the most basic needs, but does not provide enough water for the old piped-water system.

An old construction with a windmill drew water from a well up to a water tank, which is connected with a system of pipes. There are taps in the surgery, the male and female bedrooms, and a proper shower. But this system is not linked to the new well, and presently it is not being used. Each morning a smaller tank is filled for use in the surgery, the shower and other facilities are closed. The in-patients are told to go to the river to wash, and if they are too ill to do this they are given a bucket and a jug of water to clean themselves.

A new borehole at some distance from the clinic is a good back-up supply and will provide water for a possible future piped water system to the clinic and the Business Centre near by.

Even if the most basic needs for water are met, a better (piped water) system at the clinic would have both direct and indirect benefits. An objective of the Water Programme is to achieve an health effect by using more water. This means a) a change of habits, to use more water when washing, and b) a better understanding of the benefits of better hygienic practices. The clinic can give a very valuable contribution in both respects. With sufficient water, a better hygienic standard can be achieved at the clinic, and it would be possible to demonstrate medical standards for personal hygiene.

5. NATURAL SPRING PROTECTION, THE MoH PROGRAMME.

A striking change from 1988 to 1990 was a transfer from scepticism to embracement of the MoH spring protection programme.

As part of the regular pre-siting exercise, people are told to go through the rituals they consider suitable in order to inform the ancestors about the plans for new water points. The proper rituals are very simple and unobtrusive, and does not interfere with the project implementation. In fact, its observance may not always be noticed by project personnel. In the normal run of the programme, therefore, this adherence to traditional beliefs do not cause any friction. The only exception concerned the protection of natural springs.

There is a strong belief in Shona tradition that natural springs should be left open. They should not be closed in by fencing, and they should not be tampered with by the use of bricks and concrete. Natural springs are free and open sources, to be used by all living people, and by the ancestors when they come back and walk on the land.

On the other hand, natural spring are, by definition, good and reliable sources of water, and in the context of the water programme a number of springs were recommended for protection to secure better utilisation. In 1988 this was one of the few issues which caused conflict. In some cases this conflict was within the community, and became a generation conflict. It is the duty of the old generation to preserve and protect a proper attitude, in this case to the springs. It is in the interest of the young people to get new and better sources for water. In other instances the resentment was turned towards the authorities when communities felt that their spring, and the associated values, were threatened.

In 1990 I visited a number of projects where people with visible enjoyment and pride showed washing facilities, bathrooms, even proper showers gravity fed from natural springs. Especially in

one of these places the elders had been very hostile to any interference only two years before.

The 'secret', I was told, had been a) to take the elders to other parts of the district where they could inspect similar schemes, and hear about the benefits, and b) then leave it to the elders to explain the proposal to their community. It may also be a point that the actual spring was very little tampered with, as the water was led downhill to the new installations. It seems that in this programme the MoH has done a nice piece of diplomatic work.

6. SENSE OF OWNERSHIP

One of the most basic assumptions in the Water Programme is that a contribution in terms of work and money will give people a sense of ownership, increase their responsibility, and thereby their capacity to maintain the installations.

On the other hand, other research point out that the village may be good at mobilising for collective contributions, but is unlikely to be able to sustain such efforts. Centralised agencies are far better at long term involvement in established systems where rules and routines may be put into effect.

> "The financially convenient arrangement often adopted by a water agency, whereby it does the initial construction job and then leaves maintenance to the people in the village, coincides with the greatest organisational weakness of both the agency and the village". (Cairncross et.al. 1984)

The initial contributions required from the communities (sand and gravel and bricks, feeding the well-sinking team) are within their capacity and are usually willingly given. But long term involvement depends both on the social context of the new 'user communities' and the back up from the extension services, especially the Pump Minder.

The way a community receives an input like the Water Programme, and manages to organize itself to follow up the expectations involved, depends on the social context. To be a group using the same water point does not in itself constitute a community in a sociological sense. If the recipients constitutes a group of people who have a socially defined relationship to each other, this social structure will also reinforce the 'user community'. This is, for instance, the case when the users constitute one group united under one kraalhead.

If the people using a new installation have nothing else in common but using the same water point, it follows that it takes much greater effort to organize people for specific tasks, and to keep up a united effort. To create such 'new' organisations are much more demanding. Success often depends on personal qualities, e.g. an active and persistent Village Community Worker.

Such variations in social contexts, which only can be uncovered by community studies mapping the 'social landscape', probably explains much of the variation in community involvement. What we can observe is the outcome of such processes within the communities. This is manifested in a wide range in behaviour: from something bordering on negligence, to the most enthusiastic involvement manifested in a tidy swept surrounding, and nice flowers bordering the fence. It is also expressed, very often in derogatory terms, by blaming insufficient maintenance on the "people over there", "in the other village", who are unwilling to contribute their fair share. (A type of resentment most clearly expressed when the user community is made up of a school and a village, as described above).

However, a sense of ownership is not only dependent on the social organisation within a user community. The relationship between the users and the surrounding structure is also significant. Maybe what people need is not a sense of ownership

as much as a sense of control, a feeling that their action actually makes an impact and does change the situation.

As it is now, people do to a large extent see the water points as the property of somebody else, either vaguely "the government", the "DDF", or "the people who put up the pump". And there is a core of truth in this attitude. People do not have a right of ownership, but a right to use. They are supposed to do some specified, but rather limited operations as preventative maintenance. But the stress is on maintain, they are not supposed to interfere with the structure.

> I came across one or two cases where young boys who had received some technical training wanted to try their hands on repair jobs. They were reprimanded by the pump-minder who told them that they were not allowed to do this.
>
> I visited another well where the spillway slanted upwards so that the overflow of water ran into the ground in the opposite direction. This left a permanent pool of water around the pump. When asked why they did not mould a new spillway, I was promptly told that "the people who put it there may be angry if they come back and find that we have tampered with the construction".

Defining a 'right' level of community involvement which makes maximum use of the skills and qualifications present in a community may be difficult. But as the technical and mechanical skills in communal areas increase with the new generations going to school and receiving training, and as the principle of self-reliance and cost recovery is gaining momentum, ways to transfer more responsibility to the communities will have to be found.

Peoples' sense of ownership and feeling control is also very much a consequence of the feedback which the community, or more specifically the WPC, receives from the second and third tier in the maintenance system. The Water Point Committee is the link between the users and the support system. The strength of this position depends on their ability to secure the assistance that is needed. That means that the WPC members must make others do

something (the PM) or provide something (DDF). It is a difficult position to be in.

Often the WPCs are confused as to who they should approach for what kinds of problems. During the initial mobilisation, planning, and implementation stages a large number of officials and field workers visit the community. The fact that the duties of the different ministries are clearly spelt out in relation to each other on organisation charts, does not mean that it is easy for people on the ground to know whom to approach to get the spanners or a bag of cement. The confusion as to who actually owns the pump spills over in an uncertainty as to whom they should contact to repair the pump.

This means that the contact and communication with the Pump Minder is of great importance.

7. THE ROLE OF THE PUMP MINDER.

In 1988 I did, with the aid of Martin Taremba, an assessment of the state of repair of all water point in six wards in Makoni. Zororo Ward was chosen for a more detailed study. In 1990 Taremba, of Zimbabwe Development Consultancy, surveyed a random sample of 24 water points in Zororo. This study was less comprehensive than in Pamberi concerning the activities of the WPCs. It was however more focused on the role of the pump minder and the effectiveness of the reporting system for handpump maintenance. This latter aspect is also the theme for a specific study by Zimbabwe Development Consultancy to DDF (ZIMDEV 1990). I will sum up some main points from this research.

7.1 The 1988 Pump Maintenance survey.

In 1988 the system was still in an initial stage, and three Pump Minders interviewed had very different styles in their performance. We found that their efficiency could be related to two different factors: a) their personal qualifications, and b) the distance they had to cover.

a) The job requires an ability to keep in touch with a large number of people scattered over a large area. A Pump Minder works on his/her own, and must plan the days work to include repairs, regular inspections, and requests for assistance that may arise. This must be combined with own personal business, usually farming. Some pump-minders use a DDF rest camp as their base, others work out of their homes.

It is difficult tq formulate regulations that secure a close relationship between the user community and the Pump Minder. This contact is, however, essential for the implementation of the programme. Many people were not quite certain about the proper procedures for getting in touch with the Pump Minder, and did not know his address.

b) We also found distance to be a crucial factor: the system clearly worked better in the communities close to where the Pump Minder lived. Pumps easily accessible by roads were best served.

There is a simple and quite practical reason for this. The longer the distance to travel (and to carry equipment and spare parts on the bike), the fewer visits, and the longer to wait between the visits.

It is equally important, however, to recognise that distance reduce the community's ability to exert social control and to press the Pump Minder to attend to their needs.

The whole concept of the maintenance system is based on an assumption that the pump-minder is chosen by a community and shall be of service to this community. The idea is that a failure to do the job will be sanctioned by the community directly, by members of the community laying claim on his/her services, and criticising him if he fails to provide this service. This form of social control is only possible to exercise within a functioning social system. With large geographical and social distance, social sanctions do not work.

As there is less contact, fewer visits, to pumps located far from the Pump Minders own neighbourhood, it is more difficult for people to convey any grievances they might have. Also, by the very nature of the way informal sanctions work, such sanctions are less effective towards people outside ones own neighbourhood.

The recommendation in 1988 was that by reducing the pay and increasing the number of Pump Minders, a better service could probably be obtained for the same expenses. The job is not meant to be a full time job anyway, but is combined with farming or other activities. More Pump Minders, each with less time spent travelling and fewer communities to cover would greatly improve their efficiency.

7.2 The state of repair of water points in Zororo Ward.

The study done by Taremba confirms the trends we saw in 1988. Taremba reports on a total of 24 water points. Nine of these were found to be in good working order, seven requiring minor attention and the remaining eight not working (two only partially) on the day of inspection.

1990: Water points out of order, Zororo.

1.	Borehole	Bushpump	No handle, sabotage, PM delays replacement
2.	Well	Nsimbi	3 months waiting for replacement
3.	Well	Bushpump	Unreliable, a little water in the morning
4.	Well	Bushpump	Out of order for 6 months cover slab not right for bushpump.
5.	Borehole	Bushpump	Out of order 2 weeks Report sent to VIDCO, not PM
6.	Well	Nsimbi	4 weeks waiting for replacement.
7.	Well	Bushpump	Out of order 2 months. PM not aware.
8.	Well	Nsimbi	Pump in disrepair. Also low yield, and replacement 500 metres away.

No. 8 had dried up and was replaced by another some 500 metres away, so it should perhaps be classified as 'abandoned' and taken out of the list. Otherwise there are two Nsimbis awaiting replacement, two that need other kinds of attention and two that the Pump Minder is not aware of. At no 1, according to the

report, the handpump handle was believed to be hacksawed and taken away. The community had improvised a handle that continually broke down. The Pump Minder was aware of this but would not fit a new handle immediately, in the hope that the community would find the culprit. This had net yet happened.

It should also be mentioned that one borehole, according to the Councillor, served 102 families plus one primary school. This caused long queues in the afternoon, and although working tolerably well at the moment the pump has had several breakdowns already.

As the causes for these breakdowns vary, so do the measures that are required to put things right. On the one extreme is the two Nsimbis waiting for replacement, this is beyond the control of both the community and the PM (Assuming that the District Office has been informed). On the other extreme are the two cases that the PM is not aware of. Lack of communication is obviously something that could, and should be improved. In theory - at least - the user community should have been able to solve the case of sabotage of the Bushpump handle (no 1). But even then, there are only three cases of breakdown where actions of the WPC might improve the situation.

On the other hand, there were seven or eight Water Points that were in 'need of attention'. Like in Pamberi, they required greasing of moving parts, and in some cases the caretaker had spanners but was scared of tightening the bolts. The councillor also pointed out that almost all Bucket pumps were out of order because the chains had been cut off and stolen, presumably by members of the community.

7.3 Communication between the three tiers.

Taremba's 1990 study (ZIMDEV 1991) illuminates some of the weak points in the communication links between the three tiers in the maintenance system.

At District level, the Field Supervisor was not able to locate the monthly reports from the Pump Minders. At the time of the study it was therefore not possible to find out to what extent the observed cases of breakdowns had been registered at District level, and what action would be taken. However, at the District Office it was said that all reported breakdowns in Zororo had been attended to, and not more than two or three breakdowns might be expected in the ward. As we have seen, this is not a correct picture of the situation. If the District Records shall serve as a tool for taking action by DMT teams and also to monitor the state of repair of all pumps (including those attended to by the Pump Minder and not requiring action for the DMT) the present recording system is not adequate. There are certainly people at the District Office with a very good knowledge about conditions in the wards. But this information is still the specific experiences of specific persons, and has not yet developed into a system where information can be retrieved by others for monitoring purposes.

At community level many Committees still find it difficult to reach the Pump Minder. The Pump Minder serving Zororo lives in the neighbouring ward, and covers these two wards. Some believe that Zororo is still waiting to get its own Pump Minder. This kind of problem was also reported in the 1988 study, but it was then partly explained by vacancy, as the DDF expected to get some more positions to achieve full coverage. According to the DDF Headquarters, however, Makoni District do have enough Pump Minders. A re-zoning exercise was done in 1989 in order to utilise the existing positions in an optimal manner. This has created some confusion, even among the local leadership, and reports are some times sent to the VICO or the Councillor instead of directly to the Pump Minder.

The Pump Minder is aware of the problem, and has selected one centrally located store (at a Business Centre) for sending reports to. However, he has not been able to inform all Water Point Committee members, the user communities and local

leadership about this and as he previously used three different stores as his address, reports continue to be sent to the wrong place.

7.4 The state of repair of water points in Pamberi ward.

No effort was made to check out the records at the District Office concerning the state of repair in Pamberi Ward. I can, however, add some observations on the relationship between the communities and the PM that confirms the trends Taremba documents in his study.

1990: Water Points out of order, Pamberi.(n 42)

1. Well &	Windmill	Clinic. Replacement provided
2. Well	Bucketpump	Sec.School. Pump taken up for repair.
3. Well	Bushpump	Has replaced a broken down Nsimbi. Dries up almost every year.
4. Well	Bushpump	Dry ? for 2 weeks.No message to the PM
5. Well	no pump	First well abandoned, second waiting for new pump
6. Well	Nsimbi	Dry, also anthill damage
7. Well	Bushpump	Dry, inside school yard
8. Well	Bushpump	Dry, supplementary well.

As in Zororo, this list show a variety of causes for the malfunctioning. It might be argued that case no 1. should not be on the list. I have, however, chosen to include it just to stress the special needs of a Clinic. There is nothing much the community and the PM can do about nos 3, 7 and 8, while no 4 is more uncertain as the PM has not been called yet. No 6 has, in addition to the problem with ants and cracks a most peculiar location actually on top of a small hill. My guess is that it should be abandoned or replaced.

No 5 has a long and sad story. The first well was dug in 1988, dried up in 1989. For some reason (I believe the concrete lining had cracked) the wellsinkers did not find it advisable to deepen the well and a new well was dug nearby. The new well had a concrete slab on top but was still waiting to have a pump fitted. This means that this community has fed the wellsinkers not only one time, but twice, something they complained about during the digging. And this double effort has still brought them no water,

although there is water inside the well. The location of the well is on a very dry plain and there are no alternative sources in the vicinity.

Cases like this can not always be avoided. They illustrate, however, not only technical and logistical problems but also the importance of good channels of communication, especially in problem cases. In this particular instance the PM has not been involved and it is probably the case that fitting of new pumps are outside his responsibility. But it is a need here for not only reporting but also petitioning the DDF, and the very least to bring back to the community exact information of **why** the pump is not being fitted and **when** they can expect action to be taken.

This is leads us to back to the role of the Pump Minder and his links to the WPCs.

After the 1989 re-zoning exercise Pamberi shares the Pump Minder with two other wards. According to the WPCs in Pamberi, the Pump Minder does not often visit the ward. Very many claimed ignorance about his whereabouts and could not quote an address to get in touch. More often than not the nearest DDF rest Camp was mentioned, an address that could bring the message to the PM eventually, but which not represented the most direct route.

There are obvious methodological difficulties in assessing the frequency of a PMs visits based on information from WPCs or users encountered at the water point. a) The Pump Minder may have paid visits which is not known by the informant, b) the Pump Minder may have paid visits which is forgotten by the informant, and c) claiming/implying that the PM is negligent is a convenient way of 'passing the buck'. Any shortcomings may then be blamed on him. With these reservations, and without myself having been able to locate the PM (!) the evidence suggests that the PM is not in close touch with the water points and the Water Point Committees in Pamberi.

The strongest indication of this are the cases (mentioned in section 4.2) of wells 'needing attention'. Both greasing and tightening of bolts were lacking, and the WPCs claimed ignorance. A regular inspection would have remedied the shortcomings and would, if the job was done as a demonstration to the WPC, necessarily teach them how to go about the preventative maintenance.

The point is not to moralise, but to be realistic in assessing the potentials the Pump Minder system. As pointed out above (section 7.1) distance constitutes a very real constraint for the Pump Minder as a lot of time is taken up on the road. But the relationship between a Pump Minder and the user community is also a social relationship, where other ties and obligations necessarily will have a bearing on the performance of duties as a Pump Minder.

In this case the Pump Minder serve three wards, and it seems to be unfortunate (for Pamberi) that after he was chosen or employed as a PM (informants in Pamberi were uncertain of the procedure), he was elected Councillor in one of the wards. It would have to be an exceptionally energetic and fair minded person who could manage to keep up two such assignments in a way that benefitted the three wards equally. After all, the duty of a councillor is, quite rightly, to favour 'his own' ward.

Finally, there are the six 'problem' wells, which get dry in the afternoon. As mentioned before, at the driest period of the year cases like these are probably inevitable. Or are they? What happens is that the water level sinks below the foot valve, then the well refill during the night and in the morning there is water for the early customers. If the foot valve is close to the bottom, there is nothing to do (except brewing beer for the ancestors). If there is some distance to the bottom, the rising main can be extended which improves the supply, at least for some time. Why then, is not the main cut to the optimum length in the first place? I was told that the rods come in standard lengths

of 3 m(?) and that initially just standard lengths are joined together and put in. I am not qualified to judge the technical aspects of this, but it is a fact that some mains have been extended.
The point I want to make is that this adds to the uncertainty for the users. If there is no water, is the well dry or can the situation be remedied by an extra length of rod? Not knowing what can be achieved by taking action makes it more difficult for then community to take action.

7.5 Other research: "Reporting system for handpump maintenance in communal areas."

A Report prepared for the District Development Fund by Zimbabwe Development Consultancy (ZIMDEV 1990) suggest on the basis of a broad survey that a major constraint in handpump maintenance is poor communication and reporting systems that lead to long down periods.

The report focus on communication and recording procedures in four districts: Kwekwe, MtDarwin, Bubi and Makoni. The three tier system identifies the Pump Minder as the appropriate (first) recipient of a breakdown message. The report show that the communities only partially adhere to this assumption. Only in Makoni are most messages (74%) sent to the PM, while MtDarwin, records 40% of messages to PM and 60% to DMT/DDF. Kwekwe is in the process of implementing the three tier system but records few messages through PM, 90% direct to DDF/DMT. Bubi has a three tier system but not a integrated programme set-up and reports on 25% through local leaders and 75% direct to DMT/DDF.

The report identifies two types of problems in this reporting practices. The first is the considerable variation, and hence uncertainty, as to who should be the appropriate recipient of a breakdown message. Any extra link in a communication system slows down the speed of communication, and this applies equally to involving local leader or the DDF office in cases where the PM

is the appropriate person for taking action. It may also weaken the position of the Pump Minder within the community.

The second problem is the way information is received and stored at the District Office. The study on reporting systems show that the standard reporting forms: Pump Minders notebook, and Standard monthly return forms are not processed in a way that makes it possible to retrieve information for monitoring purposes. The study finds that no District Office has a up to data list of all water points. Moreover - and especially so after the reorganisation of Pump Minders operational area, - the new boundaries were unclear to Pump Minders and community alike. "Lack of clear Pump Minder boundary and list of water points per pumpminder was found to have an adverse effect on the pumpminder knowledge of his operational area, areas of overlap and locality of handpumps to be maintained "(p12) According to this report, then, the case study from Makoni seem be confirmed by observations in other districts.

Finally, the report show that records of newly completed water points were more easily available than handpump breakdown and repair records. It is also suggested that developmental activities was given priority in resource allocation compared to the requirement for handpump maintenance.

If this is the case, it may be a reflection of the preference among donors to provide funds for installations rather than for recurrent costs. Such a priority, however, jeopardizes a most basic tenet in water programme operation: to secure the sustained functioning of installations.

6. CONCLUSIONS.

It is regrettable, but hard to avoid that a report like this one concentrates on the problems and ignores the achievements. The documentation of shortcomings should be taken as constructive

criticism: there are some points where a good programme can be made better.

In our concern for details we should not overlook the very real benefits that the Water Programme brings to the people, and their appreciation for it. The provision of clean water does not only bring practical benefits, although these are important enough. For most people on the communal lands the new pump is the one piece of public investment that is close to their home and gives immediate and tangible benefits. It gives people even in very remote areas a feeling of being beneficiaries of government programmes. And the provision of clean water touches on sentiments which are important to people: wellbeing, health, personal dignity and the blessing of the ancestors.

Leaving but not forgetting these general perspectives let us return to the question posed initially (section 2) about the contributions of the Water Point Committees. I outlined the rather comprehensive expectations put to the WPCs. Have they passed the test? Or is this the right way to ask the question? Maybe we should also ask whether the expectations were realistic in the first place. If our purpose is to asses the role, and possible contributing of WPCs to the maintenance of handpumps, it is important to make a distinction - at least in principle - between the breakdowns a WPC can prevent or set right, and the types of breakdown that not even the most devoted Committee could prevent.

On the basis of my material we can draw two simple conclusions about the WPC.

1) Most of them do in fact perform the tasks they are required to do. Some well, some less well.

2) Some do not do their job, and a few cases of neglect and mismanagement has been observed.

There is evidence that proper training reduces the incidences of neglect.

However, even when the Water Point Committee do everything they are expected to do, cases of breakdown (or dry wells) occur. This is not a new discovery. But is should lead us to some caution as to what we expect from the Water point Committees, and from community participation more generally.

1) Even if community participation is a most commendable aim, and a crucial condition for a sustainable Water Programme, it is a necessary but not sufficient condition. At present the assistance of the Pump Minder and the procurement of spare parts (including Bushpumps to replace the Nsimbis) constitute the main constraints in the programme.

We should by all means encourage the aspect of care and concern which is expressed by sweeping the surroundings, mending the fence and planting flowers. But we should also be realistic and admit that no amount of sweeping constitutes preventative maintenance.

2) In training and community mobilisation special attention should be paid to the problematic relationship between schools and communities sharing a water point.
The conflict of interests should be recognised and taken up specifically in discussions. Cooperation in WPCs are important for the operation and maintenance. It is also desirable that the Water Programme is integrated in school activities - and provide a learning component for the school children

3) People rarely express a sense of ownership. I have argued that maybe more important than a sense of ownership is a feeling of control. We are all subject to the Pavlovian principle that an action which produces the desired effect has a greater chance of being repeated. Sustained involvement of the communities will be ensured if the action they take give some results. Even if the result is only a reply explaining the situation.

This means that one should take a hard look at the Pump Minders. They are in a difficult position. The demands from the communities are more than they can realistically cope with. The constraints on the supply side makes it impossible to do the job properly. Maybe their position should be reconsidered. Rightly or wrongly, most communities do not see themselves well served by the Pump Minder. If, or when, a policy of cost recovery comes up to be implemented, there is no reason to expect that people would be willing to pay the wages of the PMs. They would either have to get much closer to the communities they shall assist, or move 'up' to the DMT.

This leads me to some final reflections on the future of the Water Programme.

9. STRUCTURAL ADJUSTMENTS.

Zimbabwe first ten years of independence brought tremendous achievements in "greater education and health opportunities and in the uplifting in the status of women" (Africa South June 1991). The Integrated Rural Water Supply and Sanitation programme is part and parcel of the ideology of this decade. The challenge for the 1990s is maintain the benefits already gained and to devise a strategy for further development that the state can afford within a new context of structural adjustment. For that purpose cost recovery becomes a crucial issue. Cost recovery is already accepted in principle. The question is how to implement this as a workable system. What can Zimbabwe afford?

A principle of cost recovery has different implications for the different levels of the programme:

1) As far as the District Maintenance Team is concerned there seem to be no arguments for abolishing or even reducing its role. The DDF is responsible for the overall maintenance of essential infrastructure on the communal lands, and the involvement in the

Water Programme fits well with its DDFs personnel and mode of operation.

There is certainly room for improvements, and this report has stressed one particular point: The present system of record keeping, although quite (maybe too) comprehensive in theory does not work in practice. The records kept at the District Office are not an adequate tool for supervising and advising the Pump Minders nor for monitoring the state of the Water Points in the District. The discrepancy between the ideal and the reality should be taken seriously.

In future the financing of DDF and the District Maintenance team will be worked out within the framework of local level government, and in relation to local taxes, fees, or levies for these kinds of service. Those aspects fall outside the scope of this report.

The two other tiers are more directly tied to the question of community commitment in cost recovery. There is certainly no case for abandoning the Water Points Committees (which anyway is no current expenditure). The question of how to recover repair and replacement costs, takes some careful consideration. However, there are a lot of small steps towards increased self-reliance which would reduce, if not recover, costs and might at the same time transfer more control to the Committees.

At community level self-reliance should be increased whenever possible, even if it is through small measures.
To give some examples:
- To make concrete available commercially (admittedly easier said than done). Give community full responsibility for upkeep of headworks, fence etc.
- To make spare parts and spanners available commercially, through Farmers co-op, P&G, or similar channels
- Not to promise the committees spanners which are not delivered. Hardly any committee have spanners. I have no way of

knowing wether they have received and lost/sold them, or if they are still waiting. The user community can collect money and buy their own spanners. The community will sanction losses.

- To disclaim all responsibility for detail like the clothes lines. Hand out instruction sheets suggesting various ways for drying (including tying a rope between two trees) but leave procurement and construction to the community. If they do not put it up it means they can do without.

Admittedly these points will give only minor economic savings. That means the communities can afford them. However my main concern is to encourage self-reliance, and that means to reduce the number of demands that a WPC legitimately can put to the PM/DDF system. Even after four years of operation in Makoni many committees have an outstanding claim for some item, be it spanners, cement, wire a clothesline which 'the system' has not delivered. This is not generating self-reliance and a sense of ownership,

It seems that it is at the middle level - the Pump Minder - that the best potentials for cost reduction can be found.

I have suggested that one should be more pragmatic in assessing the need for a Pumpminder. The 'investment cost' of training and setting up a new PM should be compared to the waste of time spent travelling long distances. Moreover, distance reduces the community control which seems to be essential for securing top performance.

A subsidised bike and per-item payment would still be a very attractive proposition on communal lands.

A lesson from Zambia.

The Water Programme in Western Province, Zambia, has many similarities to the one in Zimbabwe. One notable exception is that once the water point is completed it is handed over totally to the user community. They are the owners and they must pay for the maintenance. The best organised committees kept a list with the price of pump components.

The sense of ownership was expressed in a way that I have never encountered in Zimbabwe: some committees locked their pump. For some hours midday, and after nightfall a chain was tied around the pump immobilising the handle. They claimed this would reduce the wear and tear.

Now, I am not sure if this is the best way to protect a pump. If it only means that the same amount of water is collected before 'closing time' it does not make much difference. If locking keep strangers and potential hooligans away it does make a difference. I am only making the point that knowing one will have to pay money for a breakdown make people think seriously about protecting the pump. There may be other solutions that is better than the chain and lock.

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