Impact Assessment Guidelines

Based on the experience of ***Looking Back: Participatory Impact Assessment of Older Projects***

Joe Gomme

For further information contact:
Vicky Blagbrough
WaterAid
Prince Consort House
27-27 Albert Embankment
London SE1 7UB
Tel: 020 7793 4500
Fax: 020 7793 4545

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1. What is impact assessment?

1.1. Impact assessment at WaterAid

WaterAid began to develop impact assessment through an international study known as "Looking Back". This developed a methodology used to study the impact of some of its older projects in four different countries during 1998/99. The full report is available from WaterAid London[1]. WaterAid wishes to use the experience gained in ***Looking Back*** to promote regular impact assessment in its country programmes. This document therefore presents the important methodological considerations and aims to advise country programmes on how to go about such studies.

Following a brief discussion in this section of the 'what' and 'why' of assessing impact, this guide presents the methodology that has been developed in ***Looking Back***, from planning through to reporting (that is, the 'how' of impact assessment).

The text refers to several Appendices that contain further information: Appendix 1 contains the Terms of Reference.

1.2. What can you expect of the process?

You can expect it to be demanding, informative, to foster a closer understanding on the part of study team members of poor people's realities. At best it may suggest opportunities for change in the processes you use for other kinds of monitoring and evaluation and for planning. And it will be a learning process for the communities and the team members.

1.3. What can you expect of the data produced?

The understanding produced by the study can be used to improve the quality of programme work, because staff will know more precisely what impacts are caused in communities, what impacts are valued by communities and how these changes are brought about.

The information generated can also be used in advocacy because it will provide credible testimony to the results of past work and to the condition of life of poor people.

1.4. How can this kind of study be used?

The previous paragraphs show that impact assessment can be used for various purposes:

- to improve your programmes and your understanding of community processes;
- to provide material for advocacy documents or campaigns;
- to demonstrate the effectiveness of your projects, including providing support for fundraising initiatives.

All of these objectives can be greatly enhanced by linking impact assessment to your routine monitoring and evaluation activities.

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[1] This document draws heavily on the report of the 1998/99 study (Saywell, D., "Looking Back: Participatory Impact Assessment of Older Projects", WaterAid, 2000), which is referred to in the text as ***Looking Back***.

However it is worth noting that impact assessment will normally be associated with the monitoring and evaluation of **programmes** rather than **projects**. It will probably not be realistic to carry out an impact assessment of every project; rather the impact of programmes will be investigated through the assessment of selected projects.

1.5 *How does impact assessment link to other programme monitoring & evaluation activities?*

WaterAid is currently working towards commonly agreed definitions and specified timings of 'monitoring', 'evaluation and 'impact assessment' across the whole organisation. At the same time, Country Programmes are continuing to develop their m&e systems. This section is therefore able to provide only a broad idea of how impact assessment links to any particular programme's other monitoring and evaluation activities.

Monitoring is an ongoing process. At programme level it takes place each time that a progress check is done – that is at least every quarter – and it is based on more frequent project monitoring events (taking place either formally or informally with every field visit to a project community). Monitoring involves almost no analysis; it tends to be only descriptive. It is also usually highly specific to a closely defined plan or list of activities and outputs.

On the other hand, **evaluation** is periodic in its timing. WaterAid programme evaluations take place on average every 3-4 years, although programme 'reviews' are more frequent and are, in essence, also evaluations. Additional evaluations of specific projects or aspects of programmes may also be organised. An evaluation analyses programme processes, systems and outputs, and the relationship these have to each other. It may also be focussed on learning, since the process of evaluation itself - and its outputs - can be excellent vehicles for this.

In order to decide how **impact assessment** will fit into a monitoring and evaluation system, you must be clear what you expect to get from it. If you simply require particular information for a specific advocacy campaign, for example, there would be no need to set up a regular series of assessments or for a clear link with your M&E system. However if you require regular reports to help in your annual or project planning processes, your staff training, or the production of documents for advocacy and learning, the link is needed to streamline processes and to reduce duplication of effort.

WaterAid believes that, apart from providing material for learning and advocacy documents with wider circulation, impact assessments should be used as tools to improve the effectiveness of the WaterAid programme concerned. This suggests that they need to be planned on a regular basis alongside other monitoring and evaluation activities. How much time you spend on impact assessment will depend on your programme's needs and the effectiveness of the assessments in producing usable results. But considering them as part of the whole M&E and planning processes can heighten their effectiveness.

Carrying out small-scale, frequent, impact assessments will help to institutionalise the processes and give key staff members vital training and experience (if they only do it every two or three years you may end up training someone new each time!). For this we should focus on specific aspects, themes or questions (e.g. WaterAid Strategic Contribution Indicators).

Since one of the difficulties of carrying out an impact study is to establish clearly the original (pre-project) situation, one way to be more efficient is to consider future studies

during baseline surveys. This means that you may decide to make your baseline survey wider in scope, so that you have a reference point for wider impacts in areas such as school attendance, cultural uses of water, or attitudes to open defecation and latrine use. If this represents a major change from your usual baseline surveys, you may decide to adopt new survey techniques in a limited number of projects. This supposes that you will be studying impact in those chosen projects and not in others with a smaller database.

During project implementation and monitoring it is important to document processes clearly. It is also very useful to note any external changes that are being introduced or that you think will have influence on project impact (e.g. a new road into the village, a flood or other natural disaster, the change of a key external contact for the community such as an influential school teacher or local government official). If you have good documentation this will greatly ease the difficulties of identification of these external circumstances whose impacts may later need to be distinguished from those of the project.

2. Methodological sequence: "how might you organise it?"

Ideally, you would like a ***cheap***, ***quick*** way to produce ***detailed***, ***reliable*** information, illustrated by ***specific cases*** to provide credible explanation. Unfortunately some of these requirements conflict; this is reflected in the different styles of assessment that have been used in the past.

One type of assessment values scientific rigour and places a premium on the confidence you have in the results (often statistically calculated). This kind of study tends to involve large numbers of people, focus on very specific questions, and produce quantified results. To cover a range of questions it is expensive, and the questions asked also tend to be inflexible. Another type favours processes, personal views and case studies. This kind of study works in greater depth with fewer people and may be wider ranging. It produces less "scientific" results – usually qualitative – but is more flexible and more open to true participation.

Looking Back tried to find a balanced approach to meet the conflicting requirements mentioned above. Therefore it did not try to identify ***the*** optimal method, but a ***mix*** of methods that are appropriately combined. The methods were based on three principles.

1. Where feasible, "objective", scientific methods were used, including control groups and triangulation.
2. Impacts that were highly plausible (logically argued by community members) were generally accepted.
3. The community was the evaluator. The perceived reality of the poor was of the greatest importance (i.e. the assessment tried to present poor people's perceptions, not those of the study teams).

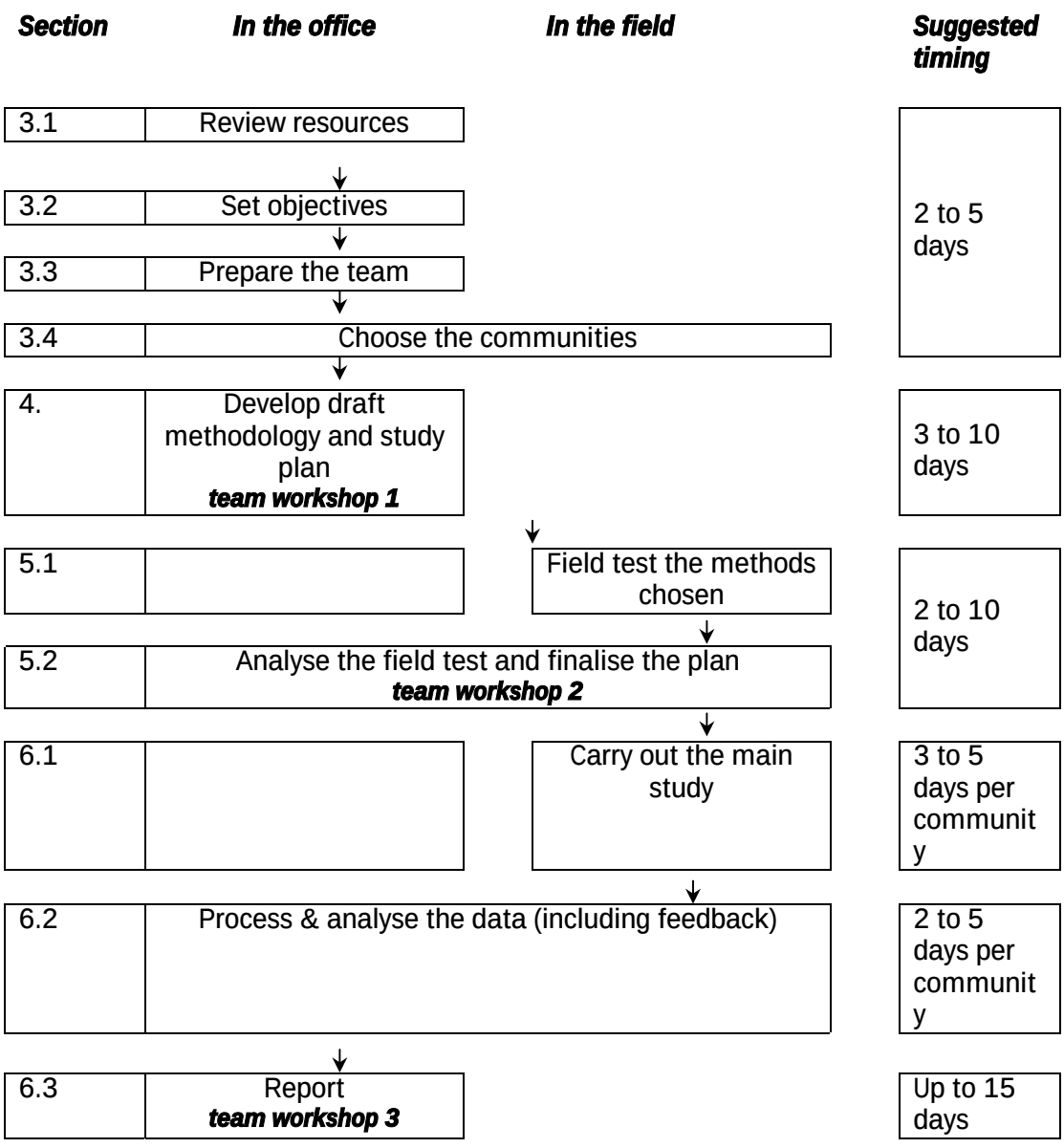
The sequence of steps suggested in this chapter is derived from the sequence developed during the original study. The sequence is illustrated in the flow chart in Figure 1, and sections 3 to 6 describe each step in more detail, following the numbers on the chart. The draft methodology can be based closely or loosely on the sequence presented below.

The column on the right provides a suggestion as to how long each step may take. The range is intended to indicate likely times for more and less experienced teams. For example a team that has already carried out two or three assessments might only need two

days for the first steps (3.1 to 3.4 in Figure 1); whereas a team with no previous experience of impact assessment might need five days.

A very experienced team may even be able to amalgamate some of the steps, for example by merging the field testing with the first part of the main study. This is not advised unless you are very confident of the team members' ability to resolve early problems as they work.

Figure 1: Suggested methodological sequence



3. Preparations

3.1. Resource requirements (What will you need?)

You need a small team of staff (WaterAid and/or partner staff) who have the appropriate skills and experience. These people include at least two people to lead activities and possibly about two field assistants. The team members need to set aside significant work time to put into the study. This is discussed in more detail for each activity below, but in general you should plan for several weeks of work, particularly if the methods are new to some team members. If your team is not very experienced you may choose to look for an external consultant to help.

For preparations, experienced teams who have a clear idea of impact assessment will probably need a couple of days to consider resources, objectives and communities and to plan their inputs. If the team is new to the tasks, initial planning may take several days, plus any specific training or staff development that you may choose to provide.

In addition to your own team, you also need communities that are willing to give up their time. Their commitment will also be considerable and you have to think about what they may look for in return.

You will probably need a vehicle to be available for the fieldwork. A certain amount of stationery and supports such as flip-chart stands and cassette recorders may be needed. You should consider providing a laptop computer to the field team so that they can immediately enter data in the field, avoiding some of the write-up time required back in the office.

A budget for staff time, transport costs and materials, as well as for any additional work in the study communities, will of course also be needed to support the project.

3.2 Setting objectives

If you want a result that balances the requirements of rigour and cost, specific answers and wide coverage of topics, the objectives of the study must be carefully set. There may well be questions that you would like to concentrate on, because they form part of your programme monitoring, or because they were part of the aims of the projects you are assessing. But if the study communities are to be able to express themselves freely there must also be flexibility to allow them to discuss subjects that are not pre-determined. ***Looking Back*** set a number of objectives, which were used to focus the discussions on pre-determined themes, but these were very broad. In order to link impact assessment to a regular monitoring programme, I suggest that you have a mix of fairly specific objectives (which respond to your specific information needs) and

Box 1: Use of objectives

An **objective** should be used to define your specific concerns in relation to a theme. For example, if you need to focus on gender, you might set a specific objective "To examine whether men's or women's lives have changed more, and to assess the distribution of benefits of those changes". On the other hand, in order to leave the theme of health quite general, you might set the objective "To document community understanding of health impacts resulting from the project."

broad ones, which allow discussion to flow in unexpected directions (see Box 1). The range of themes that can be explored depends heavily on the time available.

3.3 Preparing the team

First you need to decide which organisations will take part. Probably WaterAid and one or more partners will be involved. It is of course important that all the organisations concerned be motivated to carry out the study and willing to bear the costs (in terms of staff time, equipment and finance).

Once the organisations are decided, the choice of specific staff members is also important. This should be a negotiated process between WaterAid and partners. Box 2 explains the composition of field study teams for the original project. Field teams should ideally combine staff who are familiar and unfamiliar with the study communities. This allows for confidence to be established quickly with communities, but also encourages people to talk openly about the project precisely because some of the study team were not members of the project staff.

Criteria for staff selection should be established early in discussions about the study. Box 3 gives some examples. In deciding who should be involved, it is useful to ask the question: what skills are needed to understand the community perception, and to communicate the results of the study? Additionally, are there people who should be involved to help ensure that the findings are acted upon?

Box 3: Key criteria used for staff selection for Looking Back ***study***

Essential	Desirable
Thorough knowledge of the activities of the partner organisation and of WaterAid	Knowledge of the history of the partner's and WaterAid's past programmes
Willingness to learn and ability to pass on participatory methods for impact assessment	Experience of evaluations of water and sanitation programmes
Fluent in local language(s)	Training in participatory methods of working
Experience of PRA techniques	Good reporting skills

You will probably need to name one person as study co-ordinator. Depending on the capacity of study team members and the number of field teams and organisations involved, this person (who could be an external consultant or a staff member) could be asked:

- to provide any additional training required (in PRA techniques, for example)
- to facilitate workshops or meetings, including for the method development
- to undertake a quality assurance role during fieldwork
- to prepare and present the final report

It is of course important at the preliminary stage to decide who will take on the above tasks.

Multidisciplinary teams have the advantage that each team member has a different professional viewpoint, so that questions are seen in different lights.

If the team members are new to impact assessment, then prior to the methodology development, study team members should be asked to complete a skills assessment survey. The purpose of the survey is to:

a) establish the type of experience and capacity which project staff already have;
b) identify any additional knowledge and skills required;
c) rank the types of training needed by project staff.

Box 4: Results of team member assessment for Looking Back ***study***

Assessment showed that team members:

- Had an average of 8 years experience in the sector;
- Had greater field based experience of developing and conducting impact assessments than formal training on the subject;
- Had already been trained in and had field experience in the majority of data collection tools planned for the study;
- Wished to consolidate existing knowledge on data collection tools.

This information can be used to design any inputs needed for the first workshop.

3.4 Choosing the communities

Normally you will be interested in a specific type of community. You have to set criteria which define this type, so that you can choose appropriate communities. Some example criteria used in ***Looking Back*** are shown in Box 5. You should adapt these for your own use.

Box 5: Some criteria used to select communities for Looking Back

Context-related	Community-related	Project-related
❖ Water source and sanitation technology ❖ Population size and density ❖ Cultural or ethnic composition ❖ Level of poverty ❖ Relative geographic isolation	❖ Willingness to participate in WS&S activities ❖ Strength of village water committees ❖ Community spirit and cohesiveness	❖ Carried out from 1991-93 ❖ Strength of sanitation and hygiene promotion component ❖ Existence of other projects in the community ❖ Type of organisation for management of facilities

The criteria may be used to limit or to ensure diversity in the sample, according to your objectives. For example, if one objective is to assess the effectiveness of hygiene promotion methods, you might choose communities which had similar size, ethnic composition and poverty level, but which had differing amounts of hygiene promotion in their project design.

Control communities (see Section 4.2 on attribution) should be as similar as possible to the other study communities, except that they have had no project.

If you are involving "outsiders" (people external to the projects assessed, or external to the organisation) it is useful to draw up a community shortlist and then to make a final selection with their advice.

Communities that are selected should of course be consulted beforehand. A participatory study implies significant inputs for participating communities in terms of time and disruption to their daily activities. What motivates them to take part will vary, but may include:

- a clear understanding of the purpose of the study;
- the opportunity for additional work to be undertaken in project communities
- the possibility of a future project being carried out in control communities
- a sense of good will to the project team organisations, based on previous experience

It is advisable to decide in advance what kind of incentive you may be able to offer. Assessors should also try to find out which of these factors are important to each community, and bear them in mind when analysing the communities' perceptions.

4. Develop draft methodology and study plan

In ***Looking Back***, the teams needed to develop their understanding of the concepts described in this section. This was done while developing the methodology and study plan, with the help of a consultant, during a ten-day workshop. The time requirement for a more experienced team to draw up a methodology, decide the tools to be used and consider the question of indicators (Section 4.3) might be three to four days.

4.1. Impact: "what's the difference?"

This is the real question that an impact assessment tries to answer. For the people affected by the project, what is the difference to their lives (or to some aspect of their lives) that it has made? An impact assessment is therefore complicated because it is not simply measuring the situation ***now***, but also has to compare that to the situation ***before***. There are several ways to attempt this.

Baseline data

Where possible, studies should use baseline data collected in the study communities before a project was carried out. These data may be available from WaterAid, partner organisations, communities, schools, health centres or government departments. If the quality of baseline data is good, it is the surest means to provide a comparison with the present. Often, however, baseline data will not be available, or will not cover all of the areas of investigation.

Control groups

Studies often include a "control group". ***Looking Back*** examined one control community in each country alongside the "project" communities. An ideal control community would be exactly similar to the project communities except that it had had no project. In practice of course exactly similar communities are very difficult to find, but often a quite similar community can provide very useful comparison.

Use of a control group is essential to validate findings when you do not have baseline data. Even when you have a good baseline, you may consider using a control group because the overall environment may have changed in an important way since the baseline data were collected (e.g. a whole region may be economically better off or influential laws may have been changed).

Personal or community recall

The third means of comparison (used extensively in ***Looking Back***) is to ask people to recall what life was like before the project and to compare it with their present experience. This is less "scientific" but reasoning and evidence for assertions can be explored with those concerned.

Because all of these methods of comparison have their weaknesses in terms of the reliability and completeness of the data used, ***triangulation*** – or the use of several methods to assess the same information in different ways or from different sources – is very important (see Section 4.6).

4.2. Attribution: "what was it that made the difference"?

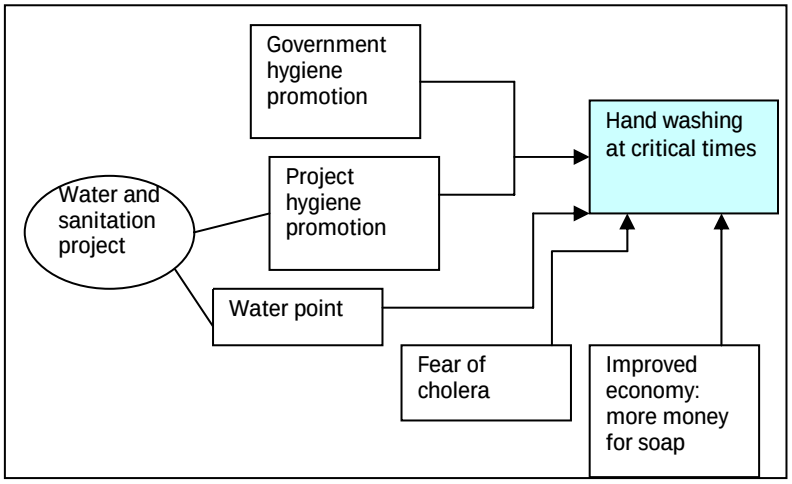


Figure 2: Cause and effect flow diagram

Linked to the problem of the reliability of data, the question of attribution asks if you can be sure that a certain change in the community can be ***attributed to*** (i.e. was clearly ***caused by***) the project. There may be a number of different factors that have given rise to a certain result (see Figure 2). For example, if hand washing in the community has increased, that may be a result of the project, but it could also be caused by government health workers' promotion campaigns, the fear generated by a cholera outbreak or an improvement in the economy due to increased food production. The challenge for the team is to establish whether the WaterAid intervention was perceived by the community to have affected hand-washing practices.

It is crucial that team members consider attribution, as it will have a significant impact on the reliability of your overall findings. It is very difficult to establish the relative weighting of different causes, but you should at least identify the different factors.

Useful tools for this purpose include flow diagrams, like that above, chapatti or Venn diagrams and force field analysis.

4.3. Indicators

Indicators measure the performance of projects and programmes using both quantitative and qualitative information.

1. Quantitative indicators use numerical data, such as "X number of wells constructed."
2. Qualitative indicators measure less tangible aspects of work, such as levels of participation, power relationships and behavioural change.

Often you will want to generalise findings. For example "80% of people are now economically better off". The more that you wish to generalise, the more you will need to quantify qualitative information; so you need to use tools that allow you to quantify certain results. This is often done by getting people to "score" or rank their perceptions.

Looking Back divided impacts and indicators between six core areas, which were livelihood (including income), socio-cultural impact, health and hygiene, psychological impact, education, management and sustainability. Examples for each of these areas are presented in Appendix 2.

The key focus of WaterAid's impact studies is to assist community members in identifying their own indicators, which reliably measure impacts that the community sees to be significant. If the evaluator (e.g. WaterAid) has a strong pre-determined agenda, it inhibits the community members' expression of their own perceptions and indicators. While identifying impacts requires the answer to the question "what has changed?", identifying indicators needs a different question: "how do you know it has changed?". Indicators may be direct, or they may be "proxy". "Proxy" indicators are those that indirectly demonstrate impact. They involve an assumed link between the indicator and the impact. (For example if we assume that an increase in hand washing at critical times will improve health, then the increase in hand washing can be used as a proxy indicator for improved health.)

Although team members may be experienced in using participatory tools, the suggestion that communities identify impacts and indicators themselves may still require a shift in thinking and practice. Two members of the ***Looking Back*** team[2] expressed it as shown in Box 6.

Box 6: The Looking Back ***team's experience of community-identified indicators***

"Initially study teams were baffled with the idea of generating impact indicators through 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 hitherto professional beliefs."

Again there is a tension between allowing freedom for each community to express itself and your ability to compare and generalise. It is very hard to compare the results from two communities that have used completely different indicators. A compromise is to establish a number of indicators in themes of importance to the study (perhaps with the pre-test

[2] N Radha, Executive Director, LEAD (India) and Martin Dery, Project Manager, ProNet (Ghana)

community), which you will seek to measure everywhere; and then to allow each community to add to this shortlist.

4.4. Sampling

You cannot talk in detail to everyone. "Sampling" is the process of choosing who you ***do*** talk to. ***Random*** samples tell you about the characteristics of an "average" population. Non-random or "***purposive***" samples can provide more in-depth qualitative information on specific themes. WaterAid recommends that purposive criteria be used to narrow down the population according to your interest. Your criteria might be defined by wealth, gender, ethnicity, position or occupation. For example, if you want to compare the impact for richer and poorer families you might use wealth ranking and then choose a certain number of richer and a certain number of poorer families for the study. If you are particularly interested in health impacts, then you will probably choose to include those people who know most about it (e.g. village health workers and local clinic staff).

In ***Looking Back*** in Ethiopia, wealth ranking was used to identify low and high-level status groups from an initial list of all households. Groups of women were then sampled for including in focus group discussions. This procedure helped to ensure that those who may be marginalized within communities have an opportunity to participate in the study.

4.5. Tools and techniques

The exact tools and techniques to be used cannot be prescribed in advance, but in general they are likely to come from the PRA toolbox. Their selection depends on the experience of the team, the circumstances of the communities, and the themes to be examined. Before the main field research it may be necessary to train team members in the use of certain tools and to encourage them to widen the range of tools that they normally use.

You will need to be able to select from a range of techniques to suit the study hypotheses. For example, if you want to compare access to water between poorer and richer farmers, you could use wealth ranking followed by community mapping. You may also want to choose the techniques according to community capacity. In particular literacy levels will determine how much you can use written materials. Remember that the gender of facilitators is important in discussing certain issues openly. The reflections of the ***Looking Back*** teams on the advantages and disadvantages of different tools are shown in Appendix 3.

The tools used can be divided into groups as shown in Table 1.

The list is of course not exclusive: there may be other tools not listed here which would be equally or more useful to you. In the Table, a tick in the second column ("P") denotes a "preparatory" tool, which provides some preliminary information needed for the investigation and/or helps introduce the team and the process to the community.

The third column ("GI") shows tools suitable for general investigation, which can provide information about the characteristics of the present

Table 1: Primary uses of different tools

		I	
Community meeting	√		
Wealth ranking	√		
Community mapping	√	√	
Key informant interviews		√	√
History line		√	
Transect walk		√	
Focus group discussion		√	√
Force field analysis			√
Trend analysis			√
Daily activity charts		√	
Seasonal calendar		√	
Chapatti or Venn diagram		√	√

situation. The final column ("A") denotes tools useful for more detailed investigation and, more importantly, analysis of data.

4.6. Triangulation

Since the quality of the study findings are directly linked to the quality of the information gathered, several methods can be used to improve the reliability and validity of the data. Subjective reporting of facts may be biased or distorted (deliberately or not). **Triangulation** (see Figure 3) can take the form of cross-checking reported information gathered using one method, with information from different people or using different methods. It is helpful to use a **triangulation matrix** that illustrates clearly the degree of cross checking of data by methodological tool employed (see Appendix 4 for example).

In one village in Ghana, the ***Looking*** Back team heard from community members that there had been an improvement in their personal cleanliness, describing their skin to be 'terum terum' – i.e. clean and smooth (observation 1). This was corroborated by the team's observations during household visits and transect walks (observation 2), and by the local health centre, which confirmed that the incidence of scabies in the village had declined significantly (observation 3).

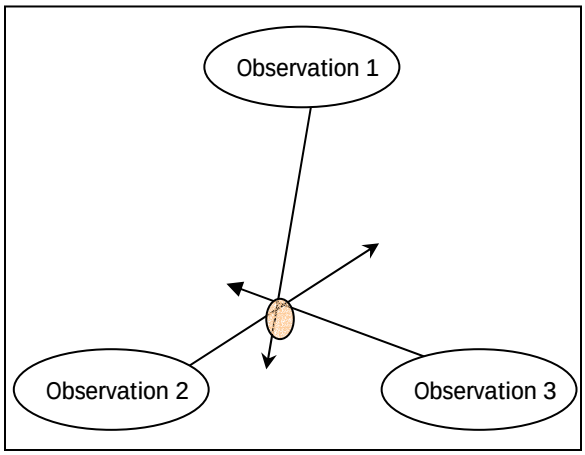


Figure 3: The principle of triangulation

5. Finalise the Methodology

5.1. Field test

There are three reasons to test the methods prior to the main research fieldwork. All of them relate to working with teams inexperienced in impact assessment of this kind. Firstly it works as a trial of the draft methodology that enables the team to improve it. Secondly there may be particular tools that the team needs to practice using in the community. Thirdly it can provide the teams with confidence in the efficacy of the methods.

With an inexperienced team, field-testing is therefore important. It can be expected to take about five days in the field, and a similar length of time writing up, analysing the experience and adjusting methods. As impact assessments become a regular part of a programme's monitoring and evaluation systems, the need for field-testing is likely to reduce greatly, although provision should always be made early in the field investigation for team members to discuss local circumstances, assessment tools and techniques, which may be subject to change.

Box 7: Common elements from Looking Back ***field test action plans***

Preparation

- Planning meeting between study team and community to discuss objectives and expectations
- Selection and orientation of field assistants
- Preparation of materials for tools / methods to be used
- Logistics planning (equipment, materials, manpower etc) and scheduling of fieldwork

Fieldwork

- Decide focus of fieldwork (specific tools and issues to be addressed)
- Identify potentially useful community groups and key informants
- Plan and conduct selected activities
  - ⇒ Test the methodology and tools
  - ⇒ Use the tools to generate impact indicators
- Use different tools, sources and team members for triangulation

Documenting experiences

- Compile / synthesise / analyse the field test results
  - ⇒ Benefits and limitations of methodology and tools
  - ⇒ Impact indicators (direct / proxy)
  - ⇒ Group dynamics
  - ⇒ Interpretations by the community
- Share findings with the community

The field test results can be used as part of the research results for one of the study communities. You should choose specific tools (particularly those that the team is not very familiar with) and limit the time needed for investigation by restricting the themes examined.

5.2. Fine tuning

With a less experienced team, you will need to allow time to discuss the results of the field test and to adjust methods accordingly. This was done during a five-day workshop in ***Looking Back***. If the team is experienced a formal workshop will not be necessary, and adjustments can be made on the basis of informal discussions.

If you have time, write up the field test as you plan to write up the main research. This gives the opportunity to test the analysis and the report structure to see if it matches your field experience.

Box 8: Questions to ask yourselves when analysing the field test

- Do you have a large enough range of tools available to choose from?
- Do you have tools that help you to examine causality? (Can you tell to what extent changes were caused by the project inputs?
- Do you have the right mix of staff (gender, skill areas) in the team?
- Are you getting corroboration of information through triangulation?

6. Main study

The main study will be a period of intensive fieldwork. The length will depend on the number of themes investigated, the number of team members and the number of communities that you work with. ***Looking Back*** study teams were usually made up of two leaders with two field assistants. They covered a wide range of topics and generally spent about a week in each community, or about four weeks in total on fieldwork.

6.1. Carrying out the main study

Some important points to remember during your study:

- Daily planning and review is critical to ensure smooth fieldwork and to understand key issues as they emerge from the research.
- Discussion of results with a larger team (such as a project steering committee) after investigation in each community helps to keep the assessment focussed on the objectives and assists with analysis of information.
- It is easy to underestimate the time needed for analysis and reporting. Particularly for those without prior experience this time is likely to be as much as the field investigation time.
- The need to plan fieldwork around community priorities means that teams have to be flexible in their scheduling.
- If there is a team member with drawing skills, s/he can produce materials specific to each village. This facilitates discussion and improves reporting.
- Feedback to community members after each piece of fieldwork, designed for community members to express opinions and challenge interim results, provide a good check on the efficiency of the study team's understanding.

Box 9: Photographs

Photographs of study activities or project outputs are often useful in reports. They can include pictures of tools being used, of community members going about their tasks and of dynamic discussions. You should note down what is happening in each picture and who the subjects are.

6.2. Processing and analysing the data

Processing qualitative data is often very time-consuming. It may take a similar time to the time taken collecting data. You need to be ready for that, and to try to make the analysis as efficient as possible, some practical tips are provided in this section. If your team members are experienced and efficient they will do much of their data recording and some of the analysis in the field. In this case as little as one third of the time spent in the field may be needed for analysis.

In your field notes or end-of-day notes, **document processes** as well as information, so that you can easily recall who expressed a certain idea (and who might not have been consulted) as well as what tools were used. For example, it would be important to note that a certain piece of information came from the community map, or that women did not participate strongly in a focus group discussion.

To **provide evidence of legitimacy** it is important to record the words of local people. Otherwise a reader may doubt how much of the material is the writer's interpretation.

Direct quotations from community members, relevant to impact or to study findings are always useful in reporting. For particularly interesting or important conclusions, short case studies (which highlight individual or household perspectives while also representing other similar cases) provide good material. Some examples are provided in Appendix 5. People's perspectives can also be recorded in the form of local terms (e.g. direct translations of phrases used in local languages), proverbs, song lyrics and photographs. Rich data are detailed and complete sources of information about something. The opportunity for bias or misunderstanding is reduced if rich data are available, for example from transcripts of interviews, rather than simple note taking.

Start from the beginning to develop your **triangulation matrix** (see Section 4.6). This will tell you whether you have used enough different approaches to look at important themes.

Sub-divide information logically. The division is up to you. You may choose to sub-divide by the tool used; by the subject in focus; by the community. What is important is to decide on a system that works for you and then to stick with it. Otherwise you will end up being unable to find pieces of information that you "know are in there somewhere".

For the same reason, you need to **store information** so that it can be retrieved easily. Again, the system is for you to decide. You may prefer to use A4 folders, computer diskettes, notebooks, audio cassettes or visual outputs (community maps, photos…). You may need a combination of several of these. But once again, you should use these systematically so that you know where a certain piece of information is to be found.

In order to navigate through the data collected**,** you should **develop a coding system** to identify particular themes and issues and to relate these to your themes. For example, "ED" might mean "education", and you might make a list of different education sub-themes, such as ED-1 for water use at school, ED-2 for sanitary facilities at school, ED-3 for hygiene classes, and so on. The terms that you decide to use should be your own, so that you know what you mean by them. Keep a code list somewhere handy.

You should mark these codes into your field records at relevant points. Codes can be coloured, which makes them easier to see. For example you might use blue for education, and therefore a blue "1" in your notes would mean code ED-1. ***Do this every day after your fieldwork!*** It's tiring, but it's worth it.

When you have finished fieldwork in a particular community, use your codes to **synthesise** (put together) all of the data that relate to a particular theme or sub-theme. Through further analysis of the information you should then be able to gain a clear understanding of your findings. Some important questions to ask of your data are:

- What are the similarities between the responses that you got from different people at different times on the same theme?
- What are the differences?
- What links are there between the responses on different themes?
- Why do you think there are these similarities, differences and links?

6.3. Reporting

The reporting process should accomplish two things. Firstly it should present all of the important information that you have gathered, synthesised and analysed, but not necessarily in a very polished form. The aim here is to make sure that you have captured all of the useful material for possible future use. Secondly (and this may well be a separate

report or output) it should fulfil the specific aim of the assessment – which maybe to do with learning, improvement of a specific aspect of the programme, or advocacy. The structure and format will depend on the aim.

For the first type of output, after describing the methodology and the overall experience, you should prepare one or two examples to illustrate how each tool was used and what the main findings were. For tools involving visual output, you should provide a description of the activity, a copy of the visual output (drawing or photograph) and a summary of the discussion. These tools include history line, transect walk, community map, force field analysis and activity calendars. For semi-structured interviews, focus group discussions and community meetings, you may also have a transcript or more detailed notes and no visual output.

For the main output (the second type) you need to design the report according to the aim of the assessment. For example if the aim is to improve programme effectiveness you should concentrate on what the assessment has taught you and the recommendations that you draw from it. If it is to be an advocacy report you need to demonstrate clearly the message that you wish to advocate. To get your message across effectively, you should include pictures of community activities, diagrams showing the results of tools used and quotes from those involved. All of these will lend legitimacy to your report.

For the report you may wish to ask individual team members to write specific chapters, but it is advisable to organise another workshop to discuss the draft report amongst team members and also with other programme and partner staff.

7. A final word

As explained in the first section, impact assessment is, at the time of writing, still quite new to WaterAid, and a skill that WaterAid country programmes need to develop. The suggestions made in this guideline are drawn from an international study but are expected to be applicable to individual programmes.

When you have read this guideline, and even more so when you have applied some of its ideas, you will certainly have contributions to make from your experience. In order to improve its knowledge and practice of impact assessment, WaterAid asks that you disseminate within the organisation, not only the results of your assessment, but also your thoughts on this guideline, and on the process and methods that you used. The International Department's Programme Learning Facilitater will take an overview of comments made. In this way WaterAid will be able to take steps to better its understanding and use of impact assessment.

Appendix 1: Terms of Reference

WATERAID

GUIDANCE NOTE "LOOKING BACK METHODOLOGY" (working title)

June 2002

TERMS OF REFERENCE

Purpose of the Guidance Note

To enable the lessons learnt from the Looking Back methodology to be accessible to as wide an audience as possible, particularly:

- WaterAid and partner staff.
- Water-sanitation-hygiene agencies (government and NGO)

Structure

In 1999/2000 an impact study ("Looking Back") was carried out of WaterAid-funded projects completed between 1991 and 1993 in four countries.

This guidance note is intended to provide a 10-15 page analysis of the study methodology – its rationale, processes, methods, strengths and weaknesses. It will also provide comment and suggestions on the methodology's appropriateness for monitoring impact of on-going integrated water, sanitation and hygiene interventions.

Timing

The document will be finalised in discussion with WaterAid by 31st August 2002. As a result of discussion, you will be required to make any modifications as deemed necessary by WaterAid to fulfil the Terms of Reference, at no extra consultancy fee

Appendix 2: Examples of indicators for six core areas of *Looking Back*

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1. Livelihoods

- Increase in asset ownership, e.g. number of cattle; size of house; materials used for house construction
- Growth in livelihood activities, e.g. increase in irrigated plots (gardens), brick making, brewing beer
- Changes to household purchasing power and income, e.g. decrease in money spent on water, items now being purchased regularly such as soap, school books, etc., increased income from small businesses like tea shops or vegetable gardening
- Food security, e.g. increased variety of foods available, increased quantity of food grown

2. Socio-cultural impact

- Distance and time to fetch water, e.g. time taken for return trip to water point (including waiting time), distance to dry-season water point
- Observance of social obligations / religious rites / customs, e.g. availability of water at culturally sensitive sites and times such as for religious observance or for visitors, availability of time for social interaction
- Family interaction, e.g. increase in women's and children's time available to spend with each other, improved relations between family members due to eased living conditions
- Gender roles, e.g. women or men taking on new roles in water collection, maintenance, etc., women gaining opportunities for income generating activities and therefore controlling money

3. Health and hygiene

- Reduced incidence of specific diseases, e.g. scabies, bilharzia, dysentery
- Household and personal cleanliness, e.g. cleanliness of house compounds, number of animals free to enter houses and compounds, presence of faeces (especially of young children) in compounds, hand washing practice, frequency of bathing
- Clothes washing, e.g. observed cleanliness of clothes, frequency of clothes washing
- Increased health and hygiene awareness, e.g. willingness to construct latrines, use of latrines, number of people able to demonstrate good hand washing, knowledge of the links between dirt and disease

4. Psychological impact

- Stress and anxiety, e.g. level of anxiety about children or women going to fetch water, number of reports of animal attacks (such as snakes) and human attacks (such as rapes) of those fetching water
- Community status and self regard, e.g. number of outside visitors interested in coming to the community, perception of community status with respect to neighbouring communities, willingness of professionals such as teachers to live in community

5. Education

- School attendance, e.g. number of children inscribed on school registers, punctuality of children coming to school
- Child retention and absenteeism, e.g. percentage of inscribed children leaving class part way through the day, or not coming to school at all

6. Management and sustainability

- Functionality of community management systems (not only to do with water)
- Status of water and sanitation facilities
- Level of usage of water and sanitation facilities
- Availability of tools, materials and funds for operation and maintenance needs
- Availability of trained or skilled people to operate and maintain systems and build new components
- Percentage of community contributing as planned to costs of installed systems

Appendix 3: Strong and weak points of different participatory tools

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This table is taken from the ***Looking Back*** report

Historyline	
Benefits	Limitations
• Entry point to introduce study team to community • Community at ease when discussing past events (good ice-breaker) • Identifies the different institutions involved in community lives • Means for identifying significant events in life of community • Reveals chronological order / sequence of events (critical in understanding attribution) • Useful as a means to analyse project intervention	• Can become dominated by a few individuals to exclusion of wider group • It may lack accuracy in dating events • Does not reveal issues of future concern • Misses out what community considers trivial (but potentially of interest to researcher)
Mapping	
Benefits	Limitations
• 4-6 people an optimum number for exercise • Opportunity for community to become fully engaged in exercise (minimal input from study team) • High group dynamism • Groups were innovative in use of locally available materials to indicate components on map • Used to choose direction for transect walk • Provides a quick pictorial view of the community • Opportunity to reveal gender perceptions in community • Can provide significant levels of detail	• Potential confusion over transfer of map from ground to paper • Needs to be assisted by checklist and questionnaire
Transect walk	
Benefits	Limitations
• Used as means to verify community map • Time available to discuss issues in depth with	• Time specific snapshot (lacks ability to cater for seasonal variation)

community members • Facilitated spot check observations • Revealed issues which community members did not mention via other tools • Opportunity for study teams to observe facilities at first hand	• Tiring activity
Wealth ranking	
Benefits	Limitations
• Assist the process of selecting specific groups from the community for further discussion • Provided statistical ratio of community in terms of income • Useful as an ice breaking exercise	• Not valuable as indicator generator • Sampling strategy needs to be properly defined • Potential for results from tool to cause offence • Requires high level of input from study team
Focus group discussion	
Benefits	Limitations
• Flexible and lends itself to use with other tools • Effective as means to elicit information on impact • Revealed gender perceptions • Permits in depth exploration of issues • Positive group dynamics	• May result in parochial view of an issue • Potential for domination by community members with authority / status
Force field analysis	
Benefits	Limitations
• Revealed community perceptions about livelihood • Revealed past situation and future aspirations. Valuable to describe strategies communities had for achieving future aspirations • Developed analytical approach for community members • Important in establishing external assistance that facilitated development (causality/attribution)	• It proved difficult for some communities to think about a future vision • The technique may raise expectations, but there may be limited or no resources to meet need • Applied differently by study teams in different countries
Trend analysis	
Benefits	Limitations
• Reveals past and present	• Requires sufficient quantity and quality of

• Useful in revealing enrolment trends at school, and for examining factors that influence enrolment	information before tools can be conducted • Dependent on adequacy of secondary source information
Daily activity charts	
Benefits	Limitations
• Easy for community members to grasp • Quick visual impressions of activities • Chronology duration and order of activities can be studied • Effective as triangulation tool	• Only activities perceived as important revealed • If poorly facilitated, insufficient data will be gathered
Seasonal calendar	
Benefits	Limitations
• Demonstrates the influence of seasonality on various components of community life (i.e., school enrolment)	•
Key informant interviews	
Benefits	Limitations
• Individual opinions captured free from outside influence • Adds depth to analysis arising from other tools	• May lead to cultural obligations if interview conducted in respondents house

Appendix 4: Example of a triangulation matrix developed for the Looking Back study

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Information Generated	History line	Mapping	Transect walk	Key Informant	Self evaluation	Interview	Focus groups			
Gender / age							School children	Men	Women	Mixed
Income group							Mixed	Mixed	Mixed	Low Income
Increase in recreational activities		*	*		*					*
Reduced women fatigue	*							*		*
Extra time for women for extra activity	*								*	*
Distance to fetch water has reduced	*	*		*	*	*	*	*	*	*
Housing structures & Numbers	*	*	*	*	*	*	*	*	*	*
Improved/increased pottery making								*	*	*
Construction of SHEYA/Primary School	*	*	*	*		*	*	*	*	*
Tree nursery/tree planting increased	*	*	*	*		*	*	*	*	*
Improved household cleanliness	*					*		*	*	*
Raised community status of piped water				*				*	*	*
Reliable affordable water supply	*	*	*	*		*	*	*	*	*
School children wash uniforms	*			*		*	*	*	*	*
Improved personal hygiene	*		*	*	*		*	*	*	*
Community Built use sustainable latrines	*	*	*	*		*	*	*	*	*
Reduced incidence of diseases	*			*		*	*	*	*	*
Improved Grave structures	*	*	*							*
Increase in migration of people	*	*		*		*		*	*	
Extra time for leisure men / women					*			*		*
Some community still use local wells	*	*	*	*		*	*	*	*	*
School children break for lunch	*			*			*		*	*
School attendance /punctuality improved	*			*		*	*	*	*	*
Improved village/community income	*	*	*		*			*	*	*
Congestion at DP / waiting time longer	*	*	*	*		*	*	*	*	*

Appendix 5: Examples of mini-case studies to illustrate findings

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On the use of water in childbirth

"I got married to a man of this village and have come to live here in 1974. I gave birth to my first son in 1979. I will never forget how I suffered due to lack of water. There was no water to wash the baby and myself. I was ashamed of the unpleasant smell resulted from not having bath when my neighbours, especially men, got inside the house to visit me. Not only for cleaning purpose, but also there was no water to prepare "Atmit" - a special fluid prepared from flour of cereal products for a mother after delivery. At the third day my parents managed to prepare it but (I) lost appetite to drink since I was suffered from throat ache for having no fluid that long. Whenever I remember that situation, I thank Allah for helping me and the baby to resist infection.

On the contrary, it is my pleasure to talk about the birth I gave three years ago. I had plenty of water for whatever reason and whenever I need".

Misra Kedir, 39 years old, Iteya Shaki community, Hitosa, Ethiopia

On access to water

"...food cooked by our wives had a peculiar colour and did not look neat because they use the stream water to cook. Now, when they use water from the hand dug well to cook, the food takes its natural colour and looks clean".

Opanin Kyere, member of Kwaku Dwira community, Ghana

"...we think that the water point has benefited women and children more than men because, it was women and children who use to travel long distances especially during the dry season to fetch water even though men were occasionally helping them. Now that the water point is within the community, women and children no more travel long distances to get water".

Maame Afua, member of Kwaku Dwira community, Ghana

On maintenance of hand pumps

"We were five when we were trained in hand pump maintenance. We learnt about the anatomy of hand pump and able to dismantle and assemble the hand pumps properly. We learnt to construct good platforms also. The training was not very easy, but the trainers had helped us learn technical information adopting various methodologies. The trainers deliberately misplaced the various parts of the cylinder assembly and we were to pick-up the right part and to assemble. In the past we were not allowed to take water from common hand pump. After having learnt that we are capable of repairing the hand pumps (we repaired the common hand pump too) we are now allowed to take water. We now have seven sets of spanners and a box of grease. We periodically fix our micro garden so that the drained water is effectively utilised. We are maintaining four hand pumps in the community. We replenish our stock of grease periodically".

Sirumbayi, female, 33 years old, mother of 3 children, caretaker in Kullampatti community, India

On school attendance

"Its now difficult to find school-going children loitering around the village looking for water, which was common in the past as every one had to use extra hand to collect as much water as possible from distant sources, though there was bylaw enforcing parents to send their children to school".

Mzee Gilbert Kityangile, member of Songambele village, Tanzania