How WaterAid looked back

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What is the impact of a water supply project ten years later? WaterAid's *Looking Back* study aimed to find out. In this research, community members were asked to help design the questions on project impact, as well as answer them.

In 1999/2000 a 12-month study looked into the long-term impact of WaterAid-supported projects carried out in Ethiopia, Ghana, India and Tanzania between 1991 and 1993.[1] It moved away from conventional assessments where project impacts are evaluated mainly in terms of mechanical measures of inputs and outputs. Instead, it situated projects within the social context of the community, and measured impact using largely qualitative methods supported by some quantitative means. Rather than just report the changes as reflected by figures and statistics, it called in 'guest speakers' to commentate. These were ordinary community members whose tales of relief from suffering, and anecdotes of increased personal empowerment, provided a greater sense and meaning to the concept of impact than the 'number of latrines built' or 'percentage served by hand-dug wells' could communicate:

'In the past, when water was difficult to obtain,' recalled one woman resident of Songambele village, Tanzania, 'women who had problems with their menstrual hygiene were taken to the elders for consultation so that they can improve their cleanliness.' Another added: 'A water source near our homes has improved our menstrual hygiene and made us feel secure even in front of others.'

Five hypotheses were designed with which to test assumptions (based on previous field experience) around the types of changes which water and sanitation projects bring about, the sustainability of those changes, and who benefits most from them. These hypotheses directed the activities of four decentralized study teams, one in each country, towards identifying broad 'domains of change' such as health, socio-economic status, gender relations, education, environmental conditions, community management and support services for community organizations. It is only since 1996 that WaterAid-supported projects have contained a significant hygiene promotion component. The noted health changes were therefore focused mainly on those resulting from increased quality, quantity and accessibility to water, rather than on specific hygiene practices. Both 'control' communities (i.e. where no project intervention had taken place) and 'reference' communities (i.e. where the impacts of project interventions were studied) were chosen in each country.

Facilitated by researchers, communities themselves then generated their own impact indicators. This in itself revealed the key ways in which water and sanitation projects had affected and changed their daily lives. These impact indicators, which covered the breadth and depth of community life, showed how the impact of the projects turned out to be further reaching than the initial project objectives.

Although team members were experienced in using participatory tools, the suggestion that communities identify impacts and indicators themselves still required a shift in thinking and practice. Two team members expressed it thus:

'Initially study teams were baffled by the idea of generating impact indicators from the communities themselves, and were sceptical about the process . . . Our fears were allayed as the community, right from the beginning . . . dropped impact and impact indicators spontaneously. [We] felt that the impact indicators were popping up like mushrooms . . .'

'The candidness of the community in coming out with the impacts and impact indicators touched us. This learning experience has challenged our earlier professional beliefs.'

The *Looking Back* study was a two-way learning opportunity for the communities and the study teams. It raised the challenge of how the formal social science skills of 'outsiders' and the traditional community knowledge of 'insiders' could be blended for the mutual learning advantage of both.

Methodology used

In each country, the study first selected communities from the areas covered by WaterAid projects. Individuals and groups of individuals (e.g. women, elders, etc) were then selected from within these communities. At both levels of selection, purposive criteria rather than random choice were used. The sample sizes varied significantly. For example, six communities were selected in Ethiopia with an average of 158 participants per community for the interviews, community mapping, focus group discussions and other data-gathering

exercises. In contrast, there were only four communities in Ghana with around 20 participants per community, where the *odikro* (chief) was involved in the random selection of community members. In some cases he limited the number of participants because of the impact the research would have on agricultural activities during that part of the season.

Existing baseline data were used where possible, although much was unfortunately found to have little relevance for the purposes of this research. This limitation was addressed in two ways:

- by study teams relying on community recall to understand the nature and extent of change using participatory tools such as force field analysis; and
- by using control communities to provide an indirect means by which impact could be assessed.

Establishing causation within a social development context is notoriously difficult and therefore the study teams decided not to attempt to prove it precisely. Instead the study relied on the qualitative information collected from interviews, observations, and PRA (participatory rural appraisal) techniques to ascertain whether the community attributed the key changes to project interventions or other causes; and to disaggregate developments in a community according to different agency interventions.

Finally, to improve the overall reliability and validity of the data collection process, a number of methods were employed. Field pretests were made after the study teams' orientation workshops in order to train team members in the methodologies. Triangulation was applied to the data (cross-checking information gathered using one method with information collected from alternative sources, including the use of secondary data from government agencies and schools when available). Key informant interviews were tape-recorded, to minimize observer bias in simple note taking. The teams had multidisciplinary backgrounds, and at the end of each piece of fieldwork, findings were shared with the community so that other community members could express their

Table 1 Summary of findings in Ethiopia.

Impact indicator	Impact result
Health	
• Sufficient quantity and quality of safe water supply, when required, at short distance to user.	• Incidence of stomach pain/diarrhoea reduced. • Incidence of water-linked diseases reduced. • Water used for washing body, clothing, utensils increased from between 26 and 33% to 52% of total consumption. • Bathing using soap increased from less than once per week to between daily and weekly. • Household utensils cleaned. • Observance of religious rites. • Reduced fatigue for women. • Changed workload for women. • Quantities of water for domestic duties increased from < 10 litres/person/day to 18–22 litres/person/day. • Increased availability of water during and after childbirth. • Incidence of post-natal infections reduced.
• Number of households with traditional latrine.	• Increased use of pit latrines in Hitosa. Few in North Gondar.
• Hand washing.	• Increased use of soap for hand washing before handling food. • Increased incidence of hand washing after defecation.
Economic status	
• Time devoted to agricultural activities. • Condition of livestock (healthy and fat?) • Number of cattle. • Priority of household purchasing power.	• Livelihood of the community improved through, e.g. increased numbers of healthy livestock
• Presence of shops, food/drink vendors, cart owners in the peasant association. • Time devoted to non-agricultural activities.	• Introduction of off-farm activities. • Income of households improved (e.g. ability to build up savings).
• Housing built with corrugated iron roof sheeting.	• Housing structures improved.
• Housing with separate rooms for kitchen and livestock.	• Eye diseases reduced.
	• Roof water-harvesting method introduced.
School attendance	
• Number of school-age children. • Drop-out rates. • Absenteeism. • Punctuality.	• Increase in number of students attending school regularly. • Time spent on school-related activities increased to seven to nine hours/day. • Students have time for studying. • Parents acquire new ideas and practices.
Social	
• Level of family interaction. • Number of meals. • Meals eaten on time. • Time devoted to children, elders, social gatherings.	• Time spent collecting water reduced from an average six to eight hours to five to 20 minutes/day • More time spent with family • More social/community interaction
Psychological	
• Safe arrival of female family member from fetching water. • Water available for religious ceremonies. • Cleanliness of students' uniforms.	• Reduced tension. • Observance of religious rites. • Increased student self-respect.

Impact was found to depend on effective community management as much as technical quality

opinions or challenge the interim results.

Table 1 provides an example of the main findings recorded in one country case study – that of Ethiopia, where three of the study communities were located in Arsi Zone (in the south-central lowland region) and three in North Gondar Zone (in the mountainous northern region).

Outcomes of the study

Clear signs of improvements to people's living standards (Hypothesis 1) were seen in all reference communities, as were the benefits of project interventions enjoyed by women and children (Hypothesis 2, second part) and a general greening and cleaning of the environment (Hypothesis 3). Impact was found to depend equally on both technical quality and effective community management (Hypothesis 4), along with continued support to facilitate sustained development within communities (Hypothesis 5). Findings were, however, inconclusive regarding project impacts being greater or lesser for the poorer sections of the community (Hypothesis 2, part 1). The need to disaggregate impact data by economic status (gender and age) has consequently been recognized as an important issue within WaterAid, and one it is striving to incorporate into regular monitoring activities.

The wealth of information produced by the *Looking Back* study has proved invaluable to WaterAid's advocacy work. Evidence of the impacts of water and sanitation projects on livelihoods, the socio-cultural life of communities, people's mental and physical well-being, educational opportunities, gender relations, community management and sustainability, have all helped to show that water and sanitation projects are much more than interventions to reduce disease and the burden of long-distance water collection. They are central to effective poverty reduction strategies both locally and internationally.

Just as important, though, has been the lesson for WaterAid that involving community members in assessments of their own projects is essential if the true impacts are to be appreciated and for future projects to reach their full potential. The methodology adopted by the *Looking Back* study has now been developed into impact assessment guidelines for use by WaterAid programme staff.[2] With participatory impact assessments integrated into regular programme monitoring, the quality of programmes can be improved as staff understand, not just the range of changes that take place, but which changes are valued by communities and how they have been brought about.

Box 1. The five hypotheses

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.
2. Project impact is less for the poorer sections of the community, and greater for women and children than for men.
3. Beyond the immediate, positive effects of education on improving sanitation, the environmental impacts of projects on their communities are negligible.
4. Impact depends more on effective management than on technical quality of works.
5. The impact of projects is not associated with a longer period of provision of support to community organizations.

Box 2. PRA techniques used in the study

three-pile sorting	trend analysis
photo parade	community mapping
history line	linkage diagram
force-field analysis	wealth ranking
focus group discussion	pair-wise ranking
seasonal calendar	self-evaluation
daily routine	health (transect)
charts	walk

About the author

Vicky Blagbrough is the WaterAid Programme Learning Facilitator. WaterAid is the UK's only major charity dedicated exclusively to the sustainable provision of safe domestic water, sanitation and hygiene education to the world's poorest people.

References

1 Adugna, Aderies, Martin Dery, Joe Gomme, A. Kalimuthu, Herbert Kashililah, Meaza Kebede, Evans Owusu, N. Radha, Susan Maganga, Darren Saywell (2001) *Looking Back: Participatory impact assessment of older projects,* available from WaterAid.

2 WaterAid (2002) *Impact Assessment Guidelines,* first edition, WaterAid.