



GWSI

Global Water and Sanitation Initiative
Standard evaluation tools

GWSI

Global Water & Sanitation Initiative

“Contributing to the achievement of the Millennium Development Goals by scaling-up existing capacities”



International Federation
of Red Cross and Red Crescent Societies

The International Federation's Global Agenda (2006–2010)

Over the next years, the collective focus of the Federation will be on achieving the following goals and priorities:

Our goals

Goal 1: Reduce the number of deaths, injuries and impact from disasters.

Goal 2: Reduce the number of deaths, illnesses and impact from diseases and public health emergencies.

Goal 3: Increase local community, civil society and Red Cross Red Crescent capacity to address the most urgent situations of vulnerability.

Goal 4: Promote respect for diversity and human dignity, and reduce intolerance, discrimination and social exclusion.

Our priorities

Improving our local, regional and international capacity to respond to disasters and public health emergencies.

Scaling up our actions with vulnerable communities in health promotion, disease prevention and disaster risk reduction.

Increasing significantly our HIV/AIDS programming and advocacy.

Renewing our advocacy on priority humanitarian issues, especially fighting intolerance, stigma and discrimination, and promoting disaster risk reduction.

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Contents

	Page number
Introduction	3
Minimum evaluation procedure	4
Sustainability Snap Shot	5
Sanitation	5
Hygiene promotion	6
GWSI evaluation guidance note	8

Annexes

1. Sustainability Snap Shot questionnaire	13
2. Example of completed questionnaire	15
3. Sustainability Snap Shot expanded framework	17
4. Sampling methodology	18
5. Hygiene promotion evaluation	26
6. Sample evaluation ToR	30

Key references

1. WELL Factsheet: Measuring the health impact of water and sanitation. Sandy Cairncross <http://www.lboro.ac.uk/well/resources/fact-sheets/fact-sheets-htm/mthiws.htm>
2. Environmental Health Engineering in the Tropics. Sandy Cairncross and Richard Feachem (Second edition, 1987)
3. WatSan Indicators Measurement Guide, USAID
4. WELL Factsheet: Evaluation of hygiene promotion. Ann Maria Mooijman, December 2003 <http://www.lboro.ac.uk/well/resources/fact-sheets/fact-sheets-htm/ehp.htm>

Acronyms

GWSI	Global Water and Sanitation Initiative
MEP	Minimum Evaluation Procedure
NS	National Society
PHAST	Participatory Hygiene and Sanitation Transformation
ToR	Terms of Reference
WatSan	Water and Sanitation

Introduction

Attempts to measure the health impact of water supplies and sanitation have a long and chequered history. Many of them have been made by amateur epidemiologists at the behest of the agencies funding the construction of the facilities, and with insufficient planning and rigour. Even some studies supervised by eminent specialists have produced almost useless or meaningless results, after taking years to complete and costing substantial sums of money. This unhappy experience led a panel of experts, convened in 1975 by the World Bank, to conclude that the Bank should not undertake any long-term longitudinal studies of the question.

Methodological problems

An epidemiological study is a statistical study on human populations, which attempts to link human health effects to a specified cause. They vary by the intervention studied (in this case, water and sanitation) and an outcome measure (the health impact). Part of the problem is the nature of the intervention. The ideal way to measure the impact of any health intervention, the double-blind, randomised, controlled trial, is not feasible for water and sanitation. There is no placebo for a pit latrine. Moreover, the unit of intervention usually has to be the community, rather than the household. Besides, it is almost impossible to allocate water supplies and sanitation at random - ethically, politically and practically.

The principal outcome in this case is a reduction in diarrhoeal disease; by any reckoning, more than 90% of the health benefits of improved water supplies and sanitation arise from reduced diarrhoeal illness, most of it in children less than five years old. This raises other problems. Diarrhoea is caused by a wide variety of micro-organisms, transmitted by a wide range of different routes. Water supply and sanitation affect only some of these. For these reasons, well-designed water supply and sanitation interventions typically reduce diarrhoea incidence by about 25%.

For these reasons, a review of the published and unpublished results of the best health impact studies of the first Water Decade (1980 – 1990) concluded that health impact studies are not an operational tool for project evaluation or 'fine tuning' of interventions. The results are not only unpredictable; they frequently offer no firm interpretation.

Moreover, by their very nature, epidemiological studies have little power to diagnose deficiencies and suggest improvements, a normal requirement of operational project evaluations. If no health impact is found, it could be because the water and sanitation facilities are not functioning, or because they are not used correctly. Functioning and use are the first questions to ask in any evaluation of a water and sanitation project. Whether or not a health impact is found, the study itself does not offer any guidance on how the project, and hence the impact, might be improved.

An alternative approach

What we do know from the existing literature on impact studies is that in those cases where a significant health impact was found, the provision of water supply or sanitation had been accompanied by improvements in hygiene. 'Hygiene' in this context refers to practices such as the washing of hands, food and utensils, or the disposal of children's stools. It may be promoted by better access to water and sanitation, or by hygiene education. Improvements in hygiene may be reflected in increased water consumption. If no such change in behaviour results from improved water supply or sanitation, the only benefits which are likely to occur are those

stemming from improved water quality; in many settings, these are relatively minor or even negligible.

Instead of attempting to measure disease rates, studying patterns of hygiene behaviour has far greater diagnostic power, in terms of indicating opportunities for project improvement. Since it is further back up the causal chain, it is easier to attribute to the project intervention. It is also quicker and cheaper than epidemiological studies. A convenient user-friendly manual is available¹, and so is a more detailed account with case studies

From: WELL Factsheet

Measuring the health impact of water and sanitation

Author: Sandy Cairncross

<http://www.lboro.ac.uk/well/resources/fact-sheets/fact-sheets-htm/mthiws.htm>

Minimum Evaluation Procedure (MEP) for water and sanitation projects

A water supply project is generally aimed at improving health (primarily through the reduction of diarrhoeal disease) and time saving. Health improvements are only the culmination of a long chain of cause and effect. This runs from the original construction of the water supplies or sanitation facilities, through their operation and hence their use, permitting changes in hygiene behaviour and thus the prevention of disease transmission. The principle of the WHO Minimum Evaluation Procedure is to examine the intermediate links in the chain - functioning and use. Hygiene behaviour is another such link.

The MEP approach arose from an understanding of the causal chain which leads from construction of a water supply to any benefits which may result:

construction → functioning → use → benefits

A water supply cannot bestow benefits if it is not used. Nor can it be used if it is not functioning. So the MEP approach is to look first at whether the water supplies are functioning, and whether they are being fully and correctly used. This can be done much more quickly and cheaply than an epidemiological study, and will produce much more useful information for the programme planners.

If an increase in domestic water use is detected, there is a good chance that considerable health benefits will result, as most of the increase is likely to be used for hygiene purposes. This will include hand washing, which reduces diarrhoeal disease, and bathing, which reduces skin and eye disease. If water use is being observed, it may also be possible to collect information about the other major benefit – time saving.

From: Environmental Health Engineering in the Tropics.

Sandy Cairncross and Richard Feachem

Second edition, 1987

¹ Almedom AM, Blumenthal UJ, Manderson L. (1997) Hygiene Evaluation Procedures; Approaches and Methods for Assessing Water- and Sanitation-related Hygiene Practices. London: Intermediate Technology Publications.

Sustainability Snap Shot

While utilization is a critical factor in the evaluation of new systems, measuring whether a recently completed scheme is functioning is not particularly insightful. Unless the design or construction was extremely poor or the operation costs are excessive, a new system is likely to be functioning a few months after completion. A different tool is needed to predict whether the system is likely to be functioning in the years to come.

Predicting sustainability is not easy, straightforward, or likely to be totally accurate. There are, however, several recognized indicators that demonstrate whether it is likely that the water supply will be operated and maintained in a sustainable manner. To measure these indicators, WaterAid Malawi developed a tool called the Sustainability Snap Shot. The Sustainability Snap Shot scores the level of financial resources, technical skills, and equipment and spare parts available to the community to draw a picture of the likelihood that the system will be maintained by the community in the long-term. The tool is, as its title suggests, a snap shot of the water supply management system at one particular time.

The Sustainability Snap Shot should be utilized after discussion with community key informants to evaluate the prospects for sustainable community management.

See annex 1, 2 and 3 for the Sustainability Snap Shot framework, the Sustainability Snap Shot tool, and an example completed form.

Sanitation

A sanitation facility is defined as a functioning excreta disposal facility, typically a toilet or latrine. Hygienic means that there are no faeces on the floor, seat, or walls and that there are few flies. Using sanitation facilities means that a sanitation facility is the predominant means of excreta disposal for household members >12 months of age.

Information concerning usage of sanitation facilities can be obtained through a household survey in which the surveyor asks the mother or household head about family latrine use and then inspects the latrine to see if it is (1) functioning and (2) hygienic and (3) shows signs of use and (4) there is an absence of faeces in the surrounding area.

The person being interviewed is asked "Do you use the toilet/latrine?" and "Who in the family uses the toilet/latrine?" For young children, the issue is whether their feces are deposited into a sanitation facility, not whether they actually use the facility themselves. For example, mothers may put soiled diapers or faeces from a small pedit-pot or po into a latrine.

The toilet or latrine is inspected for maintenance and evidence of use, such as a well worn path between the house and sanitation facility, signs of wear on the seat, absence of storage materials, door in good repair, absence of spider webs, etc.

If the household's facility is not hygienic, the number of household members >12 months of age should be counted, but none should be counted as a sanitation facility user. In other words, for an individual to be counted as a user of the sanitary facility, five conditions must be met: (1) the facility must be functioning and (2) hygienic; (3) the person must be reported as a user by him/herself or the mother or head of the household; (4) the facility must show signs of use; and (5) there is an absence of faeces in the surrounding area.

Sanitation facility programmes might focus on building or improving latrines or other excreta disposal facilities or on improving the maintenance and use of existing facilities. As is clear from the indicator, it is the consistent use of the facility by all family members, not its mere existence, that leads to health and environmental improvements.

In many cultures, the topic of sanitation use is sensitive and may not lend itself to direct questioning. Interviewers should be well-trained and familiar with the culture, and the survey should attempt to be as unobtrusive and sensitive as possible. In some cultures, female interviewers may be needed to interview female household members (Samanta and Van Wijk 1998).

**From: WatSan Indicators Measurement Guide
USAID**

Hygiene promotion

In general, a hygiene promotion evaluation aims to show systematically:

- ◆ How successful the project or programme has been in promoting improvement or changing hygiene practices with the given human and other resources; and
- ◆ How the project or programme can be improved to overcome weaknesses detected.

It is important to define what is going to be investigated. Sometimes limitations in time, staffing or budget would require a prioritising of the issues to be evaluated. In general, information collection on the following is desirable:

- ◆ Hygiene practices. The most important information needed is on the current hygiene behaviour and the community's perception on what are 'good' and 'bad' practices. The most important practices to be studied are: (1) methods of human excreta disposal (2) hand washing, especially with soap (3) food preparation and storage (4) water source choice and protection (5) water handling and storage in the home (6) frequency of bathing, especially of children. The locally prevailing health problems/diseases and the priority concerns of local people, and the baseline data collected, will determine which specific practices are investigated.
- ◆ Physical conditions: The presence and conditions of water supply, sanitation and hygiene facilities all influence to what extent people can practice better hygiene. Physical conditions such as lack of drainage or hard-to-clean latrine slabs can also bring new health risks.

- ◆ Variation between households and communities. Many hygiene conditions and practices have gender-specific roles and values associated with them. The same goes for age-specific practices and differences in views, conditions and practices of different ethnic and religious groups and social classes.
- ◆ Communication channels: the relevance of the messages to both sexes in the different social and age groups, and the effectiveness of ways to get them across such as; word of mouth, religious or community leaders, messengers, social gatherings, theatre, puppet shows, radio, TV.
- ◆ Health statistics: It should be noted that even if reliable health statistics are available, impacts will only begin to show up after a critical mass of behaviour change has been achieved for a sufficiently long time. For faecal-oral diseases, it should be kept in mind that just a small proportion of people with diarrhoea (who may not be typical) seek official medical care. There may also be external factors, such as a change in nutritional status, that also impact the health of a population.
- ◆ Comparing the change in recorded incidence of sanitation, hygiene and water related diseases as a proportion of overall diseases (minus accidents and gynaecological treatment) can give an indication of impact. However, statistics are easily distorted by a wide range of potentially intervening factors, from breakdown of water supplies to change in availability of drugs to change in nutritional status. Hence, measuring actual conditions and practices (or their indicators) is more reliable and more useful for diagnosing weaknesses in the programme.

From: WELL Factsheet

Evaluation of hygiene promotion

Author: Ann Maria Mooijman, December 2003

<http://www.lboro.ac.uk/well/resources/fact-sheets/fact-sheets-htm/ehp.htm>

Evaluation techniques

The outcome of the hygiene promotion activities should be evaluated as part of the PHAST process and this information can be included in the evaluation report.

If this has not been done, or if there is a need to cross check the results, there are a number of methods that have been developed to measure behaviour change which have been widely field-tested. See Annex 5 for more information.

GWSI evaluation guidance note

Mid term review

GWSI projects should be evaluated mid term on four components:

- 1. Achievements against the logframe**
- 2. Change from baseline in any completed projects**
- 3. Sustainability of any completed projects**
- 4. Expenditure**

1. Achievements against the logframe

Add a column to the logframe called results. Fill in everything but the goal and objective. Write 1-2 pages of narrative to summarize results to date. Make recommendations on how to improve the project.

Also, go over the GWSI checklist to see if the project as implemented is in line with Federation technical standards. Include recommendations in report narrative.

2. Change from baseline in any completed projects

While the majority of activities are unlikely to have been finalized at the mid point of the project, it is useful to measure the results of any interventions that have been completed in order to improve remaining activities.

Select your sample size based on the amount of communities with completed activities and the Sampling Methodology in Annex 5. Using the GWSI PHAST baseline survey tool, measure the change from baseline. Write 1-2 pages of narrative to summarize results to date. Make recommendations on how to improve the project.

3. Sustainability of any completed projects

While the majority of activities are unlikely to have been finalized at the mid point of the project, it is useful to measure the sustainability of any interventions that have been completed in order to improve remaining activities.

Using the Sustainability Snap Shot included in Annex 1, assess the sustainability of activities completed to date. Write 1-2 pages of narrative to summarize results to date. Make recommendations on how to improve the project.

4. Expenditure

Based on the most recent financial report, write 1-2 pages of narrative to summarize expenditure to date. Make recommendations, if necessary, on how to improve the level of expenditure.

Methodology

Prior to the commencement of the evaluation, the National Society and the Federation Country or Zone Office will share the ToR (see sample ToR in Annex 6) with contributing partners with the aim of agreeing on the purpose, scope and methodologies to be used in the evaluation.

The team will meet with the international Federation Zone Health team (Health and Water and Sanitation Coordinators or Officers) for preliminary discussion in before visiting the project site.

The team will conduct the evaluation through:

1. Desk review of key programme documents and monitoring reports.
2. Briefing with key stakeholders in National Society, Federation and contributing partners on Terms of Reference of evaluation and evaluation process.
3. Develop evaluation tools with team members (interview formats, observation sheets etc.) and plan how many household visits will be made and how these will be selected.
4. Interview key informants at national and branch level and also key stakeholders.
5. Visit to project sites, observation of facilities provided and hygiene practices within targeted communities and households (including operation and maintenance)
6. Semi-structured interviews with a selection of individuals/families from the targeted communities (purposive sampling).
7. De-briefing with key stakeholders on evaluation findings and recommendations.

At the end of the mission the team will facilitate a meeting with the National Society in order to:

- ◆ Present initial review findings and recommendations;
- ◆ Provide an opportunity for the NS to consider the outcomes and provide a feedback; and
- ◆ Build consensus and a sense of ownership of the findings and recommendations.

The team will also have a meeting with the Federation and contributing partners to present the same in country.

Mid term review outputs

A first draft of the evaluation report should be produced within one (1) week of the completion of the evaluation to be presented to the contributing partners, International Federation in country and Zone.

The review report should include - but is not limited to - the following components:

- (i) Table of contents
 - (ii) Executive summary
 - (iii) Background
 - a. Terms of reference
 - b. Methodology including source of data, data collection, people and places visited
 - c. Quality and reliability of data, limitations
 - (iv) Findings
 - (v) Recommendations
- Appendices at the discretion of the report writer

The report in its conclusions should comprehensively address:

1. Relevance and quality of design of the programme;
2. Effectiveness and implementation to date;
3. Expenditure to date; and
4. Potential sustainability

The final report shall be printed and bound after being signed off by the International Federation and accompanied by a CD-Rom with the report and all relevant information pertinent to the evaluation and distributed to all partners and stakeholders.

Final evaluation

GWSI projects should be evaluated after completion on four components:

- 1. Achievements against the logframe**
- 2. Change from baseline**
- 3. Sustainability**
- 4. Expenditure**

1. Achievements against the logframe

Add a column to the logframe called results. Fill in everything but the goal and objective. Write 1-2 pages of narrative to summarize the final results of the project. Make recommendations on how to improve future projects.

2. Change from baseline

Select your sample size using the Sampling Methodology in Annex 4. Using the GWSI PHAST baseline survey tool, measure the change from baseline. Control groups, communities which have not received the intervention, will also need to be surveyed in order to demonstrate a change.

Write 1-2 pages of narrative to summarize final results to date. Make recommendations on how to improve future projects.

3. Sustainability

Using the Sustainability Snap Shot included in Annex 1, assess the sustainability of activities in as many project sites as possible. Write 1-2 pages of narrative to summarize results to date. Make recommendations on how to improve future projects and any necessary follow up by the National Society.

4. Expenditure

Based on the final financial report, write 1-2 pages of narrative on the efficiency of the project. How many beneficiaries were served? How much was spent? Include recommendations on any issues.

Methodology

Prior to the commencement of the final evaluation, the National Societies and the Federation Country or Zone Offices will share the ToR (see sample ToR in Annex 6)

with contributing partners with the aim of agreeing on the purpose, scope and methodologies to be used in the evaluation.

The team will meet with the International Federation Zone Health team (Health and WatSan Coordinators or Officers) for preliminary discussion in before visiting the project site.

The team will conduct the evaluation through;

1. Desk review of key programme documents and monitoring reports.
2. Briefing with key stakeholders in National Society, the Federation and contributing partners on terms of reference of evaluation and evaluation process.
3. Develop evaluation tools with team members (interview formats, observation sheets etc.) and plan how many household visits will be made and how these will be selected.
4. Interview key informants at national and branch level and also key stakeholders.
5. Visit to project sites, observation of facilities provided and hygiene practices within targeted communities and households (including operation and maintenance)
6. Semi-structured interviews with a selection of individuals/families from the targeted communities (purposive sampling).
7. De-briefing with key stakeholders on evaluation findings and recommendations.

At the end of the mission the team will facilitate a meeting with the National Society in order to:

- ◆ Present initial review findings and recommendations;
- ◆ Provide an opportunity for the National Societies to consider the outcomes and provide a feedback; and
- ◆ Build consensus and a sense of ownership of the findings and recommendations.

The team will also have a meeting with the Federation and contributing partners to present the same in country.

Final evaluation outputs

A first draft of the evaluation report should be produced within one (1) week of the completion of the evaluation to be presented to the contributing partners, Federation in country and Zone.

The review report should include - but is not limited to - the following components:

- (vi) Table of contents
- (vii) Executive summary
- (viii) Background
 - a. Terms of reference
 - b. Methodology including source of data, data collection, people and places visited
 - c. Quality and reliability of data, limitations
- (ix) Findings
- (x) Recommendations

Appendices at the discretion of the report writer

The report in its conclusions should comprehensively address:

1. Relevance and quality of design of the programme;
2. Effectiveness and implementation;
3. Efficiency; and
4. Sustainability

The final report shall be printed and bound after being signed off by the International Federation and accompanied by a CD-Rom with the report and all relevant information pertinent to the evaluation and distributed to all partners and stakeholders.

Annex 1 - Sustainability Snap Shot questionnaire

District:
Village:
Technology:

Factor	Score
Financial	
Technical skills	
Spare and equipment	

Financial

Which of the following is generally applicable to the type of water point in question

1. No funds available for maintenance when needed
2. Fund available but not sufficient for all repairs
3. Fund available and sufficient for the most expensive maintenance process

Answer: (score)

(narrative) _____

Technical skills

Which of the following is generally applicable to the type of water point in question

1. Technical skills not available for maintenance when needed.
2. Some technical skills for maintenance are available, but not sufficient for all maintenance requirements.
3. Technical skills for all maintenance processes available.

Answer: (score)

(narrative) _____

Equipment and spare parts

Which of the following is generally applicable to the type of water point in question

1. Not available when needed
2. Available but not for all repairs
3. Available for all repairs

Answer: (score)

(narrative) _____

Stage two - Comments

Given your above scores, can you give a brief explanation of the reasons why you allocated such a score.

(narrative) _____

Stage three – The way forward

Answer these questions:

- ◆ Is it reasonable to aim for 3's in this village?
- ◆ What do you think needs to be done to achieve a 3?
- ◆ Is this possible?

Source: WaterAID

Annex 2 - Example of completed questionnaire

District: U
Village: V
Technology: Handpump on borehole

Factor	Score
Financial	1
Technical skills	3
Spare and equipment	2

Financial

Which of the following is generally applicable to the type of water point in question

1. No funds available for maintenance when needed.
2. Fund available but not sufficient for all repairs.
3. Fund available and sufficient for the most expensive maintenance process.

Answer: 1

Funds are generally not available when maintenance or repairs are required as no system of collecting fees has been established. The project was done quickly and ended before the implementing agency could assist the community in setting up a fee collection scheme. The community water committee expressed interest in starting such a scheme, but several months after hand over no action has been taken.

Technical Skills

Which of the following is generally applicable to the type of water point in question

4. Technical skills not available for maintenance when needed.
5. Some technical skills for maintenance are available, but not sufficient for all maintenance requirements.
6. Technical skills for all maintenance processes available.

Answer: 3

The water committee received training and tools and the community seems confident that this was sufficient. No opportunity to demonstrate their skills has occurred as the well has only recently been rehabilitated. Technical support is available from the local water desk.

Equipment and spare parts

Which of the following is generally applicable to the type of water point in question

7. Not available when needed.
8. Available but not for all repairs.
9. Available for all repairs.

Answer: 2

Spares are not available in the village or in the area. A large town that would have spare parts for most repairs is several hours away. When asked, "where will you get spares if you need them", water committee members cannot provide an answer beyond the name of the large town.

Stage two - Comments

Given your above scores, can you give a brief explanation of the reasons why you allocated such a score.

The project was handed over before the water supply management structures could be fully developed. The community has access to spare parts has not initiated a system to collect funds for repairs. Given that the project was a rehabilitation and that the community had previously allowed a well to fall into a state of disuse, additional support should have been given to the structures designed to ensure sustainable management of the well.

Stage three – The way forward

Answer these questions:

- ◆ Is it reasonable to aim for 3's in this village?

The water committee has been trained and seems motivated. With proper training and assistance, they should be able to start collecting funds.

- ◆ What do you think needs to be done to achieve a 3?

A training on financial matters followed by occasional visits by the WatSan officer may be sufficient for the start up of collecting funds.

The officer could partner with the local water desk to conduct a market survey to determine if the town does indeed have sufficient spares and share this with the community.

- ◆ Is this possible?

In a few months, the officer may be available for this assignment.

Annex 3 - Sustainability Snap Shot expanded framework

	Factor	Issue	Statements
1.	Policy environment	None at village level	None
2.	Institutional arrangements	(a) Management systems	<ol style="list-style-type: none"> 1. No village organization has responsibility for water point 2. Village has organisation but is not managing point satisfactorily 3. Village organization actively managing system to everyone's satisfaction
		(b) Major breakdowns	<ol style="list-style-type: none"> 1. Community would not know what to do in event of major breakdown 2. No clear procedure, responsibility unclear in case of major breakdown 3. Confident that pump would be quickly repaired in case of major breakdown
3.	Technology	(a) Technical skills	<ol style="list-style-type: none"> 1. Technical skills not available to community for maintenance when needed 2. Some technical skills available for maintenance, but not all 3. Technical skills for all maintenance processes available
		(b) Equipment and spares	<ol style="list-style-type: none"> 1. Maintenance equipment and spare parts not available 2. Some availability but not for all repairs 3. Available for all repairs
4.	Community and social aspects	(a) Use	<ol style="list-style-type: none"> 1. Handpump source never used for drinking water 2. Handpump source sometimes/normally used for drinking water 3. Handpump source always used for drinking water
		(b) Access/exclusion	<ol style="list-style-type: none"> 1. Some people never get access to the pump even when they want to use it 2. Some people sometimes do not get access to the pump 3. All the people who want to use the pump gain access all the time
		(c) Preventive maintenance	<ol style="list-style-type: none"> 1. No preventive maintenance being carried out on pump 2. Some preventive maintenance being carried out, but not regularly 3. Regular programme of preventive maintenance carried out
		(d) User satisfaction	<ol style="list-style-type: none"> 1. Don't like the handpump and would prefer other water sources 2. Like the handpump but are concerned about sustainability 3. Happy with the pump and believe they will be able to sustain it
5.	Financing/cost recovery	(a) Maintenance funds	<ol style="list-style-type: none"> 1. No funds available for maintenance when needed 2. Some funds available but not sufficient for most expensive jobs 3. Funds available and sufficient to cover most expensive jobs
		(b) Capital contribution	<ol style="list-style-type: none"> 1. Community did not make any financial or in-kind contribution towards pump 2. Community made significant in-kind contribution (set by project) 3. Community made financial contribution (set by project)
6.	Natural environment	(a) Quality	<ol style="list-style-type: none"> 1. None of the people who use the pump perceive it to be good for drinking 2. Some of the people who use the pump perceive it to be good for drinking 3. Everyone who uses the pump perceives it to be good for drinking
		(b) Source reliability	<ol style="list-style-type: none"> 1. The pump yield is poor – people have to use other sources all the time 2. Sometimes (dry season) the pump yield is inadequate to meet needs 3. The pump always meets everyone's needs
7.	Project process	(a) Participation	<ol style="list-style-type: none"> 1. The pump was "given", community not offered choice if they wanted to participate 2. Community was asked if they wanted to participate 3. The community initiated the project themselves
8.	Linkages	(a) Training	<ol style="list-style-type: none"> 1. No-one in village received any structured training from project or government staff 2. Some people trained but cannot remember or apply what was learned 3. Useful training was provided which still benefits trainees now

Source: Water Engineering Development Centre

Annex 4 - Sampling methodology

Sampling means collecting data from a group in the population that is representative of the whole. It has been likened to eating a bowl of rice where you only have to try one spoonful to know if the food is good enough to eat.

1. Population size and family size

Estimates of the total population represent the basis for all planning Water and Sanitation programmes. These estimates may exist from a prior registration exercise or census, but often they are unreliable. The ideal method for estimating the total population size is by a census or registration system, which can only be carried out in months so for a rapid estimation the following steps:

1.1. Mapping: When designing a survey it is important to take aspects of the local context into account since some of the following aspects should be explored in the survey:

- ◆ Geographical distribution of the population.
- ◆ Religious, language and ethnic groups.
- ◆ Castes / Tribes.
- ◆ Different households structures (polygamous, female-headed, child-headed, etc).
- ◆ Socioeconomic groups.

It helps to have a visual image of the programme area and the different factors that characterize the population so in case of not having maps available, consider preparing one. Begin with a tour around the boundary of their location to define the approximate shape, and the maximum and minimum length and width. If possible, the varying population density within the location should be shown.

1.2. Determining population's size: Divide the area into sections using the previous map containing approximately the same number of households. To estimate the number of households in the entire location, count the number of households (houses, shelter or cooking fires) in a typical section and multiply this by the total number of sections. Then, carry out *sampling* and select a *representative* number of households. Record the number of persons living in each household, including their age and sex breakdown. Calculate the average number of persons per household and multiply this by the total number of households.

Sampling unit

When dealing with large population groups it is not feasible to survey all individuals. However, valid conclusion can be drawn from measurements made on only a limited number of individuals within the population, provided that this sample is representative of the population as a whole. A project can collect information from a sample (a group of units – such individuals or households – selected from the general population) rather than from every person. Sampling units can be individuals, households or communities, depending of the focus of the study. If the sample is selected randomly, findings from the sample should generally reflect what is going on in the larger population.

Data gathered from a sample of a population provide only an estimate of what the results would be if measurements were made on the entire population. Whenever a sample is drawn, there is a risk that it may not be truly representative and therefore yield data that do not reflect the true situation, slightly different results are likely to be obtained. A 95% confidence level (it means that the level represents an error risk of 5%, meaning that, out of 100 surveys, as many as 5 may give results that do not reflect the true situation) is usually considered to be appropriate for WatSan surveys. The precision of the result and the size of the confidence interval depend on the sample size and the actual prevalence of risky hygiene practices in the population.

If time and resources allow, all the main population centres (villages, districts) should be sampled rather than conducting cluster samples (using some sampling units larger than individuals, but not all of said units). The loss of precision is usually large especially where clusters differ. The saving in time and cost is not usually great, unless it is a large national project.

2. Defining sample size

The sample size is the number of individuals to be included in the survey to represent each population of interest. The sample size required depends on the following factors:

- ◆ Required precision and confidence interval: the greater precision required, the larger the sample needed.
- ◆ Expected frequency of risky hygiene practices. The smaller the expected proportion of people presenting these risky practices, the greater the size of the sample required for a particular level of precision.
- ◆ Time and resources available: the time, equipment, transport and funds for the survey may limit the number of individuals or HH that can be visited.

The public health survey is meant to give an idea as to what is happening in the community – it is not a statistically correct study. However the sample must be large enough for you to comfortably assume that it is fairly representative of the majority of the population and small enough not to waste resources collecting from too many people. There are several ways of doing this:

2.1. *Calculations based in p* (expected frequency of risky hygiene practices among the population, as it is not known before the survey is done, an estimate must be used – this is an experienced guess, or derived from a small pilot survey) and r (relative precision required).

In calculating sample size, it's often best to err on the side of caution by assuming the population proportion for an indicator to be 50 per cent (where precision is poorest), rather than something like 15% (which requires no large sample size). This is common practice, especially where questionnaires will be employed which have a range of measures: hand washing; consuming safer water; use of condoms; knowledge of modern family planning methods; etc. One of these is sure to be 40-60% and in most cases we make only *a priori* estimates.

At 50%, 100 units will give about +/- 11% confidence interval (at 0.05 level, 95% CI). 300 units will give half this, about +/-5%. You need to decide the level of precision you need. Imagine you are repeating the study in 2 years and you expect to improve practice by 10%. If you have selected 100, you are unlikely to be able to

confirm a change is real or an artefact of the sample. If you select 300 now and 300 in 2 years, you have a greater chance to measure a change if it really exists.

Example:

Expected frequency of risky hygiene practices 50% $p = 0.5$

Relative precision required 20% $r = 0.2$

$$N = [(1.96^2 \times (1-p))] / [(p \times r^2)] = [(1.96^2 \times (1-0.5))] / [(0.5 \times 0.2^2)] = 96$$

The sample size for cluster survey is likely to be larger than that for a random sample for the same precision. This is because the units within a cluster (if chosen correctly) tend to be similar in their characteristics. When we calculate the sample size for cluster survey it is recommended to include a design factor ($k = 2$) in the formula.

Example:

Expected frequency of risky hygiene practices 50% $p = 0.15$

Relative precision required 20% $r = 0.2$

$$N = [2 \times (1.962 \times (1-p))] / [(p \times r^2)] = [2 \times (1.962 \times (1-0.15))] / [(0.15 \times 0.2^2)] = 1.088$$

Projects that are interested in comparing changes over time (comparing baseline with a final survey) will need to collect data on control groups – communities that are not beneficiaries of the project activities but who are otherwise similar to the communities that are being targeted by the project).

2.2. Resources online:

Determining sample size with simple software directly in the web site:

<http://www.isixsigma.com/offsite.asp?A=Fr&Url=http://www.surveyguy.com/SGcalc.htm>

<http://www.surveysystem.com/sscalc.htm>

EpiInfo can be downloaded from www.cdc.gov and has a section for finding sample size. A certain degree of familiarity with statistical terms is required.

3. Sampling procedure

Commonly, three main sampling methods are applicable to hygiene improvement – random, systematic and cluster. In both the random and systematic sampling methods, a population list or register is required to calculate the sample size (Dale R. *Evaluation Frameworks for Development Programmes and Projects*. New Delhi: Sage; 1998), but in cases where the population size is not known and the population is in scattered clusters, cluster sampling is much preferred. This is also ideal in situations where there is limited time to train enumerators in random and systematic sampling methodologies.

3.1. Simple random sampling:

To conduct random sampling an up-to-date list of all individuals in the population is needed with enough information to allow them to be located.

When randomly select units from the general population you ensure that every unit has an equal chance of being included in the study. Random sampling involves

selecting units based upon chance. Simple Random Sampling (SRS) requires a *sampling frame* (a listing of every unit in the population, persons, households, villages, etc). With SRS every unit in the sampling frame is assigned a unique number. Then, a sample is drawn by randomly selecting numbers until you reach the desired sample size.

Any complete and up-to-date listing of all units in the total population can be used. The following are some examples: census, voter registration list, tax list, community health workers register, surveillance records and maps of the area showing each dwelling. When you have a complete and up-to-date sampling frame, you can use different methods. One option is a '*Random number table*'.

If a 'random table' is not available you can assign each household on the list an identification number. A number corresponding to each household is written on a small piece of paper, which is placed on a large box. The pieces of paper are shuffled and picked out blindly. The households selected in this way become the sample for the survey (they can not be excluded or substituted for any reason). If you do in public the community can see how the households are selected.

It should be emphasised that sampling frames are notoriously difficult to find, and when they are found in developing countries they are usually incomplete or inaccurate due to deaths, migration, eviction, etc. They need to be tested using a random sample of the list, and if the % inaccuracy is unacceptable ($\geq 5\%$?) then updated, which is laborious. Incorrect lists will exclude recent immigrants and will tend to favour older populations. They are usually more useful in developed countries.

3.2. Systematic sampling:

This is the usual method in developing countries with less government data available. Systematic sampling will be the final stage after selection of clusters or, preferably, all higher level units (all villages / districts). Systematic sampling eliminates the need for complete, up-to-date population registers, but requires:

- A reasonably accurate plan or map showing all the households, and
- An orderly layout, or site plan, which makes it possible to go systematically through the whole site.

This technique has been used in well-organized villages where households are arranged in blocks and lines and in places without neatly arranged houses. Simply draw a sketch map and plot a path for walking, counting out houses on the left ensuring the data collector passes all households (all have an equal chance of being chosen).

The procedure is as follows:

- Trace a continuous route in the map, which passes in front of all the households.
- Calculate the number of households that must be visited (*Sample Size*5).
- Calculate the sampling interval by dividing the total number of households by the number that must be visited. If the total number of households is 5.000, and 363 are to be visited, the sampling interval is $5.000/363 = 13.8$, or 13 (round down to the nearest whole number in this calculation).
- Select the first household to be visited within the first sampling interval at the beginning of the route by drawing a random number (e.g. random number

table) which is smaller than the sampling interval (e.g if the number drawn is 7 start with the seventh house).

- Select the next house by adding the sampling interval to the first selected house along the prescribed route.
- Continue in this way until the number of households required for the survey has been systematically selected (they can not be excluded or substituted for any reason).

3.3 . Cluster sampling:

Other methods for SRS (Simple Random Sampling) -exist and they are valid. Especially if communities are far apart or very big, *cluster sampling* is a good approach, as logistically it is easier. Give all communities (or sections in a camp) a number and then select about 5% of these by picking numbers out of a hat or using random tables. If communities are very different from each other (for example some are in the hills and some are by the sea) then you need to make sure you select from both. In the case of cluster sampling, the sample size should be 50% larger than when using simple random selection.

What is a cluster? A cluster is a naturally occurring group of individuals (such as a village, ward, or city block – when natural groupings do not exist, artificial clusters may be defined by imposing a grid on a map of the area) likely to include the population group your project is interested in studying.

Cluster sampling is a very popular method due to:

- It does not require a sampling frame, other than a list of population centers (such as towns, villages or communities), their estimated population size and their accumulative population. Where feasible, the population is divided into a large number of clusters containing similar number of people (well defined villages of similar size are examples of possible clusters, larger villages can be divided in two or more clusters).
- By interviewing a number of people who live in the same cluster, it reduces time and travel costs between interviews.

Despite this, cluster sampling is not recommended. If time and resources allow, all the main population centres (villages, districts) should be sampled rather than conducting cluster samples (using some sampling units larger than individuals, but not all of said units). The loss of precision is usually large especially where clusters differ. The saving in time and cost is not usually great, unless it is a large national project.

The size of a cluster is dependent on how heterogeneous or homogeneous are the clusters compared to one another, and also how heterogeneous or homogeneous are the units within each cluster. In general, units within a cluster should be as heterogeneous as possible, but there should be homogeneity between cluster means. Each cluster should be a small scale representation of the total population. The clusters should be mutually exclusive and collectively exhaustive. So by increasing both the number of units included per cluster and also increasing the number of clusters included in to the total sample. The further you take these principles, the closer you approximate simple random sampling and it becomes increasingly more costly.

Sampling is done in two stages:

- i) Cluster sampling (A common cluster sample survey includes 210 households per district – 30 clusters with seven households per cluster.):
 - a) Calculate the sample size based on the desired level of precision and confidence. Since the intra-class bias is an unknown quantity we cannot assume a particular design effect (such as 2.0). It could be higher or lower than we expect. A rule of thumb is, go for larger numbers of clusters rather than larger samples within a smaller number of clusters.
 - b) Determine the number of interviews per cluster (it is suggested to conduct 10 interviews in each cluster).
 - c) Divide the sample size by the number of interviews in each cluster. This will give you the number of clusters.
 - d) Prepare a list of all existing units with their estimated populations. Add two more columns. In the first, record the cumulative population figures obtained by adding the population of each unit or zone to the combined population of all the preceding units or zones on the list. Note: the cumulative population of the last community listed in your sampling frame should equal the total population of the entire program. If this is not the case, re-check your calculations.
 - e) Calculate the sampling interval by dividing the total population of the entire programme area by the total number of clusters required.
 - f) Choose a random number. This number will be used to identify the starting point on the list to begin selecting clusters. The random number must be less than or equal to the sampling interval.
 - g) Look at the column where you have listed the cumulative population of each community and determine which community contains (that is, the cumulative population equals or exceeds) the random number.
 - h) To identify the second community where a cluster is located, add the sampling interval to the random number selected in step f. The community whose cumulative population equals or exceeds that number is the location of cluster 2.
 - i) To identify the remaining clusters, add the sampling interval to the number that identified the location of the previous cluster.

Example:

- ◆ Sample size: 300.
- ◆ Number of clusters. If you plan a sample size of 300 and doing 10 interviews in each cluster, you will have 30 clusters in your survey.
- ◆ Total population in the programme area: 301.170.
- ◆ Sampling interval = $301.170 / 30 = 10.039$ (You can round the number to the nearest whole number, e.g. 10.040).
- ◆ List of units and cumulative population.

No	Name of community	Population	Cumulative population	Cluster
1	Utaral	12.8888	12.888	1
2	Bolama	3.489	16.377	
3	Talum	6.826	23.203	2
4	Wara-Yali	4.339	27.542	
5	Galey	2.203	29.745	
6	Tarum	4.341	34.086	3
7	Hamtato	1.544	35.630	
8	Nayjaff	885	36.515	
9	Nuviya	2.962	39.477	
10	Cattical	4.234	43.711	4
11	Paralal	1.520	45.231	
12	Egala-Kuru	3.767	48.998	
13	Uwanarpol	3.053	52.051	5
14	Ilandia	60.000	112.051	6-7-8-9-10-11
15	Puratna	2.207	114.348	
16	Kagaini	1.355	115.703	
....				
50	Yandot	3.193	139.309	30

- ◆ If the sampling interval is 10.039 you would select a random number between 1 and 10.039. As an example it might be 9.679.
- ◆ Look at the column where you have listed the cumulative population of each community and determine which community contains the random number. Utaral, the first community listed in the sampling frame has a cumulative population that equals or exceeds the random number so this is cluster 1.
- ◆ To identify the second community where a cluster is located, add the sampling interval (10.039) to the random number selected (9.679). The cluster 2 is in Talum because $10.039 + 9.679 = 19.718$ and the cumulative population in Talum include this number. The cluster 3 is in Tarum because $19.718 + 10.039 = 29.757$ and the next community with cumulative population including this number is Tarum. Cluster 4 is Cattical since $29.757 + 10.039 = 39.796$.

ii) Selecting individuals within each cluster.

- ◆ A sketch map of the area might be drawn, the houses numbered and the household selected using a random table.
- ◆ '*Spin the bottle*' option is recommended if the site layout does not permit the previous option. This technique is used to identify the starting point within a sample area. Spinning a bottle at the center of the unit or cluster – usually the point where the population is about equally distributed on all sides - helps the survey team to randomly choose a direction to follow. Walk in that direction from the centre to the outer perimeter of the unit or cluster, counting the number of households along this line. Visit all the households along the randomly chosen line, choosing the households with doors nearest to the last house surveyed.

Systematic sampling can always be conducted with a sketch map. Spinning the bottle is likely to select areas of greater poverty or affluence or certain geographical peculiarities.

Also there are alternatives *parallel sampling, stratified sampling, etc*, so we strongly recommend exploring the different methods in the existing bibliography and selecting the option that better suits with your project sampling need (general references about how to implement a survey are included in the Software WatSan Mission Assistant CD: Software Planning < Survey < How to conduct a survey (manuals).

Examples:

Random selection of samples (using Microsoft Excel):

<http://www.isixsigma.com/library/content/t000702.asp>

Annex 5 - Hygiene promotion evaluation

Hygiene promotion

Planning an evaluation

The design of the evaluation evolves around the following questions:

- ◆ What is the purpose and focus of the evaluation?
- ◆ What types of information have to be collected?
- ◆ Which evaluation techniques are most appropriate and feasible?
- ◆ What is the TOR for the study team including its composition?
- ◆ What will be the sample size?
- ◆ What is the timing?
- ◆ What is the budget?

Purpose

In general, an evaluation aims to show systematically:

- ◆ How successful the project or programme has been in promoting improvement or changing hygiene practices with the given human and other resources; and
- ◆ How the project or programme can be improved to overcome weaknesses detected.

In order to address the two above points it is important to define what is going to be investigated. Sometimes limitations in time, staffing or budget would require a prioritising of the issues to be evaluated. In general, information collection on the following is desirable:

- ◆ Hygiene practices. The most important information needed is on the current hygiene behaviour and the community's perception on what are 'good' and 'bad' practices. The most important practices to be studied are: (1) methods of human excreta disposal (2) hand washing, especially with soap (3) food preparation and storage (4) water source choice and protection (5) water handling and storage in the home (6) frequency of bathing, especially of children. The locally prevailing health problems/diseases and the priority concerns of local people, and the baseline data collected, will determine which specific practices are investigated.
- ◆ Physical conditions: The presence and conditions of water supply, sanitation and hygiene facilities all influence to what extent people can practice better hygiene. Physical conditions such as lack of drainage or hard-to-clean latrine slabs can also bring new health risks.
- ◆ Variation between households and communities. Many hygiene conditions and practices have gender-specific roles and values associated with them. The same goes for age-specific practices and differences in views, conditions and practices of different ethnic and religious groups and social classes.

- ◆ Communication channels: the relevance of the messages to both sexes in the different social and age groups, and the effectiveness of ways to get them across such as; word of mouth, religious or community leaders, messengers, social gatherings, theatre, puppet shows, radio, TV.
- ◆ Health statistics: It should be noted that even if reliable health statistics are available, impacts will only begin to show up after a critical mass of behaviour change has been achieved for a sufficiently long time. For faecal-oral diseases, it should be kept in mind that just a small proportion of people with diarrhoea (who may not be typical) seek official medical care. There may also be external factors, such as a change in nutritional status, that also impact the health of a population.
- ◆ Comparing the change in recorded incidence of sanitation, hygiene and water related diseases as a proportion of overall diseases (minus accidents and gynaecological treatment) can give an indication of impact. However, statistics are easily distorted by a wide range of potentially intervening factors, from breakdown of water supplies to change in availability of drugs to change in nutritional status. Hence, measuring actual conditions and practices (or their indicators) is more reliable and more useful for diagnosing weaknesses in the programme.

Evaluation techniques

Once the purpose and focus of the evaluation and information demands have been agreed, the evaluation techniques can be selected. There are a number of methods that have been developed to measure behaviour change which have been widely field-tested. They are best used in combination to check for consistency and to see whether outcomes are reliable. The most common ones are:

- ◆ Structured observation of hygiene practices, e.g. observing and recording behaviour during water collection, storage and drawing;
- ◆ Structured observation of proxies of hygiene behaviour, e.g. the absence of excreta in yards and on rubbish heaps as an indication of the safe disposal of young children's excreta;
- ◆ Questioning of the people who are most likely to know about an issue (key informants), which requires techniques to deal with uninvited interventions from others with less knowledge, who may nevertheless take over for reasons of hierarchy, e.g. husbands or mothers-in-law. Probing techniques are often needed to move from polite answers to the real practices;
- ◆ Focus group discussion, which involves a more open-ended, but guided discussion among a group of 6 to 10 people. Skill is needed to keep the discussion on track without dominating it, but this is a very powerful method for discovering issues which an outsider would not think to ask about;
- ◆ Pocket voting, where women and men in the different groups are presented with drawings that show the various options and put their vote in the bag or box underneath their own, or their family's practice. Voting is done with tokens in different colours (e.g. blue for men, red for women) in order to allow separate analysis when all votes have been cast. It can be done at some distance or behind a cloth for privacy;
- ◆ Microbiology, e.g. tests of stored drinking water or of fingertips to assess contamination;

- ◆ Product measurement, e.g. sales of latrine slabs, soap consumption. See also Almedom et al. (1997).

Sampling and statistical methods

It is often not possible to visit all communities and households. The evaluation can then be carried out in a sample. Samples should be random, that is, every community / household has an equal chance of being involved.

For a random selection, an investigator can draw slips of paper with the names concerned from a bag until the required number has been achieved. An alternative is to lay a grid over a map and choose grids, and communities/households within them, at random, e.g. with the help of a table of random figures.

When sub-populations vary considerably, it is advantageous to sample each subpopulation (stratum) independently. Stratification is the process of grouping members of the population into relatively homogeneous subgroups before sampling. In stratified sampling, differences which may affect hygiene, e.g. dry or wet environment or housing areas near and far from a protected water source, are identified first. Proportional samples are then taken from each group. For example, the programme may cover six wet and 12 dry areas, from which two wet and four dry areas are chosen at random before drawing the community sample. For sample size, it is often assumed that 'the larger the sample, the better'. However, with increasing size, the statistical value of adding each additional case drops. As large samples are costly, but too small a sample will reduce the validity, it is advisable to consult someone with more experience in statistical methods when in doubt on an acceptable sample size.

See annex 4 for the Sampling Methodology

For analysis, the scores are transferred to a spreadsheet or SPSS data base (Statistical Package for the Social Sciences). Most common is frequency analysis specified by sex, age and social/cultural/economic groups.

Community involvement

Before undertaking an evaluation it is important to inform the community about the evaluation (and afterwards present the results to them). If done with care and respecting existing structures and taboos, it will strengthen the relationship between project and community. Informing beforehand may influence the evaluation outcomes, so it may be advisable to give only general information until fieldwork is complete. Teams also need training on how to deal with interference and practice probing to get beyond biased information.

Study team

The evaluation of hygiene promotion is labour intensive and in most cases would need a specially contracted professional study team. Preferably it is multi-disciplinary, equally balanced between women and men, speaking the local language and familiar with the local culture. The team leader should be a good manager, have writing skills and be able to make an assessment and analysis of the information collected. She/he should also be actively involved in the development of questionnaires, observation checklists and other tools.

In many cases, appropriate staffing will not be 'readily available'. Sometimes it is useful to use two (or more) different groups, firms or NGOs, combining the strength of each into one team. Finding staff for the fieldwork is generally easier than for doing a systematic analysis of the findings and writing-up the results. In those cases you

might consider to hire an outsider for the analysis/writing task, though they should be an active team member from the beginning.

After the team has been recruited, intensive training should be undertaken before the actual evaluation can start. The aim is to sensitise the team on hygiene promotion and the programme setting, to develop a common understanding of the evaluation and the methodology and to develop a team spirit.

Participatory evaluations

Besides the conventional survey studies by a team of outsiders, it is also possible to carry out evaluations using quantifiable participatory methods.

The main advantage is that the same information directly informs all levels: the communities, including specific groups therein, such as the poor and women; the district authorities, the programme staff and management, and the national authorities and donors.

The methodology builds on an approach earlier developed and applied for water supply and sanitation programmes (Mukherjee and van Wijk, 2003). It uses well-known participatory methods such as community mapping, matrix scoring, pocket voting, ranking and sorting². As they do not require literacy everyone can use them after some practice.

By quantifying the outcomes either directly or through scales (e.g. ranking community hygiene behaviour on a scale of 1-10), all information becomes comparable between communities and areas and across time. Quantification also makes it possible to carry out a statistical analysis in the same way as a conventional survey.

From: WELL Factsheet

Evaluation of hygiene promotion

Author: Ann Maria Mooijman, December 2003

<http://www.lboro.ac.uk/well/resources/fact-sheets/fact-sheets-htm/ehp.htm>

² See the Federation Software Tools for more information on these methods

Annex 6 - Sample evaluation ToR



National Society
Logo here



Project name

Terms of reference, mid-term review

Introduction: As per the Detailed Grant Application Form (Page 13) for this action, the mid-term review should reflect the following:

- (a) procedures for internal monitoring and evaluation

The procedure for internal monitoring and evaluation will build on Federation standards and will comprise of; a) Annual work plans including coordination of inputs planning for each month, b) project progress reports, c) monitoring reports, d) projects reviews (mid-term and output to purpose reviews) or informal snapshots, e) achievement ratings. At the end of the implementation period a complete end report including lessons learned will be provided.

The evaluation of the project will include; i) impact assessment, ii) lessons learned iii) outputs, aims and goals set out in the logical framework. The evaluation will look at indicators, such as; a) sustainability, b) reliability and use of the system and facilities c) human capacity development, d) capacity development, e) collaboration amongst stakeholders, f) optimal use including no. and characteristic of users, quality of water used, time taken to use facility and management of water resources, g) hygienic behaviour, h) community capacity, i) transferability of Red Cross strategies, j) etc.

- (b) level of involvement and activity of other organisations (different stakeholder groups and partners or others) in the action

ToR distribution

No. copies

- 1 EU Office in country (electronic copies enclosed)
- 1 National Society
- 1 International Federation Country Office
- 1 International Federation Zone Office
- 1 PNS HQ
- 1 PNS Zone or Country Office

Proj reference XXX

Draft ToR

Date

Acronyms and abbreviations

EU	European Union
GWSI	Federation Global Water and Sanitation Initiative
WSS	Water Supply and Sanitation
MDG's UN	Millennium Development Goals
HQ	Headquarters
IEC	Information, Education and Communication
IFRC	International Federation of the Red Cross and Red Crescent Societies
IWRM	Integrated Water Resources Management
NGO	Non-Governmental Organisation
NS	National Society
O & M	Operation and maintenance
PHAST	Participatory Hygiene and Sanitation Transformation
PRA	Participatory rural appraisal
PLWHA	People living with HIV/AIDS
OVC's	Orphans and Vulnerable Children
TOT	Training of trainers
WATSAN	Water and Sanitation

Table of contents

<i>Section</i>	<i>Page number</i>
1.0 Introduction	32
1.1 Preliminary grant application	
2.0 Country background	32
2.1 Geography and climate	
2.2 Geology and soils	
2.3 Rural Water Supply and Sanitation in country	
3.0 Programme background	32
3.1 Location	
3.2 Project summary	
3.2.1 Software	
3.2.2 Hardware	
3.2.3 Capacity building	
3.2.4 Budget	
3.3 Objectives and results	
3.3.1 Specific objective and results 6	
3.3.2 Activities	
4.0 Objectives, scope and methodology of evaluation	34
4.1 Objectives	
4.2 Scope of work	
4.3 Methodology	
4.4 Team composition	
4.5 Supporting documents	
4.6 Evaluation outputs	
4.7 Timing	
4.8 Budget	

1.0 Introduction

1.1 Preliminary grant application

In a response to a call for proposals by the EU, the Federation submitted an application for Water Facility Actions in ACP-EU countries in XXXX with the XXXX Red Cross Society (XXXX RCS) as the implementing National Society. The successful preliminary application was a prerequisite for the submittal of a more detailed proposal to the EU. The proposal thereafter submitted was also successful for the proposed water and sanitation (watsan) interventions in XXXX. The other partners listed in the agreement are the XXXX Red Cross (XXXRC).

This inception report is in accordance with conditions set for EU project number XXXXX as stipulated in the contribution agreement between the EU and IFRC.

2.0 Country background

2.1 Geography and Climate

2.2 Geology and Soils

2.3 Rural Water Supply and Sanitation in XXXX

3.0 Programme background

3.1 Location

The water and sanitation activities are to be undertaken in the following Districts of XXX:

- XXXX

Figure 1: Location Map showing general programme areas.

3.2 Project summary

The ACP-EU supported WatSan project in XXXX consists of the following three core components as summarised from the detailed programme proposal:

1. Software;
2. Hardware; and
3. Capacity Building

More details on the programme background can be found in the partners agreement, and also the detailed proposal.

3.2.1 Software

Following the baseline and environmental impact survey the first phase of the programme involves implementing the software component of the project which as a result runs in tandem with the other components of the project.

The software component includes:

- Hygiene and sanitation promotion is based on the PHAST methodology.
- Community PHAST groups are formed to lead the process towards community participation and empowerment
- Vulnerable population of XXXX people in the target area are serviced by XXXX volunteers, who undertake:
 - community meetings, focused group discussions, and visit households to carry out health and hygiene promotion.

3.2.2 Hardware

The water supply infrastructure was clearly identified as a direct result of the surveys and also as a consequence of the software campaign. The most adequate technology choice is then adapted to meet the needs to allow sustainable solutions to be implemented while also allowing for existing infrastructure to be rehabilitated. Infrastructure includes the construction or rehabilitation of:

- Water points; and
- Household and institutional latrines.

3.2.3 Capacity building

The WatSan programme will endeavour to capacity build on two levels (institutional and community) as:

- Capacity building of XXXX RCS in the field of water and sanitation, building upon existing capacities including disaster preparedness, organisational development, community development and health hygiene promotion activities; and
- Capacity building of the community to better address their WatSan needs, operate, maintain and sustain those interventions, and improve or build upon community management skills

3.2.4 Budget

The total budget for operation is XXXX EUR. The contributions pledged are as follows:

- XXXX EUR from the EU or 75% of total and
- XXXX EUR from XXXX or 25% of total.

The budget was revised following approval from the EU office in XXXX is included in Appendix A. The budget was revised to:

- [IF APPLICABLE].

3.3 Objectives and results

[CHANGE TO REFLECT ACTUAL PROPOSAL OBJECTIVES]

The overall objective for the intervention is:

- Health, water and sanitation related services to the vulnerable members of the community improved.

The global verifiable indicators to gauge the impact are:

- % of Access to safe water raised above XXXX;
- % of access to sanitation raised above XXXX according to the official statistics; and
- % of PLWHA who have access to safe water and sanitation raised

[CHANGE TO REFLECT ACTUAL PROPOSAL OBJECTIVES]

3.3.1 Specific objective and results

[CHANGE TO REFLECT ACTUAL PROPOSAL OBJECTIVES]

The specific objective for the intervention is:

- Sound and sustainable environmental services, comprising of safe water supply, functional latrines and sanitation and hygiene promotion, developed for the vulnerable population (XXXX beneficiaries) in XXXX District.

The verifiable indicators to gauge the impact are:

- % of target population using over 20 litres of safe water per day by 2010.
- % of target population using adequate latrines by 2010.
- % of target population practicing hand washing at critical times by 2010.
- % of installed water points and latrines in good working order by 2010.
- Improvement in the quality and length of life of PLWHA by 2010.

[Change to reflect actual proposal indicators]

3.3.2 Activities

The proposed activities for the programme include:

- A) Set up of operation
- B) Project coordination
- C) In-depth baseline survey
- D) Latrines
- E) Financial and narrative reporting
- F) Monitoring and evaluation
- G) Training
- H) Tendering and procurement procedures
- I) Water
- J) Advocacy and visibility
- K) Capacity building

More details on the above listed activities can be found in the detailed proposal.

4.0 Objectives, scope and methodology of review

4.1 Objectives

The main objectives of the mid term evaluation are:

- ◆ To review the progress and achievements to date of the water and sanitation programme against the programme objectives and verifiable indicators. Special attention will be given to the operational progress and delay factors
- ◆ To review progress against indicators from the baseline survey were applicable and or relevant at the time of the evaluation and or use of proxy indicators.
- ◆ To review how the programme is integrated with other Red Cross Red Crescent disciplines which are as follows also being implemented in both Districts such as:
 - Disaster Risk Reduction (DRR);
 - HIV programmes; and
 - Food security.
- ◆ To review involvement of branches in the programme and development of capacities to aid sustainability of the existing and future programmes.
- ◆ To document the strengths and weaknesses of the programme and to develop recommendations on the design and future implementation of the water and sanitation project.
- ◆ To evaluate and assess the feasibility of introducing new components and or initiatives linked to the water and sanitation area into the current and future programmes.
- ◆ To provide technical and operational feedback where deemed necessary.

- ◆ The evaluation will report its findings, conclusions and recommendations using the terminology of the logical framework/project cycle management.

4.2 Scope of work

The scope of work shall include but not necessarily be limited to:

- ◆ Document the progress and achievements of the project.
- ◆ Assess the impacts of the project on the beneficiaries communities.
- ◆ Assess the assumptions made in the project intervention and review it's relevance.
- ◆ Determine the linkages with other National Societies activities and how it can be better linked with other National Societies programmes, particularly health and care.
- ◆ Highlight key issues and needs to be addressed by the Federation and National Society to improve the project's output.
- ◆ To assess strategies and implementation policy and procedures.
- ◆ To assess the gender sensitivity of the programme:
 - Have women's needs been adequately assessed and addressed?; and
 - What is the role of women in relation to all aspects of the programme from design, planning, implementation, management and decision making?;
- ◆ To assess the level of participation of the community in formulation and implementation of the activities that affect them.
- ◆ To assess the sustainability of on-going activities carried out under the COUNTRY Project. The evaluators are recommended to use evaluation tools to develop a framework to assess sustainability such as:
 - The sustainability snapshot as developed by WEDC; and
 - Other relevant tools that the evaluators may deem appropriate given the COUNTRY context.
- ◆ To recommend modifications as deemed necessary in order to make the COUNTRY Project more effective and relevant.
- ◆ To assess the effectiveness and efficiency of project management at regional level and headquarters level in relation to prescribed and perceived job-descriptions, organizational and institutional settings.
- ◆ Analyse the impact upon local partner human resource capacity building, staff development, training, conditions and benefits, retention of key staff and career building in this sector.
- ◆ Analyse the management, implementation and monitoring system of the project and potential areas for enhancement.
- ◆ Examine past project in WatSan and determine the level of sustainability to ensure lessons learned for potential future projects.
- ◆ Investigate the potential for continuation of the project beyond the planned implementation period, and potential for further replication of similar projects with the local partner.

4.3 Methodology

Prior to the commencement of the evaluation, XXXX RCS and the Federation Country Office will share the ToR to partners involving in the programme such as contributing partners (EU representatives, PNS) with the aim: of sharing vision for the purpose, scope and methodologies to be used in the evaluation.

The team will meet with the International Federation Zone Health team (Health Coordinator and WatSan Delegate) for preliminary discussion in XXXX before visiting XXXX.

In COUNTRY the team will conduct the Review on a Qualitative and Quantitative basis through:

- ◆ Participatory group discussions/meetings at all levels with all stakeholders
- ◆ Documentation
- ◆ Observation
- ◆ Key informants
- ◆ Meeting with other players in the WatSan area

At the end of the Mission the Team will facilitate a meeting with XXXX RCS in order to:

- ◆ Present initial review findings and recommendations;
- ◆ Provide an opportunity for the NS to consider the outcomes and provide a feedback; and
- ◆ Build consensus and a sense of ownership of the findings and recommendations.

The team will also have a meeting with the Federation and contributing partners (EU representative) to present the same in country.

4.4 Team composition

The composition of the team should not only be gender balanced but also consist of personnel who can relate to:

- technical issues;
- health issues;
- socio-economic issues; and
- Red Cross institutional issues respectively.

The team members should fulfill the following criteria:

- Have either the professional qualifications and or experience in water and sanitation hardware and software implementation, especially PHAST;
- Have a public health background;
- Knowledge of the Red Cross and its operations (at least one team member, preferably the mission leader);
- Prior evaluation experience;
- Familiarity with standard evaluation methods;
- Impartiality (not having participated as a consultant or personnel in any stages of the project);
- Preferably prior experience working in the country; and
- Have an excellent command of written and verbal English.

It is recommended that the external team should consist of three people, one of which should be either from the PNS and the other the team leader and subsequently the report writer and the third person the Zonal WatSan Coordinator.

Support personnel should be provided by the in country WatSan Programme Manager and also his/her counterpart from the hosting NS.

The total therefore for the team should be 5.

4.5 Supporting documents

The following supporting documents are required as background information and can be sourced from the IFRC Country Office prior to the team arriving in country to conduct the evaluation:

- ◆ Contributing partners agreement form;
- ◆ Detailed proposal;
- ◆ Logframe;
- ◆ Original budget;
- ◆ Revised budget;
- ◆ Procurement plan;
- ◆ Inception report;
- ◆ 2nd narrative report;
- ◆ Monthly progress reports from both HQ and the field;
- ◆ Any correspondence deemed appropriate with the contributing partners;
- ◆ XXX RCS WatSan strategies [IF APPLICABLE], HR and WatSan personnel job descriptions;
- ◆ Government Rural Water and Sanitation Policies; and
- ◆ XXXX RCS Policies.

4.6 Evaluation outputs

A first draft of the evaluation report should be produced within one (1) week of the completion of the evaluation to be presented to the contributing partners, IFRC at in country and Zone within 1 week of completing the field work.

The Review Report should include - but is not limited to - the following components:

- (i) Table of contents
- (ii) Executive summary
- (iii) Background
 - a. Term of references
 - b. Methodology including source of data, data collection, people and places visited
 - c. Quality and reliability of data
- (iv) Findings
- (v) Conclusions
- (vi) Recommendations

Appendices at the discretion of the report writer

The report in its conclusions should comprehensively address:

1. Relevance and quality of design of the programme;
2. Efficiency and implementation to date;
3. Effectiveness to date;
4. Impact to date; and
5. Potential sustainability.

The Final report shall be printed and bound after being signed off by IFRC Geneva and accompanied by a CD-Rom with the report and all relevant information pertinent to the evaluation and distributed to all partners and stakeholders.

4.7 Timing

Total work will be of XX days. Allocation of time will be as follows:

- Deskwork, planning and study of documents – X days
- Field work - X days
- Data analysis and preparation of draft report - X days
- Final report preparation - X days

It is anticipated that the evaluation should start in XXX and be finalised in XXX 200X.

4.8 Budget

The cost for the evaluation will be covered by the programme and for the mid-term evaluation has been set as EUR 10,000.

The Fundamental Principles of the International Red Cross and Red Crescent Movement

Humanity

The International Red Cross and Red Crescent Movement, born of a desire to bring assistance without discrimination to the wounded on the battlefield, endeavours, in its international and national capacity, to prevent and alleviate human suffering wherever it may be found. Its purpose is to protect life and health and to ensure respect for the human being. It promotes mutual understanding, friendship, cooperation and lasting peace amongst all peoples.

Impartiality

It makes no discrimination as to nationality, race, religious beliefs, class or political opinions. It endeavours to relieve the suffering of individuals, being guided solely by their needs, and to give priority to the most urgent cases of distress.

Neutrality

In order to enjoy the confidence of all, the Movement may not take sides in hostilities or engage in controversies of a political, racial, religious or ideological nature.

Independence

The Movement is independent. The National Societies, while auxiliaries in the humanitarian services of their governments and subject to the laws of their respective countries, must always maintain their autonomy so that they may be able at all times to act in accordance with the principles of the Movement.

Voluntary Service

It is a voluntary relief movement not prompted in any manner by desire for gain.

Unity

There can be only one Red Cross or Red Crescent Society in any one country. It must be open to all. It must carry on its humanitarian work throughout its territory.

Universality

The International Red Cross and Red Crescent Movement, in which all societies have equal status and share equal responsibilities and duties in helping each other, is worldwide.

For more information, please contact:

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The International Federation of Red Cross and Red Crescent Societies promotes the humanitarian activities of National Societies among vulnerable people.

By coordinating international disaster relief and encouraging development support it seeks to prevent and alleviate human suffering.

The International Federation, the National Societies and the International Committee of the Red Cross together constitute the International Red Cross and Red Crescent Movement.



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