Training of Trainers
on communication, mobilization and hygiene education skills

Hanoi, 9-20 February, 1998

Workshop facilitation
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Hanoi, February 1998

Workshop organisation
Vietnam Women Union

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Day 9 Wednesday 18-2

Objectives:

- To practice the use of participatory tools in a nearby community;
- To jointly learn lessons from the field work.

Programme:

1. **Field visit and feed-back**
   We went to a nearby community and practiced a number of the participatory tools with community motivators. When back in Hanoi the groups shared their experiences, whereby one of the participants reported on the process followed, the other on the contents. Quite some attention was given to the issue of the context in which a tool is used and what (in a real situation) could be a follow-up to the discussion held. A few points were added to the guidelines for using the toolkit (annex X).

Day 10 Thursday 19-2

Objectives:

- To practice facilitation when training community workers or presentation on a certain topic;
- To practice giving feed-back..

Programme:

1. **Assignment**
   Participants were assigned a task (see annex XIX) through which they were asked to apply what they head learned on an issue relevant to their work situation. Some guidelines were given with relation to the presentation of the outcome of the assignment.
   In pairs of two they worked on their assignment and prepared for a presentation throughout the morning.
2. **Presentations**
   In the afternoon 5 presentations were given and feed-back was provided.
3. **Evaluation**
   By the end of the afternoon participants were given a brief evaluation form for filling out. Through the form participants were asked to describe the two most important things they learned and experienced, how they would apply what they learned in their work, two things they liked and two things they did not like about the workshop. The reason for asking them to foll out the form now was that the results could be analysed before the end of the workshop, which allowed for a further discussion on certain issues the following day (for a summary of the evaluation results see annex XX).

Day 11 Friday 20-2

Objectives:

- To practice facilitation when training community workers or give a presentation;
- To practice giving feed-back.;
- To experience the need to ask proper questions to the proper persons for getting reliable information;
- To evaluate the workshop contents;
- To close the workshop.

Programme:

1. **Presentations**
   A few more participants give their presentation and received feed-back.
2. **Getting reliable information**
   A still pending exercise was done, even though it was not the most appropriate time. The exercise is about assessing the validity of the answers to certain questions posed to certain people (see annex XXI). The exercise is useful because it makes clear that i) asking questions is not always the best method for getting information, ii) often open questions may give more reliable information, iii) reliability of answers also depends on whom the questions is asked to. Learning points were added to the guidelines of annex X.
3. **Evaluation**
   Participants were given feed-back about the results of the evaluation form. Thereafter all of them were given a card from the problem tree and they were asked to indicate whether the problem was dealt with during the workshop. This was the case for all but a few cards. Participants also indicated in what sense the problems were dealt with.
4. **Closing**
   After a couple of speeches participants received a certificate and the workshop was closed officially.

Table of contents

Introduction

This report reflects the proceedings and outcomes of exercises of the Training of Trainers on communication, mobilization and hygiene education. The majority of the participants were provincial level staff of the Vietnam Women Union, who have among their responsibilities the training of community motivators.
The Vietnam Women Union, through its staff and its network of motivators the Union is partner in the national water supply and sanitation programme and it takes care of mobilization and hygiene education activities. The Union wants to embark on a more bottom-up approach, with a higher level of agencies' responsiveness to community members opinions and needs. This requires a change of attitudes and different ways of communication at all levels. This Training of Trainers is part of the activities undertaken to bring about these changes and centres around the use of the participatory toolkit, developed by UNDP and translated into Vietnamese with the financial assistance of UNICEF.

This report is not a training manual, but a working document, which may be used as reference material when similar training activities are to be organised. It gives an overview of its objectives, the programme and proceedings and, annexed to the main report, an overview of outcomes of groupwork as well as the hand-outs.

Overall objectives of the Training of Trainers

The overall objectives of the training were formulated as follows:
1. To increase capacity for communication, mobilization and hygiene education through the use of participatory methodology and tools;
2. To increase participants knowledge about the various key-areas for hygiene education;
3. To enable participants to distinguish various steps in a hygiene education programme cycle;
4. To develop skills for the use of participatory tools in the various steps of the programme cycle;
5. To equip participants for training community motivators through participatory methods or for planing a public health campaign.

For each day more specific objectives are given.

Training methodology

The training was meant to address concepts as well as skills. Given the fact that the majority of the trainees has extensive working experience the training was designed in such a way that these experiences were built upon. This required a participatory methodology, whereby participants are invited to share their experience, to reflect upon them.
With regard to skills development participants were invited to experience the use of tools and presentation/communication techniques and to reflect upon these experiences.
Subsequently participants were stimulated to take decisions about whether or not to incorporate new insights and skills in their work.

Day 1 Monday 9-2

Objectives:

- To get acquainted with each other and with mutual expectations regarding the contents of the workshop;
- To arrive at a common understanding about the objectives and philosophy of the water and sanitation programme and the role and objectives of the various actors (at all levels) therein;
- To get a common understanding about the strengths and weaknesses of the programme with regard to bringing about behavioural change.

Programme:

1. **Opening of the workshop**
   Official speeches were delivered by: the vice-president of the VWU, WES-chief Omar Mohammed, first secretary of the RNE ms. Els Klinkert, DANIDA CTA mr. Dan Reik, workshop facilitator ms. Eveline Bolt from IRC.
2. **Introduction of participants and facilitators through an exercise**
   Participants were asked to find their partner (having the second half of a small drawing) and to interview her/him for a few minutes and present the finding to the group.
   There was a lot of IEC experience in the group. Some of the participants were medical docotrs, now working for the VWU. The group had hardly any technical staff.
3. **Formation of small groups**
   Given the fact that much work was to be done in small groups, the formation of the groups needed careful attention. We therefore opted for a self-selection exercise, whereby participants were asked to put their name under either A, B or C, taking into account that: each group would need to i) end up with 1/3 of the participants, ii) be balanced in terms of discipline and iii) be balanced in terms of gender. This did not pose any problems.
4. **Hopes and fears**
   Since during the introduction exercise quite a number of "hopes" were voiced, this exercise was limited to getting clear what participants would *not* like to happen (see annex I). It was stated that some of the points made are in the hands of the facilitators, some in those of the participants and that the wheather is beyond the influence of all.
5. **Getting at the same level of understanding about the WATSAN programme**
   Participants worked in small groups to answer the following questions: what are the objectives of the WATSAN programme? What are the solutions implemented (solutions was found to be a better word that methodology or approach)? Who are the actors involved? What are their roles at the various levels? (for answers see annex I)
   Also on roles and responsibilities of the various actors there was large consensus.
   It was briefly discussed that the mere installation of facilities does not reduce diseases. They have to be properly used and maintained, hence the need for hygiene education. The working procedure at the community level was also discussed, since it seems that national level staff is of the opinion that coordination among the soft- and hardware agencies is often lacking, whereas the participants claimed that everything goes smooth (when probing this was maintained).
6. **Problem identification and analysis**
   It was stated that for some reason people do not change their hygiene behaviour the way we think is necessary and that it will be good to have a closer look at this, since knowing the reasons we may develop a more effective IEC-programme. After a brief brainstorm on existing hygiene behaviours negatively affecting health, the problem identification and analysis was explained and it was said that, given the amount of experience present around the table, we should take a close look at what participants think are the problems related to changing hygiene behaviour and build on their knowledge.

Problem indetification (in small groups) and presentation was started with. Clarification of the problems and the analysis of their cause-effect relations will be continued tomorrow. After the analysis we will explain what will be further dealt with during the workshop.

Day 2 Tuesday 10-2

Objectives:

- To identify cause-effect relations among the problems identified;
- To be able to describe the need for both technical as well as communication/mobilization/ hygiene education elements in the WATSAN-programme.

Programme:

1. **We started by looking at the remaining cards for clarification.**
   In this process, and by asking for underlying problems, a number of cards were added (for complete list of problems see annex I).
2. **Water and sanitation facilities**
   Presentations were given by three outside resource persons. Dr. Nga (Ministry of Health) discussed various sanitary options being used and promoted in the country.
   He started with groupwork, whereby group one looked at water and sanitation related diseases; group two at transmission routes and group three at sanitation technologies in Vietnam. He also explained the matrix showing the diseases, the trasnsmission routes and the main hygiene intervention areas (annex II). The F-diagramm was equally explained (annex III). For next time it may be useful to have hime make reference to the booklets being used by the participants and the motivators.
   Dr. Thai lectured about water supply options and purification methods. He did this using the text of the motivators booklet as a guide.
   Finally mr. Christoffer McHay, using an article written be Steven Esrey (annex IV), stressed that proper excreta disposal and handwashing are even more effective interventions (in terms of having a positive impact on health) than the provision of clean water. A few graphs were used to illustrate this (annex V).
3. **Wrap up and intoduction to the complexity of motivational factors**
   A brief recap was given, which was followed by again stating that facilities are no use if they are not used and well maintained. Hence the need for hygiene education and subsequently behavioural changes. It was said that there is a gap between existing and "needed" behaviour and that many factors influence this. From tomorrow onwards we will look into how this gap could be closed.
4. **Building the tree**
   The day was ended by looking for the cause-effect relations among the problems identified. This could be done pretty quickly given the limited number of cards and will allow a good entry point for the discussion tomorrow on motivational factors.

Day 3 Wednesday 11-2

Objectives

- To be able to systematize factors influencing human behaviour;
- To be able to distinguish various steps in a programme/project cycle;
- To be able to describe the role of community mobilization and hygiene promotion when aiming at proper construction and use of water and sanitation facilities.

Programme:

1. **Finalization of the problem tree**
   We went through the cause-effect relations established yesterday and added the last remaining card to the tree. A rather heated debate started about whether budget constraints were caused by lack of coordination among agencies (there are enough funds, but they are not mobilized) or whether lack of coordination is caused by budget constraints (there are no funds to bring people together).
2. **The complexity of human behaviour**
   The tree already shows that there are a lot of factors influencing human behaviour. By using John Hubley's BASNEF-model we tried to systematize this (annex VI). This allowed for the conclusion that hygiene education is not only a matter of transmitting information. It is also a matter of addressing oneselves to people's peers, of creating enabling factors and of addressing people's beliefs.
   We also took a look at the "resistance/openness to change" - model of Lyra Srinivasan (annex VII). This model has similar elements and also shows clearly that providing information only leads to behavioural changes in a limited number of cases (whereby people recognize a problem and are not afraid for change).
3. **The integration exercise**
   This is also an exercise adapted from one developed by Srinivasan. Participants were asked (in small groups) to look at a large number of project activities, technical and related to mobilization and hygiene education (for list of activities see annex VIII), and to put them in a logical order. In addition they were asked to indicate for each of the activities the two main actors.
   Purpose of the exercise was: i) to realize the need for integration of soft- and hardware and that one can not do without the other, ii) to get clarity among participants about the sequence of project activities and iii) to have a starting point for discussing the project cycle.
   Whereas the sequence of activities was quite similar for all of the groups, some confusion appeared to be there related to which ministry gives the technical inputs and to the differences between the people's committee, the project standing committee and the project management unit. It also appeared that community involvement is often equated with the people's committee having a role (for clarification on roles of various actors see annex IX).
   After having identified and discussed the steps in the project cycle, participants were asked to highlight the "mobilization-activities". Since the WU is responsible for these activities and since participants identified the work of the community motivators not being optimal, we need to take a closer look at these activities, find out how they are carried out, what should be done differently and how to do that.
4. **Mid-term evaluation**
   The last activity of the day was to look at the cards written the first day and indicating what participants would not like to happen during the workshop. Participants seem to be quite happy about the way the workshop proceeds.

Day 4 Thursday 11-2

Objectives:

- To clarify the mobilization activities of the water and sanitation programme and the major actors involved;
- To be able to describe the difference between directive and open communication and how these types of communication relate to the use of mass-media and personal communication;

- To identify requirements for improved communication.

Programme:

1. **Recapitulation**
   We started with a recap of yesterday's programme. Two participants presented the BASNEF-model and the Resistance to Change-model. This created the opportunity for starting to work on the guidelines for using the toolkit (see annex X). Constructive feed-back was given by the group-members. Contentwise the presentations were also OK. The relation between the two models was once more explained..
2. **Mobilization activities further defined**
   We started by proposing an order in which the mobilization activities listed yesterday generally take place. It was stated that is has to be seen whether this order is also valid in the Vietnamese context (see annex I). It is to be realized that the order depends to a large extent also to what is understood exactly by the various activities.
   Participants decribed the activities more in detail, indicated the responsible actor and its supervisor. They also described how they would like the activity to be done differently (for outcome of this exercise see annex XI). The days to come are meant to look into how the mobilization activities can be made more effective (more participatory) where needed.
3. **The cup-exercise**
   We left the project-activities for a while and the so-called cup-exercise was done. This exercise (the first one in the tool-kit) is meant to get a discussion going on directive and open ways of working. It is an exercise for a ToT like this workshop and for use by the participants when training community motivators. Like the resistance/openness to change model it is a conceptual tool and not an exercise for use at the community level.
   After this exercise a graph on stages of community participation was shown (annex XII), whereby it was concluded that a directive way of working does not allow for much participation, whereas an open way does, with the ultimate form of participation being the stage whereby community members take their own decisions, based on their own thinking and analysis of their situation.

Day 5 Friday 13-2

Objectives:

- To gain further insight in what is meant by participation and how the use of participatory methods, tools, SARAR, etc. relates to community mobilization and behavioural change;
- To get more familiar with the toolkit;
- To understand the role of research for the development of effective mobilization and education activities.

Programme:

1. **Recapitulation**
   We started with a recap of yesterday's activities and we did another exercise form the toolkit "Johari's window". This gave rise to a lot of discussion about the relationship between the community motivator and the community members.
2. **Mobilization and education in the WATSAN-programme**
   We looked into the various communication, education and mobilization activities of the WATSAN-programme in Vietnam; i.e. those activities meant to stimulate people's particpation and changes in hygiene behaviour, and they were divided into activities with and without face to face communication. It was again stated that the workshop looks into ways to make the face to face communication more effective and not so into the use of

mass-media. Not that mass-media are less important, but just because we can not do all in two weeks time.

3. **Tools for participation**
   The toolkit was introduced to those who were not yet familiar with it and we discussed the principles/philosophy underlying the tools, i.e. SARAR and the adult learning cycle.
   A matrix was developed to help validate the tools and identify what should be included in a training for community level staff. The matrix will be added on to throughout the remaining days of the workshop (see annex XIII for the full matirx).
4. **Collecting information; research**
   A brief lecture was given about research (for overhead sheets used and hand-outs provided see annex XIV) and in order to build on existing practices an inventory was made about research (information gathering activities) already carried out at present (questionnaires, household visits and groupdiscussions). This was done to make clear that we just add on what is already there and that there is not a lot of stirring up when some participatory tools are added. It was said that the benefits of using participatory tools are: i) to help build trust needed to discuss sensitive issues; ii) to help triangulate information and iii) to stimulate a thinking process.
5. **Practice**
   The following research tools were done as a role play: taskdivision, pocketchart
   Mapping was just talked about, but may need further attention tomorrow. It was said that mapping is a nice introductory exercise that can be followed by structured observation on the basis of what is shown on the map to get further details.

Day 6 Saturday 14-2

Objectives:

- To get more insight in setting priorities and developing objectives on the basis of research information and the role of the various actor therein;
- To experience and validate tools related to research and objective setting;
- To be able to describe elements important to be discussed when training community motivators in the use of these tools;
- To contribute to the guidelines on how to use the tools.

Programme:

1. **Priority setting and formulating objectives**
   We started with a session on priority setting and formulating objectives. Starting point was that by using certain tools a lot of information about prevailing problems can be gathered, but that both community members and motivator have limited resources. Choices for what to do and what not to do therefore have to be made. A simple scoring method was introduced and practiced, using problems identified in an ADB project-sites (annex XV). Scoring was done for impact, technical feasability, social feasability and for people's willingness (for scoring format see annex XVI). After a brief introduction about the formulation of objectives (that have to be timebound, measurable, specific, realistic, achievable and formulated with action verbs), objectives were formulated for some of the priorities identified. A brief discussion followed about the role of the motivators and community members in priority setting and developing objectives.
   After this session a link was made again between research and priority setting. In order to score on the criteria, eg. to assess the social and technical feasability, information is needed. In order to assess the impact, the motivators need good insight in diseases, their transmission routes and in ways to cut those routes.

2. **Some more research tools**
We went back to research and the matrix was filled in for the tool demonstrated yesterday (the pocket chart). In small groups participants prepared a roleplay through which they demonstrated the use of a tool (women's time management, access and control over resources and transmission routes). When discussing the roleplays a number of useful remarks were made (they were added to the guidelines for using the toolkit, see annex X).

Sunday 15-2
Off

Day 7 Monday 16-2

Objectives:
- To experience and validate tools related to planning and implementation;
- To be able to describe elements important to be discussed when training community motivators in the use of these tools;
- To contribute to the guidelines for use of tools.

Programme:
1. **Recapitulation of the previous week**
We started with a recap of what was done/learned during the previous week. Using cards it was tried to systematize it and to clarify the links between the various activities. The programme for the remainder of the workshop was then explained. The matrix was filled in for the gender tools and for the tool on disease transmission, which were practised last Saturday..
2. **Planning**
Having done research and having facilitated decision-making about priorities and objectives, the next step is to facilitate planning. In order to go from a situation A to an improved situation B constraints and resources will have to be identified. The Force-field analysis tool, being a tool to discuss concepts with community motivators (like the cup-exercise and Johari's window), was experienced and discussed. Therafter we took a closer look at what planning is all about, what should be discussed and decided upon when planning.
First it was indicated that an objecitve describes that you want to move from the problem situation A to the improved situation B and that a plan serves do show how to do so. The following elements were indicated to be part of a plan:
* Objective (according to criteria)
* Target group
* Constraints and resources available
* Activities to be carried out to overcome the constraints and to achieve the objective (including the expected outcome)
* Who does it, who is responsible
* When is is done
* Monitoring indicators
* Budget
3. **Tools practiced and discussed**
The following tools were practised and discussed:
* Critical incident
* Three pile sorting
* Story with a gap

An important point to be stressed is that tools do not stand on its own, that information obtained through the use of one tool serves to give focus to the next. Another point that needs to be stressed is that motivator should feel capabale and motivated to adapt tools to the situation at hand. After having experienced with the tools the matrix was filled in and we added a few points to the list of presentation/communication tips.
Participants split up again to prepare the roleplays for another three tools. Presentations will be held tomorrow.

Day 8 Tuesday 17-2

Objectives:

- To gain insight in the concept of monitoring and in developing monitoring indicators and activities;
- To experience and validate tools related to monitoring;
- To be able to describe elements important to be discussed when training community motivators in the use of these tools;
- To contribute to the guidelines;
- To become informed about micro-teaching and about the planning exercise;
- To get prepared for the field trip.

Programme:

1. **Presentation of tools prepared**
   After a brief recapitulation on what was said the previous days, three tools were role played: pump repair issues, water user group functioning and understanding decision-making processes. In particular the last tool gave rise to a discussion about changing patterns in decision-making and the need for local authorities and agencies to listen better to people in the community. Whereas staff at the national level seems rather sceptical about the representativeness of the local authority (the people's committee), provincial level staff seems see less problems, although it was initially said that it will be difficult to make local authorities listen better to communities. We discussed how local authorities could be convinced about the usefulness of better responding to communties: more support can be expected, more benefits for more people, better O&M becuase people are more likely to take care of something they asked for, more effective/relevant hygiene education.
   The matrix was filled in.
2. **Monitoring**
   Since the group wanted to stop early, the time left for discussing monitoring was very limited. We jointly went through the two hand-outs (annex.XVII and XVIII.) and tried to apply the steps for developing monitoring to one of the objectives developed during the session of last Saturday.
3. **Preparation for the field trip**
   Participants were asked to voice what information about the village they need in order to be able to prepare themselves. A briefing was given about the village. Participants were divided into small groups. Whereas one or two of them will facilitate the discussion with community members, one will make a report about the process and one about the contents. It was proposed to practice the following tools: mapping, pocket chart, hygiene practices, critical incident and contamination routes.

ANNEXURES

ANNEX I Results of work in small groups

Day 1

What participants did not want to happen

Not all participants actively participating in discussion, too much tension, confronting discussions, time not welll kept, wheather being too cold, walking in and out of participants, workshop to be far from reality/applicable, going on the wrong track resulting in not achieving the objectives.

Objectives of the national water and sanitation programme

- The objectives mentioned by all: By the year 2000
- of the pop. has access to safe water supply;
- has access to sanitary facilities;
- water and sanitation related diseases will have gone down..

Day 2

Problems identified

- Water level is too high for latrine digging
- People do not have land for latrines and wells
- There is no safe water source due to natural conditions
- Unsychronized colaboration among agencies' branches
- Economic benefits may get lost
- Administrative measures are not strict enough
- Facilities are too costly
- No incentives for motivators (not only financial!)
- People can not afford facilities
- People have a lack of information on watsan
- People do not have time to watch TV and listen to the radio (it appeared they do have time but do not choose to listen to watsan talk)
- Contents of messages delivered (through media and through motivators) is not relevant
- Methods to get messages accross are not diversified
- Motivators lack communication skills
- People are not aware of the interrelation between water, sanitation and health
- Long lasting practices are obstacle for changing behaviour
- Customs and traditions are difficult to change
- There is insufficient budget for IEC
- Little training for community motivators

Day 4

The order proposed for mobilization activities:

- Community meeting
- Encouraging community participation
- Defining roles and responsibilities
- Selection of members for the water committee/water agency??
- Train the committee (agency)
- Train motivator
- Needsassessment
- Selection of technologies
- Selection of sites
- Planning use of area surrounding the water point

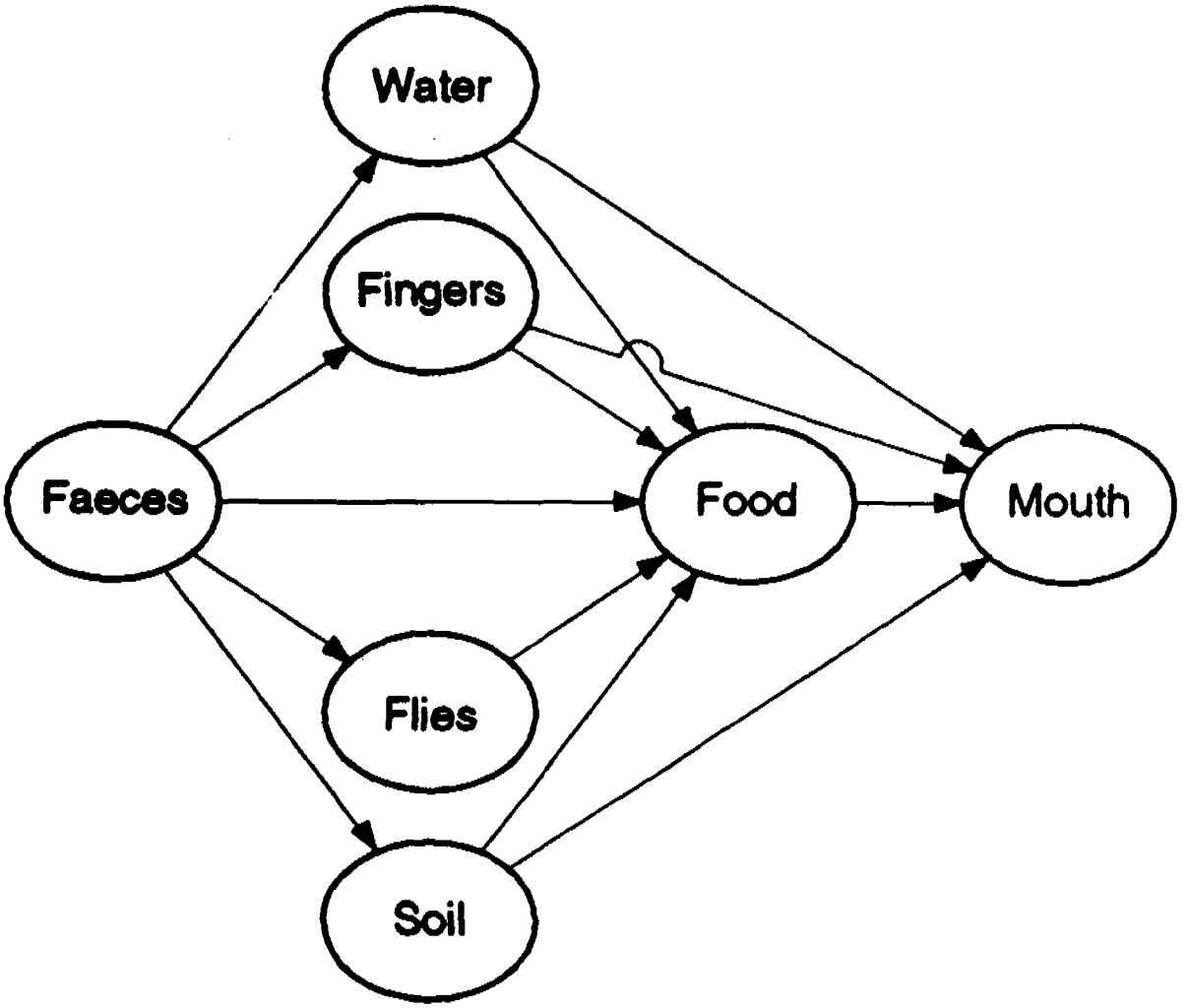
- Train caretaker
- Promote hygiene behaviour
- Establish O&M fund

ANNEX II Disease transmission routes

Infection	*Transmission pattern*
Various types of diarrhoeas, dysenteries, typhoid and paratyphoid	From human faeces to mouth (faecal-oral) via multiple routes of faecally contaminated water, fingers and hands, food, soil and surfaces (see Figure 1). Animal faeces (e.g. from pigs and chickens) may also contain diarrhoeal disease organisms.
Roundworm (Ascariasis), Whipworm (Trichuriasis)	From faeces to mouth: Worm eggs in human faeces have to reach soil to develop into an infective stage before being ingested through raw food, dirty hands and playing with things that have been in contact with infected soil. Soil on feet and shoes can transport eggs long distances. Animals eating human faeces pass on the eggs in their own faeces.
Hookworm	From faeces to skin (especially feet): Worm eggs in the faeces have to reach moist soil, where they hatch into larvae which enter the skin of people's feet.
Beef and pork tapeworms	From faeces to animals to humans: Worm eggs in human faeces are ingested by a cow or pig where they develop into infective cysts in the animal's muscles. Transmission occurs when a person eats raw or insufficiently cooked meat.
Schistosomiasis (bilharzia)	From faeces or urine to skin: Worm eggs in human faeces or urine have to reach water where they hatch and enter snails. In the snails they develop and are passed on as free swimming "cercariae" which penetrate the skin when people come into contact with infested waters. In the Asian version of the infection, animal faeces also contain eggs.
Guinea worm	From skin to mouth: The worm discharges larvae from a wound in a person's leg while in water. These larvae are swallowed by tiny "water fleas" (cyclops). and people are infected when they drink this contaminated water.
Scabies, ringworm, yaws	From skin to skin: Both through direct skin contact and through sharing of clothes, bedclothes and towels.
Trachoma, conjunctivitis	From eyes to eyes: Both direct contact with the discharge from an infected eye and through contact with articles soiled by a discharge, such as towels, bedding, clothing, wash basins, washing water. Flies may also act as transmission agents.
Louse-borne typhus, Louse-borne relapsing fever	From person to person: Through bites of body lice which travel from person to person through direct contact and through sharing clothes and bedclothes, particularly when underwear is not regularly washed.
Malaria, yellow fever, dengue	From person to person through the bite of an infected mosquito. The mosquito breeds in standing water.
Bancroftian filariasis	From person to person through numerous bites by infected mosquitoes. The mosquitoes breed in dirty water.

Infection	*Major preventive measures*					
	safe human excreta disposal	*personal hygiene*	*domestic hygiene (and animal management)*	*food hygiene*	*water hygiene/ safe water consumption*	*wastewater disposal and drainage*
Various types of diarrhoeas, dysenteries, typhoid and paratyphoid	●	●	●	●	●	
Roundworm (Ascariasis), Whipworm (Trichuriasis)	●	●	●	●		
Hookworm	●		●			
Beef and pork tapeworms	●			●		
Schistosomiasis (bilharzia)	●	●	●			
Guinea worm					●	
Scabies, ringworm, yaws		●	●			
Trachoma, conjunctivitis		●	●			
Louse-borne typhus, Louse-borne relapsing fever		●	●			
Malaria, yellow fever, dengue			●			●
Bancroftian filariasis	●		●			●

ANNEX III **The F-diagramm**



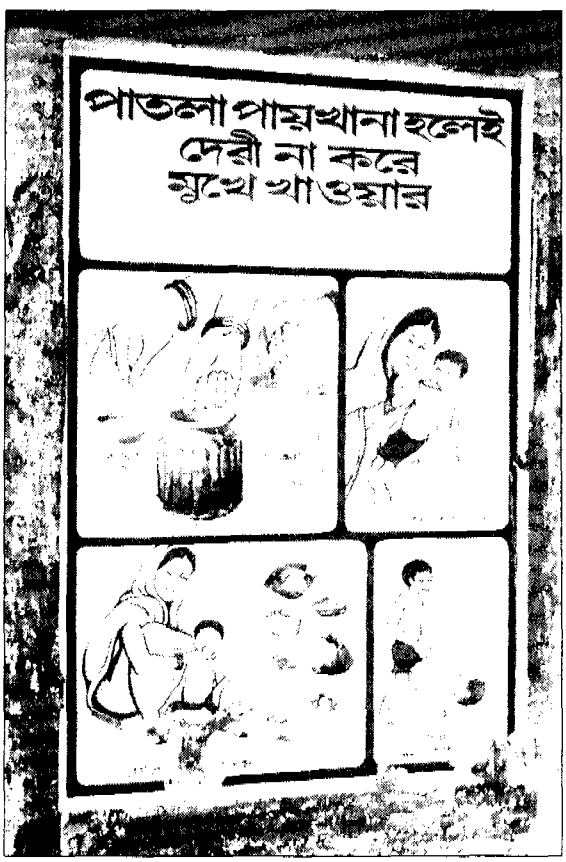
Faecal-oral transmission routes.

No half measures — sustaining health from water and sanitation systems

by Steven A. Esrey

Without improved hygiene and sanitation, the cleanest water in the world won't prevent children dying from diarrhoea. Just the latest theory? Steven Esrey presents some hard evidence on health.

HEALTH IMPROVEMENTS ARE often cited as a rationale for investing in water and sanitation. Many donors justify investments in water and sanitation from health budgets. Health benefits are also cited as a measure of success or outcome of water and sanitation improvements. Many projects are evaluated by health indicators. These differences, rationale and outcome, are not trivial differences. For example, people demand water for convenience; improvements provide this by bringing piped supplies closer, and offering more water for a variety of uses. Donors provide funds for water to improve health. Is convenience



Sean Sprague/Panos Pictures

A Bangladeshi health poster promotes ORS.

achieved, or health improved; and are both sustained? If the rationale and the outcome are not considered together, it is unlikely that both objectives can be achieved, much less sustained.

Why 'do' water and sanitation? There are many other reasons for investing in water and sanitation besides the obvious linkages with health. They are basic human needs and rights; the economic benefits, including waste reuse, increased tourism through a hygienic environment, and the savings on disease care; plus increased dignity, convenience, and quality of life are all valid objectives.

Nevertheless, the same question should be asked if sustainability is important. For example, is human dignity the reason for investing in water and sanitation? Or is human dignity the result expected from investing in water and sanitation?

Health benefits

Three types of information indicate that there are substantial health benefits to be gained from improvements in water and sanitation: theoretical, historical, and epidemiological. Theory, backed up by empirical evidence, suggests that, as pathogen exposure is reduced, so is disease. A healthy adult or child may become exposed to pathogens and, if the load is sufficient, will become sick. If the disease is severe enough, death is inevitable.

This progression of events, shown in Figure 1, also highlights three points of intervention: primary, secondary, and tertiary. In the case of diarrhoea, a tertiary intervention would be oral rehydration (ORS). ORS will prevent the death of a child if he already has diarrhoea. ORS also treats diarrhoea. Tertiary interventions are not intended to reduce exposure to pathogens, and do not have an impact on the subsequent severity of disease, except that early diagnosis can help make a tertiary intervention effective in preventing death. In a similar vein, secondary interventions are not concerned with the amount of exposure, but try to prevent or reduce disease severity.

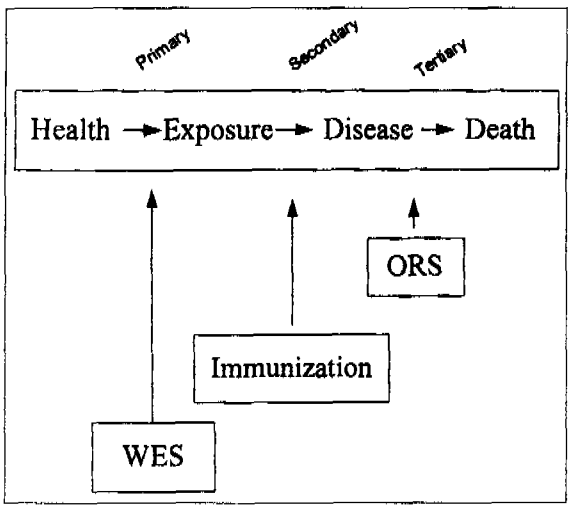


Figure 1. Intervention points to prevent and treat disease.

Immunization — against measles, for example — prevents disease and, consequently, death, while effectively treating exposure. Primary interventions work in much the same way, except that they are intended to prevent people from being exposed to pathogens in the first place.

Sanitation, hygiene, and clean water prevent exposure to pathogens, thereby preventing disease and death. As such, a primary intervention treats health. Thus, water and sanitation are healthcare, while immunization and ORS are disease-care interventions.

No way in

In the same vein, sanitation, hygiene, and safe water can be considered as primary, secondary, and tertiary barriers between the health and exposure linkages. Sanitation is the primary barrier to prevent pathogens from gaining access to the environment. Put

Jim Holmes/Panos Pictures

We have transmission — only a multiplicity of efforts will prevent people from ingesting disease-causing pathogens.

another way, without sanitation, the environment is exposed to pathogens. Hands, food, objects, soil, and water are contaminated. Effective secondary barriers are needed to prevent the continued transmission of pathogens, thus, hygiene practices such as handwashing, better food-handling, keeping the living and cooking areas of the home clean, good personal hygiene, and making water safe, can be effective interventions to prevent humans from ingesting pathogens. Attempts to improve one hygiene area — for example, safe water — do not reduce transmission through food, soil, objects, and hands. Thus, a multiplicity of efforts are required to reduce the transmission of pathogens. Single hygiene efforts are unlikely to reduce diseases unless the pathogens are transmitted through only one route.

Historical evidence indicates that preventive measures have effectively reduced the incidence of disease and death caused by a number of killing diseases. The reasons for these preventive measures include better water and sanitation conditions, better and more varied diets, increased education, and a greater understanding of the germ theory of disease. The improvements in water and sanitation included better sewage disposal, higher-quality water, and more water made available for people to keep themselves and their environments clean. Thus, the improvements in water and sanitation could not be ascribed to any one component of the improvements. This raises the question, if only one condition was improved, would the improvements in health or life expectancy have occurred?

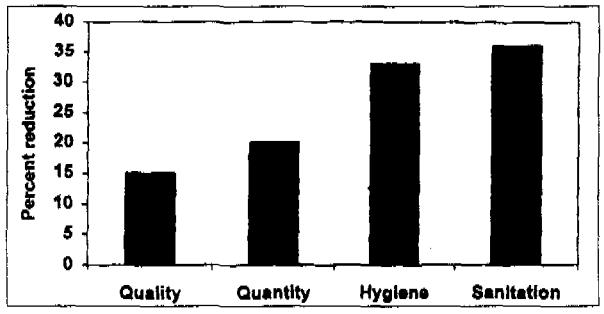


Figure 2. The effect of different interventions on the reduction of diarrhoea.

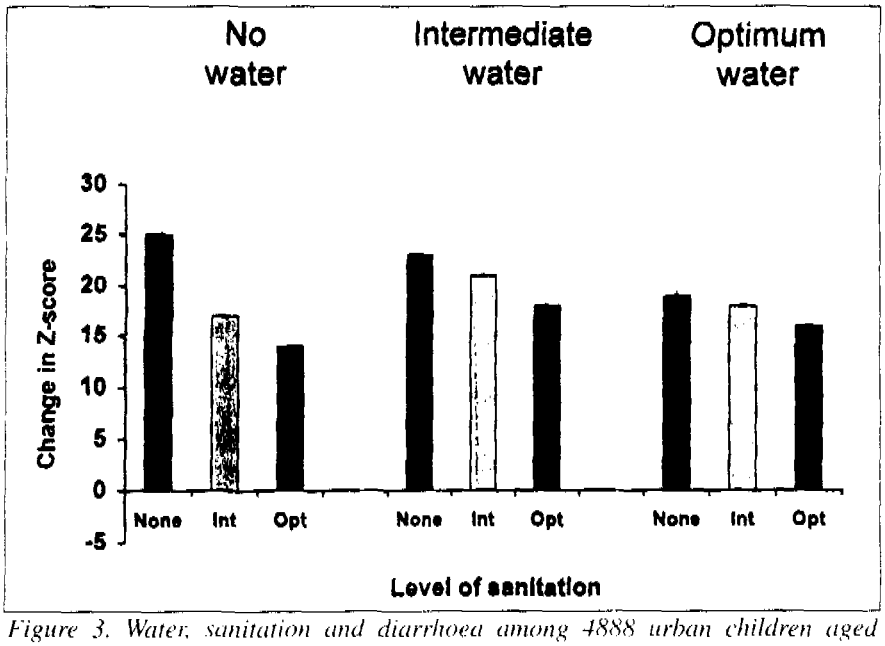


Figure 3. Water, sanitation and diarrhoea among 4888 urban children aged between 3 and 36 months of age, in 18 countries.

Analysing the evidence

Recent epidemiologic studies have helped to separate out the external influences — such as education — from water and sanitation improvements, as well as the influence of one component of better water and sanitation, for example, safe water, from another (such as more water).

Two types of analysis have been

Innovative emptying — improving slum sanitation in Kibera

by Madeleen Wegelin-Schuringa, J. Gitonga, and T. Kodo

Kibera is the largest, low-income urban area in Kenya's capital, Nairobi. Covering 225 hectares, it is home to an estimated population of 470 000. The land belongs to the State, and temporary occupation licences are obtained through the municipal authorities. Yet the area is considered illegally squatted, and there are no public services available. The vast majority (98 per cent) of the residents are tenants who depend on their landlords to provide latrines. Most homes consist of a large number of rooms crammed into a compound, leaving little space for infrastructure facilities.

Madeleen Wegelin-Schuringa

A Kibera latrine drains into the natural drainage channel.

Most people obtain their water through Kibera's estimated 500 water kiosks, usually privately owned, or managed by water committees, who sell the water for between one and three shillings per 20-litre container (about six times the price for water at individual connections). The price of water and the restricted hours of supply result in a level of water-use which endangers personal and environmental hygiene.

Kibera has no solid-waste collection system and garbage litters the streets. Wastewater is simply allowed to drain away through the roads, and natural drains have formed. Excreta disposal is principally down to traditional pit latrines. Although, in theory, almost all families have access to a pit latrine, actual access is limited; one latrine may serve up to 200 people. Apart from the insufficient number, the main problem with the latrines is emptying the full pits, and space to dig new pits is often not available.

Madeleen Wegelin-Schuringa

Although the sheer number of people living in Kibera would indicate the need for some form of reduced-cost sewerage to improve sanitation conditions, the scarcity and cost of water — and the fact that people use solid materials (paper, corncobs, and leaves) for anal cleansing — more or less preclude any option for a system using water.

Since landlords already spend funds on digging pits and constructing latrines, it seems advisable to concentrate on options to upgrade the existing types of latrines. People are unlikely to be willing to spend funds on improvement, however, if the main problem — the difficulties of emptying the pits — is not dealt with simultaneously.

Since 1990, the Kenyan NGO, Kenya Water for Health Organization, has been operating a mini vacuum tanker service in the area, dumping the sludge in the sewer running through Kibera. The service was not sustainable: capital costs were high, badly maintained roads caused frequent breakdowns, and there were problems with the local authorities over the management of the service. Moreover, the tanker was unable to serve all homes as many can only be reached by footpath. The manual pit-emptying technology (MAPET), developed and operational in Dar es Salaam[1], could have been a suitable alternative if there had been space to dig a pit for the sludge on the compound (the Dar es Salaam method), or if Kibera was situated on flat ground. Manually pushing a full tank to dump the sludge in one of the four manholes is not possible due to the distances and the sloping ground.

Some form of removal system between the mini vacuum tanker and the MAPET will be the most suitable option for Kibera. Such a system is being developed now, and will be tried out in Kibera during 1996. Once a reliable emptying service is functioning, landlords have proved to be willing to improve their latrines, mainly through the construction of a Sanplat. Moreover, the traditional depth of the pits (currently 10 to 20 ft) could be reduced, making a pit latrine cheaper. This may induce landlords to construct more latrines for their tenants if they are willing to make space available in the compound.

As one latrine pit fills up, a new one is dug.

1. Muller, Maria S., and Jaap Rijnsburger, 'MAPET: An appropriate latrine-emptying technology', *Waterlines*, Vol. 13, No.1.

completed. The first, in 1991, was a review of all epidemiologic studies.[1] Based on this review, the relative reduction in diarrhoea was estimated from improvements in safe water, increases in the amount of water, better hygiene practices, and improved sanitation (Figure 2). The greatest improvements were achieved through sanitation and hygiene: a 35 per cent reduction in diarrhoea. Increases in the amount of water were associated with a reduction in diarrhoea of about 20 per cent, while safe water was associated with only a 15 per cent reduction in diarrhoea. This suggests that sanitation acts as a successful primary barrier to reduce the environmental exposure of pathogens, and better hygiene acts as an additional, secondary barrier to reduce their transmission further.

The question of why safe water has less of an effect — perhaps only a marginal effect — on diarrhoea than improved sanitation or better hygiene goes against traditional thinking. A recent review of water-borne outbreaks[2] indicates that many outbreaks of the pathogens associated with diarrhoea are, in fact, not water-borne. While cholera was reported to be predominantly water-borne, a recent analysis of cholera outbreaks suggests that, for every water-borne outbreak, there are two non water-borne

outbreaks. Less than 50 per cent of outbreaks from common diarrhoeal pathogens (Shigella, E. Coli, and Campylobacter) are water-borne.

A recent study examined the joint effect of water and sanitation on incidents of diarrhoea and the nutritional status of children aged between three and 36 months.[3] Three types of water and three types of sanitation systems were examined: unimproved, intermediate, and optimum. Unimproved systems included ponds, lakes, and traditional water sources and fields for sanitation. Intermediate water usually indicated a communal tap, while intermediate sanitation was predominantly a pit latrine. Optimum water was classed as a supply on the premises or in the dwelling, while optimum sanitation included pourflush toilets or sewage connections.

The analysis included nearly 17 000 children — two-thirds of whom lived in rural areas — from eight countries in three continents. The results on diarrhoea among urban children for the nine different water and sanitation options are shown in Figure 3. The highest rates of diarrhoea were found among children without improved sanitation, *regardless of the type of water supply found*. The effect of sanitation was largest when there was no improved water, an 11 per cent difference in the prevalence of diarrhoea between unimproved and intermediate sanitation in the absence of improved water. This was equivalent to a 44 per cent reduction in diarrhoea prevalence. The difference in diarrhoea prevalence for intermediate water compared to unimproved water, in the absence of improved sanitation, was 2 per cent, or the equivalent of an 8 per cent reduction in diarrhoea. Similar findings were found when nutritional status was examined. Water had a minor effect, while improved sanitation had a substantial effect on nutritional status, both height and weight.

Complementary improvements

The effects of improved water and sanitation were greatest when improvements occurred together; a finding that is backed up by other studies. As a general rule, sanitation improvements have the greatest effect when improved water is available, and vice versa. In addition, the effect of water and environmental sanitation (WES) interventions may be enhanced when other external factors come into play, including higher education and higher incomes. Efforts to reduce disease and improve health, therefore, can be maximized by seeking linkages with other programmes.

Besides reductions in diarrhoea, improvements in water and sanitation also reduce the prevalence and severity of other diseases, such as guinea-worm, intestinal parasites, and skin diseases. Improvements in nutritional status, including a reduction in the prevalence of stunted and wasted children, as well as saving in energy expended, have also been reported.

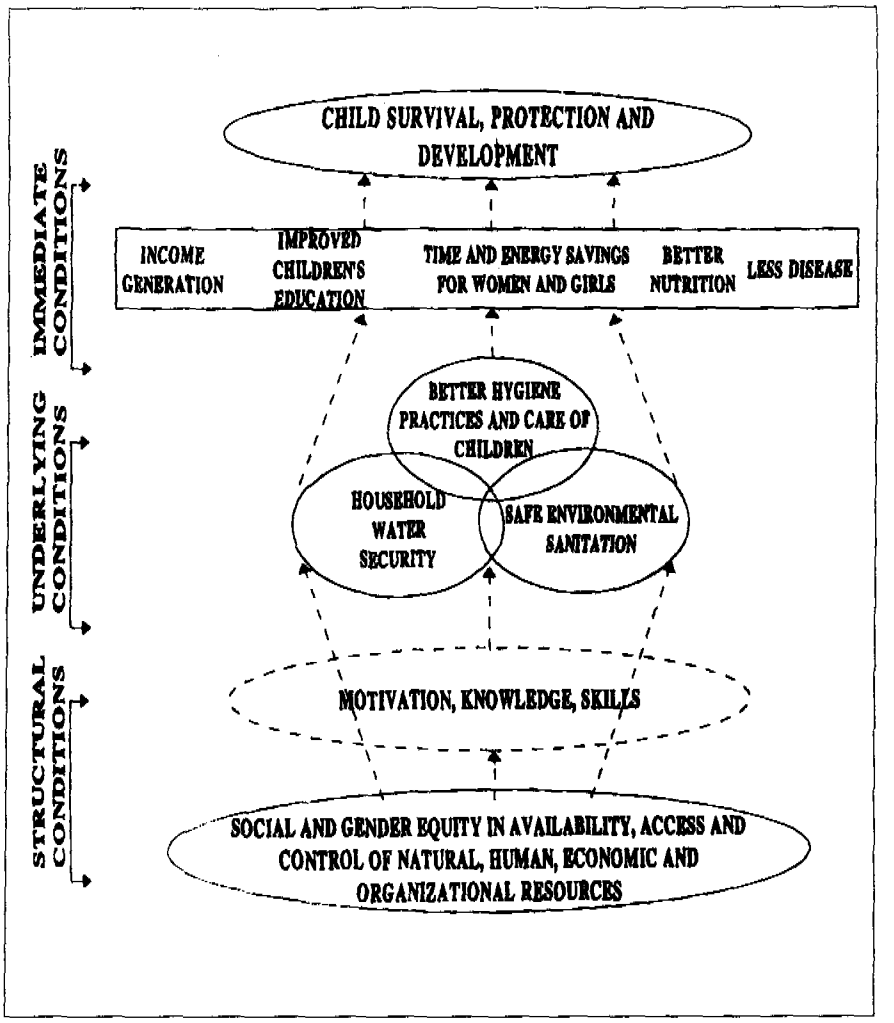


Figure 4. Conceptual model for water and sanitation programme development.

Unicef's WES Programme

These impacts helped form the basis for the conceptual framework for Unicef's Water and Environmental Sanitation (WES) Programme (Figure 4). Briefly, the objectives of Unicef programmes are child survival, protection, and development. The WES contributions are safe environmental sanitation, better hygiene practices and maternal care, and household water security. These programme interventions, which should be integrated to maximize impact, are mediated through less disease, better nutrition, less time and energy spent in collecting water, better education for children, and greater income-potential as a result of water and sanitation improvements. All of the mediating factors are well-documented.

The lower half of Figure 4 indicates the conditions necessary to secure household water security, better hygiene and maternal care, and safer environmental sanitation at the community level. These are, primarily, greater equity in the access to and control of available resources. Yet, access to, and the control of, resources will not provide sustainable resources unless people are empowered to act for themselves, including their participation in the design, implementation, and evaluation of WES interventions.

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2. Ewald, P.W., 'Waterborne transmission and the evolution of virulence among gastrointestinal bacteria', *Epidemiology and Infection*, 1991.

3. Esrey, S.A., 'Incremental improvements in water and sanitation and incremental improvements in health', *American Journal of Epidemiology*, 1995.

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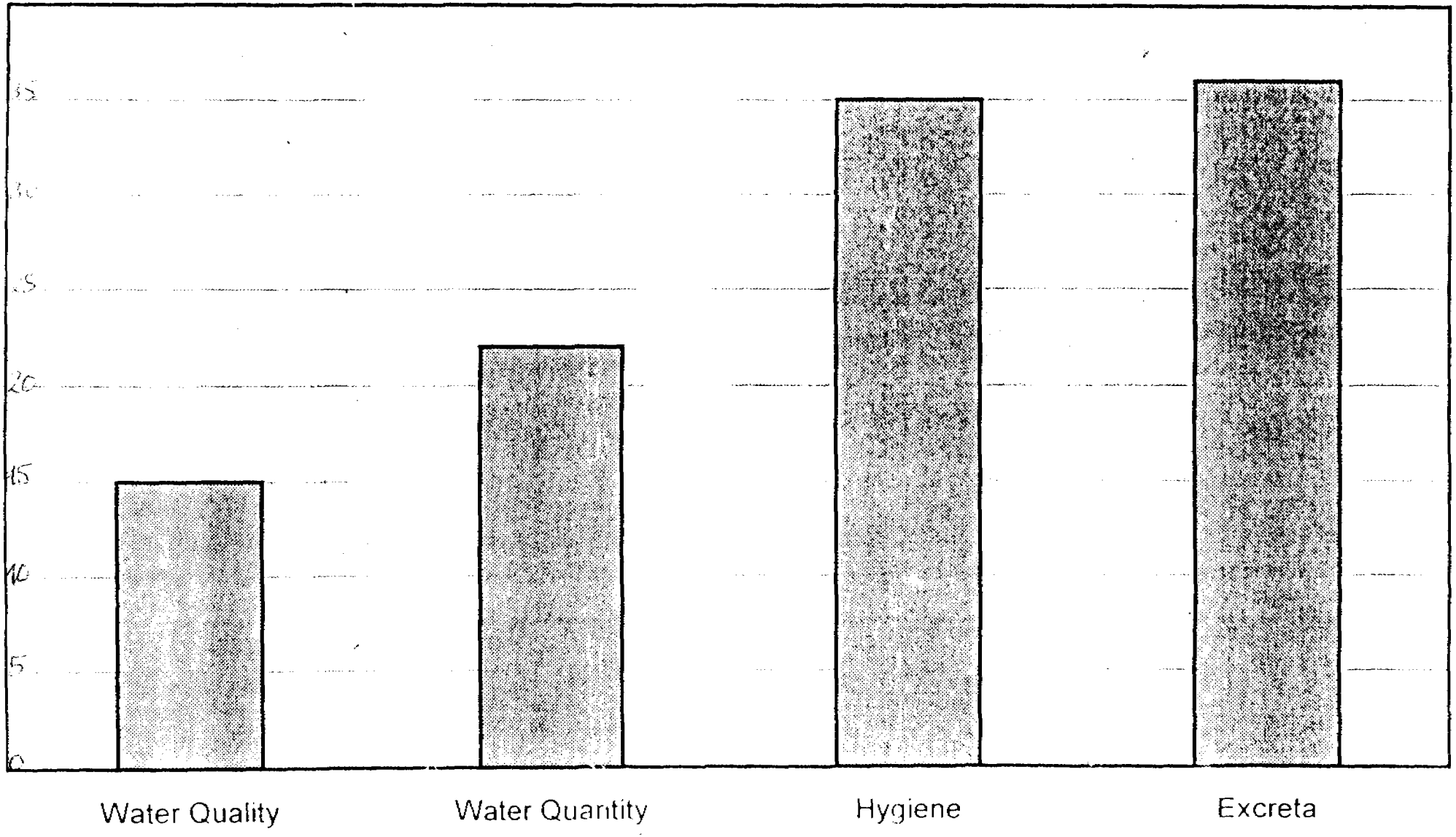
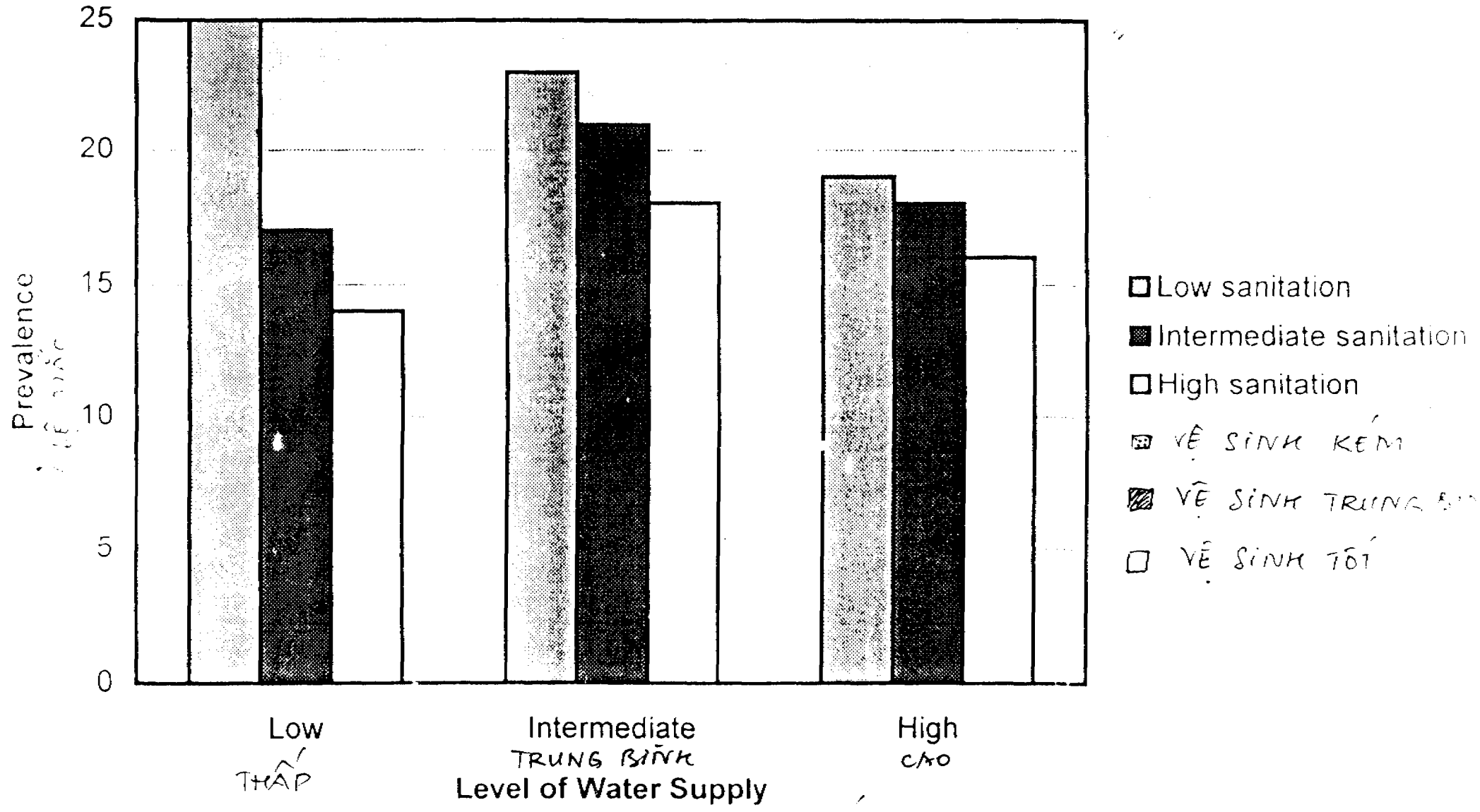
% Reduction in Diarrhea by Intervention

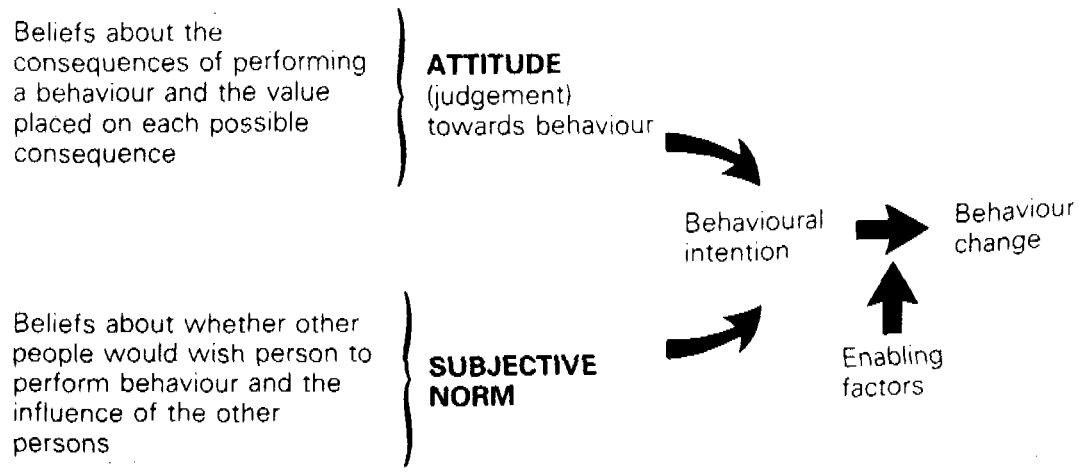
GIẢM TỈ LỆ % MẮC BỆNH TIÊU CHẢY VỚI CÁC BIỆN PHÁP CAN THIỆP



Diarrhea by Water and Excreta Disposal



ANNEX VI **BASNEF-model**

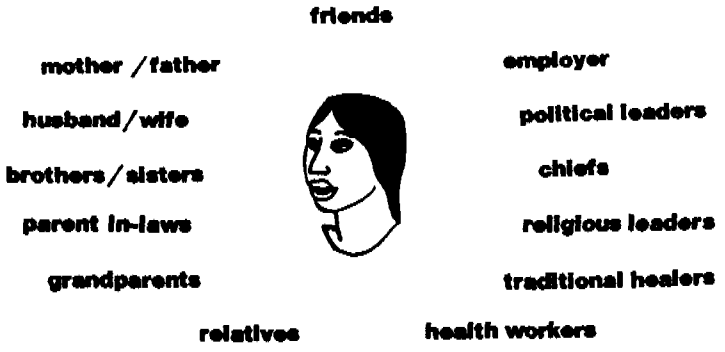


beliefs about different possible consequences that person perceives might arise from performing behaviour

extent to which each consequence is seen to be good or bad

overall **ATTITUDE** (judgement) towards behaviour as good or bad

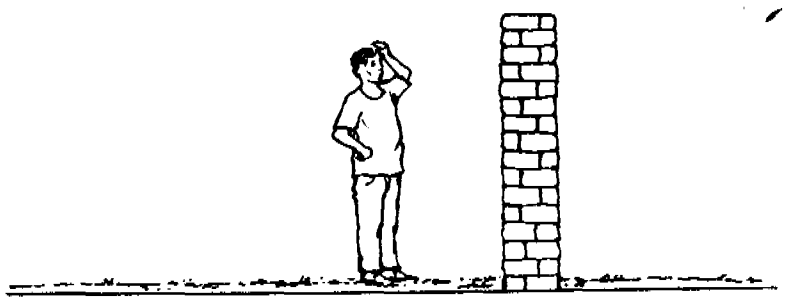
Source: Hubley, J.



Beliefs about whether significant people in network wish person to perform behaviour

and importance attached by person to conform with different people

Subjective norm
(perceived social pressure)



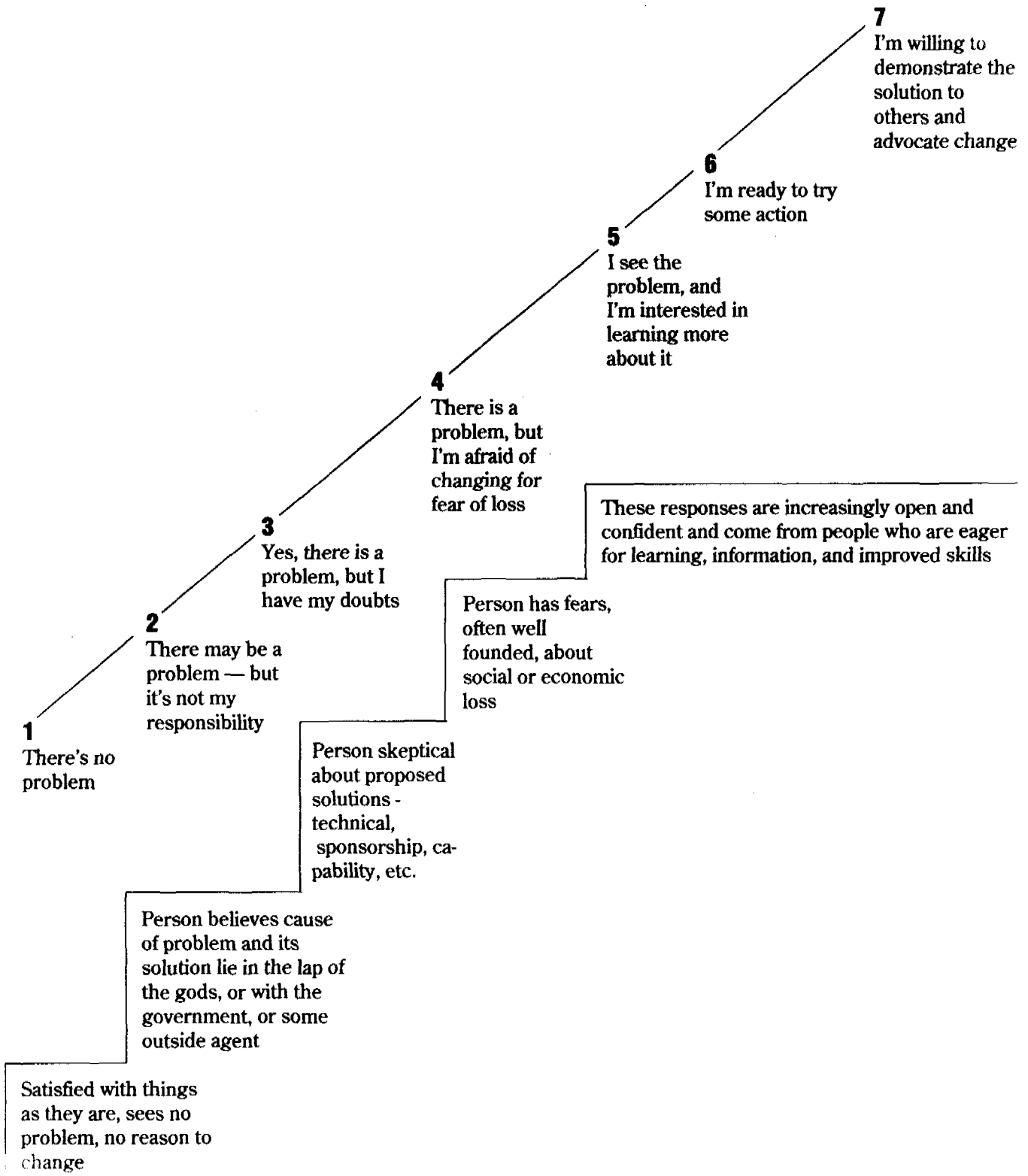
behavioural intention → behaviour change

enabling factors

time
money and material resources
special skills required
appropriate and accessible health services

Enabling factors

ANNEX VII **Resistance/openness to change**



Source: Srinivasan, L.

ANNEX VIII List of activities used for intergration game

Conduct feasability survey

Plan project implementation

Arrange for sparepart supply

Select a community

Brief the hydrologist

Plan for the use of the area around the pump or standpost

Map the selected village

Select the site for the handpump or the standpost

Select site for latrines

Select type of latrine for the area

Create an operation and maintenance fund

Promote the participation of all social groups in a community

Organise community meetings about the project

Discuss roles and responsibilities in the project

Monitor efficiency and effectiveness of the project

Train community motivators

Promote hygiene behaviour

Conduct a needs assessment

Select members for the water committee

Train a caretaker

Evaluate the project

Train the water committee

ANNEX IX Institutional actors for mobilization in the water supply and sanitation programme

Ministries involved in water supply and sanitation

- Ministry of Environmental Science and Technology: does not implement WATSAN, but does research into appropriate technology
- Ministry of Agriculture and Rural Development; Centre for Rural Water Supply and Sanitation: rural water supply and to some extent sanitation
- Ministry of Health: sanitation, hygiene education.

Technical and financial arrangments for implementation of **a piped system or a gravity flow system in rural areas**

A rural water supply project is paid for by:

UNICEF:	40%
the Government:	40%
People:	20% in labour of money

Government level	Min. of Agr. and Rural Dev. (approves)
National Level	Centre for Rural Water Supply and San. (examines, advises and monitors)
Provincial level	Prov. CERWASS (implements and is responsible)
District level	Project Management Unit (supervises, manages, takes decisions)
Commune level	Water committee (water agency) * supervises * collects water fee for operation and maintenance * carries out operation and maintenance

For **scattered facilities** (dug well, drilled well, well rehabilitation, rain water tank, slow sand filtration) either the drilling team of prov. CERWASS does the technical work of a private company.

Water Agency/ Water Committee: its composition is decided by the People's Committee and has its representative ((vice) chairman or secretary), repr. of WU, of YU, the Health Worker. The Water Committee supervises the work of the community motivator (in communes having a water supply project).

ANNEX X Guidelines for using the toolkit

Guidelines for using the toolkit can be grouped as follows:
1. Those related to understanding participation;
2. Those related to pre-conditions for participation;
3. Those meant to help users to optimize the effectiveness of the tools through proper communication;
4. Those meant to help users to select tools appropriate to a certain situation;

Below these guidelines are given and illustrated with examples where possible. To a large extent they derive from the training of trainers held in Hanoi, 9-20 February, 1998.

Please note that the word "you" can refer to staff training community motivators or to community motivators working with community members.
The word "people" or "participants" refers to the group you communicate with. In the case of "you" being staff training community motivator, "people" or "participants" refers to the motivators. In the case of "you" being a community motivator "people" or "participants" refers to a group of community members.

Understanding participation

Facilitation instead of education
Participatory tools are meant to help people to go through a process of problem identification, planning and problem solving. *You are facilitating this process.* This implies that it is not *you* who tells people what their problems are and what the most appropriate solutions are. Your role is to help people discover this themselves.
Although it is often very tempting to start lecturing or correcting people, you will have to remind yourself that you are facilitator, not educator. When people discover problems and solutions themselves, they are more likely to implement the solutions, which could be a behavioural change.

Often providing knowledge does not solve the problem
Often lack of knowledge on the relation between health and hygiene behaviour is not the reason for people to stick to unhygienic behaviour. Sometimes other factors motivate people to behave the way they do, like social pressure or fear of losing economic benefits. For some behaviours people may find themselves at the lower part of the "resistance to change continuum" . In such cases providing knowledge about good and bad behaviour is not useful. The other motivational factors will have to be dealt with.

Knowledge at the appropriate time
The above does *not* mean that providing knowledge about the relation between health and hygiene behaviour is always wrong. You just have to make sure that you provide such knowledge at the appropriate time. Only if people see there is a problem they will be ready to really listen and to use your knowledge to improve the situation they find themselves in. The "Resistance to change continuum" (toolno. 3) shows this very clearly. Only at stage 5 real knowledge transfer is useful.

Appropriate knowledge
If people are open to your knowledge, you will have to make sure that the knowledge you provide is appropriate to the situation of the people and builds upon what they already know and do. Neclegting that people already know a lot and are resourceful may easily put them of or cause you to provide information that is not relevant at all to the situation people find

themselves in. Make sure you collect sufficient information to develop appropriate messages. In particular the tools 8 - 16 are meant to gather basic information that helps you decide on further activities.

People are not only providers of information
A participatory information gathering process often makes people realize problems and think of possible solutions. It is therefore important that it is not just you who collects the information, but that it is done by you *and* the people you work with. People should not be looked upon as mere providers of information that you will analyse. Also analysis has to be done with the people!

Pre-conditions for participation

Make sure people are well informed before they take a decision
When using tools that are meant to help people to make a decision, for example about the type of water supply or sanitation technology they would like, you have to make sure that you can provide the necessary information for people to make a good choice. People need to be informed about the installation and maintenance costs of the options, of the availability of spare parts for each of the technologies and the other pro's and con's. If you are not able to provide the necessary information yourself, you can ask someone who is knowledgeable about the topic to come with you as a resource person.

Prevent frustration, be clear
Before you decide to help people select the technology they like or to find solutions to problems *they* feel have priority, you have to make sure that you or the programme you work in can also help people to make the next step. You should not help people to make decisions about something that is far beyond their capacity to put in place and for which no external support is available. All you will achieve is that people loose confidence in you. you can prevent this by clearly informing people about the technologies your programme can help with and to indicate where people can go should they want something beyond this.

No quick decisions
Do not force people to take a decision at the same time they receive information! Allow people to go home with the information, think it over and discuss the issue with their peers. A decision can then be taken during a next meeting.

Create a stimulating atmosphere
If we want people to participate in a discussion we have to create a conducive atmosphere. This has a number of elements:

- Be seated at the same level as participants, i.e. do not sit on a chair whereas the group sits on the floor.
- Avoid the use of tables, since tables between you and the group enlarges the distance. Tables may only be needed if participants have to write.
- Sitting on the floor makes a get together even more cosy.
- Make sure all participants can see drawings you use or read what is on a board of flipchart. This often means that you have to avoid that people sit behind each other. This implies that working with small groups (5 to 6 people) is best.
- Make sure you use words that all participants can understand.

Optimizing the effectiveness of the tools through proper communication

Build rapport and listen carefully
Listen well and be open to what people say. Build on what they put forward. People have a lot of experience and knowledge and we should not ignore that. Our work becomes more meaningful if we build on people's reality and people feel recognized if importance is given to what they say. This also help building rapport. A good rapport between you and the group you work with is necessary. If we want people to openly voice their opinion, people need to feel that they can trust you, also in the sense that you take seriously what they say.

Be clear about the purpose of a meeting and build on previous ones
Start a meeting by clearly stating its purpose and how long it is expected to take. People then know what to expect and can choose to stay on or to do things that are more urgent to them. If more meetings have been held already, briefly summarize the outcome of the previous meeting and clarify the link between the previous meeting(s) and the present one. For example the previous meeting was about deciding on a solution to a certain problem and this meeting you intend to help people make an action plan. You may then say: "Last time we met and you decided to try to ....., let us now look into how we can put this into place by identifying the resources we have, those we still need and by making an action plan".
Instead of you summarizing the outcome of the previous meeting, you may also ask one of the people to summarize it.

Have people interpret drawings
If you use visual aids do not start by telling what can be seen on the drawing. Instead, ask people to interpret the drawings. This allows you to find out their perception and understanding about the image and may even give you an idea about what people perceive to be important. You may, for example, have a drawing showing a village having open drainage channels flowing into the village pond and many nice tree around it. If you ask people to tell you what is on the drawing and they do not mention the drainage channels flowing into the pond, this may mean that they either do not understand the picture or they do not consider this to be important enough to mention. You will have to find out and build your discussion with the group on their answer.

Open instead of directive
Often you will have to pose a lot of questions to help people analyse a problem, look at it from different angles and assess strategies to solve the problem. Open questions are best if you want to help people analyse an issue. For example "Can you describe what you do when the drainage channel is blocked?" requires more thinking than when you ask a more directive question "Do you clean the drainage channel when it gets blocked?". The answer to the first question will also give you more information about how cleaning drainage channels is organised, whereas the answer to the second question can only be "yes" or "no". The "cup-exercise" (toolno.1) helps clarify the difference between open and directive.

Question the right person
Make sure you pose questions to persons whom you expect to give reliable information.You can judge this by asking yourself whether the person you ask has a real interest in providing honest and true information. If yes, you may expect the information to be reliable.

Encourage listening to silent people
It is often tempting to have a discussion with people that are talkative and that voice plenty of ideas. However, you have to make sure you address yourself to all people in the group, since silent people also have their, sometimes even better, ideas. You an invite silent people to talk

by asking a question directly to them and be patient if needed. Should a talkative person not be so patient and start talking before the silent person, you may tell him/her that you appreciate his opinion, but that you would also like to hear the opinion of others.

Summarizing helps assessing understanding
Throughout the meeting summarize what people say. This allows you to find out whether you have understood what they said. It also shows that you value their input in the discussion. You may start a summary by saying for example: "So you said that ....." or "Did I understand you well if I summarize what you said as follows: .....".
Also at the end of a meeting give a wrap up by summarizing what has been said and by repeating the decisions taken, if any. Also give an indication as to what will be discussed during the next meeting. You may also ask people to wrap up the meeting.

Check for questions
Before you end a meeting check whether people still have question. Some things may still be unclear and hamper further thinking about the issue before the next meeting.

Differences of opinion can be healthy
People may have different opinions. Do not take sides by denying a certain opinion. If you do so you may be sure that the person whose opinion is denied will obstruct the process at a later stage. Besides, differences of opinion often offer a good opportunity to have a more in-depth discussion.

Make sure women's voices are also heard
In many places women do not express themselves freely and openly in the presence of men. Should you feel this is the case in the community you work with, it will be useful to have discussions and exercises with women and men separately and to compare the outcome of these discussions.

Examples illustrate
In particular when discussing concepts the use of illustrative axamples can be very helpful. This stimulated people's understanding. However, you will have to make sure that you use examples from people's daily life reality, so they can easily relate to it. It can be useful to prepare a list of examples before a meeting.

Selecting tools appropriate to a certain situation

When to use what
The tools in the toolkit are related to developing concepts and to the phases in a project cycle: gathering information, selecting priorities and setting objectives, planning and implementation. From the toolkit you can select tools that are most appropriate to the situation at hand. The tools 1 - 7 are tools to help discuss and develop concepts and are meant to be used with staff involved in development activities. The tools 8 - 16 help gather and analyse basic information, whereas the tools 17 - 21 are helpful when taking decisions about how to improve the situation and planning their implementation. The "Story with a gap" for example, is a tool used for planning and identification of resources to carry out the plan. The tools 22 - 24 can be used for monitoring.
The above implies that you have to think carefully about the sequence in which tools are used and to always take into consideration whether information is needed, whether further analysis is required or whether plans for improvement can already be made.
Some tools are multi-purpose. A "Pocket chart" for example, helps to gather information at the beginning of a project, but can also be used as a tool to collect monitoring information

during implementation. It may be useful to verify information obtained through a discussion by observations.

How to get started
In a "new" community it is always helpful to start with an obervation walk to get an impression about the living environment. It is useful to do so open-minded and to ask a few persons to come along. While walking and observing you can ask questions to verify your impressions.

Discussing sensitive issues
Sometimes an issue is too sensitive to be discussed through a tool asking people to make choices openly, for example the tool "access and control over resources". If you sense an open discussion about a certain issue will not give reliable information, you may develop a "pocket chart" about that issue and allow people to vote secretly. The outcome of the voting can then be discussed without knowing who voted for what.

Use appropriate drawings
The drawings in the toolkit depict certain people, certain ways of housing and certain technologies. These may not be prevalent in the area where you work. In that case you will have to arrange for appropriate drawings by asking a local artist to make adapted ones. Drawings do not have to be very sophisticated, but can remain quite simple.

Role models
It can be very useful to invite people to a meeting who already perform a certain behaviour and to ask him/her to talk about his/her experiences. This will help people realize that behavioural change is not always difficult and beyond their reach.. Should you invite someone you will have to make sure it is a person people can easily identify with. For example, it should not be a rich person when you have a meeting in a poor community.

ANNEX XI Mobilization activities further defined

Project activity	Details about the activity	Who is responsible	Who supervises
Community meeting	prepare contents gather participants discussion about the project	PC Prov.PMU Vill. head	Prov. PMU
Selection of members of project standing committee	critaria for selection identification of roles and respons. listing of member	Prov. PMU PC	Prov. PMU
Needs assessment	selection of sites choose methods develop contents carry out needs assessment process information	PMU PC Surveyor	PMU PMU
Make plan for area around pump	set regulation on use and maintenance	WaterComm.	WaterComm.
Establish O&M fund	meeting with Water Comm select method for fundraising select fund manager set regulations	Water Comm. assisted by prov. and district staff	
Encourage participation	organise meeting of key-persons make plan and identify responsibilities organise mass-meeting to inform about plan set up network of motivators	vice president of PC head of vill. PMU Prov. WU	district staff PC/WU
Train Water Committee	Give lectures	CERWASS (prov./district) Prov. Health Department	Many branches of agencies
Select type of latrine	Dep. of Preventive Medicine	UNICEF	
Promote hygiene behaviour	meetings with women's groups household visits use of mass-media (loudspeaker, local radio) supply of materials on water and sanitation	head of women group motivator commune communicator prov. WU Health centre	Prov. WU
Discuss roles and responsibilities	send invitation letter to PMU's organise meeting identify roles and responsibilities be committed	head of PMU and/or People's Committee	prov. PMU prov. WU
Train motivator	develop training plan prepare training (budget, location etc) send invitation to participants conduct training	prov. PMU facilitators	Project director WU repr. in PMU
Select well	organise meeting with local leaders and representatives of branch organisations commune meeting community meeting for consent	project director PC comm. PMU	PMU repr. of WU/Health district PMU prov./distr. PMU
Train well owners	prepare training prepare tools for practice conduct training	prov. CERWASS	CERWASS

PC = People's Committee
PMU = Project Management Unit
WU = Women's Union
CERWASS = Centre for Rural Water Supply and Sanitation

ANNEX XII Stages of community participation

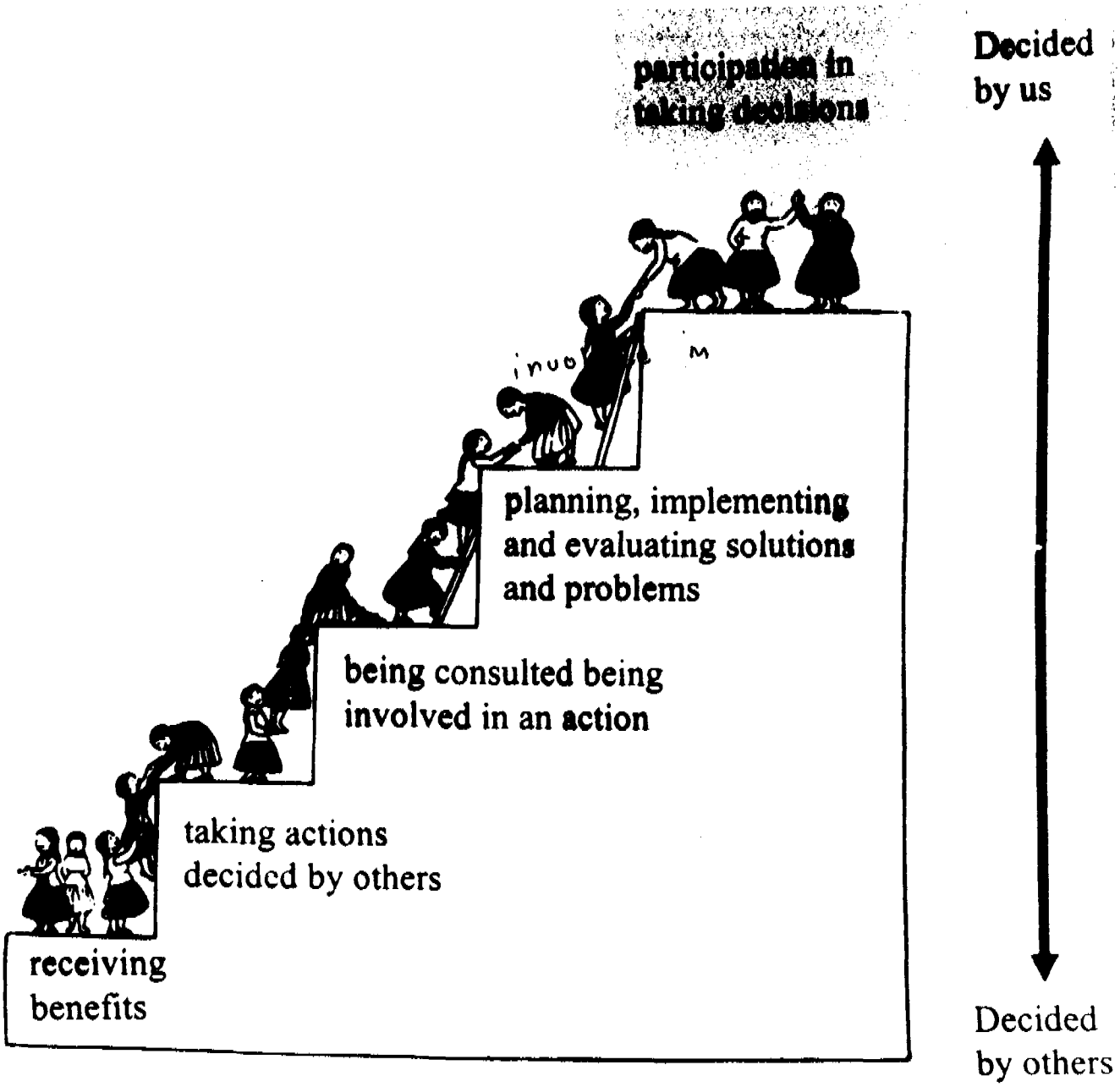


Figure: The stages of (women) participation in the development process (Adapted from Meentzen, 1993)

ANNEX XIII

OVERVIEW OF TOOLS, THEIR PURPOSE AND THE KNOWLEDGE AND SKILLS NEEDED TO USE THEM

TOOL	PURPOSE	KNOWLEDGE/SKILLS REQUIRED BY FACILITATOR
Cup exercise For building concepts, so it is used when communication changes are required; use with motivators or PC, not with community members.	• To help clarify concepts on different ways of communication. • To show how directive communication leaves "the receiver" little room to make his/her own decisions.	• Patience and allow participants time to sort out the sequence. • Ability to use differences of opinion about the sequence for more in-depth discussion.
Johari's window For building concepts, so it is used when communication changes are required; use with motivators or PC, not with community members.	• To create understanding about degrees of openness in communication. • To create understanding about the need to build rapport before people open up.	• Good understanding about degrees of openness in communication. • Good understanding of the need to build rapport.
Sarar resistance to change continuum For building concepts, so it is used when communication changes are required; use with motivators or PC, not with community members.	• To help participants understand that people may have different reasons for not wanting to change. • To help participants understand that knowing people's reasons for not wanting to change is crucial for developing effective communication.	• Ability to use concrete and real examples to illustrate the various stages (examples should be from participants reality).
Three squares assessment** For building concepts, so it is used when communication changes are required; use with motivators or PC, not with community members.	• To help participants assess the level of directiveness of non-directiveness of a training event • To help participants realize their preference for directive or non-directive training.	• Ability to take participants' judgement without becoming defensive.
Photo parade** For building concepts, so it is used when communication changes are required; use with motivators or PC, not with community members.	• To clarify participants' perception about what is a "good" style of training. • To help participants' distinguish between directive and open styles of training. • To help participant understand that the open style of training is required for effective adult learning (cycle of sharing experience, reflecting on it, assessing/judging, deciding on action for change).	• Good understanding about the adult learning cycle and the training requirements for stimulating adult learning.
Force-field analysis For building concepts; use with motivators or PC and in adapted form with community members, for example together with *Story with a gap*.	• To help participants understand the need to identify constraints and resources available for meaningful planning.	• Understanding of planning principles.
Unserialized posters** Research/information collection phase.	• To find out what people's consider to be important family and community issues.	• Ability to listen carefully and to identify major issues. • Ability to refrain form interfering.

Mapping Research/information collection phase. If used during this phase the mapping can also be used for monitoring purposes.	• To collect information about the community and about what people consider to be important features in their community. If used for monitoring also: • To help people identify the progress made.	• Ability to allow people to draw what *they* feel is important. • Ability to explain the usefulness of monitoring progress.
Pocket chart Research/information collection phase. It can also be used for monitoring purposes.	• To gather (sensitive) information about people's behaviour or knowledge. If used for monitoring progress the purpose is the same.	• When gathering information about behaviour: ability to clearly understand and explain that people should vote showing *actual* behaviour and not showing *desired* behaviour.
Gender analysis: access to and control over resources Research and information collection phase, but the tool will also raise people's awareness about gender differences.	• To get to know more whether men and/or women have access to and control over certain resources. • To help people understand that having "access to" does not necessarily mean being "in control".	• Understanding about the differences between "access to" and "control over".
Task analysis by gender Research and information collection phase, but the tool will also raise people's awareness about gender differences.	• To get to know labour distribution among men and women and thus to whom to address to for certain activities.	• Ability to refrain from judging and/or correcting information. • Ability to determine whether people sort the cards on the basis of what they *actually do* or on what they think they *should be doing*.
Women's lives; needs assessment Research and information collection phase, but the tool will also raise people's awareness about gender specific needs.	• To get to know women's priority needs.	• Willingness to accept that women's needs may be different from those of men.
Women's time management Research/information collection phase.	• To find out how women spend their time and whether time-consuming activities pose a problem that could be solved.	• Understanding that people may not always be able to indicate the duration of activities in terms of hours.
Critical incident analysis	• To get people's perception on problems. • To help people determine and analyse possible improvements/solutions.	• Ability to refrain form proposing solutions. • Be well aware of possible assistance the project can offer in order to prevent false expectations.
Hygiene practices Research/information collection phase and planning	• To assess people's knowledge about hygiene practices. • To start a discussion about changing hygiene practices.	• Ability to refrain from lecturing and to build on what people know.
Contamination routes Planning and implementation.	• To help people understand transmission routes and how to cut them.	• Knowledge about water and sanitation related diseases and contamination routes. • Ability to acknowledge and build on what people already know and do, instead of considering people to be ignorant.
Story with a gap Planning.	• To help people determine the changes they want to bring about. • To encourage people to come up with possible solutions. • To help people to make a plan to achieve the desired situation.	• Good understanding about planning principles.

Pump repair issues Planning and implementation phase.	• To help people understand O&M responsibilities. • To encourage people to take up O&M responsibilities.	• Good understanding of O&M and what communities are expected to do. • Understanding about the relation between how technology was selected and people's willingness towards O&M. • Capacity to adapt the exercise in case other technologies are involved.
What is poverty, who is poor** Planning and implementation phase.	• To gain understanding about what people perceive as "poor". • To help people define their criteria for selection of community members eligible for assistance.	• Understanding that poverty may have different meanings in different contexts. • Understanding about the relation between people themselves defining selection criteria and their acceptance of the outcome of the selection process.
Water committee functioning; three star game Planning and implementation phase.	• To help assess performance of key-persons involved in water supply. • To stimulate solution finding if performance is not up to standards.	• Good understanding about the functioning of agencies, what agencies expect water committees to do and what communities expects the water committee to do.
Understanding the decision-making process Planning and implementation phase.	• To help understand decision making processes. • To encourage people to speak out and voice their opinion when decisions are to be made.	• Understanding about the relation between decision-making and commitment towards implementing a decision. • Willingness to give people a role in decision-making. • Higher levels should be equally willing to give people decision-making power.
Women's confidence** Monitoring changes in the degree of women's participation during implementation.	• To help women realize that they may have changed from passive listeners into active project participants.	• Ability to realize that participation in a hygiene education session does not necessarily mean that women will also participate in a decision-making session.
Open-ended snakes and ladders** Monitoring the effectiveness of hygiene education activities during implementation.	• To find out people's understanding about water, sanitation and hygiene related issues.	• Capacity to adapt the game to cover with issues dealt with during hygiene education sessions. • Capacity to realize that the game deals with *knowledge* only and that monitoring behaviour requires different tools.
Monitoring forms Monitoring during implementation	• To help people monitor progress in their own community. • To stimulate action if required.	• Understanding of monitoring principles. • Willingness to decentralize the monitoring process. • Faith in people's capacity to monitor what they have an interest in.

The tools indicated with ** are in the toolkit, but have not been practised during the training.

For a number of tools it will be useful to use them with groups of women and men separately. Women may express themselves more freely when they are among themselves. A comparison of the outcomes may provide interesting information.

All tools require the capacity to facilitate a discussion. Below a few general facilitation skills are added:

- Be able to be curious and to pose questions
- Prepare yourself well
- Be open minded, cheerful, friendly
- Be able to assess appropriate timing
- Be able to make drawings or know how to access and instruct and artist in order to adjust exercises to the local situation
- Have knowledge about project phases and about sequencing of tools

Hygiene Education

Those "software" activities aiming at reducing health risks due to unhygienic behaviour / situations conditions. It wants to prevent that people fall ill or even die from water and sanitation related diseases.

Health risks

Those behaviour/situations likely to cause water and sanitation related diseases.

We need to:

- identify and validate health risks

+

- understand people's behaviour

in order to be able to:

select approach

select objectives

  - develop relevant, appropriate messages
  - monitor for effectiveness

To identify health risks we need to know:

- How diseases are transmitted
- How transmission routes are cut

To validate health risks we need to know also:

- people's actual behaviour
- geographical conditions
- climate

Research

Should provide information about:

- Most prevalent diseases
- People's hygiene behaviour knowledge
- Factors motivating people to perform certain behaviour (socio-economic, socio-cultural)
- Geographic conditions
- Climate
- Communication channels

FIGURE 1

Behaviours that reduce risks in transmitting water and sanitation related diseases

* Number of stars gives general magnitude of risk. Local conditions and habits determine which improved practice(s) will have the greatest impact.

Source: Murre, v Wyk

we need to work with target communities to answer five preliminary questions:

1. Which practices put children at risk of infection?
2. Which practices are a priority for intervention?
3. Which members of the community should be addressed?
4. How can we build on perceptions of hygiene and diarrhoea to motivate changes in behaviour?
5. What channels of communication and what materials are likely to be most effective?

Source: Curtis et al.

Possible checklist on community efforts for sanitation

1. Do people have latrines?
2. Why do people have a latrine?
3. What kind of problems do people experience with their latrines (cleaning, collapse, repair, emptying)?
4. Are there seasonal variations in latrine use?
5. Who has produced and installed existing latrines?
6. Are there any programmes with subsidies or loans for latrine purchase?
7. Is there a latrine promotion campaign and what methods are used for this?
8. Are sanitation related subjects included in the school curriculum?
9. Are latrine parts produced locally by the private sector?
10. What is being done when the pit is full?

Possible checklist on the state of environmental cleanliness
(If the answer to any question is 'yes', this indicates a potential health hazard, requiring some form of action)

1. Is faeces lying around in places where people walk or children play?
2. If children defaecate anywhere near their homes, is the faeces left lying around?
3. Are water sources polluted directly by faeces?
4. Can water sources get polluted indirectly by excreta being washed into it? (due to rain or seepage)
5. Are there any specific defaecation areas?
6. Are the sources of drinking water unprotected (e.g.rivers, streams, uncovered wells)?
7. Are sources of drinking water accessible to animals?
8. Is there stagnant water anywhere? (indicating low seepage and lack of drainage)
9. Is solid waste left lying around in the compound or the street?

Possible checklist for sanitation facilities
(If the answer to any question is 'no', this indicates a potential health hazard)

1. Is the latrine and area around it clean?
2. Is the latrine and area around it free from fly nuisance?
3. Is there a cover or other means to keep the flies out?
4. Is the latrine and the area around it free from odours?
5. Is the area around the latrine free from stagnant water?
6. Is the latrine slab smooth and easy to clean?
7. Is the latrine slab strong and without any cracks?
8. Are possible water sources (spring, well) more than 10 meters away?
9. Do all adults of the households who have a latrine always use it when they are around?
10. Do the children of the households who have a latrine always use it when they are around?
11. Are handwashing facilities available in or near the latrine?

ANNEX XV Objectives as formulated in a site of the ADB-funded pilot project

Dự án Thanh Hóa Bảng tổng hợp xếp mục tiêu hành động
từ dễ vận động đến khó vận động

a = impact low (0) → high (3)
b = technical ease impossible (0) → very easy (3)
c = community ease " (0) → " (3)
d = comm. willingness none (0) → very willing (3)

Tháng 9 năm 1997

T/T	Những hành vi có hại cho sức khoẻ cần vận động thay đổi	xếp điểm theo yêu cầu hành động a,b,c,e,	tổng số điểm (12 điểm
1	Vận động uống nước chín, hợp vệ sinh - trẻ em còn 23% uống nước lã - Người lớn còn 4% uống nước lã	→ to 80% 3 + 2 + 2 + 2 → to 40%	9 điểm
2	Vận động dụng cụ chứa nước có nắp đậy - Còn lại 33% hộ gia đình chưa có nắp đậy	2 +3 +2 +2	9 điểm
3	Vận động xử lý phân trẻ em dưới 5 tuổi hợp vệ sinh - Còn lại 33% trẻ em đi đại tiện tùy tiện	→ to 20% 3+2 +2 +2	9 điểm
4	Vận động các gia đình có dụng cụ chứa nước - Còn lại 30% hộ gia đình chưa có dụng dụng nước	2 +2 +2 +2	8 điểm
5	V/động các GĐ dùng nước sạch gồm nước máy, nước mưa, nước giếng khoan - Còn lại 50% hộ GĐ sử dụng nước chưa sạch	→ 30% 3+1 +1 +3	8 điểm
9	V/động trẻ em dưới 5 tuổi đi ngoài hợp VS (vào bô + hố xí) - còn lại 33,5% TE đi ngoài tùy tiện	3 +2 +1 +2	8 điểm
7	V/động rửa tay sau khi đi ngoài bằng nước - Còn lại 42,05% hộ không rửa tay sau khi đi ngoài	2+2 +2 +2 +2	8 điểm

	!V/động ND xử lý rác hợp Vệ sinh (đốt rácnhà nước +đốt + chôn) Proper management of waste/garbage		
	!- Còn lại 21% hộ GĐ còn vứt rác tùy tiện	3 +2 +2 +1	8 điểm
	29% of households throw garbage anyplace → to 15%		
	To have household latrines		
	!V/động ND - XD nhà tiêu gia đình		
	!-Còn lại 19% hộ GĐ chưa có nhà tiêu	3 +1 +1 +2	7 điểm
	19% do not have latrines		
	To wash hands with soap after using latrine		
	!V/động rửa tay = xà phòng sau khi đi ngoài		
10	!-Còn lại 60% hộ GĐ chưa rửa tay= xà phòng sau khi đi ngoài	2 +2 +2 +1	7 điểm
	60% of households do not wash hands with soap		
	Households in difficulty to have connection when coverage comes		
	!V/động hộ GĐ có hoàn cảnh khó khăn mắc		
11	! nước máy ,khi có nguồn nước		
	!- Còn lại 67,56% hộ GĐ khó khăn	3 +1 +0 +2	6 điểm
	67.5% of households are in difficulty		
	Replace unhygiene latrines w/ hygiene ones		
	!v/động XD nhà tiêu hợp VS		
12	! Thay cho nhà tiêu cũ không hợp V/S inh		
	!- còn lại 38,73% nhà tiêu 0 hợp VS	3 +1 +1 + 1	6 điểm
	of the latrines are unhygiene		
	Construct sewage system for households and public		
	!V/động nhân dân xây dựng hệ thống		
13	!thoát nước thải hợp vệ sinh, và hệ thống		
	!thoát nước thải công cộng		
	!- còn lại 48,5% hộ gia đình đổ nước	2 +1 +1 +1	
	!thải lung tung 0 hợp vệ sinh		5 điểm

households throw wastewater to anyplace in an unhygiene way

ANNEX XVI Scoring format (source: WASH-report 60)

STEPS IN SELECTING ACTIONS

After collecting and analyzing information about a community's hygiene behaviors and identifying possible actions, we need to choose appropriate and feasible actions that will improve those behaviors. These actions should be analyzed and compared by community members so that they can choose those actions which make the most sense.

The two steps that will make it easier for a community to choose actions are

1. analyzing actions
2. comparing and choosing actions

1. Analyzing Actions

a. How much of an impact will this action have on hygiene?

0	1	2	3
no impact on hygiene	little impact	some impact	a great impact

b. How easy technically will it be to carry out this action?

0	1	2	3
not possible	very hard	not too hard	very easy

c. How easy will it be for the community or for individuals to carry it out?

0	1	2	3
not possible	very hard	not too hard	very easy

d. How willing is the community to do it?

0	1	2	3
not at all	reluctantly	somewhat	very willing

(The scores should total between 0 and 12)

KEY MONITORING PRINCIPLES

Monitoring should be planned based on a solid knowledge of objectives (as opposed to targets) **and activities.**

Monitoring information should be used:

- by an individual or group to solve a particular problem, /answer a question, and build on strengths,
- to improve project performance in the short-term.

Plan for the use of monitoring information from the beginning.

Monitoring information should be acted on by the lowest level possible.
In order to achieve this:

- firstly, transmit information to the lowest level that can act on it,
- only then should it be reported to higher levels as needed.

Limit the issues to be monitored.

- Consult with all interested groups and partners to determine key issues and criteria (criteria are the measure of the indicator: to what extent? how much?).

Simplify monitoring as much as possible.

- Amount of data, indicators, length of data collection period, analysis. Monitoring data does not always need to be collected, analysed or flow to higher levels.
- Do not prepare formal questionnaires when a few simple questions will achieve the same.

Don't over load personnel with data collection, aggregation or reporting work.

- Limit the amount of data collection, aggregation or analysis required from any particular group, level or office.

Link issues and activities.

- Identify issues /activities that are most important to hiegher order achievements or activities. Monitoring these necessary pre-requisites can help reduce the total monitoring package.

Define indicators carefully:

- define; each key word, the criteria or measure (how much, to what extent?),
- clearly state; the time frame (by when? how long to collect?), the location (where?),
- identify different criteria for different groups in the target audience?

Combine qualitative and quantitative monitoring

- Some qualitative monitoring can be quantified (eg., number of 'active' water committees, user satisfaction). Other qualitative data is difficult to quantify (eg., sense of ownership).

Analyse according to specific groups where relevant:

- men/women, cultural differences, ethnic or socio-economic groups

Ensure checks and balances as needed:

- different ways to collect information, more than one flow of information, - triangulation,
- expand the 'ownership' of monitoring - **stimulate participation in monitoring by all groups with a vested interest** - community, staff at all levels, NGOs, private sector and so on. In particular they should be involved in:
  - data collection and analysis (when they have an interest in collecting valid data),
  - participatory evaluation.

Strive for Validity

- Ensure indicators or proxy indicators really measure what you want to measure.
- Questions should be open, not leading.

Monitoring should become in-built, 'disappearing' as a separate activity.

- Monitoring activities may be carried out within on-going work such as field trips.
- *Experience has shown that separate monitoring cells tend to be less effective than imbedding monitoring into current staff/community functions.*

Source: IRC

ANNEX XVIII Six steps for planning monitoring activities

GENERAL STEPS FOR PLANNING MONITORING ACTIVITIES

SIX STEPS

To prepare, be clear about:

Objectives and targets
Activities
Groups involved
Results expected

1) **Identify key issues and concerns which will become the focus of monitoring.**
Consult with other actors to do this.

2) **Determine the desired outcome for each key issue (indicators).**
* Consult with relevant groups.
* Limit the number of indicators. Keep them simple and easy to collect.
* Find some indicators that tell whether each objective is being achieved for water, sanitation and use.

3) **Plan for the use of monitoring information from the beginning.**
* Who sees and will collect information.
* Who acts on the information and how.
* If there is no action, information should go to another level or group which will act as needed. (referral)
* Resist collecting data that will not be used.

4) **Plan for collecting, analysing information and reporting (if needed).**
* Collect minimum information needed. Use simplest and clear tools. Try out and revise the tools.
* Stimulate involvement by those people who are interested in this issue.
* Often there should be ways of checking to make sure information is true. (validity, checks/balances)

5) **Provide training or orientation to the groups involved.**
* Many key groups need training in methods for collecting, analysing, using/acting on the information, and often on how to transmit the data.
* Make sure all those people involved know and agree to the monitoring plan for each issue.

6) **Start the operation. Go back to step 1 and report or revise monitoring as needed.**
* Check the operation!
* Is the monitoring information valid and used as expected? is it easy to implement?

Source: IRC

ANNEX XIX Assignments given to participants

Participants were asked to either prepare a presentation about an assignment they were given or to prepare a micro-teaching session, pretending they were working with a group of motivators.

The topics for the presentation were:

- A plan for the water and sanitation campaign at the provincial level
- Monitoring (in the micro-credit programme)

The topics for micro-teaching were:

- The BASNEF-model
- Communication methods; directive and open communication
- The SARAR Resistance/openness to change model
- Disease transmission routes

ANNEX XX Summary of evaluation results

The evaluation results show that:

- Many participants feel they can now better use the toolkit and relate its tools to the various phases in the project cycle. They learned more about communication skills and participatory approaches. The BASNEF-model, showing the complexity of human behaviour, seems to have made quite an impact.
- Asked about their major experience most answers relate to the atmosphere, the active learning and the sharing of ideas and experiences. The combination of theory and practiced was also appreciated.
- Participants indicated to apply what they learned in their training of motivators and in their communication work.. Some also indicated to share the knowledge gained with colleagues.
- Most liked was the open atmosphere, the understanding of human behaviour, the work on presentation skills and the field trip. It was also indicated that better understanding of the interrelation between tools was appreciated.
- What they did not like was accommodation, the tight schedule and the working groups being fixed.

ANNEX XXI Assessing questions by validating their answers

Who asks	Who answers	Question asked	Valid answer? Yes/no
You	Women after hygiene class	Will you wash you hands after defecation?	
You	field worker	Do the women here wash their hands after going to the latrine?	
You	child	When do your brothers and sisters wash their hands?	
you	engineer	What are some ways to reduce costs of latrines?	
you	field worker	What are some ways to reduce costs of latrines?	
you	mason	What are some ways to reduce costs of latrines?	
you	household *members*	What are some ways to reduce costs of *latrines*?	
you	village leader	Is the well in the best location for all users?	
you	sanitation committee	Is the well in the best location for all users?	
you	extension worker	Is the well in the best location for all users?	
you	village men	Is the well in the best location for all users?	
you	women who walk to well	Is the well in the best location for all users?	
you	women in household	Does everyone in the family use the latrine?	
village leader	women in household	Does everyone in the family use the latrine?	
extension worker	women in household	Does everyone in the family use the latrine?	
women in water committee	women in household	Does everyone in the family use the latrine?	
you	field worker	What does field worker do? What methods does field worker use in villages?	
you	field supervisor	What does field worker do? What methods does field worker use in villages?	
you	village leader	What does field worker do? What methods does field worker use in villages?	
you	men/women in village	What does field worker do? What methods does field worker use in villages?	

Source IRC