



Community perceived impacts of watsan interventions

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WATERAID ZAMBIA has worked in partnership with the Monze District Department of Health since 1995, supporting the work of the Department's Environmental Health Technologists (EHTs) in extending access to safe water, sanitation and improved hygiene for rural communities in Monze District, Southern Province.

A participatory evaluation of this work, facilitated by local and international consultants, was carried out in October - November 2000. One of the key objectives of the evaluation was to examine, from the community's perspective, the impacts of the water supply, hygiene and sanitation promotion programme supported by WaterAid and implemented by the Department of Health. This was the first participatory evaluation carried out in the district since the beginning of the programme although two, more conventional, evaluations had previously been conducted (1994 and 1997). In excess of 400 community members were involved in the evaluation as were more than a dozen field extension staff drawn from a range of government departments in the four districts in which WaterAid Zambia operates.

Methodology

A participatory approach was adopted for the planning and implementation of the evaluation. Participants first identified their existing competencies with Participatory Rural Appraisal (PRA) approaches and tools, with further training in some less familiar tools being provided by the consultants. The Monze representatives provided a briefing to their

fellow participants on the work in their district. This provided the broad basis for inquiry during the evaluation. Participants then identified 'Key Questions' to be investigated (under the headings of technology, sustainability, hygiene promotion, sanitation and community management) and the PRA tools likely to be appropriate to investigating these questions. The questions and tools were pre-tested both by the participants themselves in a 'dry run' and at one village in the field.

Following review and fine tuning of the approach and tools, three groups of investigators (six people in each group) were formed, each including at least one female member, one Tonga (local language) speaker and one representative from each of the Departments of Health, Agriculture and Community Development. Over the course of four days each of these groups then visited four villages to identify with community members what they themselves perceived as the most important changes (impacts) arising from their involvement in the water and sanitation programme implemented in Monze. Selection of the communities covered by the evaluation was not entirely random. Instead choices were made to ensure that there was a range of communities in which interventions had occurred at different times over the last five years as well as representation of villages from the three different agro-climatic/ economic zones identified within Monze District (see Table 1). Nevertheless it was felt that the variety of communities visited provided a fair representation of those involved in the programme in Monze as a whole.

Table 1. Agro-climatic/economic zones and communities visited during the evaluation

Zone Agro-climatic / Economic Criteria	Zone 1 WESTERN: Plains, good agricultural land, higher rainfall, higher density population, better infrastructure.	Zone 2 EASTERN: Hills and undulating land, high surface runoff causing erosion, lower agricultural productivity, lower rainfall, poorer infrastructure.	Zone 3 CENTRAL: Land reform programme implemented; many small scale subsistence farmers and medium scale commercial farmers; main Lusaka to Livingstone road runs through this zone.
Villages visited & date of (water supply) intervention	Haanyundo - 1996 Haamilimo - 1996 Makangala - 1999 Hakasenke - 2000	Choobana - 1996 Muzyamba - 1997 Hateema - 1998 Muvwanga - 1998*	Chisikili - 1996* ^ Sinyendeende - 1996 Mulumbwa - 1996 Siacyanda - 1997 Kadku - 1999
* Water supply is handpump; all other sample villages have hand dug wells. ^ Water supply through UNICEF supported programme; site of field pre-test			

At least 10 different PRA tools were used to facilitate sessions in the villages including social mapping, impact flow analysis, focus group discussions, semi-structured interviews, seasonality calendars and before and after analysis. Often two or three groups of villagers carried out different activities simultaneously, creating a substantial amount of data to be analysed. At the end of the fieldwork the three groups spent time documenting and analysing their field findings and a full day was spent sharing these findings and analysis between groups.

Impacts of interventions

Table 2 provides the investigating groups' consolidated and summarised list of the impacts arising from the watsan interventions in Monze District, as expressed by members of the 13 communities visited during the evaluation. These impacts have been grouped into a series of categories similar to those previously utilised by WaterAid in a much wider ranging participatory impact assessment involving case studies in four countries in Africa and Asia (WaterAid 2000). It is clear from the Table 2 that there have been some very significant positive impacts of the programme on the lives of communities in rural Monze, and on the lives of women and children in particular. These findings, and indeed many of the specific impacts, are consistent with the data generated by the earlier WaterAid study (WaterAid 2000).

Water supply interventions have clearly afforded considerable relief from the age-old drudgery and humiliation related to the collection of water by women. The provision of a reliable water supply close to the home has also resulted in significant time savings for women. Much of this newly available time has been put to productive (economic) use, with some new livelihood activities being undertaken and others expanded (see Table two for examples of income generating activities). Interestingly many of these activities are themselves reliant upon a good water supply. Perhaps equally interesting is that it was these economic impacts that were most frequently cited by communities as being the most significant rather than the longer 'list' of health related impacts. Time savings for children have allowed improved attendance at school. This is reinforced by improvements in income arising from the increased livelihood activities which have made payment of school fees and the purchase of school books and uniforms more feasible for households. A number of other social and psychological impacts that were noted by community members were unanticipated by the investigating teams but serve to illustrate just how widely communities perceive the changes occurring in their villages that are related to a water supply intervention. The table also illustrates how closely inter-linked many of the impacts of water and sanitation interventions are with several impact 'chains' evident.

Great though these impacts have clearly been, the evaluation also noted that more could have been achieved had additional emphasis been placed on, and a better approach been used to promote, hygiene and sanitation

within programme. It was felt that focusing on the achievement of physical infrastructure targets as the indicator of 'success' rather than sustained behaviour change within the community made the programme more inclined towards infrastructure than social change. Volunteer (female) Village Health Motivators used by the programme suffered from a poor training approach, low incentives and inadequate follow up and support resulting in little effective promotion (or achievement) of changes in critical hygiene behaviours within villages. Focusing on single technology options in both water and sanitation limited the degree of community involvement in the process and effectively prevented many poorer households from investing in improved sanitation facilities.

Lessons learnt

A key finding from the evaluation has been that the impacts of the interventions in Monze were much farther reaching than the initial health and hygiene related objectives of the project. The social and economic dimensions to these impacts was particularly noted, with communities able to attribute improvements in livelihood opportunities and social circumstances to outcomes initiated by the provision of adequate, safe drinking water supplies. It is recognised, however, that many other related factors (social, economic, environmental etc) may be at play in allowing (or impeding) the achievement of such wider quality of life improvements. Nevertheless it seems apparent that value would be added to the inputs provided by WaterAid and the Department of Health if the potential for such wider impacts was appreciated in the planning and design phases of the programme. This finding also has implications for the appropriateness of the Ministry of Health's monitoring indicators for water and sanitation which remain heavily biased towards physical infrastructure outputs. Such indicators would appear to fail to capture many of the potential improvements arising from watsan interventions. They may also cause implementation of field work to under value, and thus under play, the hygiene and sanitation promotion efforts needed from field workers if sustained changes in behaviour are to be achieved at households and individual level.

The evaluation also demonstrated clearly that communities themselves are capable of identifying indicators of the impact of watsan interventions on their daily lives. In several instances these indicators and impacts were unanticipated by the investigating teams. This has had (at least) two beneficial results. Firstly, illuminating insights were gained into how communities perceive the effects and wider impacts of the work in Monze. Secondly it has challenged perceptions about limited capacity within communities to analyse their own situation that were held by many of the field workers who participated in the evaluation. As a result of this, and the processes used during the evaluation, much enthusiasm was generated amongst these field workers for the use of more fully participatory approaches in their regular work with communities. There

Table 2. Impacts of water, sanitation and hygiene interventions in Monze district

Livelihoods	Health & Hygiene	Socio-cultural/Education
<ul style="list-style-type: none"> Shortened distances, time available for many activities e.g. basket weaving, pottery making (use & sale)(p) Time for charcoal burning (p) Growing of vegetables (p) Sale of vegetables (s) Increase in goat rearing (p) Healthy goats (p) Sale of goats (s) Sale of goat milk (p) No loss of goats roaming for water(s) Brick moulding/building larger houses (p) Moulding bricks for sale (s) Sale of charcoal (3 bags of 25kg each monthly) (s) Rearing of pigs (p) Having more chickens (s) Able to pay health clinic fees (s) 	<ul style="list-style-type: none"> Increased frequency of cooking (less time in fetching water) (p) Increased consumption of food (more cooking time) (p) Children drinking goat milk (s) Regular bathing by children and adults (p) No more scabies (s) Decreased body sores (s) No infected/cracked nipples during breast feeding.(s) Regular washing of clothes (p) Children's nappies now washed regularly (p) Cleanliness during menstruation and at childbirth (p) Reduction of water-borne disease (p) Decrease in diarrhoeal diseases (p) (Some) latrines have been constructed (p) Clean utensils and plates(p) No backache/ body pain in carrying water for long distance(p) No headaches from carrying water on head (p) Frequency of visiting clinic for treatment has reduced (s) Building larger houses (p) <p><i>(Psychological impacts)</i></p> <ul style="list-style-type: none"> Drawing water freely at any time of the day - no (fear of) abuse (p) No need to provide labour for of water (p) No quarrels with husband due to late return and delayed cooking(s) * Use of "our" own water point (p) 	<ul style="list-style-type: none"> Water is available close by (p) Shorter distances covered to fetch water (p) No waking up early to fetch water (p) Less time taken to fetch water (p) More time to attend to children (p) We are able to pay school fees for our children (s) Children go to school on time (p) Purchase of school books from sale of goat milk (s) Children not chased from school for being dirty (p) Parents are not summoned to school for children's late attendance. (children used to take goats for watering) (s) Goats watering at home (s) No offensive smell from women (s) Husbands now love their wives because they are clean and both don't smell. Improved relations(s) Building good houses / more than one room (s)

P = Primary Impact, S = Secondary Impact (as cited by the communities)

was also greater appreciation that the role of extension workers is to facilitate community led initiatives rather than being experts importing outside 'solutions'. Whilst these are essentially good things there remain questions over the implications such changes in approach will have for the time required to be spent on future water and sanitation work - participatory approaches frequently being more time consuming than less community based methods. This in turn may mean that the number of communities involved in the Monze programme each year will fall, EHTs having clear limits to their (time) capacity to undertake watsan work. Such a development will require considerable understanding amongst the senior managers of the Monze Department of Health if these field workers are to receive the support that they will require in implementing such a change.

Way forward

Following the evaluation a number of new initiatives are being piloted in Monze. These aim to improve the impact

of the programme by increasing the application of participatory methodologies in the field, by improving the approach to promoting hygiene and sanitation and by extending the range of water and sanitation technologies available to communities.

Six villages covered under the evaluation have been selected as 'focus villages'. Department of Health and WaterAid staff are working with these communities, using participatory techniques, to facilitate a process of water and environmental sanitation problem identification and village 'action planning' to resolve these issues. In the same six communities the selection and training of Village Health Motivators in the manner used previously has been suspended in favour of encouraging the development of women's sanitation groups. These groups are facilitated to jointly undertake small but rapid improvements to village sanitation. In this way it is hoped that the many of the difficulties experienced by women in addressing their desire for latrines and other environmental sanitation facilities (e.g. significant labour requirement, little support from

men etc) can be overcome. It is anticipated that these women's groups will also become a key element in future, less didactic than previous, hygiene promotion strategies. Further contributing to village sanitation improvements is a significant widening of the technology options available to communities. In addition to the low cost VIP latrine currently available, households will be offered at least three additional latrine types including some of the 'ecological' latrines developed in Zimbabwe (Morgan 1999). More flexibility is also being introduced in regard to water point technology, with greater regard is to be given to community demands for hand pumps to be installed on dug wells. Efforts are also underway to introduce a locally constructed version of the rope and washer pump. Additionally, support for simple improvements to traditional and unimproved water sources utilised by individual households or clusters of families is being considered as an alternative to large communal dug wells

The success of these innovations is dependent not only upon communities' understanding, acceptance and commitment to new and different approaches but also

upon the acceptance of the changes implied by these initiatives by Department of Health staff at all levels. It is perhaps the latter that presents the greatest challenge for the Monze programme over the next year. It is hoped, however, that the work in the six focus villages will demonstrate the effectiveness of a more participatory and community based (if somewhat more time consuming) methodology and encourage the uptake of these new approaches by all of the Monze District's EHTs.

References:

- MORGAN P., 1999, *Ecological Sanitation in Zimbabwe: a compilation of manuals and experiences*. Conlon Printers, Harare, Zimbabwe.
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