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WATER, SANITATION AND HYGIENE: CHALLENGES OF THE MILLENNIUM

Looking Back – participatory impact assessment

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THIS PAPER reports findings from a WaterAid funded project ('Looking Back') concerning the longer-term impact on communities of project interventions. The process underlying the research and examples of the results arising from fieldwork in the four study countries (Ethiopia, Ghana, India and Tanzania) are discussed.

WaterAid carries out periodic evaluations of the work it supports overseas. Before this project, however, it had sponsored no studies that directly examined the long-term impact of its partners' water and sanitation projects on the communities they serve. On the basis of measures of its outputs, WaterAid has assumed that projects led to 'sustainable improvements', but felt that this assumption needed to be tested. WaterAid therefore decided to initiate assessment of the impact of its programmes on the communities it affects.

Impact assessments have gained in popularity with donor and other agencies in recent years and have subsequently become an increasingly important activity for recipient organisations. This preoccupation reflects a shift in thinking away from the inputs and outputs of conventional evaluations to a consideration of the outcomes of interventions.

The Looking Back study differs from previous WaterAid evaluations in that rather than emphasising the effects or outputs of a project ("is the water still flowing?"), its focus is clearly on the impact it has ("what changes in community life can be attributed to the flowing water?").

The purpose of the work was not only to detail the outcomes from the Looking Back study so that others can learn lessons arising from them, but to document the process, and comment on the methods so that they could be taken up by others.

Methodology

Hypotheses (see box 1), study objectives, and work schedule were all discussed in detail with project partners prior to and during an initial workshop. Four study teams worked on the Looking Back project, with members drawn from WaterAid and its partner organisations in Ethiopia, Ghana, India and Tanzania. For each country, two individuals comprised the study team and in all cases field assistants (typically four in number) were employed to facilitate fieldwork. An external consultant (supported by a wider team) from the Water Engineering and Development Centre (WEDC) at Loughborough University in the UK acted as a process facilitator for the study. The project was lead co-ordinated by a WaterAid staff member based overseas, with e-mail and fax being used to provide feedback and guidance throughout the research process. In general, a decentralised approach to project management was adopted, with study teams being free to develop ideas in their own ways, as they judged appropriate for their study communities. The selection of communities for inclusion in the Looking Back study began with project partners drawing up a shortlist for further consideration. Loose, 'purposive' criteria for selection were subsequently adopted.

Box 1: Hypotheses for Looking Back study

Hypothesis 1: Projects constructed and managed by communities have a positive impact on the living standards of those communities, particularly in the areas of health (especially of children), economic status (especially of women) and school attendance

Hypothesis 2: Project impact is less for the poorer sections of the community, but greater for women and children than for men.

Hypothesis 3: Beyond the immediate, positive effects of education on improving sanitation, the environmental impact of projects on their communities is negligible.

Hypothesis 4: Impact depends more on effective management than on technical quality of works.

Hypothesis 5: Impact of projects is not associated with a longer period of provision of support to community organisations.

In attempting to develop a methodological approach that best met the needs of impact assessments of this kind, the Looking Back study did not try to identify *the* optimal method, but a mix of methods that were appropriately combined. Thus, key elements from the scientific method (which focuses on representativeness, quantification and attribution) and the humanities or participatory approaches (which focus on ability to uncover process, capture perceptions, unexpected impacts) were married together.

Several notable points can be made about the methodological approach:

- The study involved a pre-test of the methodology;
- The study focused primarily on individual, household, and community levels of analysis;
- A key consideration in project design was that community members, rather than project team members, identify indicators of impact and describe the outcomes of project interventions from their own perspective, free from the filtering interpretation of an external agent;
- One of the key assumptions underpinning the study was that the assessment would be *participatory*;

- Gender and social grouping perspectives on impact assessment were emphasised, and the selection and conduct of participatory techniques was geared to achieve this objective;
- The study teams identified non-beneficiary communities similar in characteristic to beneficiary communities. Both were then asked to recall past and present situations (before and after the time of intervention), and analyse the types and extent of change.

More specific methodological issues included:

- In order to minimise costs, staff inputs and logistics, a sampling strategy was followed for the Looking Back study. This operated on two levels: selection *between* communities and selection of individuals/groups *within* communities. The key point to stress is that the study aimed to understand in-depth what, if any, impact communities identified and to explore the process of gathering impact indicators. Small sample sizes and (typically) non-random sampling methods were there fore adopted.
- It was agreed amongst the study teams that the study would not attempt to prove causation, rather to look at credible causation based on community understanding of the relationship between cause and effect. General indications on the qualitative importance of different interventions were therefore examined.
- A series of measures were employed to improve the reliability and validity of the data collection process, including triangulation, multidisciplinary teams, mixed methods and feedback sessions with community members.
- A pretest of the methodology prior to the main research fieldwork stage was conducted as a way to trial the draft methodology, to trial the use of particular tools at community level and to provide study teams with the confidence required in conducting this type of assessment.
- The key focus in this study has been the process of facilitating communities to identify, discuss and reach consensus on those indicators (expressed, proxy, process, etc) which reliably measure impacts which the community perceives to be significant. Indicators from different groups within the community were sought and recorded, as were negative impacts arising from project interventions. Tools used to initiate discussion about general changes in the community over time (e.g., history line) were combined with more specific approaches to probe for detail on impact and indicators of impact. In this way, a picture of what the community considered important change, and how they knew these changes had occurred (indicators), emerged during the study. It was noticeable that many of the impacts identified have only been revealed through exploring issues in a participatory way with community members.

Impact assessment

In each country the study team examined the impact of several projects. Their reports described and analysed the impacts expressed by community members. This included an appraisal of the impact indicators identified and relevant field insights (quotations, case histories) where appropriate (see box 2)

Case study findings from the four countries were aggregated to look at thematic impact. The range of themes identified includes livelihoods, socio-cultural, health and hygiene, psychological, education, management, gender, empowerment and sustainability issues. Not all thematic impact findings can be presented in this paper, but selected examples are listed below:

Box 2: Selected example of indicators and impacts - Ethiopian case study

Indicator: Health
- Quantity and quality of safe water supply, when required, at short distance to user.

Impact
- Incidence of stomach pain / diarrhoea reduced
- Incidence of water linked diseases reduced
- Washing clothes and bathing possible on regular basis
- Household utensils cleaned
- Observance of religious rites
- Reduced fatigue for women
- Reduced workload for women
- Quantities of water for domestic duties increased
- Availability of water during / after child birth
- Incidence of post natal infections reduced

Indicator: School attendance
- Number of school age children in school
- Drop out rates
- Absenteeism
- Punctuality

Impact
- Children attend school regularly (not exhausted from fetching water)
- Number of students attending school increased
- Students have time for studying
- Parents acquire new ideas and practices

- Reallocation of time (particularly women's and girl's time) away from water collection to existing or new activities, such as livelihood activities, observance of social obligations or attendance at school;
- Reduced incidences of morbidity and mortality (self reported), with particular impact on women's and children's health;
- Reduction of tension and anxiety (for both men and women) regarding the physical availability of water, or concern about the welfare of women and girls searching for water far from a village;
- Rates of school enrolment, attendance and absenteeism improved in many reference communities as a result of reduced need for children to search for water. In some instances, academic performance improved because children stayed longer in classes during the day, and

teachers were able to focus on the curricula rather than fetching water for students;
- Gender roles were observed to change in some communities, with men and women's role becoming more interchangeable. This was particularly noted in those communities where strong female empowerment processes had been experienced.

Box 2: Selected field insights – community member's comments

"Money saved from buying water at exorbitant prices could now be used for other items such as sugar, kerosene for home lighting, soap bars, school uniforms and analgesic drugs and has enabled one (to) sip a good and tastier cup of tea at home or café bar; this was almost impossible in the past when water was far…"

Mzee Siwa, Tandala village, Kondoa District, Dodoma, Tanzania

"During the dry season in the past, we had to dig on the streambed to obtain water and this was the responsibility of men that took much of our time. In some instances, men had to assist women 'hunt' for water, which normally is not the practice. With the hand dug well, we no more spend too much time hunting for water with women. We now have ample time for our farming activities and tapping palm wine".

Wofa Yaw a member of Kwaku Dwira community, Ghana.

The findings from the study demonstrate the capacity that communities have to undertake complex analytical tasks to arrive at their own conceptualisation of impact. An interesting exercise has been for the study teams to compare their own perceptions of impact, with the indicators of change and impact actually recorded by communities.

It became clear during the course of the study that there have been impacts which could not have been foreseen by the study teams, and which have only been revealed by communities identifying impact themselves. It is not only the identification of a category; it is the extent and scale of impact that was unforeseen by the study team. The range of socio-cultural impacts and their penetration into all aspects of community life has been particularly informative, as have the psychological impacts of reduced tension and anxiety.

Lessons learned

The study disaggregated lessons learned by those relevant to the hypotheses for the study, to water and sanitation programmes, those applicable for participatory impact assessments and lessons from managing a study of this kind. Key findings from each of these categories are included below.

1. Hypotheses for the study

Hypothesis 1: Projects constructed and managed by communities have a positive impact on the living standards of those communities, particularly in the areas of health (especially of children), economic status (especially of women) and school attendance.

Findings from the study indicate that this hypothesis is proven. Health impacts are notoriously difficult to attribute to specific interventions. However, consensus emerged across the study teams that the health impacts identified by community members focused on the incidence of disease, improvement in women's and children's health, personal cleanliness practices, household cleanliness and increased health/hygiene awareness. In all of the reference communities studied, there were clear signs of improvement to livelihoods, particularly in asset ownership, growth in new livelihood activities, changes in purchasing power and changes to income. In terms of attribution, community members across the country case studies appeared confident in linking drinking water interventions to improvements in economic status. A strong feature of the study findings is the impact that time and labour saved from water collection has on the potential to change economic status, especially for women. In a number of communities, an improvement has been observed in the numbers attending community schools, in child retention when at school and subsequent levels of absenteeism. The relationship between this impact and the availability of drinking water is strongly identified by communities themselves.

Hypothesis 2: Project impact is less for the poorer sections of the community, but greater for women and children than for men.

Findings from the study suggest that this hypothesis is not proven. Across the case studies, the study teams found that the distribution of impacts between different groups in the community varied, but that it was difficult to arrive at the conclusion that poorer households and men benefited less than women and children.

Hypothesis 3: Beyond the immediate, positive effects of education on improving sanitation, the environmental impact of projects on their communities is negligible.

This hypothesis is not proven. It is evident that the environmental impact in several projects has been both positive and significant, leading to for example, a greening of community surroundings and generally cleaner household/community surroundings.

Hypothesis 4: Impact depends more on effective management than on technical quality of works.

Findings from the study indicate that this hypothesis is not proven. In general, the team members' interpretation is that impact depends equally on both technical quality of works and effective management. This hypothesis was difficult to measure however because we had few sound measures of effective management or technical quality.

Hypothesis 5: Impact of projects is not associated with a longer period of provision of support to community organisations.

Findings from the study indicate that the hypothesis is contradicted. The general perspective of the study teams

is that continued and on-going support to community organisations facilitated sustained development within the communities. Projects that have been in existence for a longer period tend to have made a greater impact on the people than those that are relatively new. However, it should be noted that there were no prescribed parameters applied to define the time duration implied by a 'longer period' in the study. The suggestion is that one project, with a longer period of support, will have greater impact than another with a shorter period.

2. Water and sanitation ('watsan') programmes

- The impact of the interventions turned out to be farther reaching than initial project objectives. The socio-economic dimension to impact was particularly noted, and from the beginning of projects, WaterAid and its partner organisations should be planning for a wide variety of impacts;
- In the absence of alternative water sources, rural communities use domestic water supply for watering livestock. Consequently, watsan programmes need to take into account the demand for water for the livestock population associated with the project;
- Community members are capable of introducing their own management system(s) for a sustained operation of facilities, although they do not necessarily follow established rules pertaining to the management of water points, e.g. opening of bank accounts;
- Communities are capable of evolving their own internal structures to ensure proper management and sustainability of water and sanitation facilities. Straight-jacket prescriptions for the establishment of particular structures at community level may be counter-productive. Communities clearly need to be more involved in decision-making processes in the planning and implementation of projects.

3. Participatory impact assessments

- It is feasible and practical for communities to generate indicators to assess the impact of projects on their daily lives without assessors identifying pre-determined indicators. In many instances, project teams found that indicators of impact were spontaneously identified. This in turn has led to the explanation of impacts that were farther reaching than initial project objectives;
- To be effective, this methodological approach requires skilful application of several participatory tools;
- The length of time to conduct this type of study for the range of hypotheses being examined needs to be increased. Two weeks was adequate for a limited pretest exercise, but the length of inputs recommended for the main research fieldwork and report writing stages needs to be critically reviewed. In this study, an average figure closer to 14 weeks continuous input was required for each team to complete the study in four communities.

4. Benefits and challenges of Looking Back study

- The study design and approach provided for a two-way learning opportunity between the community and the researchers. It has enhanced project team's experience with applying participatory tools *in the field*. For some of the field assistants, it provided an opportunity to develop experience with using PRA tools;
- It has also exposed team members to traditional community knowledge and challenged professional perceptions. New skills and expertise have arisen from the study which are of benefit beyond the individuals involved to participating organisations as a whole;
- The opportunity for dialogue and collaborative work between partner organisations and country WaterAid offices has strengthened their relationship. The experience of visiting country programmes as part of the process of developing the methodology has enhanced opportunities for learning across project teams.
- The number of hypotheses for the study was considered too ambitious in the time available. Project team members commented that this type of participatory assessment generated large quantities of information that needed to synthesised and categorised appropriately. Completing triangulation of data within the time available proved problematic.

Conclusions

The Looking Back study established at its outset an array of hypotheses to be tested using participatory methodologies. The study was designed to elicit community understanding of impacts from project interventions, and the indicators of those impacts. Additionally, the study aimed to heighten the capacity and skills of WaterAid and project partner staff to undertake subsequent studies of this kind without external facilitation.

On reviewing the findings from study teams, the methodology employed has proven itself to be robust and competent. Looking Back has demonstrated that communities are capable of identifying impacts and impact indicators from project interventions. Of particular note has been the breadth and depth of impacts on all aspects of community life, and the manner in which the methodology identified 'unforeseen' impacts that could only have been revealed by community members themselves.

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