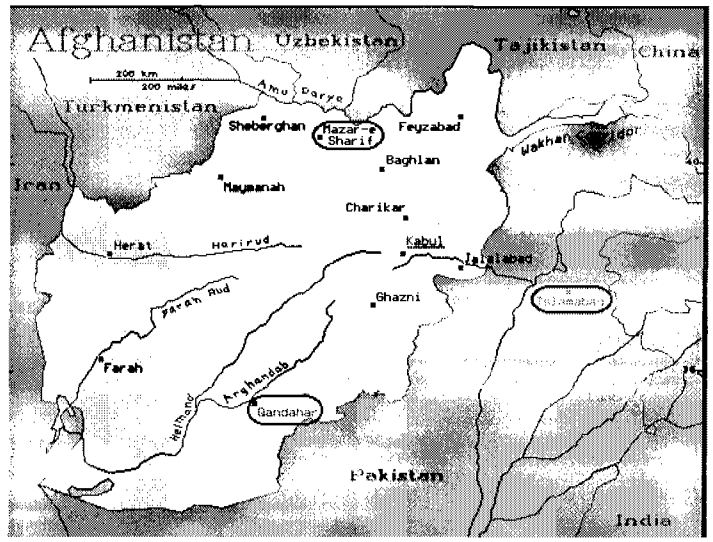
Community Participation in Water Supply Projects

Training and Planning Workshops

Mazar-i-Sharif
Qandahar



for

United Nations Office for Project Services
Afghanistan Rural Rehabilitation Programme

by

IRC International Water and Sanitation Centre

UNOPS

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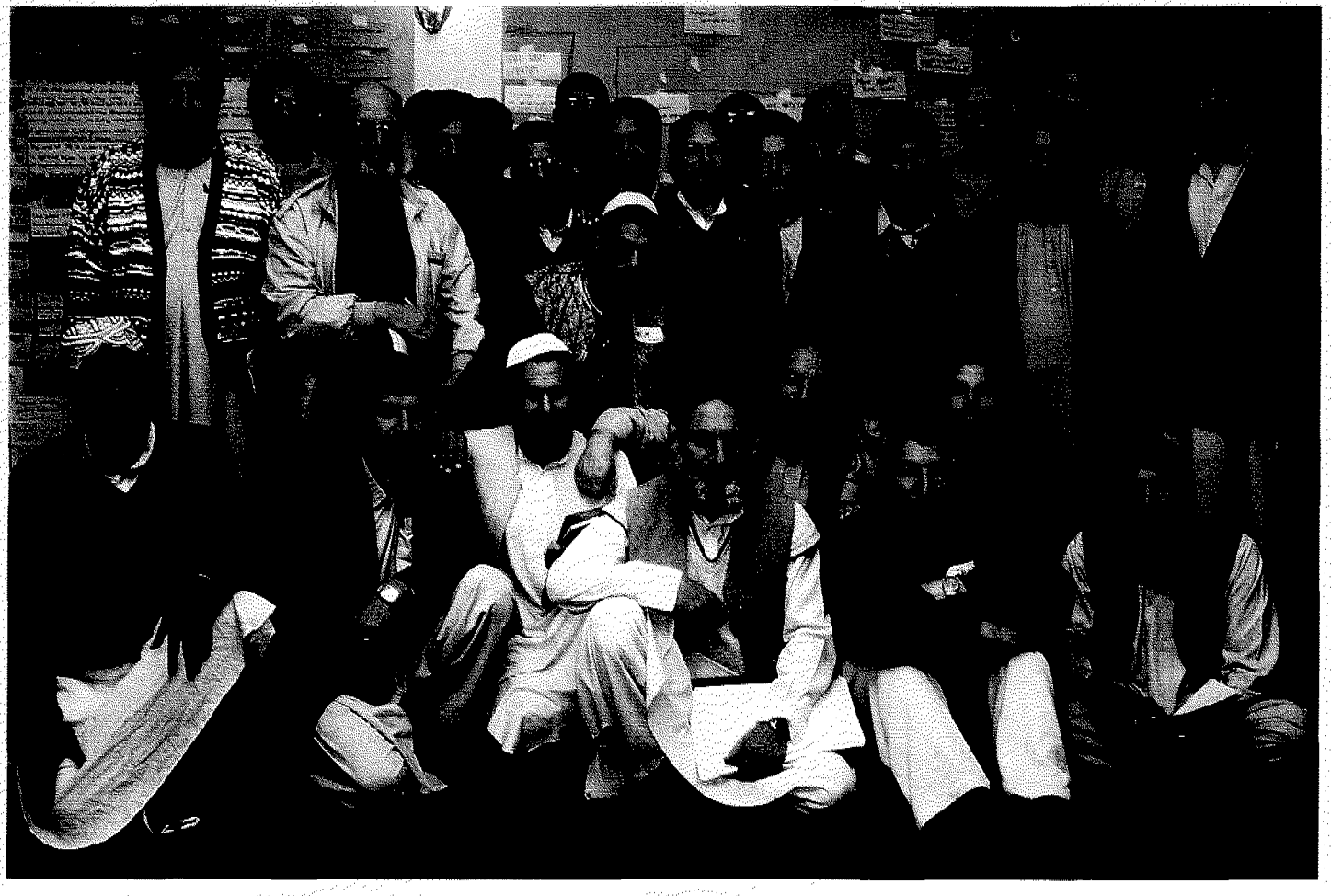
The Hague, April 1997.

Photograph of Participants from Mazar-i-Sharif Workshop

Photograph of Participants from Qandahar Workshop



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1. Workshop Programme

Day 1	Opening by regional manager.
	Topic and objectives of the workshop, (step 1 in OOPP)
	Review of the proposed workshop programme.
	Approaches to be used throughout the workshop.
	Presentation of all participants to each other
	Expectations & fears of participants
	Overview of the OOPP participatory planning tool.
	Stakeholder Analysis (step 2)
Day 2	Identification of problems (step 3)
	Developing a cause / effect problem tree
	Community participation: Training session
	Behavioural change: Training session
	Hygiene promotion: Training session
Day 4	Presentation of water supply technologies used by ARRP.
	Technology choice: Training session
Day 5	Water user groups: Training session
	Identification of more problems following training sessions, finalise problem tree, (steps 3).
Day 6	Reformulate problems as achieved objectives, as a result turn the problem tree into an objective tree, (step 4).
	Cluster objectives on similar issues together and name the clusters, (step 5).
	Scope the clusters - identify those clusters of objectives the project could include, (step 6).
Day 7	Develop the Project Planning Matrix (PPM), (steps 7 & 8)
	* Identify project purpose, results to be achieved and overall goal.
	* List assumptions or conditions that are outside the project scope but will influence the ability to achieve project results, purpose and goal.
	* For the project purpose and each result to be achieved identify objectively verifiable indicators and sources of verification.
Day 8	For each result identify what activities need to be carried out and the necessary resources for each activity, (step 9).
	Develop a time bound plan of action, (step 10).
	Evaluation of workshop by participants.
	Closure by regional manager.

2. Workshop Objectives

Workshop topic

Community participation in water supply projects

How can we...

Improve the effectiveness of water supply projects in order to improve health in community?

Workshop objectives

- Explore key issues influencing the effectiveness of water supply projects in Afghanistan .
- Develop a tentative strategy/plan to incorporate these issues into the Afghanistan Rural Rehabilitation Programme.

3. Workshop Approach

References:

Action Learning, OP 21, IRC International Water and Sanitation Centre, The Hague, 1993.

The workshop was planned with both the continuous learning cycle and the idea of "learning by doing" or "action - learning" in mind.

Facilitators do not teach rather they facilitate learning by the participants by using a number of different tools to ensure all participants:

1. Fully participate in plenary activities.
2. Carry out analysis activities in plenary and working groups.
3. Learn to visualise information effectively.

Practise by reporting back lessons learned to the others in plenary.

In "action - learning" the experiences of the participants are seen as an important source of learning. Much of the learning is therefore based on exchange, analysis and systemisation of real life experiences in the working environment rather than "theory" and knowledge from books. Systematic reflection on what participants *experience here and now* in the training workshop is an important part of experienced-based learning, i.e. how did we co-operate, solve problems, take decisions, handle conflicts ... and what can we learn from this? The facilitator therefore organises learning experiences in such a way that participants can discover and develop new insights and skills themselves, reflecting on and presenting their work back to each other in plenary.

Said is not yet heard,
Heard is not yet understood,
Understood is not yet approved,
Approved is not yet applied

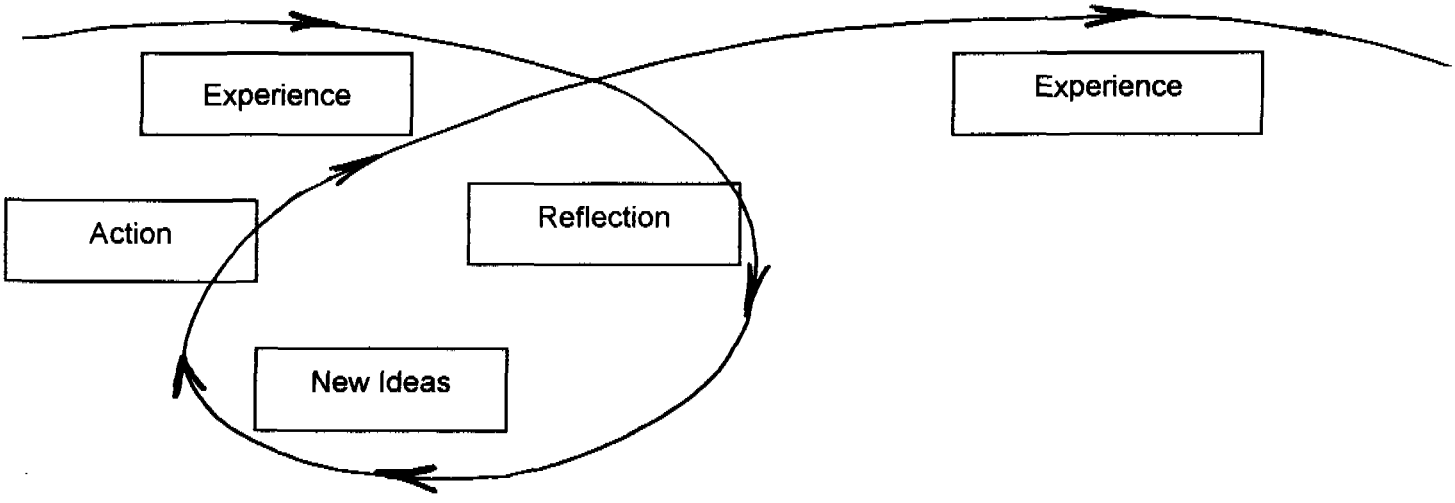
How we learn

1%	Through taste
2%	Through touch
3%	Through smell
11%	Through hearing
83%	Through sight

What we remember

10%	Of what we read
20%	Of what we hear
30%	Of what we see
50%	Of what we see & hear
80%	Of what we say
90%	Of what we say and do

Continuous learning Spiral



There are a number of simple rules in order to have a productive workshop, these should be kept in mind at all times so as to create a positive and productive atmosphere.

Workshop Rules

- Every participant is a resource person.
- Everyone assists everyone.
- Every facilitator is a participant.
- Every idea counts.
- Deal with uncomfortable feelings quickly.

The workshop makes maximum use of a number of tools to ensure the active participation of all participants.

- Working groups are used for all exercises.
- Clear visualisation of information.

Working Groups

Working groups give a good opportunity for participants to discuss and contribute their ideas. In particular this enables participants with a more limited comprehension of English to become fully involved in discussions.

Tips:

Check how much time is available for group work.

Select:

- Timekeeper
- Discussion leader
- Rapporteur/Presenter

Prepare a visualised presentation for report back to the group in plenary.

Visualisation of information

Throughout the workshop all information and ideas expressed were visualised on wall posters and posted around the workshop room, this has the benefit that participants have their views directly represented in public as part of the groups findings, and it always serves as a reminder. The most common tool used for visualisation was the use of cards, often using different colours when presenting information in matrices or graphically, ideas expressed on cards have the bonus that they can be re-ordered or categorised differently very easily.

Rules for using cards

Do's	Don'ts
write one idea per card	build handdug wells; improve latrines
write only 3 lines per card	don't write more than 3 lines as it becomes hard to read
use key words not sentences	sentences can get very long and lose their meaning....
write clearly	*write clearly and not like this...*
write large enough for others to read	writing like this can not be read from a distance

4. Presentation of Participants

List of participants - Mazar-i-Sharif Workshop

	Name	Organisation	Position
1	Sayed Aqa	UNOPS/ARRP, Khost	CLO
2	Kh. A. Saboor	IRC / RAP	Tech. Advisor
3	A.S. Mukhtar	UNOPS/ARRP, Mazar	Engineer
4	Mohd. Zia	SCA, Taloqan	Rural Engineer, Manager
5	N. Nesari	MRRD, Mazar	President
6	Habiba Dalil	UNOPS/ARRP, Mazar	Female CLO
7	Faiza Zara	UNOPS/ARRP, Islamabad	Female CLO
8	A.S. Fardi	UNHCS, Mazar	Prog. Assistant
9	Ali Reza Anwari	UNOPS/ARRP, Mazar	Engineer
10	Dr. Nasreen Frogh	UNOPS/ARRP, Mazar	Female CLO
11	Ali Baba Karimi	UNOPS/ARRP, Mazar	CLO
12	Mohd. Qasim Alemi	UNOPS/ARRP, Mazar	CLO
13	Kh. Omari M. Hashim	UNOPS/ARRP, Mazar	CLO
14	E.M. Taleb	Oxfam, Mazar	Engineer
15	Mohammad Naeem	UNOPS/ARRP, Mazar	CLO
16	A. Aziz Daudzai	UNOPS/ARRP, Jalalabad	Engineer
17	Abdul Mohammad	UNOPS/ARRP, Jalalabad	Engineer
18	Fazel Jalil	UNOPS/ARRP, Khost	Engineer
19	M. Zamir Akbari	UNOPS/ARRP, Khost	Engineer
20	M. Qadir Nabi	UNOPS/ARRP, Khost	Engineer
21	*Khalil-u-Rahman*	*Liaison Officer*	*Liason Officer*
22	Mohd. Qasim	UNOPS/ARRP, Mazar	Engineer
23	Kamaluddin Parwak	UNOPS/ARRP Kabul in Isl.	Liaison Officer
24	Bente Bardon	UNOPS/Mazar	WID Prog. Officer

List Of Participants - Qandahar Workshop

1	Ata M. Nazar	UNICEF	Project Assistant
2	Kazi A. Rouf	Greameen Bank Qandahar	Project Manager
3	A. Satar Raufi	UNOPS ARRP Herat	Engineer
4	Farid Ahmad	UNOPS ARRP Herat	Engineer
5	Fazluddin	UNOPS ARRP Herat	Engineer
6	S. Taqi Farahmand	UNOPS ARRP Herat	Liaison Officer
7	Ahmad Seyar Nabid	UNOPS ARRP Herat	Engineer
8	Gh. Sediq	UNOPS ARRP Qandahar	Engineer
9	Hedayatullah	UNOPS ARRP Herat	Engineer
10	Jan Mohammad	UNOPS ARRP Herat	Engineer
11	Rhamatullah	UNOPS ARRP Qandahar	Liaison Officer
12	M. Gul Hamid	MRRD Qandahar	Deputy of construction.
13	Lal Mohammad	MRRD Qandahar	Engineer
14	M. Sharif	UNOPS ARRP Qandahar	Liaison Officer
15	Samey Hamidullah	DACAAR Peshawar	Tech. Asst. W/S
16	Rahimullah	DACAAR Qandahar	Field Officer
17	Wahid Sujudi	UNHCR Qandahar	Field Assistant
18	Amrullah	SWABAC Qandahar	Project Officer
19	Aminulah Amin	UNOPS ARRP Qandahar	Programme Assistant
20	M. Alam Sieyal	UNOPS ARRP Qandahar	Liaison Officer
21	M. Daud Sangarwal	UNOPS ARRP Qandahar	Programme Assistant
22	Gh. Sakhi	Public Works, Qandahar City	Engineer
23	M. Nasim Latifi	Municipality of Qandahar City	Engineer
24	Asil Khan	UNHCR Qandahar	Field Assistant
25	Farid Dilshad	UNOPS ARRP Herat	Field base Support

5. Expectations and Fears:

Participants were given the opportunity to express their expectations and fears concerning the workshop. This enables the facilitators to ensure there is a common understanding on workshop aims and activities and adjust the programme as necessary. In addition it brings out any problems early on in the workshop and where possible they can be addressed by the facilitators.

Exercise : Cobweb
A ball of wool was thrown between participants as they stood in a circle, each participant holding the wool and expressing one expectation they have in relation to the workshop before throwing the ball to another, this continues until all participants were connected by a web of wool. When connected by a web the facilitator reflected on the importance of every participants' experience and inputs to a successful workshop, and the fact that everyone's input is equally important to achieve useful outcomes.

The ball was then thrown back participant by participant each one winding the ball up, while winding up the ball each participant was asked to express one fear they had in relation to the workshop.

The expectations and fears were written onto cards, then in plenary they were clustered and reflected on by the facilitator, those which could be addressed in the workshop or referred to project management for solving were followed up.

Mazar-i-Sharif

Fears : What I would not like to happen during the workshop

- No fears
- No enough consultation
- Time wasted
- Fear that people fear
- Loose holidays
- There should be no "clouds"
- " Cloudy" atmosphere
- No solution on community participation
- Can not apply solutions proposed
- Difficulty to find appropriate solutions
- How to apply at community level (paper ideas)
- Conclusions not be taken seriously enough
- No genuine importance given to gender issues
- Not enough emphasis on need for maintenance
- Co-operation/involvement of management
- Co-operation of management
- Senior management too busy to contribute to workshop
- No transport
- We may leave the workshop

Expectations : What I would like to get out of the workshop

- Better approach UNOPS in water supply
- Learn from experiences elsewhere
- Learn from others experiences
- Learn from other experiences on institution building
- Share experience on community participation
- Experiences in community participation
- How to promote community participation
- Learn about rural water supply for communities
- Learn to assist villagers better
- How to disseminate sanitation and good use of water
- Learn about sanitation
- Identify more appropriate water supply solutions
- How to make people use clean/safe water
- Methods to provide clean water to community
- Solutions for good in mountainous areas
- Consider gender issues
- Better co-operation between parties
- Host management to be friend

Qandahar

Expectations
What I would like to get out of workshop

1. Closer agency co-operation
2. Strengthen relationship
3. Learn more and more
4. Share Experience
5. Learn from experiences
6. Learn from each other
7. Improve water supply in Afghanistan.
8. Learn about water & sanitation.
9. Learn more about wss
10. Practical way to water supply in rural areas.
11. To work better in rural area
12. Better community co-operation
13. How to work with community
14. To work with rural community
15. Help community to use W. S. S.
16. Improve assistance to people
17. Learn about community participation.
18. Traditional safe water & sanitation practices.
19. New Planning techniques.
20. Good Workshop
21. Contribution for restoration of Peace in Afghanistan

Fears
What should not happen during workshop

1. No opportunity to apply what is learned.
2. Not able to apply in our region
3. Not able to apply lessons from workshop
4. Not able to apply due to lack of facilities.
5. No implementation of lessons in ARRP in the future.
6. Not enough learning for the new programme.
7. Results not taken seriously by Management & Donor.
8. National staff/Government not accepting outcomes.
9. Not able to do what is needed for community
10. Not understanding real community problems (No field trip).
11. Community may be disappointed
12. No Appropriate solutions.
13. Social & Traditional system not taken into account.
14. Not sufficiently taking into account cultural structure
15. Facilitators do not get their luggage/materials.
16. Not enough handouts.
17. Security problems during implementation.
18. Bad Weather.
19. No availability of materials in some regions.
20. Problems not completing the workshop
21. Bad Economic situation affects implementation.

6. Overview of OOPP, the participatory project planning tool

The participants were briefly introduced to the participatory Objective Oriented Project Planning Tool to be used during the workshop.

OBJECTIVE
ORIENTED
PROJECT
PLANNING

OOPP is based on two approaches :

Metaplan : A tool that promotes participation through visualisation

- Involve **major parties equally**.
- Share/use all ideas + knowledge through **visualisation**.
- In order to aim at **acceptability**.

Logical Framework

- **Structured** planning method
- Emphasis on **Objectives**
- Develops a clear strategy through construction of the Project Planning Matrix, highlighting Results to be achieved, assumptions or conditions and objectively verifiable indicators.

Main steps in OOPP

1. Agreement on **topic for analysis**.
2. Analysis of parties involved and their roles (**stakeholder analysis**).
3. **Problem analysis** and their cause-effect relationships (develop a problem tree).
4. Formulation of **objectives** to address problems (translate problem tree into an objective tree).
5. **Clustering** objectives into groups of similar issues (sector, activity, expertise)
6. **Scoping** - identifying which objectives can be taken up by project.
7. Develop **project planning matrix**, PPM.
   ← Identify **project Objectives** (overall goal, project purpose and project to be achieved).
   ← Identify **conditions** that have to be met In order for the project objectives to be reached, formulate these as assumptions in the PPM.
8. Identify suitable **objectively verifiable indicators** to measure whether project objectives have been met.
9. List **activities** required to achieve the desired project results, and identify required resources or inputs needed.
10. Develop a **Plan of Action** detailing time-bound work plans.

Project Planning Matrix (PPM)

Objectives	Objectively verifiable indicators	Sources of Verification	Conditions
Overall Goal	Indicators (impact)		
Project Purpose	Indicators (effectiveness)		Assumptions
Project Results	Indicators		Assumptions
Activities		Inputs	Preconditions

* Project Strategy *

References:

Objective Oriented Project Planning (OOPP), facilitator training, individual procedures, Insight Publications, Arnhem, 1995.

7. Stake holder analysis: OOPP Step 2

Identify all stakeholders or parties who have a vested interest in the project, these may be:

- actual people (individuals)
- groups (within society)
- institutions
- organisations

The participants were split into two groups and asked to identify who are the stakeholders at different levels; firstly at community or village level and secondly at district level or above.

For each stakeholder identified they were asked to identify what they can provide and what they need.

7.1 Stakeholder analysis: community level (Mazar-i-Sharif)

Stakeholder	What can they PROVIDE ?	What do they NEED ?
Teacher	Education /information about the value or importance of improved water supply, Behaviours and sanitation	Knowledge /recognition
Children/student	Spread information	Good trainer
Mullah	Education- information	Good feeling /knowledge
Barber	Spread message	Recognition /cash
Mir'aab	Information /organising the sources	Cash /recognition
Land owner	Cash and land contribution	Recognition
Farmer	Unskilled labours and animal for transportation	Tools
Elder/Malik	Organisation of activities	Recognition
Skilled people	Skills	Cash /tools
Women	Education /consultation	Knowledge and training skill /recognition
Disabled	Guarding	cash /good feeling
Daia (TBA) Health worker	Gave the message to the women Training (use of water and Hygiene)	Training skill /materials / tools

7.2 *Village Level Stakeholder Analysis (Qandahar)*

Stakeholders	What can they provide?	What do they need?
Community members	Problem identification . Suggestion for solutions. Unskilled labour and local materials.	Safe, adequate & reliable source of water
Mullah or Religious Leader	Advice about proper use of water.	Recognition for assisting the community.
Mir'aab Bashi	Mobilise labour, local contribution and local resources. Technical facilities (transport, equipment etc...)	Recognition. Additional skills training.
Medical Personal	Advice for site selection. Advice about the need for clean drinking water. Advice about the Measures to safeguard water against pollution.	Additional skills training of technical personnel.
Village elders	Security for project personnel Accommodation for project personnel Local funds for projects	
Landless people	Unskilled labour contribution	
Knowledgeable or educated people	Needs identification. Technical advice about project implementation. Improve community awareness about the need for clean drinking water	Materials & training to help with awareness raising.
Local skilled persons	Provide technical services Help in maintenance of the project.	
Implementing Agencies	Services Training of technical personnel	Funds, Technical advice Security, Accommodation Storage, Necessary Equipment, Free Unskilled Labour Contribution
Local Authorities/VRS	Advice about proper use of water, Maintenance, Social Mobilisation, Advice for site selection, Need identification, Security, Accommodation for project personnel.	Proper technical advice, Technical assistance, Training of technical personnel, Funds for solving their problems.
Other Concerned agencies (National or International)	Training of technical personnel Proper and needed advice about project implementation, Co-operation with other involved agencies, Technical services for project implementation.	Security Accommodation Storage Co-operation of other agencies. Advice about site selection.

7.3 Stake holder analysis: district & provincial level (Mazar-i-Sharif)

Party involved	What can they provide?	What do they need?
MRRD **a**	- technical staff - machinery (equipment) - training	- budget - materials - security
UN agencies **b**	- financial support - technical support - construction	- experienced NGOs/ Contractors - community participation - security - support from local authorities
NGOs **c**	- technical staff - management - training	- budget - community & local authority support - security - training
Construction Companies **d**	- technical staff - equipment	- budget - security - community support - training
DRS **e**	- security arrange community - participation	- training - moral support

7.4 District Level and Above (Qandahar)

Stakeholders	What can they provide?	What do they need?
UN Agencies UNICEF WHO UNOPS UNHCR WFP	Fund Tech. Assistance Formulation of the Scheme/ Projects Dissemination of the necessary information	Agreement, Support, of Gov. Planning, Budget, Data Clear picture of the problem Understanding of the existing system.
INTERNATIONAL NGOs DACAAR	Manufacturing of H. P. Implementors, Monitor Of projects Training Consultancy Fund	Agreement + support of the Gov. Fund Staff Community Participation Data required
NATIONAL NGOs ADA Private Companies	Implementation Selling of H. P. Parts	Agreement & Fund Staff Credit
Gov. Organisation Water supply Dept. MRRD District Adminis. (Woleswal) Liaison & Planning Unit	Implementation Maintenance Provide Facilities Extension Network for water supply & utilisation Liaison with Aid Agencies Security Pave the road for Implementation	 Fund Enhance Skills Support & Trust from people Skills, build up, ownership
LOCAL INSTITUTIONS DRS	Identifying problematic areas Mobilisation. Representation of community.	 Enhance skills

8. Problem Analysis: OOPP STEP 3

8.1 Problem identification

A project should be designed on the basis of ***real existing*** problems. Problems should therefore be identified from the point of view of all stakeholders, in this way it should be possible to avoid the imposition of preconceived problems by a project designer in a distant office.

STEPS :

1. First round of brainstorming to identify real existing problems
2. Check that problems are formulated clearly and understood by all.
3. Avoid **absent solutions**.
   e.g. Lack of Project Cars
   Difficult Access to Village
4. Second round of brainstorming from the point of view of other stakeholders and repeat steps 2 & 3.

8.2 Building a problem tree

Analyse the **cause - effect** relationship between problems.

1. Find a starter problem which has many causes and effects
2. Find the direct causes for the starter problem.
3. Find the direct effects for the starter problem.
4. Add other causes and effects to the existing problems.
5. Finally check the validity and logic of the whole tree.
   - Fill missing gaps.
   - Improve formulation & understanding of problems.
   - Add missing or alternative problems "branches, causes and effects".

N.B. It is important to maintain a balance between too much detail and too much generalisation.

9. Community Participation (Training Session)

The purpose of the session is to create awareness that what we understand by community and by participation are not obvious things. There are no clear cut recipes or definitions for involving communities!

Handout:

Community participation in development, p15-19 from Tools for Community Participation, UNDP.

References:

Tools for community participation, a manual for training trainers in participatory techniques, Srinivasan, L., PROWWESS/UNDP, UNDP, Washington, 1993.

The initial training session focused around:

What do we mean by community participation?
What constitutes a community?
Why do we feel that community participation is essential?

What constitutes a community (discussion notes)

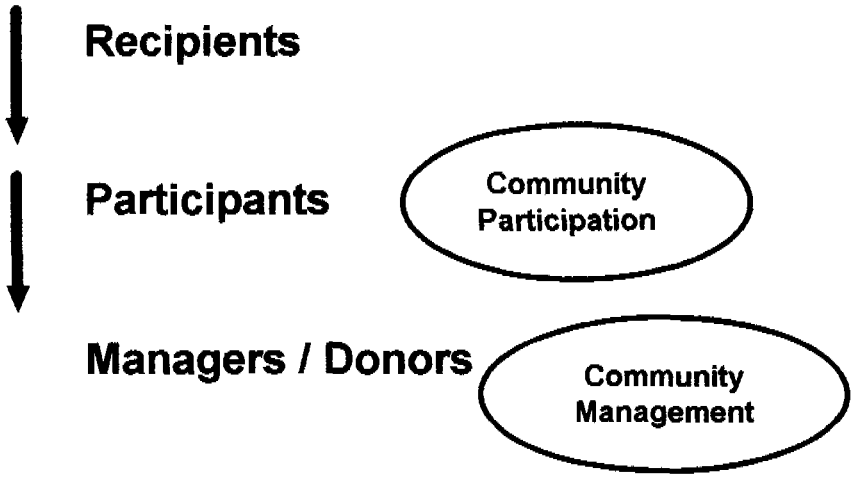
Group of people living in an specific area with :

i) a common problem
ii) common beliefs/culture/language
iii) common facilities.
iv) common interest
v) the use of facilities

- communities may not be homogeneous
- people may be member of many different communities
- there are many differences in communities;
- rich/ poor & male/ female, educated/ Illiterate, etc..

9.1 Degrees of community involvement.

Involvement can vary from being passive recipients of assistance to being active managers, see attached handout.



Appropriate degrees of community involvement will vary depending on circumstances in particular when planning community participation we should always keep in mind;

- What are our objectives?
- What is realistically feasible?

Community participation: (Discussion Notes)

* Sustainability = long term functioning of system
* Real identification of needs
* Acceptance through involvement in planning & design.
* Effectiveness - ***use*** of service
* Ownership - Affordable / appropriate.
* Replicability - Affordable / appropriate.
* Monitoring / Review of project: Assessment of changes by projects.
* *Transfer of knowledge*

Indonesian Case Study:

In order to stimulate detailed discussions amongst participants a case study from a different context was used, in this case from Indonesia. The Participants were asked to study the case in working groups then answer a series of questions, the questions were adapted after the first workshop to make them more relevant and to promote discourse.

The case study is illustrated below, the questions used are listed with the answers from each workshop. Each group selected a presenter who presented the groups answers consecutively in plenary, often with clarifications and additional information.

Whose Project?

All the way in our jeep the programme officer elaborated clearly and convincingly that "the project must belong to the community, it must be their project, not the agency's project, not the government's project, but the community's own project". He the lurah (the Indonesian village head man), and I stood inspecting the water hand-pump and its apron. We faced each other in a close knot while children, women, and a few men assembled and stood respectfully some way off looking at our backs. Three or four little girls were hunched down under the month of the pump, washing clothes by pounding them with sticks, anyone coming for water would have to push them aside (as did one woman who placed her baby's soiled bottom under the spout).

I asked our community-oriented officer whether it would be good practice to separate the laundry and ablutions from under the pump which had been installed primarily to supply clean drinking water. "Yes of course." How would one design a place for doing the washing in this village? Would the villagers prefer to squat, stand, sit at a central trough and talk to each other? He replied "I don't really know, I'll ask the lurah." I suggested instead we ask the large audience of ladies who were standing and starting at we "orang tinggi" (high persons). When the programme officer humoured me and put the question to them, they all began to laugh. "They are laughing", he said, "because the think it very strange; no-one has ever asked them such things before!" So it seems on one had ever asked them how their project ought to be. How then could it really be their project?

Between the general theory of participation (or at least the rhetoric) and what actually happens in practice, a gap yawns.

By David Drucker, "Community Participation: Now you see it, now you don't," UNICEF News Issue 124/1986.

Questions and Answers (Mazar-i-Sharif)

1. **What type of concept of participation is the author advocating?**
2. **Have you come across this kind of situation in your experience?**
3. **What are some reason for the limited involvement of women in conventional WSS projects (especially in your own setting)?**
4. **If you were the community officer being interviewed by the author, what reasons would you give for not asking for women's opinions? List at least three reasons.**
5. **How would you evaluate whether the community is genuinely involved in the projects of which you are the manager? What indicators would you use?**

Answers (A 1 - 5):

Group 1

A1 Women involvement in the design & selection of water point.

A2 Yes, (Habitat community centre)

A3 Because of conservative attitude & lack of education.

A4

* conservative issue
* lack of education
* women are not decision makers

A5 Full practical contribution (cash and in kind) from (a to z) & maintenance.

Group 2

A1 The project must belong to community owners, not the government not the agency.

A2 Yes, we come across of this kind of situation often.

A3 The limited involvement of women in conventional water supply projects might be due to the feeling of mans superiority, so they do not consult the women fully.

A4

* The women participation were not involved at first.
* He was a conservative person.
* No experience in community participation.

A5 The project was ready made - The community was not involved directly in this project.

Indicators to be used for implementation of the project.

* consultation
* identification of needs
* ability
* creating the feeling of self ownership.

Group 3

A1 Active participation of both men and women.

A2 Yes, Musa Qala in Helmand case study (women illness)

A3 male field staff can not easily discuss with village women.

* lack of female field staff.
* permission of local authorities.
* lack of awareness in gender issues in the agency.

A4 traditional restrictions.

* "women do not have the right to give their opinion"
* "the women do not know " men know better

A5 clean surrounding of the well.

Questions and Answers (Qandahar)
Note: The questions on the case study were modified to better address key issues in the Qandahar setting

Q1 In the case study how have the community been involved?

A1.3 Initially when the water supply source was initiated only the male group of the community had been involved but women and children who are supposed to be the main users / collectors were not consulted.

A1.4 *The project (Hand Pump and its Apron) was already completed without consulting the community* and it was too late to bring suitable changes for better utilisation of the project, that is why the people laughed upon the programme officer therefore it is a so called involvement of the community, they were supposed to consult and involve the community from the inception to completion.

Q2. In Afghanistan, discuss ways in which it may be possible to involve women in water supply and sanitation projects?

A2.1 Through public health female staff. Direct consultation with elderly women, through husbands of women, through children of women.

A2.2 Women participation differs in different parts of Afghanistan. But we believe the present situation could be improved through courses with due respect to their feed back.

A2.3 In the present situation through the direct presence of the aged/ old women of the community at village level sessions conducted by a lady staff, it would be possible to involve women in water supply and sanitation projects. Through mother and child support clinics (if available) the women group can be invited and consulted. Through employment of a couple in a implementing agency.

A2.4 Contact the government and make agreements in this regard. Consult involve the leading lights of the community and the users. Expatriate and Afghan expert ladies should be stationed in the project site to have a close contact with the women and be able to be familiar with local traditions. It is a must to demonstrate to the mothers the adverse effect of the contaminated water!

Q3. In Afghanistan who would be the key people from the community to involve in a water supply project introducing handpumps on a well? Use problems identified in the problem tree. Consider following project stages:

i) Planning
ii) Designing
iii) Implementing
iv) Maintaining

	Planning	Designing	Implementing	Maintaining
A3.1	- Mullah of respective community. - Elder of Community. - Local specialist - Women	- Elder of community - Mir'aab - Skilled well digger or karez digger	- Contractors - Mir'aab - Community Elder	- Respective mechanic of maintenance of project. - Elder of community - Mullah - Mir'aab
A3.2	Community + donor	Developing agency (Generally local staff)	Implementing Partner	Community
	Land lord or influential persons (religious leaders, elders, educated people etc.)			
A3.3	Community elders, educated people of the community, skilled people, religious leaders.	Educated people & skilled people	Malik, Male group,	Trained Mechanics, Religious leaders, Malik, Educated People, Users.
A3.4	Leading lights & users	Local Experts & Users	Well experienced implementors	Users & leading lights

Q4.	How would you evaluate whether the community is genuinely involved in the project of which you are the manager? What indicators would you use?			
A4	- Participation of beneficiaries in planning meetings. - Receiving views of women through different ways. - Co-operation and consultation of key people in the community in decision making & implementation . - Real community contribution in cash or in kind. - Acceptance of implemented project by all beneficiaries. - Maintaining of implemented project.	- Proper use, people keeping up their promises, and sustainability of the facility will be an indication of proper maintenance by the community. - Note: There will be always a resistance to new ideas or change, therefore, one needs to be careful while presenting new ideas. -	- Ownership - Availability of maintenance system - Site selection - Awareness about hygiene use of the system - Access to the water source.	- Ongoing monitoring and evaluation Indicators: (how to measure this?) - facilities well maintained. - Further request from the community to continue the programme. - Real participation in future planning and problem solving. - Sharing leadership responsibility. - Complete responsibility

I. COMMUNITY PARTICIPATION IN DEVELOPMENT

Participation: A Strategy For Sustainable Development

Achieving full and effective community participation in development activities is a difficult job and much depends on the way members of the community are approached by field staff, extension workers or technical consultants. The experience of development workers abounds with stories of projects that did not succeed because the intended beneficiaries failed to change behaviour or attitudes that were critical to the projects' success. This type of problem is well known in the Water Supply and Sanitation Sector (WSS). While there are many reasons why costly facilities may fall into disrepair, one critical factor no doubt has been the failure to mobilise the will of the people.

In any sector where the focus is on achieving large scale physical targets within a set time frame, there may be a tendency to treat attitudinal constraints lightly. Project personnel may be aware of community resistance and behaviours which run counter to project objectives, but may believe that these attitudes and behaviours will readily change once the installations or services are in place. They may try several short-cuts to induce behavioural change: pressure from prestigious leaders; pep talks to motivate the community; large community meetings to explain roles and obligations and setting up local committees to enforce those obligations. Often this method does not work. Women especially may be reluctant to take part or to speak up at large meetings, even though they may be the ones who will be expected to carry out most of the relevant tasks.

A Perspective On Women's Roles in the WSS Sector

As the main carriers of water for domestic needs and as the principal moulders of the family's hygienic habits, women's involvement in decision-making in the sector is of critical importance. However, it has taken decades for programme managers to see

FIELD INSIGHT

In order to focus attention explicitly on the special role that women play in relation to water, sanitation and health, the facilitators designed a multi-faceted activity in which a distinct task was assigned to each of three groups. By consolidating the findings of the three groups, participants were able to:

- identify problems that affect rural Zimbabwe communities and rural women in particular;
- examine how women's educational, socio-cultural, economic and health problems influence women's role in water, sanitation and health;
- suggest ways that the community at large or Ministry of Health personnel might help to resolve the most pressing problems affecting women's role in water and sanitation.

The plenary discussion not only contributed to a synthesis on the above items but also provided an opportunity to share the mechanisms or techniques which they had used to arrive at their respective conclusions.

Zimbabwe

the logic and potency of this common sense conclusion. Women have often been regarded primarily as beneficiaries: in exchange for the gift of a pump which would reduce their water hauling workload, they are expected to provide free labour for construction, and to perform routine tasks on a voluntary basis such as attending to the cleanliness of the pump apron and its surroundings.

However, recent field experience of projects assisted by PROWWESS and other donors is demonstrating that rural women, with modest training combined with encouragement and technical support, can make a highly significant contribution to the sector. They have shown themselves capable of fulfilling intelligent and responsible roles in community level planning and management, including needs assessment, site selection, pump maintenance and fund-raising and have exercised intelligence and initiative to increase project effectiveness and to widen support at the local level.

Thus the concept of community participation in the WSS programme is not complete unless rural women, along with their families, play a responsible role in both its planning and management.

When is "Participation" Real Community Participation?

There have been many efforts at community participation. Some work. Some do not. The following cases from the WSS sector illustrate that community participation may be more complex than we think.

The "Cheap Labour" Concept of Participation

In some WSS projects, the community is considered to have participated when it provides free, unskilled labour for construction and donates raw materials "in the spirit of self-help".

The role assigned to villagers is to carry pipes, dig trenches, and perform other unskilled construction tasks. The thinking part (surveying, planning, designing, etc.) is done entirely by engineers and other technically trained personnel. The one benefit derived from this arrangement is obviously the lowering of costs.

Some believe that labour contributions increase the people's identification with the system being built. The assumption is that if they have built a system with their own unpaid labour, they will take pride in it and want to maintain it in good order.

Others contest this assumption. They point out that pride of ownership depends also on what the people's other priorities might be. If the construction project is not a priority for the average community member, labour may be contributed under duress, not voluntarily. If so, then interest in using and sustaining the facility may die after a while.

The "Cost-Sharing" Concept of Participation

In the eyes of other project managers, the key issue is not just cost reduction but cost recovery. They advocate at least token contributions by community members in cash or in kind towards maintenance. People's willingness to invest a part of their meagre resources in maintaining the system (e.g. to pay the local mechanic) is taken as an indication that they value the service and are therefore committed to keeping it in good working order.

Others believe that agreements to maintain a system may not in themselves be a reliable indicator of local commitment. For example, if average community members and, in particular, women have not been involved in decisions concerning the system, they may revert to their old water sources when the pump breaks down rather than contribute towards the cost of repair.

The "Contractual Obligation" Concept of Participation

From another standpoint, neither of the above concepts of community participation is considered adequate to prevent large-scale project neglect, misuse or abuse of installed water supply systems.

Instead of focusing primarily on the cost factor, attempts are made to establish at *least a minimal local infrastructure to manage and maintain the system.* On the assumption that this infrastructure will be able to generate and sustain local support, project designers have concentrated on three of its elements: local leadership, local committees and locally recruited maintenance volunteers. The assumptions are these:

- Winning over local leaders will help legitimise the project.
- Water committees will be able to promote, manage and monitor local contributions and water usage.
- Through training of volunteer mechanics, pump minders or other local aides, technology can be transferred to the community.

To make these requirements more formal and binding, a contract is often drawn up. The contract spells out in detail what roles and responsibilities apply to each partner in the project (e.g. the government and the community). The community has the option to either accept or reject the terms of the contract or it may even negotiate some changes through the formal power structure of the village.

Sufficient time may be allowed for people to review the terms of the contract among themselves. It is assumed that by assigning management roles to local water committees and by training local mechanics there is greater assurance that the terms of the contract will be fulfilled.

Others, however, question whether this approach sufficiently involves the average villager. They feel that contracts that have been negotiated primarily with village leadership and presented at large village meetings may not be fully understood by the mass community. Therefore, after a while, contributions in labour, cash or in-kind may decline.

Setting up local committees immediately following the first village meeting also runs the risk that the best or the most representative people may not be nominated. Similarly pump caretakers who have been hastily selected may drop out for lack of commitment and accountability to the community at large.

The "Community Decision-Making" Concept of Participation

In the light of the malfunctioning, disuse or abuse of numerous water systems installed in rural communities in recent years, some project managers have come to

believe that a substantially different approach than the above is needed to create a strong sense of local responsibility for using the improved resources well, and for sustaining them in good order.

They do not minimise the importance of cost-cutting and cost-recovery measures nor dispute the need for local institutional mechanisms. However, they contend that genuine commitment and widespread support by the community as a whole will only come about if these other measures have been preceded (and continue to be accompanied) by a process of participatory community education and by involving a broad base of the community in decision-making right from the start.

Thus the decision-making requirements apply not only to the male leadership but also—and perhaps particularly—to village women. They point out that women's lack of schooling and literacy skills should not prevent them from making valuable contributions to community decision-making.

There are others who doubt that such an approach can be applied on a large scale. They feel that field staff are not equipped to involve people in this manner and that their training would take too long, be too difficult and cost too much. But, supporters note that participatory training need not be either excessively difficult or costly and contend that, in any case, the long-term benefits would justify the investment.

Questions for Everyone in a Community Participation Project

- Should one rely on local prestige leaders alone to mobilise local support for project activities? What are the pros and cons?
- What approach will assure that the community at large voluntarily comes with ideas and solutions, e.g. on how best to constitute work groups or committees, how to pay for services, and so on?
- Will the experience of working together in physical labour for construction (e.g. digging trenches, carrying loads) suffice to make people identify the programme as their own?
- If women and other disadvantaged groups do not actively participate in community level discussions, what if anything can or should be done about it and by whom?
- How soon after a village-wide meeting to introduce the project should a committee be constituted (or identified) to take responsibility for monitoring and supporting local usage and maintenance of the facilities provided?
- How can technical (hardware) and social (software) inputs best be co-ordinated and integrated so as to encourage and permit full and effective involvement of the people?
- What are some reliable indicators that community participation in project activities is effective?
- What educational process should accompany this effort?
- Which local attitudes, beliefs, or behaviours, stand in the way of full community collaboration in the project?
- What kind of training do staff need to fulfil this role? Who should be trained and where and when?

Developing a Common Concept of Community Participation

When a heterogenous group of trainees comes together in a workshop, before they receive any orientation or hold any discussions in regard to community participation, it is important to capture each individual's concept of what constitutes valid and feasible involvement of the people. When divergent views are reconciled through dialogue, consensus will take root. This is a principle which applies throughout a participatory workshop.

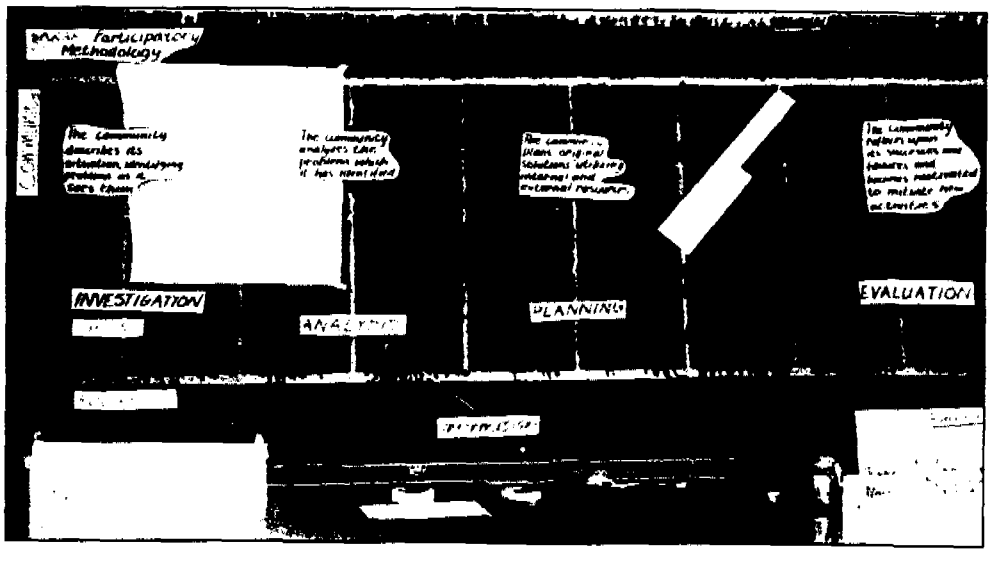
The principal goal of joint training is to help create a unified vision and a common bond of commitment and competence for enlisting the support of local communities, in particular women.

Often when staff from various sectors and levels come together, they have many preconceived ideas of what community participation means. There are, in fact, many definitions, but it is important that all those close to the project have at least a common understanding of the issues. These are some questions to explore:

- Community Participation: What Do *You* Mean?
- What kind of participation? By whom? Men or women or both?
  In what form? At what levels? In which roles? For what purpose(s)?
- Who will benefit and in what way?
- What needs to be done in order to get that kind of participatory process going?
- What indicators, including people's behaviour, will tell us that the process has been effective?

People may have different answers to these questions. For example, in the WSS sector, the expectations of the engineer may be very different from that of the health educator or the community development officer. The extension agent's perception of which type of community participation is feasible may differ significantly from that of a central office manager who is concerned with costs of installation and maintenance of systems.

Even if everyone cannot agree on common answers, there is great value in people hearing one another's ideas. The ideal is to clarify and refine concepts, reconcile differences and combine ideas into coherent policy.



10. Behavioural Change

To help participants consider not only what behaviours may need to be changed but also how people and organisations are motivated by different interests, and as a result different target groups may be at different stages in attitudes so appropriate approaches will vary.

Handout:

SARAR Resistance to change continuum, p 161-165, from Tools for Community Participation, UNDP.

References:

Tools for community participation, a manual for training trainers in participatory techniques, Srinivasan, L., PROWWESS/UNDP, UNDP, Washington, 1993.

Exercise 1 : Behaviours that may be problematic

In plenary the participants were asked to list behaviours, that may be considered problematic, that they have observed or experienced either among the community, in their own organisations or in partner organisations. They were asked to list these on cards, all cards were then posted up onto paper and reviewed.

Mazar-i-Sharif

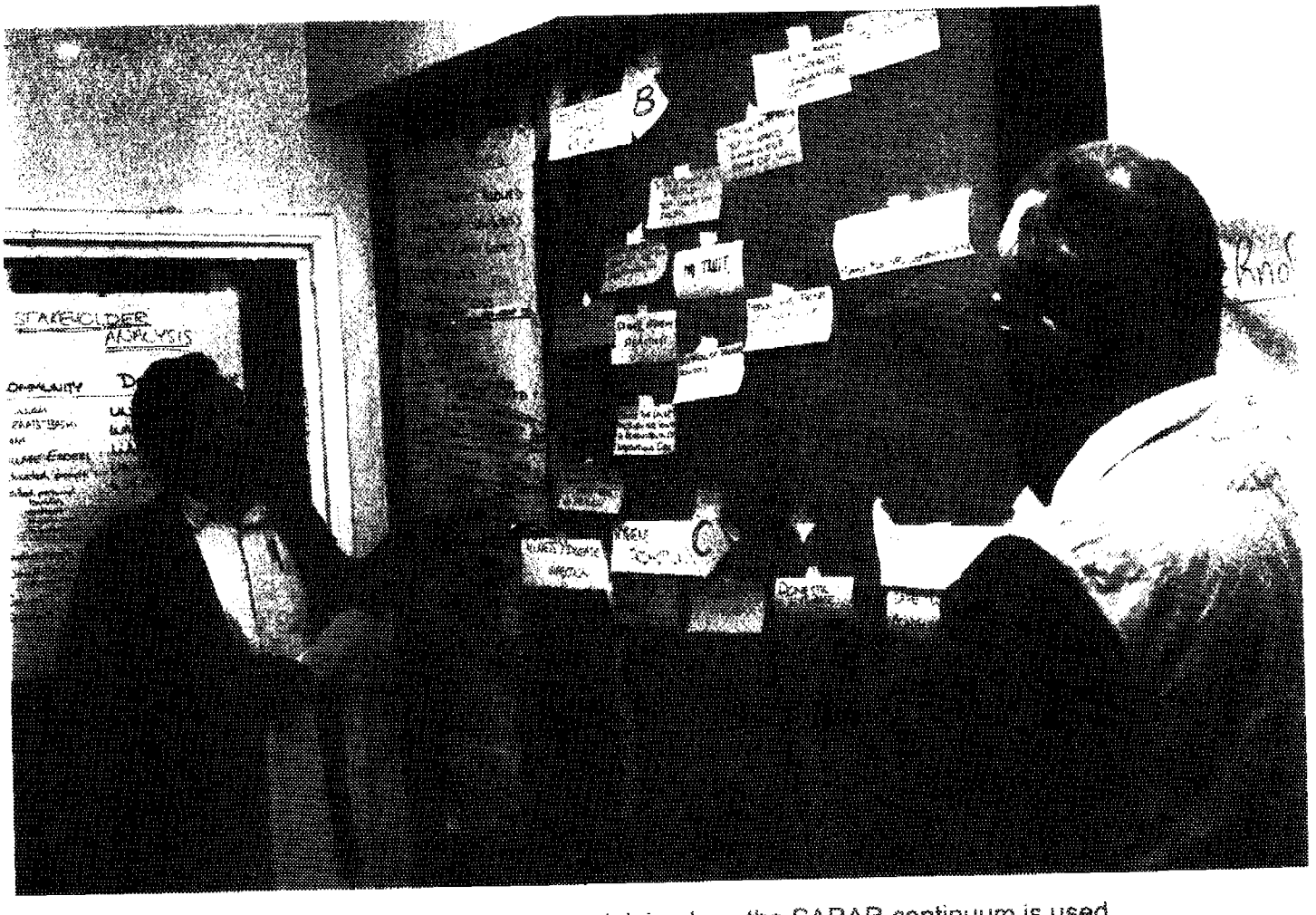
Insisting on own idea	Emphasising his/her own speech	No consultation with women (villagers)
More talking, less listening	Outsiders(us) do not listen enough to community members	More speaking
Talkative	Exaggeration	Not trusting
Twinkling during speech	Criticising	Being selfish
Cheating	Not respecting others	Poor feeling of ownership
Non-familiarity with traditions.	Poor personal hygiene practices	Negligence of poor part of community
Humans living near to animals	Not paying attention to maintenance of hand pumps	Not recognising the cost
Poor communication	Less care about proper use of water source and handpumps	Not spending time with community
Poor knowledge of health issues	Insisting on changing traditional habits	Abuse of water rights
Wasting water	Thinking traditionally	
No consultation with women	Non involvement of community in design	

Qandahar

Reluctance to change
Not trusting others
Reluctance to give views & opinions about the problems.
Referring to village chief
Belief without facts
Giving posts to friends, Not based on skills
They ask for more but could settle for less.
No trust
Spitting Naswar (Mouth Tobacco)
Poor hygiene practices
Fear of social or economic loss
Satisfaction with the present situation.
Impatience
Community expect the best tech. solution.
Talking and not listening
Not enough attention to local culture
Insulting behaviour by those approaching the community.
Pride of people (All People)
Require recognition of being important

Exercise 2 : SARAR

The SARAR resistance to change continuum helps participants identify that different individuals, or groups of individuals may be at very different levels of understanding and willingness to change. Different approaches are needed to influence attitudes or behaviour depending on these levels. The photograph below illustrates a participant describing the use of the SARAR continuum.



Photograph illustrating a participant explaining how the SARAR continuum is used.

Exercise 3: What motivates different involved parties ?

Participants were split into two groups, in separate groups they were then asked to identify different things that could motivate stakeholders - individuals, groups of individuals, or organisations that may have a vested interest in water supply projects. One group asked to look at village level and the other at district level and above.

Mazar-i-Sharif

Motivation for District Shura
- recognition of the social status of the shura members by the community.
- recognition and support of the shura members by aid agencies and MRRD.
- provide/specify a place for them to meet.
- facilitate their transportation to monthly/quarterly meetings.

Motivation for private company
- trust and good relations
- improve skill
- reasonable profit

provide technical and social consultation(s).

MRRD
- necessity for rehabilitation
- feeling of responsibility
- utilising sufficient skilled staff (national)
- financial and technical support
- being sustainable
- training

Motivation for support agency
- provide security
- community participation and contribution
- international relations
- moral issues
- political motives (donor countries etc..)

Who ?	What motivates the community members ?	
Elders	• recognition • respect •	• influence • willingness to have a developed community
Village Shura	• recognition • respect • moral responsibility (to assist community) • being part of beneficiaries	• positive competition to • other villages • reduce conflict • benefited by having water
Village women	• awareness of the causes of illnesses and disease • being involved in decision making	• saving time so as to carry out domestic chores & take care of children. • healthy family
Daia	• recognition of role • income	• • learning new skills so as to be more needed
Mir'aab	• income • influence/ authority	• skills development (managerial / technical)
Mullah	• recognition • respect	• moral responsibility • improved water supply at mosque

Qandahar

What motivates selected community members ?

Stakeholders	Behaviour to be improved	Motivator
Malik	Selfishness Boycott of co-operation False Promises Agitation	Open discussion in presence of community formation of VRS (Village Rehabilitation Shura) Convincing the people about the benefits.
Mullah	Lack of technical knowledge	Advice by knowledgeable people with religious information. Convincing about women's needs.

What motivates two stakeholders at district level and above?

Stakeholders	Behaviour to be improved	Motivator
UNOPS	Short term project Office stationed in Islamabad	Participatory Planning with different stakeholders to identify needs. Decentralisation may increase effectiveness and reduce costs.
MRRD	Loss of Experienced and qualified engineers	- Training and incentives - Responsibility to rural population to do good job.

SARAR RESISTANCE TO CHANGE CONTINUUM (RTCC)

PURPOSE:

To sensitise participants to the fact that community members may have many different, often understandable reasons for not wishing to adopt change.

To demonstrate a simple way of categorising the resistances commonly met in the community so that differences in degree and types of resistances become clear.

To infer from this analysis which approaches would be most appropriate when working with people who are either receptive or resistant to change.

TIME: 1 hour - 1 1/2 hours

MATERIALS:

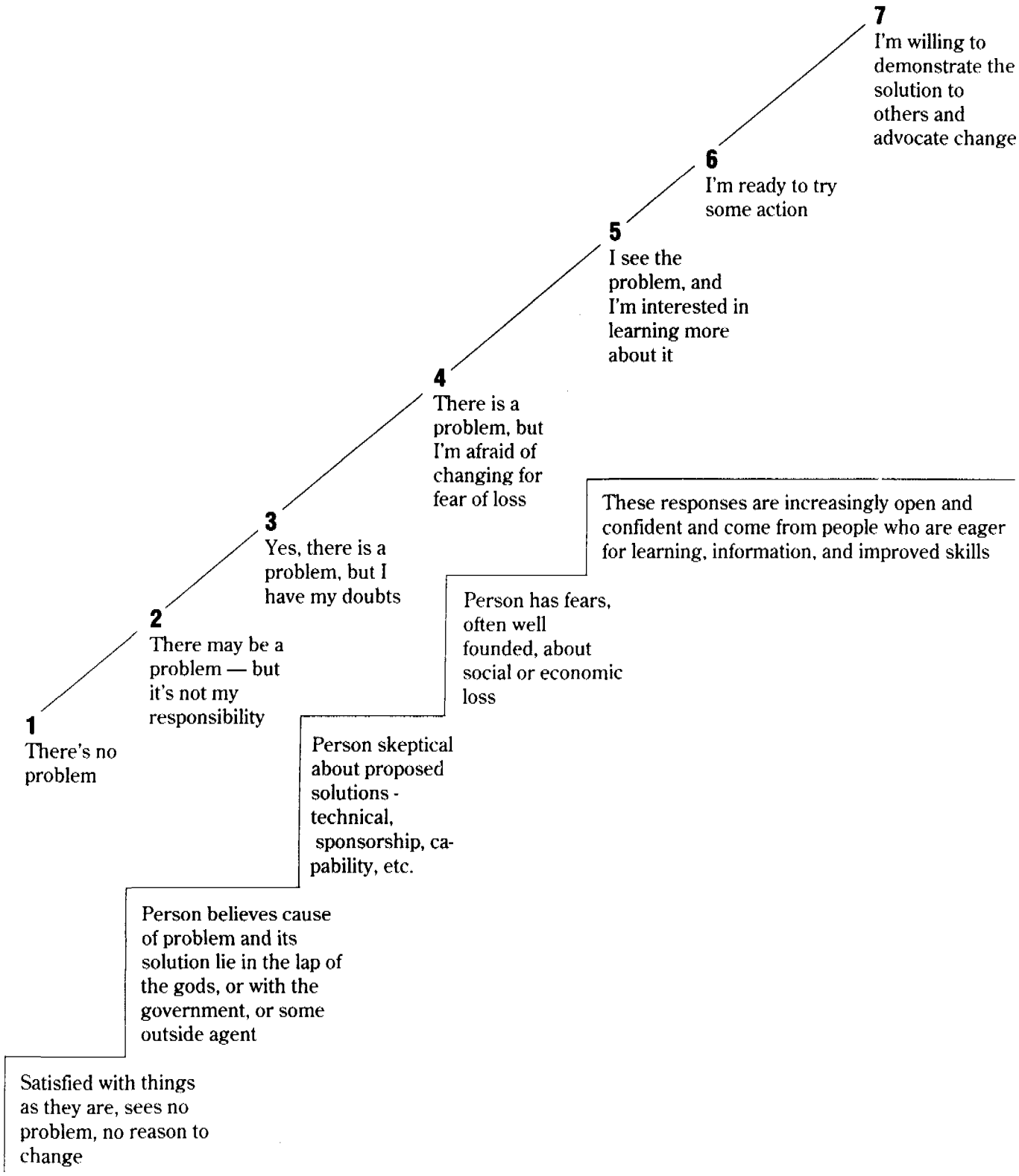
A blackboard or large newsprint on which a continuum diagram is drawn, showing seven stages of resistance or openness to change. (Sometimes eight stages may be identified, adding one more to the positive end of the continuum).

A variety of flexi-flans or other cut-out pictures of village people.

Balloon-shaped cut-outs, each of which has a quotation written on it representing the feeling or attitude of individual villagers towards a proposed change. There should be enough of these balloon quotes to correspond to all the stages of the continuum, with duplicates and some blanks.

A poster with a message to which there generally is some resistance in village communities, such as "Boil or filter river water before drinking" or "Use latrines and not the 'bush' for defecation."

SARAR Resistance To Change Continuum



NOTE TO TRAINER:

This activity goes to the core of the work of extension workers: how to understand and work with a range of local attitudes towards change. It should be given sufficient time so extension workers can deeply reflect on the learning.

Although there is no fixed order in which theoretical concepts are introduced, this exercise is generally scheduled early in the workshop since it helps to clarify the rationale for participatory approaches.

The RTCC is a simple, analytical framework for differentiating among attitudes towards change, by sorting them out along a scale showing varying degrees of resistance or openness. It shows diagrammatically the most resistant attitude on the extreme left where the individual does not recognise the existence of the problem at all, to the most open attitude on the extreme right where, in addition to adopting the change at a personal level, the individual is ready to advocate it to others.

Because of the difficulty of fine-tuning and categorising different types of resistant attitudes when taken out of context, the RTCC does not pretend to be anything more than a rough device for sorting out positions we commonly come across in our village work. What it does is to help us think about the relevance of different educational strategies in relation to this range of attitudes.

The inevitable conclusion is that one cannot use the same approach with people who are at stages 1 through 4 as with those at stages 5, 6 and 7. The latter would probably respond well to straightforward message-focused didactic materials since people at these stages are ready to accept and apply information. However, with people at stages 1 through 4, one would first need to draw out their own viewpoints and gain insight into the attitudinal constraints before attempting to convince them about a new idea. For this purpose, learner-centred materials would be more useful.

There are three methods that can be used in this exercise. Consider the time you have and the amount of participation you want when choosing a method.

After each of the methods, ask the group: "At which stage would people be most receptive to didactic teaching? Which kinds of strategies are more useful in the resistant stages? What value would participatory methods have for people at different points of the continuum?"

PROCEDURES:

- Ask the group to cite some examples when they have observed resistance to an outsider's messages because of local beliefs, values and attitudes long sanctioned by traditions and culture.
- Some examples given by participants in a PROWWESS workshop are:
  - Breast-feeding during pregnancy is harmful to a child due to drinking impure milk.
  - Eggs are not good for infants. They cause convulsions.
  - The uterus does not belong to a woman but to her husband.
  - Pregnant women should not eat watermelons. They cause too much water in the womb.
  - We don't want to cover our wells. The presence of frogs improves the taste of water.

Resistance to Change Continuum

Stage 1
Complete denial of the existence of the problem
Example: We have been drinking water from this river for generations. It never harms us.

Stage 2
Problem is recognised but the will to act is missing due to a feeling of powerlessness, apathy, dependence or fatalism.
Example: We need water but it is up to the government to build a water system for us.

Stage 3
While the problem is recognised, there are some doubts and fears inhibiting the adoption of the solution, such as:
Doubting the motives of the agency.
Example: They are only giving us a pump so that taxes can be raised.

Doubting the competency of the extension worker.
Example: What do these urban girls know about child care? They are not even married.

Doubting the community's readiness to cooperate.
Example: It won't work in this village. People are too lazy.

Doubting one's personal capacity to effect change.
Example: What can I do? I am only a woman. I have never been to school or I am too old, too poor.

Stage 4
There is some interest in the proposed change but also fear of the social, economic or other risks involved.
Example: I would like to have a latrine for the family. But what if my children still fall sick? The neighbours will laugh at me. They are against the idea of latrines.

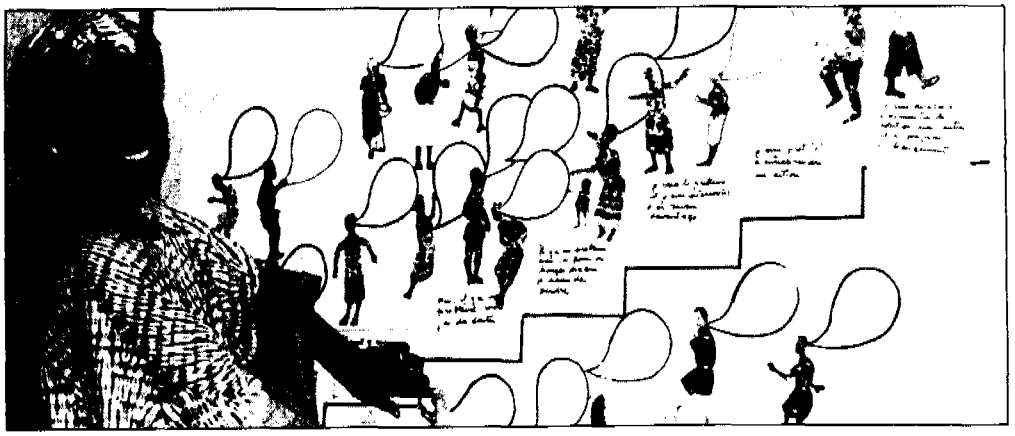
Example: The local leader asks that we all contribute towards the costs of the pump's maintenance. But, what if it costs too much? I can't afford another debt.

Stage 5
There is real interest in learning more about the proposed change with a view to adopting it.
Example: There is a lot of bilharzia among boys in this village. Tell me how it can be avoided.

Stage 6
There is readiness to adopt the change.
Example: At night or when we are sick, a latrine is very convenient. I want to build one.

Stage 7
Not only is the new idea accepted and applied but there is readiness to convince others to adopt it as well.
Example: You can count on me. I will teach other mothers how to prepare an ORT solution for their children who have diarrhoea.

Example: I know how to fix and maintain the pump. I will be glad to show others so we can save on repairs.



- Flowing water is clean water.
- Mothers-in-law should not share a latrine with a son-in-law, or a father-in-law with a daughter-in-law.
- If you throw feces in the bush, whomever picks it up can harm you.
- Diarrhoea is caused by heat, especially in the summer.

- Point out that often these beliefs are not openly expressed to an outsider but, until they are aired and discussed in a respectful way, they will not make room for an outsider's point of view.
- Proceed with one of the three methods and the questions for the group.

Method One:

Distribute the balloon cut-outs to the group. Briefly explain the continuum diagram and ask participants to note if the balloon(s) they have received correspond to any of the stages of the continuum. Ask them to reflect on their balloon quotations but not to identify them with any of the stages until you have completed a description of all seven stages.

Method Two:

Show the poster and ask what the expected response of average villagers may be to the message contained in such a poster. In other words, they should react as villagers to the advice or message given in the poster. Have one or two members note down these responses on separate "thought balloons" as they are called out.

Next explain the continuum stages and ask group members to place their quotations along the different stages of the continuum. Their brainstorming should include the possible responses of average men and women in the village as well as of local leaders and those who have had some exposure to modern ideas (through army service, working in the mines abroad, etc.).

This type of brainstorming results in long lists of possible attitudes drawn from the participants' own experience from working with villagers or from what they have learnt from interaction with other extension staff. Thus you can relate the continuum to knowledge that is meaningful to the participants themselves and in which they have a personal investment.

Method Three:

Ask the participants to make up their own continuum based on the range of possible community responses, both positive and negative. To do this they will need to classify the community responses which they have identified into a continuum illustrating the degree of resistance or openness each represents. Have them consider what generic attitude underlies each of the specific responses they have identified. Does it reflect apathy? Lack of confidence in the feasibility of the idea? Denial that a problem exists at all? Fear of the social or economic risks of being an early adopter?

You must make sure that the gradations they illustrate are in a logical sequence of openness to change.

The RTCC was first published by World Education in "Workshop Ideas for Family Planning Educators".

11. Hygiene Promotion

Water and faecal borne diseases, the primary causes of illness and poor health in Afghanistan can easily be prevented. It is important that participants understand and as much as possible advocate these simple preventative measures when making developing, planning and supporting water supply projects.

Handout:

Transmission patterns and preventative measures for water and sanitation-related diseases, p31 from. Motivating Better Hygiene Behaviour.

References:

Motivating Better Hygiene Behaviour: Importance for Public Health Mechanisms of Change, Christine van Wijk and Tineke Murre (IRC International Water and Sanitation Centre), revised by Steven Esrey, UNICEF, 1995.

Exercise 1 : Water borne and faecal borne diseases

In plenary a blank version of the table on the handout overleaf was posted onto the wall, participants were then asked to identify diseases and illnesses prevalent in the region, the transmission routes were discussed and suitable broad preventative measures identified.

Exercise 2 : Preventative measures

Participants were then split into working groups, each group being asked to examine two broad preventative measures in more detail. They were then asked to list detailed activities which individuals or communities could undertake to ensure that preventative measure was carried out, the outcomes are listed below.

Mazar-i-Sharif

Safe human excreta disposal
- ventilated improved pit latrine (VIP)
- septic tank
- composting
- increase awareness of using latrine

Personal Hygiene
- washing body, minimum once per week
- washing the clothes
- cutting nails
- washing hands before /after male and after toilet
- washing teeth every day
- removing unwanted hairs

Use of safe water
- colourless
- tasteless
- odourless
- safe of bacteria (free of pathogens)
- low salinity
- if possible chlorinated
- extracted from safe source

Good drainage + waste water disposal
- no entry for contaminated water
- no standing water around the source
- channel for flow of excess water
- possibility for use of access water for trees,
- cops of gardens.
- availability of side drains on tracks

Food hygiene
- food covering
- disinfection of kitchen accessories
- washing vegetables and fruits properly
- chlorination of wells and water storage tanks
- proper cooking of food
- use of clean water
- use sunshine to solarise water for drinking
- cut the nails regularly

Domestic hygiene and good animal management

- keep the animals away from the wells + living house
- keep clean + cover the latrine
- maintain a clean drain for waste water
- bury waste and excreta away from the house
- washing clothes and body with clean water
- sunshine the cloths and houses and drinking water

Qandahar

A.. Personal hygiene

- Washing hands with soap.
- Cutting nails
- Body cleaning
- Brushing teeth.
- Combing hair.
- Wearing clean clothes
- Removing unwanted hairs
- Prevent walking with bare feet.

B. Domestic hygiene & animal management

- Fencing animals out of compound / house / well area.
- Clean kitchen.
- Using screens.
- Keep clean toilet
- Keep clean household compound.
- Using separate brushes, towels, bed cloths.
- Using garbage collectors.
- Removing the babies excreta from compound
- Using insecticides
- Take care of predators.

C. Safe water consumption

- City water supply system
- Improved wells
- Use immediate outlet of karez (last well)
- Utilise & tap springs
- Water treatment plant (in towns)
- Use sand filters.

D. Water hygiene & food hygiene

- Boiling water for drinking.
- Chlorinisation
- Exposure to sunshine in jars.
- Using household sand filter
- Cover water containers.
- Safe water source.
- Keep, hand out (don't touch hand with water)
- Fresh food
- Well cooked food, especially meat.
- Wash vegetables with salt, vinegar etc . To disinfect.

E. Safe human excreta disposal

- Latrine is required in proper places
- Advise children to use latrine
- Encourage people to construct latrines in their houses.
- Encourage people for construction of public latrines.

F. Wastewater disposal and drainage

- Construct drainage system
- Small septic tanks to be constructed or dug.
- Digging of small channel.

ANNEX 1

Transmission patterns and preventive measures for water and sanitation-related diseases

Source: Boot & Cairncross, 1993:10-11

Infection	Transmission pattern	safe human excreta disposal	personal hygiene	domestic hygiene and animal management	water hygiene and food hygiene	safe water consumption	wastewater disposal and drainage
Various type of diarrhoeas, dysenteries, typhoid and paratyphoid	From human 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 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, conjunctivis	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-born typhus, Louse-born relapsing fever	From person to person: Through bites of body lice which travel from person to person direct 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.	■		■			■

12. Presentations by participants on water supply technologies

In this session the facilitators took a back seat while participants presented water supply technologies they use in their area. In their presentations participants were encouraged to address issues related to the sustainability of the technology. The purpose of the session is to get a good overview on what technologies are being used and under which conditions. It allows for inputs by participants and exchange of experiences. The session is an introduction to the next one dealing with factors influencing technology choices.

Presentation Guidelines

N.B. presentations not to be longer than 5 to 10 minutes

Each presentation should address the following issues:

- Name of technology
- Brief description
- Initial cost (approximate) of equipment
- Where can it be bought/made?
- Where can spare parts be bought/made?
- Range of depth
- Area of use
- Regular maintenance needed?
- Regular/typical repairs needed?
- Typical spare parts needed?
- How many in use in your area?
- How many years experience in area?
- Main problems with introduction of technology?

Technologies presented by participants

Mazar-i-Sharif

India Mark II hand pump	N. Nesari	MRRD
Well + bucket	K. Parwak	UNOPS
Indus & Kabul (Dacaar), & Maiwand handpumps	Mohd. Zia	SCA
Haus storage ponds/reservoir	Ali Reza	UNOPS
Kanda cistern (mountains)	Naeem	UNOPS
Diesel engine pumps	Taleb	OXFAM

Qandahar

Gravity fed systems	Said Aqa	UNOPS
Dacaar/kabul handpumps	Hamidullah	DACAAR
Improved wells/bucker	Amin	UNOPS
Gravity flow piped schemes	Rahimullah	MRRD
Karez	Sieyal	UNOPS
Wind pump	Raufi	UNOPS
Sand filters	Hamid	MRRD

13. Technology Choice

Many factors influence the choice of technology for a particular situation in a particular community. Participants need to both be aware of the huge variety of issues that must be addressed when selecting appropriate technologies and familiar with possible approaches to involve communities in making their own choices.

Handout:

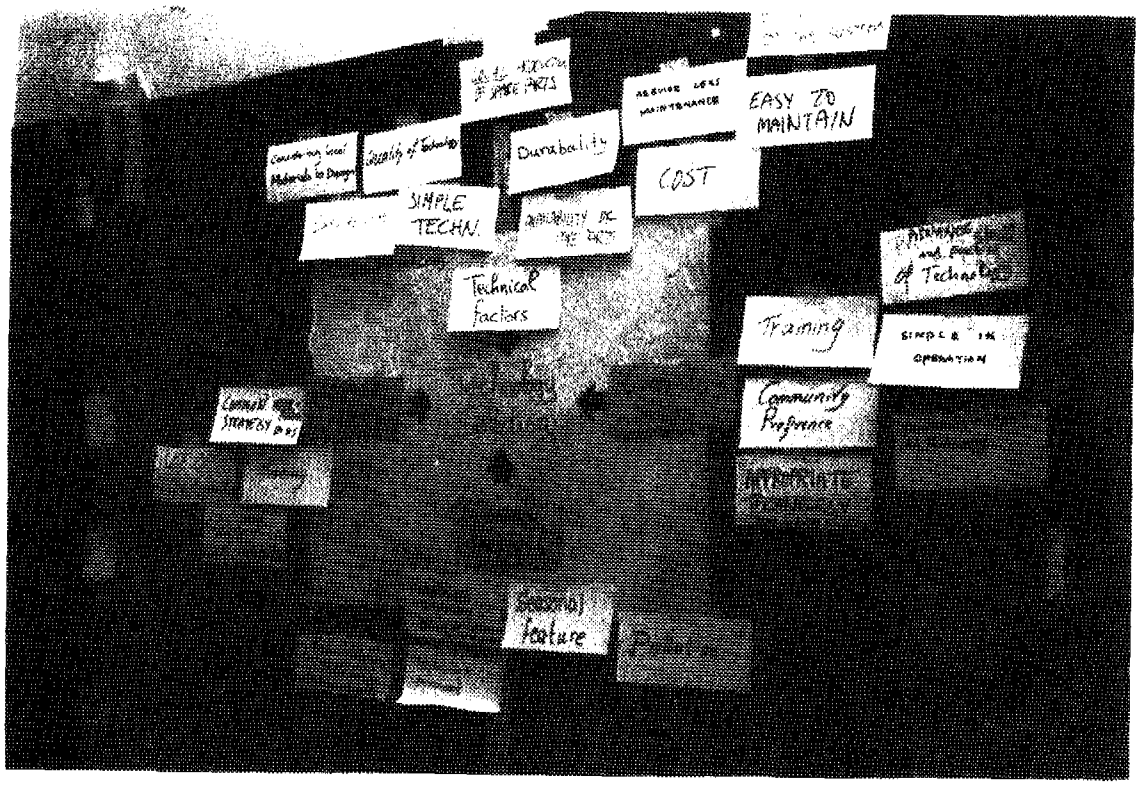
The technology selection process, p7-14 in Linking technology choice with operation and maintenance.

References:

Linking technology choice with operation and maintenance, in the context of rural and low-income urban water supply and sanitation, a guidance manual, (*draft, unpublished*) WSSCC / O&M Working Group, IRC, The Hague, 1996

Exercise 1 : Factors influencing technology choice

In plenary participants were asked to identify factors that should be taken into consideration when choosing a technology for rural water supply: technological, environmental, institutional and community factors. After that participants were asked to propose criteria that could be used for each of the 4 type of factors. It was emphasised that as much as possible the users / communities should be fully involved in the technology selection and that an appropriate choice can only be made if sufficient awareness and information is available. The outcome of this exercise is illustrated by the photograph. The handout summarises the issues dealt with during the session and also covers factors to take into account when dealing with sanitation.



Photograph illustrating the outcome of exercise 1 in Qandahar.

Exercise 2 : Technology Risk assessment

A large table illustrating the key technology issues related to the choice of technologies, such as Environmental, Community, Technical and Institutional factors, against technologies used in that region was constructed. In plenary participants were asked to assess the relative risk (relative to the other technologies listed) of these technologies, using a crude ranking of High, Medium and Low risk. It was explained that the main purpose of the exercise is to further illustrate how a good analysis of influencing factors can lead to a better technology choice. In reality a more detailed advantages/disadvantages analysis may be necessary.

The example below was the matrix used in Qandahar, the important point is that participants learn to visualise issues and problems and learn how they can make it easier to look at relative risk in a quantifiable way.

TECHNOLOGY SELECTION (Risk Assessment)

high risk ***
medium risk **
low risk *

	Environmental factors			Community factors			Technical factors			Institutional factors		
Type of technology	Reliability of water quality	Reliability of water quantity	Need for Treatment	O & M cost / willingness to pay	Need for community organisation & cohesion	Skills required in community	Capital cost & amount of local contribution	Dependence on outside support & supplies	Cost / Availability of spars	Reliability of long term support services	Level of skills needed from external support	Requirement for monitoring of proper use
Indus / Kabul Handpumps (DACAAR).												
Improved well with bucket.												
Wind Pump and piped supply.												
Gravity fed piped supply.												
Karez												
Slow Sand Filters												

Chapter 2 : The technology selection process

2.1 Introductory remarks

The technology selection process will depend greatly on the basic strategy applied by planners as well as by the general trends that are emerging in the water and sanitation sector. A basic principle outlined in this document is the need to involve communities right from the start in the selection of technologies. Hence, agencies, communities and users should work together as partners, and plan subsequent activities in mutual agreement. This pre-requisite is particularly important in the context where users and communities, both men and women, are more and more endowed with the responsibilities of operating, maintaining and managing their water supply system.

Concerning technology, various formulations can be found in the literature such as: appropriate technology, progressive technology, alternative technology, intermediate technology, village technology, low-cost technology, labour intensive technology, self-help technology or technology with a human face. A technology should as much as possible match people's needs, expectations, preferences and cultural habits. It should be convenient, manageable, maintainable and affordable.

Furthermore, there is a tendency to decentralize O&M activities and to allow and stimulate the involvement of the private formal or informal sector in maintenance activities. The trend towards greater involvement of the private sector in both the construction and upkeep of water supplies, brings potential advantages of flexibility and cost efficiency to operation and maintenance activities. However, the interest of private sector involvement may be limited by the low profit margin, particularly in scattered rural communities.

In the absence of rigorous control and regulation there is a problem of private sector accountability. Communities that contract services from the private sector need to be sure that they get a job well done at a fair price. To some extent, communities themselves can monitor the quality of work. This control system and procedures may, initially, require water agency assistance. If the private sector is to be promoted then guidelines must be developed and communicated to the communities to ensure cost-effective interventions, and minimum quality standards for the work. Any such monitoring and regulation will have a cost which governments will need to meet .

Governments provide the framework within which O&M policy is developed. The role of government is vital to create an 'enabling environment', one of the key elements of sustainability. An enabling environment can be fostered by appropriate legal provisions, regulations, education, training and information. If a supportive O&M policy is not forthcoming from central government then support for O&M at the local level will be considerably hindered.

Local government promotes an awareness of national policies and supports water user committees. However, many local government departments are under-resourced and are unable to give effective support. The degree of support may also be influenced by local politics (Davis, Brikké, 1995).

Who constitutes the private sector?

The private sector encompasses a range of individuals and companies from the village blacksmith to international companies manufacturing pumps and diesel generators. They all have a part to play in supporting O&M.

Actors involved in the private sector, with their O&M support role

Actors in the private sector	*O&M support role*
- International and national manufacturers and suppliers	- design and manufacture pumps and other equipment for operation and maintenance at the village level - supply spare parts and consumables (e.g. chlorine)
- International and national consultants	- design schemes for community management. - develop community/agency managed O&M systems - provide O&M training
- International and national contractors	- rehabilitate and extend schemes for community O&M - on-the-job training of O&M staff during construction
- Local contractors	- service and maintenance contracts - major repair work
- Small-scale industries	- local manufacture of spare parts and tools
- Self-employed artisans in the formal and informal sectors	- local skills for preventive and corrective maintenance and repair work: mechanics plumbers, builders, masons, blacksmiths electricians, etc. - operation of facilities
- Administrators and accountants	- billing, rate collection, auditing of accounts
- Banks	- provide banking facilities for O&M funds - provide credit facilities for irregular high cost items and for the expansion or modification of facilities

(from Davis, Brikké, 1995)

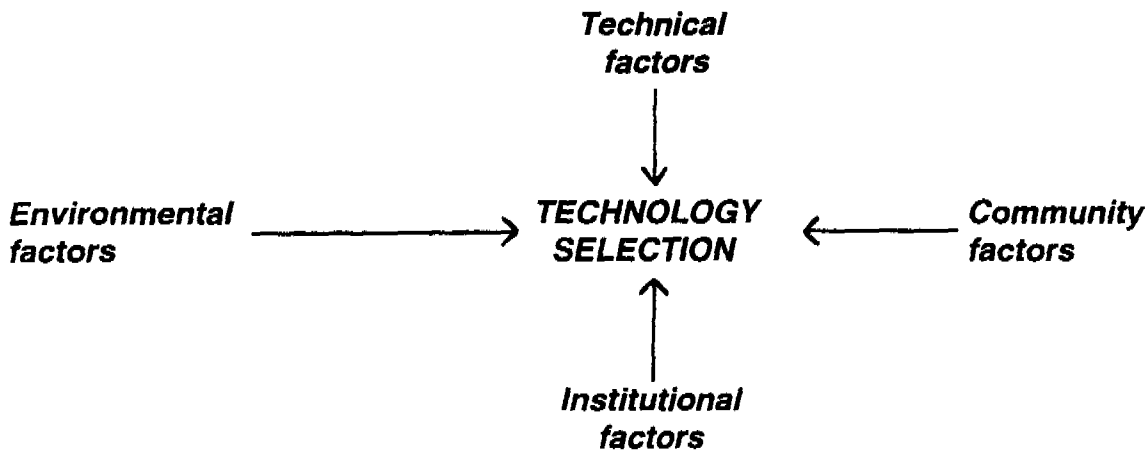
Moreover, water supply and also sanitation improvements may be characterized by either mechanism: resource-driven or demand-driven.

The resource-driven approach is based on a pre-selection of intervention area, with village and technology selection criteria based on policies or replication of successful experiences in other countries. This approach can have serious implications on the sustainability of projects, particularly in terms of community acceptance, functioning and, use and O&M costs.

In the case of a demand-driven project, the problems and needs related to water supply and sanitation improvements are identified with and by the communities. This identification may be preceded by some awareness raising by extension workers. The advantage is that the motivation of the community to participate in the planning, implementation and O&M phases will be high and that community-based management will be better accepted and implemented.

2.2 Factors influencing water supply technology choice

In this section, an overview of the factors influencing technology choice is provided, as linking technology choice with operation and maintenance is a part of a large context. The factors can be grouped in four different fields shown in the tables below, each with a series of key criteria to be considered.



Factors influencing technology choice with their specific O&M criteria

Factors	*General criteria*	*Specific O&M criteria*
Technical factors	Technical standards Demand (present and future consumption patterns) versus supply (capacity of technical option) Capital costs Extension capacity Compatibility with norms and legal framework Compatibility with existing water supply systems Comparative advantages Technical skills needed within or outside the community	Dependence on fuel, power, chemicals Quality and durability of materials Availability and price of spare parts and raw material Operation and maintenance requirements Compatibility with users' (men's and women's) expectations and preferences Availability of trained personnel within the community Availability of mechanics, plumbers, carpenters, masons in or outside of the community Potential for local manufacturing Potential for standardization Dependence on imported material and parts
Environmental factors	Availability and reliability of water source (springs, ground water, rainwater, surface water, streams, lakes and ponds) Seasonal variations Water quality and treatment needed Water source protection Risk for negative impact Waste water drainage Accessibility	O&M implications of water treatment O&M implications of water source protection and wastewater drainage Existence and use of alternative traditional water sources

Factors	*General criteria*	*Specific O&M criteria*
Institutional factors	Legal framework National strategy Existing institutional set up Support from government, NGOs, ESAs Stimulation of private sector Availability and capacity of training Practice of know-how transfer Skills requirement (software) Monitoring	Roles of different stakeholders and ability/willingness to take responsibilities (O&M system) Potential involvement of private sector National budget allocations for O&M and subsidies Training and follow-up Does technology match the existing O&M system, or does the O&M system have to be adjusted to the most suitable technology?
Community factors	Local economy Living patterns and population growth Living standards and gender balance Household income and seasonal variations User's preference Historical experience in collaborating with different partners Village organization and social cohesion	Managerial capacity and need for training Willingness and ability to pay Gender balance Perception of benefits from improved water supply Felt need Cost\quality awareness Level of recurrent costs to be met by the community Payment system and availability of financial resources Availability of technical skills Ownership

Linking operation and maintenance and technology selection encompasses not only technical. environmental, institutional and community aspects, but also the testing and feasibility of the O&M system required. An O&M system is the framework defining all actors and their involvement in O&M, the way they are organized and interrelated to one another.

Choosing an appropriate water supply system needs to match the basic criteria for technology selection as outlined in the table above, with the involvement and participation of users and community right from the start.

Experience shows that non-technical issues play a considerable role in determining the effectiveness of O&M. Therefore, personnel involved in O&M assessment and development should cover a range of relevant disciplines: social development, economic, health, management, as well as engineering. It is important that the process is consultative and carried out in partnership with the operators and users of schemes.

Rehabilitation of defective schemes can provide an economic alternative to investments in new projects, but that decision should not be automatic. Just as with a new scheme, the rehabilitation option has to be evaluated by balancing community needs, preferences and capacity to sustain with the support potential of the water agency. In assessing the scope for rehabilitation, the community and the agency together need to review what made the system breakdown, with a problem analysis and recommendations of feasible technologies. Furthermore, rehabilitation should not simply be a matter of replacing broken equipment or infrastructure. The most common cause of failure is organizational.

If a risk analysis is carried out for each water supply option then an attempt can be made to anticipate factors which may change and affect O&M. This will not be easy, especially in unstable economies where inflation and the availability of imported equipment and spare parts are difficult to predict. However, a comparison of technologies can indicate the degree of risk attached to each option.

2.3 The process of community water supply technology choice

The process of water supply technology choice should have a series of steps, which include in a direct or indirect way all the factors and subsequent criteria for technology choice mentioned earlier. Operation and maintenance, being part of the process, cannot be dissociated from all key factors. The following steps are proposed :

1. **Community requests** agency for support on water supply improvement (demand-driven approach); this could be preceded by promotion and mobilization campaigns. Motivation and users' (men's and women's) expectations and preferences should be assessed.

2. **Initial service level assumption** - what service level corresponds to the environment and users' preferences (men's and women's) ? What are the comparative advantages between various options?

3. **Participatory baseline survey** - including needs and problem analysis with the community.
   What reliable water source is available ?
   Can this source provide the required quantity and quality of water ?
   What is the treatment needed ?
   What materials and spares and skills are needed to sustain the desired service level ?
   What is the most appropriate structure to sustain the desired service level which corresponds to the management capacity of the communities ?
   What are the costs (capital and recurrent) of options considered ?
   What are the financial resources available and willingness to pay ?
   What is the present approach to O&M applied within the programme or country area ?
   What are the causes and effects of poor O&M within the area ?
   Should technology match the available O&M system and capacity (including spare parts distribution), or should the O&M system be adjusted to match the most suitable technology ?
   What type of support can the communities receive, in terms of technical, financial and capacity building assistance ?
   What is the overall impact of the option retained ?

4. **Collection of local information** by agencies, including confirmation on validity of collected data by local resource persons (hydrological, technical and institutional data, as well as assessment of human resource development and capacity building).

5. **Analysis of data** by agency, leading to a selection of most potential technologies and service levels, including a review and appreciation of all specific O&M criteria as presented in the table above.

6. **Presentation and discussions with the community** of most sustainable technologies, considering all O&M implications and commitment to long-term management of O&M. Clarification should be made at the same time on all necessary adjustments of the existing O&M system, with a definition of responsibilities of actors implied in the development of the project.

7. **Formal agreement on technology selection** between community and all partners involved, once the community has made its informed choice.
   Is the technology and service level affordable, manageable and agreed between all partners ?

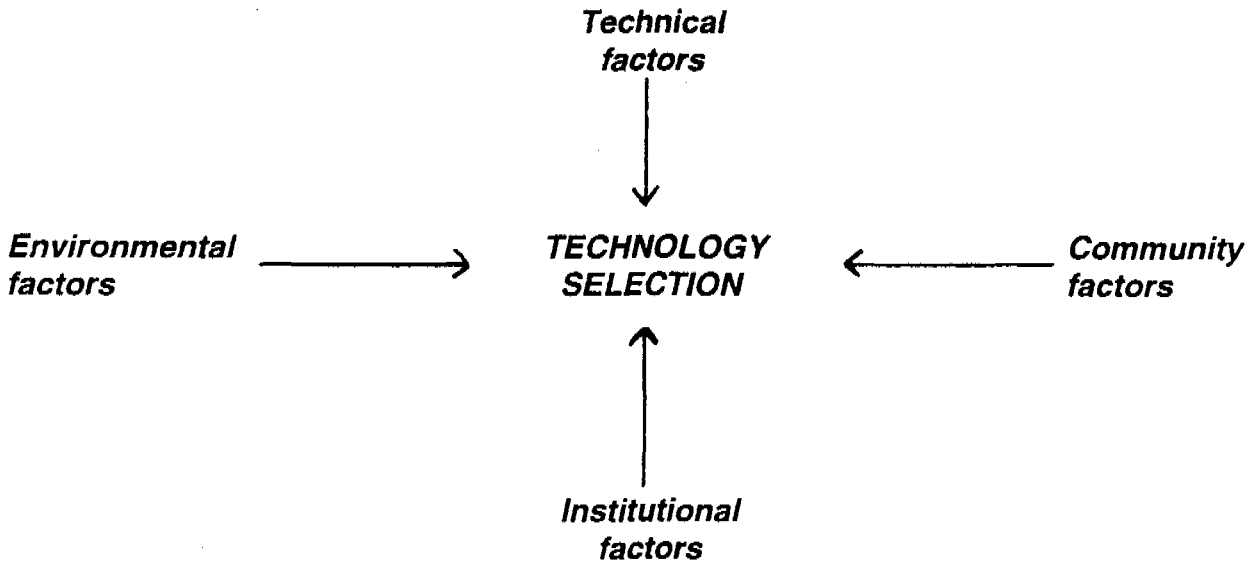
8. **Development of project.**

2.4 Factors influencing sanitation technology choice

The past has shown that many sanitation projects followed a technical approach whereby the intervention and the type of technology was determined by the implementing agency. Demand for sanitation was not assessed. Hardly any communication between the future users and the project took place, and social, gender, cultural and religious aspects were not or insufficiently taken into consideration in the project approach.

In other cases, environmental factors were not considered in the design, leading to collapse of pit walls and unsafe situations. In low-income urban areas, where pit emptying is a necessity, such services were absent and if developed could not be sustained. Hygiene education for changed sanitation behaviour was hardly included in the sanitation project approach, as this had another time scale of implementation.

Planning for sanitation interventions requires a comprehensive approach with many aspects to be included. The factors which influence sanitation technology choice can be grouped into four different groups, and the specific O&M criteria are a part of general context, as follows :



Factors influencing sanitation technology choice

Factors	*General Criteria*	*Specific O&M criteria*
Technical factors	Technical standards Availability of construction material Lifetime Cost of construction Design preference (sub-structure, floor slab, squatting or raised seat, superstructure)	O&M requirements Ease of access Use of decomposed waste
Environmental factors	Soil texture, stability, permeability Ground water level Control of environmental pollution Availability of water	O&M implications for environmental protection Groundwater contamination
Institutional factors	Existing national/local strategies Role and responsibilities of actors implied Training capacity Availability of subsidies and loans Availability of masons, carpenters, plumbers, sanitary workers, pit emptiers and diggers Monitoring	Pit emptying services (municipal/private) Sewerage maintenance capacity Potential involvement of private sector National budget allocations for sanitation Training and sensibilization
Community factors	**Socio-cultural aspects:** Taboos, traditional habits, religious rules and regulations, cleansing material, preferred posture, attitude to human faeces, gender-specific requirements **Motivational aspects:** Convenience, comfort, accessibility, privacy, status and prestige, health, environmental cleanliness, ownership **Discouraging factors:** Darkness, fear to fall in hole, fear of collapsing pit, be seen from outside, smells, insect nuisance **Social organization factors:** Role of traditional leadership, religious leaders, school teachers, community-based health workers **Other factors:** Population densities, limited space for latrines, presence of communal latrines	O&M costs O&M training and sensibilization for sanitation Health awareness and perception of benefits Presence of environmental sanitation committee Women groups Social mobilization on hygiene and sanitation behaviour

Furthermore, the philosophy of considering upgrading the existing sanitation facility as the first option for improvement of the sanitation conditions, is based on the understanding that existing sanitation facilities are a reflection of the local social and cultural preferences, as well as the local economic and technical capacities. If existing facilities are not meeting basic hygienic requirements, then upgrading hygienic short comings is to be considered first. If no sanitation facilities are present, the simplest technology option is to be considered, taking into account the factors mentioned before.

2.5 The process of rural and low-income sanitation technology choice

It is assumed that the following technology selection process is preceded by or based upon a participatory needs assessment, carried out following an expressed demand for improved sanitation facilities. Hygiene awareness and promotion campaigns can result in an increase in the demand for improved sanitation facilities. The process of chosing sanitation technology should include at least the following steps:

1. **Participatory assessment of problems** related to the existing human excreta disposal system, hygiene behaviour, hygienic environment and human excreta-related diseases.

2. **Participatory assessment of cultural, social and religious factors** influencing human excreta disposal and sanitation technology choice.

3. **Participatory assessment of local conditions**, capacities and resources (material, human resource and finance).

4. **Identification of local preferences** for sanitation facility and possible variations.

5. **Matching preferences** with local capacities and environmental conditions as well as contamination risks.

6. **Determination of O&M requirements** and other implications of pre-selected technology.

7. **Discussion with the community** about the implementation of different sanitation technology options.

8. **Selection of technology** done by the community.

Sanitation facility improvement should be accompanied by Information Education Communication (IEC) activities to promote safe sanitation behaviour and proper hygiene. These activities have a longer-term time horizon than the physical improvement of structures. An important role is to be taken by schools, institutions, churches and social community groups to promote proper hygiene and sanitation behaviour. Attention must be paid to the selection of the most appropriate technology, design and site, in order to prevent possible pollution of the environment, in particular water resources and direct living environment. Control measures must be carried out to minimize these risks.

14. Water User Groups

Water User Groups or Water User Committees are representatives from the community who are selected to manage operation and maintenance of the water supply system. This session encouraged a critical analysis of what role this group should play from initial planning to long term sustainability and who should be in such a group.

Handout:

The project committee, roles and responsibilities of committee members, how to keep the community informed p37-52 from Project Implementation Manual (volume 1).

References:

Project Implementation Manual in 2 volumes, Gov. of Zambia, NCDP, Microprojects Unit, Lusaka, 1994 (document can be ordered: P.O.Box 50268, Lusaka, Zambia).

Tools for community participation, a manual for training trainers in participatory techniques, Srinivasan, L., PROWWESS/UNDP, UNDP, Washington, 1993.

This session consisted of to exercises which helped the participants to explore why community organisation is needed to promote sustainability through full involvement of and ownership of the systems by the users / community.

Exercise 1 : Case study analysis

In order to stimulate discussion on this issue a fictional case study was used. In working groups the participants were asked to answer the questions below as fully as possible. The issues of who should maintain handpumps and how money can be raised for repairs and spares feature prominently.

Purpose

- To introduce participants to the concept of cost / benefit analysis in the context of village water sources.
- Ensure participants think about the decision making process / choices villagers need to make.
- Help them realise the need and importance of organising the community in user groups.

Method

Participants were asked to read the following case study, and asked to consider how the community and Water User Group will manage operation and maintenance of the handpump. In respect to these discussions they were asked to answer the following questions.

Discuss the following questions:

1. What costs are involved in maintaining and repairing the handpump?
2. Can they afford to keep the handpump? Give some reasons.
3. If the answers is yes, how could they raise the money needed?
4. Should people that use water for other than domestic purposes pay more? (for example for livestock or vegetable growing)
5. Who should collect and handle the money?
6. Who should maintain and repair the handpump
7. Who should look after general tidiness around the water point (to avoid water puddles, mud, washing directly under the pump, keep Animals out, etc.)?
8. How can the water committee make sure that the water used is kept unpolluted, clean and safe to drink?

Fictional case study :

The small village of Acha 30 Km from Herat had a hand-dug well, about 20 meters deep. The community spent 5 months digging the well, initially working alone, but during the last month later employing a skilled well-digging team to complete the last 8 meters. The total cost of this additional help was 90,000 Afghanees, but the well was completed quickly and finished in 1993.

To ensure everyone had access the well was sited near the masjid, towards the centre of the village. Previously villagers had always used canal water, and many still did, the masjid had always maintained a water tank topped up by canal water, particularly used in the dry season. However following discussions with staff from a local NGOs clinic the mullah had insisted the community should invest in a well, otherwise he said 'our children will always be sick and many will die young from diarrhoea'.

An India MkII handpump was installed by an NGO supported by UNICEF without any real discussion with the villagers before hand. It worked very well for a few months but then broke, the local mechanic tried to fix it, he had even been given a large toolbox complete with a number of spanners, washers, rods and wrenches., After spending two days trying to find out what the problem was he had just succeeded in taking it apart and putting it back again with no improvement. The local authorities in Herat said that they had no spare parts but sent a technician to UNICEF. Three weeks later the NGO staff returned to fix the pump, and initiated discussions with the community on the problems of maintaining the pump.

The villagers had never realised so many complex issues were involved but with the help of the mir'aab, mechanic, village leaders and pressure from the mullah they formed a User Group which included some farmers and a representative from other villagers.

Note: the answers of the Mazar workshop were not documented.

Answers - Qandahar

Q1 **What costs are involved in maintaining and repairing the handpump?**

A1.1 **Mechanic's salary and Purchase of spare parts**

Q2 **Can they afford to keep the handpump? Give some reasons.**

A2 Yes, Because the concepts clear and maintenance of the pump is not very costly; Community realise their problems and importance of having safe water. Hand pump is already provided, mechanic is trained having tool kit and they were able to pay for digging; To get safe and reliable water by participation and involvement of user group.

Q3 **If the answers is yes, how could they raise the money needed?**

A3 To form water management committee; By user committee the way they raised initially for digging the well; By Participation, Pay cash / kind committee decision.

Q4 **Should people that use water for other than domestic purposes pay more? (for example for livestock or vegetable growing)**

A4.1 No, because it will crate more problems

A4.2 Yes, but it should be a user committee decision.

Q5 **Who should collect and handle the money?**

A5 Care taker but he should be elected; The user group can form a sub-committee or select a treasurer from amongst them; The chairman of user group.

Q6 **Who should maintain and repair the handpump**

A6 Mechanic of village; The user group should maintain and the trained mechanic should repair; The village mechanic through user committee.

Q7 **Who should look after general tidiness around the water point (to avoid water puddles, mud, washing directly under the pump, keep Animals out, etc.)?**

A7 Water collector (women/men); Mullah & Mir'aab; Depends on user committee decision.

Q8 **How can the water committee make sure that the water used is kept unpolluted, clean and safe to drink.**

A8.1 Manage to do water test, Number events, chlorination, tasting the water.

A8.2 Organisation awareness meeting by the user group, try to include a health worker in the user group, Maintain Hygiene roles in the surrounding area of the handpump.

A8.3 By sustainable maintenance.

Exercise 2 : Role of Water User Groups / Committees (WUG)

Identify the steps needed to implement a rural water supply project, assuming the maximal involvement of the community, what role can the WUG play?

Participants worked in a mix of small groups brainstorming on specific topics, and presentation of thoughts in plenary, all ideas being presented on coloured cards and posted onto wall posters in large matrices.

In Mazar-i-Sharif the participants looked at what capacity building was required in order to ensure both suitable skills and a suitable project approach would be developed.

In Qandahar participants explored what outside support would be required to assist the community.

Steps in developing water supply projects with communities (Mazar-i-Sharif)

Steps	Why?	Training or capacity building required.	
		Community members	Organisation supporting community based projects (OPS, international NGO, MRRD, etc...)
Initial approach & informing community members. Participatory Situation Analysis	Inform community of programme approach. Identify needs of community / resources of various users (water, health, hygiene etc...)/ types of communication. Possibly a more general analysis.	Key representatives of community (including women) women rep., Daia, Malik, Mir'aab, elders, mullah.	Liaison staff need to know how to use Participatory Rural Appraisal tools effectively, and suitable tools to share information.
Initiating awareness raising Community making decision to find solutions	Ensure understanding of the programmes approach. Communities need to understand the causes of a problem - create motivation to change situation. (Awareness raising starts as soon as possible and should continue through out implementation.)	Daia (TBA), teachers, village women (men also?) volunteers trained in health issues and how to communicate messages, basic medical care etc... Elders, Malik, Mir'aab Mullah , influential women.	Male and female mobilisers need - group discussion skills, use of visualisation tools. Skilled health educators to train community members. Health ed. integrated into school curriculum and clinics.
Helping the community organise themselves, (forming water user committees). Planning Design	To ensure the community are interested and able to manage the O&M in the long term. Involvement from planning, technology selection & design, enables the selection of appropriate technology within their means. Creates commitment and sense of ownership.	Train DRS, to select and prioritise problems, provide support to VRS/WUCs & feedback to support organisations. VRS/WUC : elders, Malik, Mir'aab, Mullah, (women's rep), young implementors. members need to be trained in : maintaining records, financial management, etc... Identify and train village caretaker /mechanic for handpump & structure O&M.	Liaison staff need skills to mobilise representative DRS & VRS/WUC, visualise problems to community members & assist them in organising. Ensuring community is involved in planning sub-projects. How to monitor effectiveness of DRS & VRS/WUC. Technical staff - training on appropriate technologies - able to discuss alternative possibilities with community, location, choice of technology (other local options). Female liaison staff need to ensure women are consulted and views taken into account at each step.
Making a formal agreement between all parties.	Ensure acceptability & commitment, of all parties. Avoid confusion.	DRS & VRS/WUC require training in writing / understanding agreements, (in Dari).	Liaison / engineering staff need to be able to assist DRS / VRS in preparing formal (legal) agreements between all groups.

Steps in developing water supply projects with communities (continued)

Steps	Why?	Training or capacity building required.	
Implementation and Monitoring.		DRS trained to check up on projects and feedback to support organisation. VRS/WUC: local technician, caretaker or Mir'aab able to monitor quantities & materials used in construction, whether design is correct etc. Local technicians should be trained s counterparts if unable to implement project. Appropriate local technologies and designs should be used where possible.	Technical staff - knowledge of appropriate technology very important (research and development needed). NGOs, Companies need to be assisted to implement timely quality construction, training local counterparts. MRRD needs capacity to monitor.
Operation and Maintenance	To ensure system is functioning and well maintained.	WUC - collection & financial management. Through hygiene promotion women should arrange to ensure good drainage & clean water point. WUC should be aware and able to promote the efficient use of water. Village caretaker/mechanic trained to carry out preventative maintenance & remove, repair / replace hand-pump.	MRRD or other agency : support as needed for major repairs or further training.
Monitoring	To ensure system is functioning, well maintained. That the system is utilised. That water use in combination with improved hygiene practices is having an effect on health situation in the community.	VRS/WUC : handpump and surrounds Village caretaker: handpump condition Daia/ Women volunteer: hygiene practices or illnesses	Health educator : Effectiveness of behavioural change related to hygiene practices. Local clinics: reported water borne diseases. MRRD periodic monitoring of handpumps to check they are used.
Evaluation (Impact Assessment)	To measure the impact a sub-project has made after suitable period (for hand-pumps this needs to be longer than 1.5 years).		Staff of supporting agencies - health educators - comparison with data from pre-project situation analysis.

Role of Water User Group (WUG) - Qandahar Workshop

OBJECTIVE: Improved health condition through use of safe drinking water and improved sanitation

Steps	Role of the Water User Committee (or its members)				Outside support required (by whom?)		
Preliminary survey and assessment	Needs Identification	Exploring of problem	Participation of whole community	WUC would decide on needs	Awareness creation	Water resource specialist	Public Health Worker
Inform Provincial, & local authorities - VRS, DRS	Organising community meetings				Explain the policy (donor)	Establish relations with the community to maintain trust.	Donor Agency
	Readiness	Community express preferences and decides	Community agrees to work on	Technical, Health, sanitation, advise	Include female staff to address women (if possible)		Community specialist
	Forming water user committee	Community forms user group	Caretaker selected by committee and introduced.	Identifying skilled persons	Advise on community organisation		Hygiene Practices to be introduced.
	Selection of technology	Bringing in local knowledge	Availability of water sources	Availability of local materials	Discuss advantages and disadvantages of technologies available	Technology Demonstration (Field visit)	Case study brief / Review
Planning	Site selection	Water demand per capita		Participation of community for hygiene promotion	Standardising provided		Approval of design by development agencies
	Design	Express willingness to declare contribution			Consultation / discuss approach		
	Acceptance of contribution	formal agreement			Provide contract format	Explain Contract implications	Identify and select implementing agency
	Assignment of responsibilities	Dig the well & provide local contribution	Provide Accommodation for IA Workers	Provide security			
Implementation	Resource mobilisation.		Select & introduce person as caretaker		Construction & Installation by IA		Improving the well and installing HP
	Installation of technology	Quality control monitoring			Monitoring Implementation	Training for monitoring	
	Monitoring implementation	Elder caretaker check the proper use of the pump			Hygienic practices checked by health worker		
Utilising technology	Proper use (tech. hygiene)	Village health worker			Training in keeping records and documentation	Involve Local Authorities	Involve public health workers
	Maintenance	Whole community					
Evaluation and follow up	Monitoring of water use				Training in monitoring & maintenance	Subsidise initial costs	
Improve and copy							

15. Objective Oriented Project Planning

At this stage the workshop returned to the OOPP tool, to continue the tentative participatory planning.

Handout:

Where necessary the steps were explained using flip-charts. For some steps brief handouts were given (summarised in the text below)

References:

Goal Oriented Project Planning, Facilitator training, Individual Procedures, Insight Partnership, Little & van de Geer, Arnhem, 1994 (P.O.Box 4040, 6803 EA Arnhem, The Netherlands).

15.1 Problem Analysis : OOPP Step 3

The problem analysis was revisited. Based on the new information and insights of the previous 5 sessions, participants were asked to improve the problems analysis. Additional problems were identified and these were then added to the initial problem tree. This added approximately 30% of the problems viewed in the final problem tree.

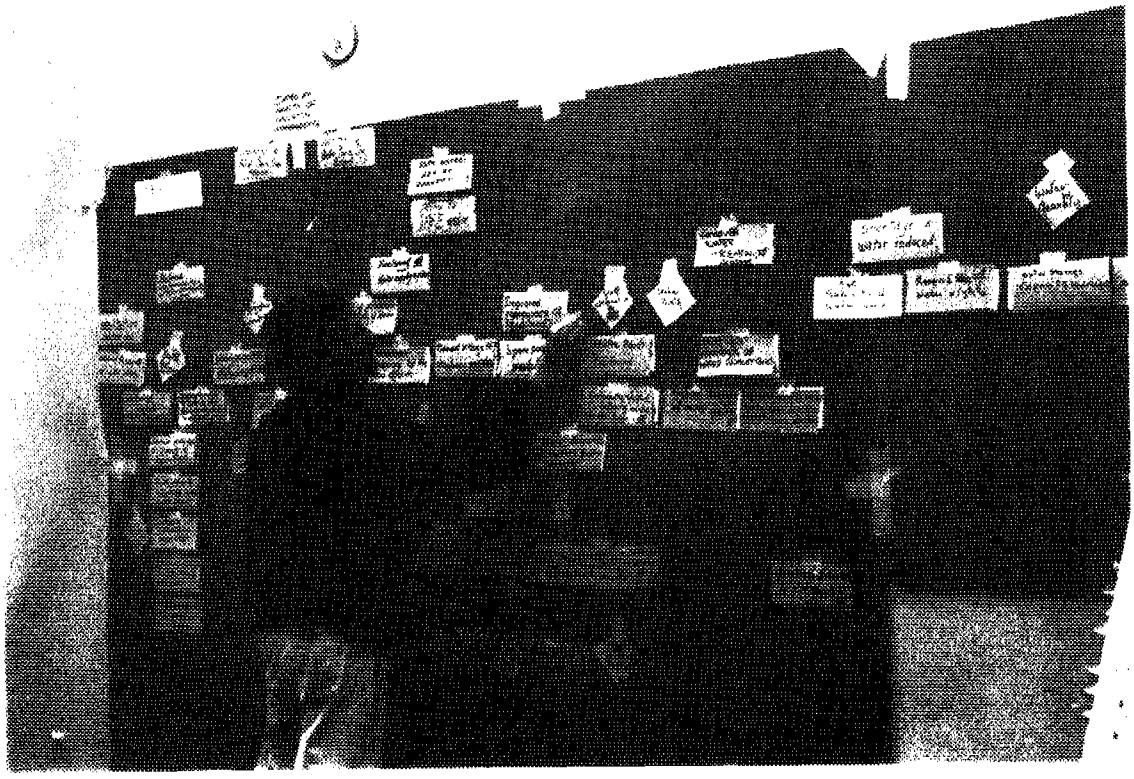
The problem trees for Mazar and Qandahar are included. Content wise both trees are similar. For the sake of comparison both trees have - to a great extend - been 'organised' in a similar way. From left to right the issues related to hygiene/sanitation, community participation, technology issues, community management, human resources development, overall planning and management, access, water quantity and quality issues have been covered. Especially the issues on hygiene / sanitation / awareness, programme planning and management and, technology were added in the second round of problem analysis.

15.2 Objective Tree : Step 4

All problems were then translated into objectives:

* It is important that each objective is phrased as a result that is achieved.
* Not all problems can be reformulated as objectives.
* If translated problems are not achievable they may need to be excluded from the objective tree, in which case they will become conditions that have to be met in order for the objectives above to be met.
* When a problem is translated into an objective it may require additional objectives to ensure the "means-end" relationship.

Both objectives trees have been included. In both trees a number of problems have remained untranslated into objectives. These problems have later been included as assumptions in the Project Planning Matrix (see 15.5).



Photograph illustrating the Objective tree being clustered and scoped

15.3 Clustering : Step 5

* Objectives of similar type, sector, activities or expertise were then clustered or grouped by the participants, this process was started at the base of the tree.
* These groups were illustrated with lines and named.

Both objectives trees show doted lines delineating the clusters. In the Qandahar tree the cluster related to capacity building is scattered, therefore objectives in this cluster have been marked with an X. Objectives related to monitoring and evaluation have been kept separate as they do not clearly fit in the tree but are relevant at all levels. Objectives at higher levels in the tree have not been clustered. The reasoning is that if clusters at lower levels have been achieved then the objectives at higher level will be achieved 'automatically' as a result.

15.4 Scoping : Step 6

* Unrealisable objectives were excluded, but kept for further analysis and possibly to be included as assumptions in the Project Planning Matrix.
* Other objectives were prioritised.
* The core objective was identified - the objective that became the project purpose.
* Clusters that did not contribute to the core objective were excluded.
* Clusters that contributed to the overall goal were included later as conditions that needed to be met.

Clusters of objectives that participants felt could not be directly addressed by the programme were taken out and addressed under assumptions in the Project Planning Matrix. Others were ranked in order of importance / priority and used as a basis for formulation of objectives in the PPM.

15.5 Developing the Project Planning Matrix (PPM)

The PPM represents the **strategy** of the programme / project. It is the main and most important outcome of the planning phase in the OOPP method. The PPM is basically a 4x4 matrix (see next page) that shows in column 1 the objectives at various levels and activities of the programme. Column 2 and 3 present the indicators and sources of verification, tools that will be used in monitoring and evaluation to assess if the programme achieves its objectives. Finally column 4 indicates at each level what other factors may influence the outcome of the programme, useful for evaluation and eventual adjustments during implementation.

Project objectives

Project purpose

If the project achieves the results it has formulated then the Project Purpose will be the outcome of it.
Phrase it clearly - in terms of effectiveness or utilisation of services by beneficiaries.

Overall objective

Although outside of the project responsibility the project will contribute to achieving this overall goal. The contribution of the project to the Overall Objective represents the impact the project will have.

Results or Outputs of the project

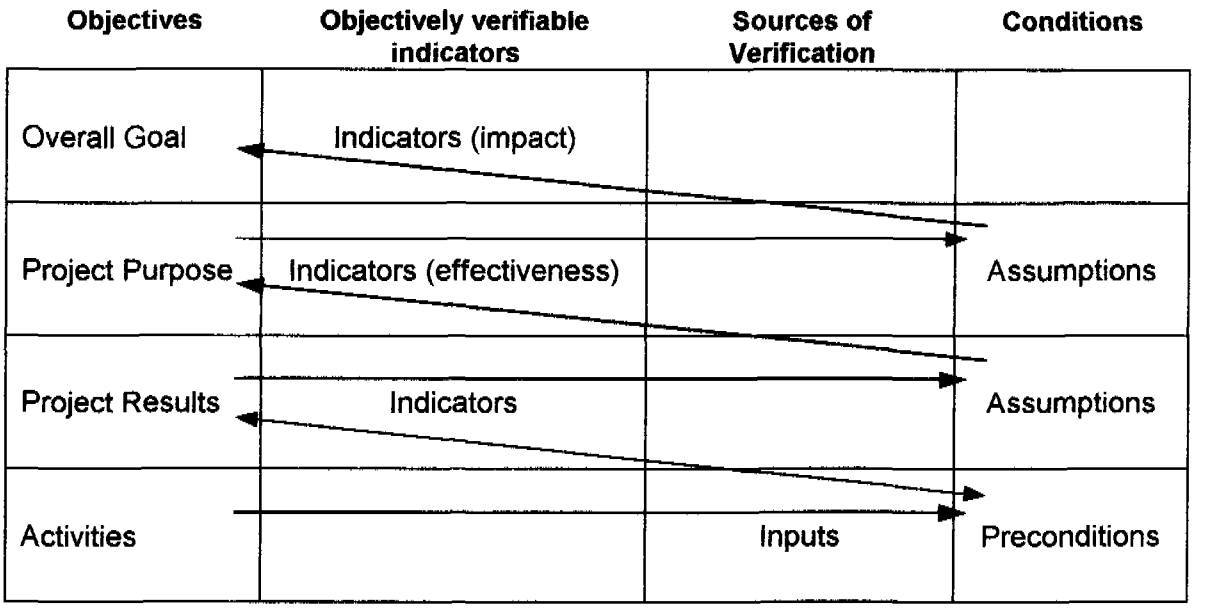
Achieved within the responsibility of the project, within both the resources and period for which the project runs.

Conditions

PPM logic all (clusters of) objectives identified in the objectives tree that can not be addressed by the project but influence the outcome of the project will be documented as conditions that have to be met in order to achieve the objectives. In other words in the last column of the PPM assumptions are listed about things that should or should not happen in order to achieve the objectives.

Project Planning Matrix (PPM)

The PPM represents the STRATEGY of the project / programme. It's structure is as follows:



The PPM for Mazar and Qandahar are included. The stated Overall Goal is similar in both cases. At Project Purpose level the Qandahar workshop put more emphasis on the facilitation role of the project. At Project Result or Output level the following remarks can be made:

- Strong need for a clear overall project strategy and plan, based on decentralisation and co-operation among agencies operating in the same sector.
- Strong emphasis on the need for a good human resources development and institutional capacity building strategy through training programmes
- Strong need for enhanced community involvement shifting from participation in implementation to involvement at all stages leading to communities in management positions ('in the driving seat').
- Need to identify and develop together with communities appropriate technology solutions.
- Strong need to integrate water supply with sanitation and health / hygiene education activities.

Indicators and means of verification

The need for indicators to able to assess if objectives are achieved was explained to the participants. Criteria and methods to formulate good indicators (objectively verifiable indicators or OVI's) were provided and discussed. While most participants are using indicators for monitoring of implementation, little experience existed in formulating indicators and monitoring effectiveness and impact of projects. For a number of objectives indicators and sources / means of verification were formulated. Time did not allow to complete this exercise.

Project Planning Matrix - UNOPS ARRP Mazar (March 1997)

Objectives	Indicators	Means of Verification	Assumptions
Overall Goal			
Improved health of rural population in selected districts across northern Afghanistan.			
Project Purpose			
Improved access and utilisation of safe water in rural areas in selected districts across northern Afghanistan.	• Number of water borne diseases in target districts reduced approx. 10 % from 1997 to 1999.	Registration books at health clinics. Key informants in the community (utilise PRA techniques).	1. No food shortages 2. No dramatic population increase 3. Suitable health facilities available.
Project Results or Outputs			
R1. A realistic approach based on co-ordination with other agencies or organisations to reach beneficiaries effectively, is implemented.	• By end of project. 80% of WSS agencies in northern Afghanistan have forum for discussion. Meeting at least once quarterly, making decisions and acting on at least 40%	Minutes of joint agency meetings. WSS project progress reports.	1. Basic security in project area. 2. No major natural disasters. 3. No major policy change by donor or regional authority
R2. Improved sanitation and hygiene practices are achieved through health education and community awareness.	• 80 % of improved water points have good drainage and are kept clean.	Field visits by appropriate support staff.	4. Agencies interested in co-ordinating activities. 5. No major conflict between communities.
R3. Capacity of relevant community members and support organisations is increased.	• 75% of systems functioning one (this should really be much longer) year after implementation is completed.	Field visits by appropriate support staff.	6. Project staff are motivated. 7. Suitable source of water available within reasonable distance.
R4. Increased community participation in decision making planning and design, through mobilisation and motivation, taking / considering gender issues.	• *not formulated*	*not formulated*	Limited fluctuation in currency value.
R5. Affordable and appropriate well design and abstraction equipment provided.	• *not formulated*	*not formulated*	
R6. Functional water systems managed and monitored by WUC / VRS ensuring utilisation effective maintenance and community ownership.	• *not formulated*	*not formulated*	
R7. Increased availability of potable water from storage tanks	• *not formulated*	*not formulated*	
R8. Access to information in rural areas through identification and utilisation of appropriate direct and indirect communication tools established.	• *not formulated*	*not formulated*	

note: activities were formulated but not documented

Project Planning Matrix - UNOPS-ARRP Qandahar (March 1997)

Objectives	Inidcators	Means of Verification	Assumptions
Overall Goal			
Improved health of rural population			
Project Purpose			
Most needy rural communities in selected districts in Qandahar region assisted in establishing of safe drinking water & improved sanitation	• Reduction of registered diarrhoea cases at local public clinics by 30% from 97-99 in target districts. • In target villages 80% of population has access to improved and functioning water supply systems within 200 meters	At local clinic in register book by clinic clerk	1. No serious malnutrition. 2. Immunisation program is continued 3. Health facilities are used. 4. General literacy is increased.
Project Results or Outputs			
R1. Improved program strategy and management based on participatory planning, decentralised decision making and flexibility to ensure sustainability in implementation	• 75% sub-projects valued at less than $50000 approved & authorised at regional level by may 98. • Strategy for 97-99 incorporates at least 3 recommendations form participatory planning workshops including representatives of government, UN agencies, NGOs.	Random sample of villages by field visit village walk, interview key information's (mullah, Malik, WUG) cross checking	1. Seasonal variation is not extreme. 2. Irrigation and drainage system are improved. 3. The security in the region is not a big problem, 4. Continued accessibility 5. No dramatic fluctuation in exchange rate 6. Donors will provide funds
R2. The formation of a clear WSS policy through improved co-ordination of agencies and enhanced capacity of relevant government departments promoted	• By end of 98 a clear RWSS policy is agreed upon by all relevant par-ties at regional & national level and reflected in their strategy plans	Program regional office specific project files. Cross check recommendation in workshop documentation with 97-99 programme Strategy RWSS policy document at MRRD relevant organisation plan documents in their regional offices	7. Border will be open for transportation 8. Technical staff will not be changed or transferred 9. The ruling body of Afghanistan does find these activities fruitful let then continue
R3. Institutional capacities strengthened through training of support staff in organisations operating in WSS in rural areas	• *not formulated*	*not formulated*	10. Financial support available for communities
R4. Community participation in all phases of sub-projects promoted through motivation based on increased awareness & establishment of community management systems	• One year after installation at least 90% handpumps are functioning • After 2 years at least 75% handpumps are functioning.	Sample field visits direct observation and interviews by MRRD / OPS	
R5. Appropriate technologies matching community capacities and preferences are introduced	• *not formulated*	*not formulated*	
R6. Improved hygiene practices in rural community through increased awareness about the causes of faecal & water borne diseases through health education & media.	• By end of 99 at least 90% of improved wells are protected from animals by fence wall at least 2 meters from apron, with good drainage to a soak away outside the protection.	See field visit for R4	
R7. Community utilises, maintains, improves & replicates WSS projects	• One year after installation at least 90% handpumps are functioning • After 2 years at least 75% HP are functioning.	See field visit for R4	

PPM Qandahar: Activities per Result

R1A1. Formation of Water Management committee level	R2.A1 Propose meeting to discuss policy between agencies for co-operation.	R3.A1. Refresher training course in service training to other agencies	R4A1. Develop & test procedures and methodology
R1A2. Organise meeting for the formulation of strategy and management of RWSS participation by the representation of community, IP, and district heads.	R2.A2. Local Authority ensures security of activities	R3A2. Increase knowledgeable staff in appropriate technology	R4A2. Employ needed personnel
R1A3. Raise direct discussions with community	R2A3. Train MRRD staff for co-ordination activities	R3.A3. Procedure of proper record and documentation	R4A3. Conduct awareness meeting
R1A4. Stress an improve skills of technical staff of IP	R2A4. Establish bank facilities in the region	R3A4. Demonstration for practical learning	R4A4. Organise RWSS training workshop
R1A5. Conduct workshops to improve management knowledge of representatives WMC.	R2A5. MRRD formulates draft policy through discussion consultation and workshops with partner	R3A5. Involve field staff in project planning	R4A5. Form community. management systems: DRS, VRS, WUG.
R1A6. Approve and implement strategy.	R2A6. Meeting to accept policy	R3A6. Proper plan for effective operation of local WSS in rural area	R4A6. Develop joint implementation mechanism
	R2.A7. Parties adjust their plans to match with policy.	R3A7. Senior staff participates in the training course	R4A7. Conduct joint monitoring & evaluation.
		R3A8 Review of ongoing project activities and monitoring	
		R3A9. Improve services	
		R3A10. pick up good ideas from community	

R5A1. Community capacities are explored.	R6A1. Develop health education materials	R7A1. Form community based repairing system	
R5A2. Community preferences are identified	R6A2. Use mass media to explain the causes of faecal and water borne disease	R7A2. Train HP mechanic, caretaker in repairing of HP as well as	
R5.A3. proper technology is introduced.	R6A3. Preparation and distribution of posters related to hygiene practices	R7A3. Supply toolkit for HP Mechanic	

15.6 Plan of Operations / Plan of Action

It was explained to participants that the OOPP method is concluded with a fairly general Plan of Operations / Plan of Action which consists of a GANTT chart in which the following information is put:

- (Main) activities needed to achieve the Project Results
- Time schedule per activity for the total duration of the project (time units usually quarters or months) including deadlines and milestones
- For each activity the responsible officer
- For each activity the main other involved parties
- For each activity the key resources needed

The purpose of the plan is to get an overview of the implementation of the project and the main resources required. This exercise does not replace needed and more detailed financial, resources and personnel planning and activities scheduling.

Participants practised in drawing up broad Plans of Operations (not documented).

16. Summary Evaluation

In order to assess the value and inputs of the workshop a six question evaluation form was distributed to all participants. Participants were asked to refer to the Expectations and Fears formulated at the beginning of the workshop and assess to what extend they were or were not met. The summary of each of these evaluations figures in the next two pages, all views expressed are represented in the summary.

Summary Evaluation - Mazar Workshop

Respondents: 23 out of 23

Pos: strong points Neg: weak points

1. Give your comments on how the workshop was organised (venue, food, accommodation, duration, timing)

Pos: in general good to very good, except:
Neg:
- shortage of time in some sessions (8x)
- transport of participants poorly organised (6x)
- need to include one day break during the workshop (4x)
- duration of the workshop too short (3x)
- need to include a field visit (2x)
- little involvement of programme management, poor accommodation (each 1x)

2. Give your comments on the topics covered during the workshop

Pos: in general good to very good coverage of main topics, especially
- emphasis on need for community participation (3x)
- emphasis on health education and sanitation (2x)
- need for clear strategy using OOPP (2x)
- problem analysis, hygiene topics, community mobilisation (each 1x)

Neg:
- some topics need clearer explanation (1x)
- not enough time spend on need for monitoring and evaluation of project
- hope that agencies allow to apply what was learned

3. Give your comments on methods used during the workshop (visualisation using cards, work group sessions, discussion of your programmes/projects, participation of participants, OOPP planning method)

Pos: in general methods were evaluated as new and excellent, special mention was made of:
- use of cards: sharing ideas clearly (8x)
- working in small groups allowing participation of all (8x)
- OOPP method (4x)
- full participation and exchange of ideas (4x)

Neg:
- methods proposed need strong outside support, sessions at times to theoretical, some participants had language problem, method needs a lot of practice, trainers tired after field visit and therefor not well prepared (each 1x)

4. What are the three (3) most useful things for your work that you learned during the workshop

- systematic planning based on objectives and project planning matrix (14x)
- problem analysis and linkages between problems (12x)
- need for hygiene promotion (8x)
- community participation from begin to end to ensure sustainability (6x)
- promotion of proper operation of systems (2x)
- water quality and quantity issues (2x)
- use of indicators for good monitoring (2x)
- need to collect data, use of cards, use patience (each 1x)

5. Which three (3) topics you feel would be important to address more in detail in future workshops

- hygiene promotion and health education (6x)
- more practice with project planning and formulation of strategies (PPM) (5x)
- how to promote of community participation at all stages (5x)
- appropriate technologies and water treatment options (3x)
- how to build capacity (3x)
- how to improve social / economic situation in rural areas (2x)
- more field practice (2x)
- practical training in changing behaviour (2x)
- communication techniques, stakeholder analysis, planning for other sectors, irrigation, salinity problems, monitoring techniques, positive examples from elsewhere (each 1x)

6. Any other comments or suggestions you would like to make

- provide more literature (3x)
- hold more similar training workshops for all staff (13x)
- include field trips in training (3x)
- explain concepts and terminology clearly, invite health staff, no training during holidays (each 1x)

Summary Evaluation - Qandahar Workshop

Respondents: 21 out of 24 (3 did not master English enough to fill out form)

Pos: strong points Neg: weak points

1. Give your comments on how the workshop was organised (venue, food, accommodation, duration, timing)

Pos: in general good to very good, except:
Neg:
- some session too short, exercises not finished, discussions too short (6x)
- working hours too long (5x)
- food of poor quality (5x)
- venue not good (1x)

2. Give your comments on the topics covered during the workshop

Pos: in general good to very good coverage of main topics, especially
- emphasis on safe drinking water (1x)
- community participation (2x)
- problem analysis and showing linkages (1x)
- new method using cards allow full participation (1x)

Neg:
- need more examples of positive successes elsewhere
- hygiene promotion: explain diseases better
- not all parties represented in workshop
- PRA, RRA, village level planning not covered
- how to create awareness at community level: practically

3. Give your comments on methods used during the workshop (visualisation using cards, work group sessions, discussion of your programmes/projects, participation of participants, OOPP planning method)

Pos: in general methods were evaluated as new and excellent, special mention was made of:
- visualisation by using cards (8x)
- work group sessions allowing full participation of all (including people with poor English knowledge) (5x)
- full participation of all participants (5x)
- OOPP method (1x)

Neg:
- missing: field visits allowing to discuss with communities (2x)
- missing: participants from public health sector and WHO

4. What are the three (3) most useful things for your work that you learned during the workshop

- OOPP method stressing formulation of objectives (14x)
- Community participation at all stages of decision making (13x)
- Problem analysis (9x)
- Project Planning Matrix, formulation of strategy (6x)
- Behaviour change, Water user groups, hygiene promotion, exchange of experiences (2x each)
- Indicators, visualisation by cards, group work sessions (1x each)

5. Which three (3) topics you feel would be important to address more in detail in future workshops

- OOPP method and formulating project strategy (PPM) (10x)
- Develop and test methods to improve working with communities (pilot projects) (9x)
- More training workshops (4x)
- How to change behaviours (3x)
- Technology choice and appropriate technologies (2x)
- Define roles of parties involved, analysis of needs and strengths, co-ordination among development agencies, planning and design of irrigation schemes, hygiene promotion (each 1x)

6. Any other comments or suggestions you would like to make

- More workshops on related topics, covering other sectors than WSS, e.g. irrigation (5x)
- Make support materials available in advance (2x)
- Include field visits, Reduce number of participants in workshop (2x each)
- Allow for representatives from communities, Schedule one day break in middle of workshop, UNOPS should come up with improved and realistic policy and strategy (1x each)

Annex

List of literature provided to UNOPS Afghanistan Rural Rehabilitation Programme

1. UNOPS/ARRP headquarters, ARRP Mazar and ARRP Quandahar regional offices received a full set of the documents listed below (unless otherwise stated).
2. Subscription forms were left behind to allow subscription to free IRC publications (Newsletter, Yearly training programme, Two yearly update of list of publications).

#	Title	Remark
1	**A manual on operation and maintenance of communal standpost for extension workers and caretakers**, Ng'ambi, D., PSSC project Zambia, IRC, The Hague 1991	
2	**Actions speak, the study of hygiene behaviour in water and sanitation projects**, Boot, M.T., Cairncross, S. ed., IRC & LSHTM, The Hague, 1993	
3	**Community management today, the role of communities in the management of improved water supply systems**, Evans, P., Appleton, B., ed., Occasional Paper #20, IRC, The Hague, 1993	
4.	**Community self-improvement in water supply and sanitation, a training and reference manual for community health workers, community development workers and other community-based workers**, Training Series #5, IRC, The Hague, 1988	
5	**Highlights on water supply and sanitation**, bi-monthly *Overview of recent developments, training, conferences, publications, contents of current periodicals*	Subscription at approx. $80/year from IRC
6	**IRC in brief**	Free of charge from IRC
7	**IRC in focus** *Short presentation of IRC mission statement and activities*	*Free of charge from IRC*
8	**IRC Publications 1995-1996**	Free of charge from IRC
9	**Just stir gently, the way to mix hygiene education with water supply and sanitation**, Boot, M.T., Technical Papers #29, IRC, The Hague, 1991	
10	**Linking technologies... with operation and maintenance issues (draft)**, IRC, The Hague, 1996 This document assesses various W.S.S. technologies on operation and maintenance aspects	The final version of this document will be sent to UNOPS as soon as available
11	**Making the links, guidelines for hygiene education in community water supply and sanitation**, Boot, M.T., Occasional Paper #5, IRC, The Hague, 1984	
12	**Notes and news on school sanitation**	Free of charge from IRC
13	**Objective (or Goal) Oriented Project Planning (OOPP), facilitator training, individual procedures**, insight Partnership, Arnhem, 1995	Free of charge, order through IRC or directly from Little & van der Geer, Box 4040, 6803 EA Arnhem, The Netherlands
14	**On-site sanitation: building on local practice**, Wegelin-Schuringa, M., Occasional Paper #16, IRC, The Hague, 1991	
15	**Paying the piper, an overview of community financing of water and sanitation**, Evans, P., Occasional Paper Series #18, IRC The Hague, 1992	
16	**Project Implementation Manual (in 2 volumes)**, Gov. of Zambia, Microprojects Unit, National Commission for Development Planning, Lusaka, 1994 *good example of a training and reference manual for community designed implemented and owned projects. Volume 1: organisational and financial aspects, Volume 2: construction and technical aspects*	One copy left at Qandahar office. Additional free copies should be requested directly from Mrs. Barkworth, MPU, NCDP, Lusaka, Zambia
17	**Taking care of your water supply, a manual for community-based operation and maintenance of piped water schemes**, Training Series #10, IRC, The Hague, 1993	
18	**Together for water and sanitation, tools to apply a gender approach, the asian experience**, Bolt, E., ed., Occasional Paper Series #24, IRC, The Hague, 1994	
19	**Tool for community participation, a manual for training trainers in participatory techniques**, Srinivasan, L., PROWESS/UNDP technical series, New York, 1993	Not left behind. Order directly from UNDP, free of charge
20	**Training programmes 1997** *yearly updates*	Subscription free of charge from IRC
21	**VIPP, Visualisation in Participatory Programmes, a manual for facilitators and trainers**, UNICEF, Bangladesh, 1993	Order directly from UNICEF
22	**Water Newsletter, developments in water, sanitation, and environment**	Free of charge from IRC
23	**Motivating Better Hygiene Behaviour: Importance for Public Health Mechanisms of Change**, Christine van Wijk and Tineke Murre (IRC International Water and Sanitation Centre), revised by Steven Esrey, UNICEF, New York, 1995.	Free of charge from IRC or UNICEF New York.
24	**Why a pit latrine, a manual for extension workers and latrine builders**, Mate, J. PSSC project Zambia, IRC, The Hague, 1991	