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# COMMUNITY PARTICIPATION AND HYGIENE EDUCATION IN WATER SUPPLY AND SANITATION (CPHE)

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Deutsche Gesellschaft für Technische Zusammenarbeit  
(GTZ) GmbH - Eschborn

Technical Cooperation · Federal Republic of Germany

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# PREPARATORY PHASES (I - III)

## PROJECT PHASE I: SENSITIZATION

### STEP 1: Verification of Government and Donor Policies

Before starting the execution of a preparatory water and sanitation project, it is necessary to verify if the CPHE approach is recognized as a national strategy in the respective country. The implementing agencies of water / sanitation / hygiene education projects have to accept that CPHE is a partnership approach and requires changes in project organization and implementation procedures from all partners (technical / social / health services / administration / communities). Consensus on and formal adoption of main aspects of operationalization of CPHE must be stated by the government and the implementing agencies

#### TOOLS:

- 1) Government and Donor Commitment
- 2) National Government Commitment to CPHE

### STEP 2: Analysis of CPHE Experiences

The analysis of experiences in CPHE gathered by governmental and non-governmental organizations will help to confirm the formal recognition of CPHE as an essential strategy for sustainable water and sanitation projects. The use of field experience will show the adaptation and operationalization of the sector policy and clarify the sector strategies

#### TOOLS:

- 3) CP Conditions for Success
- 4) CP Capacity Assessment Criteria
- 5) A New General Approach to Development Projects

## PROJECT PHASE II: PROJECT IDENTIFICATION

### STEP 1: Project Area Identification

Project identification starts with the identification of the areas with needs of improved water supply and/or sanitation. This identification includes regional criteria as well as demographic and health criteria of the population taken from national statistics and/or national master-plans. Here it must be taken into account whether the communities concerned have been involved in preliminary project area identification

#### TOOLS:

- 6) BMZ "Sector Paper" (Extract)

### STEP 2: Pre-Appraisal Mission

A multidisciplinary team, including technical, socio-economic and health/hygiene experts has to be established to execute a visit to the proposed project area. The tasks of this pre-appraisal mission include the analysis of needs and potentials of the services, the communities and the population for CPHE, what agencies will implement the project, what experiences/organizational capacities for low-cost water and sanitation technologies and CPHE exist in the area and how men/women/children will participate in the project.

#### TOOLS:

- 7) Topics of a Pre-Appraisal Mission

### STEP 3: Preliminary Project Proposal

On the basis of the results of the pre-appraisal mission, preliminary discussions between government and donor representatives concerning an integrated and participatory project approach have to be held, and a preliminary project proposal defining in broad terms the type of project, its goals and its components (water supply/sanitation/community participation/hygiene education/roles of women) has to be developed

#### TOOLS:

- 8) Preliminary Project Proposal

### STEP 4: Funding Request

A request to fund the proposed project including CPHE measures has to be elaborated and submitted to funding agencies. Flexible funding of community related activities has to be taken into account.

#### TOOLS:

- 9) Flexible Funding

## PROJECT PHASE III: PROJECT FORMULATION AND APPROVAL

### STEP 1: Feasibility Study Team

Project formulation is the main task of the feasibility study. To implement the feasibility study, a multi-disciplinary feasibility study team including national and external experts of different disciplines (technical, socio-economic, health) and also female experts has to be established and the Terms of Reference including CPHE have to be elaborated for the execution of the feasibility study

#### TOOLS:

- 10) Feasibility Study Example

### STEP 2: Implementation of Feasibility Study

The feasibility study has to be executed according to the Terms of Reference. The study has to deal with technical aspects, socio-economic aspects, health and hygiene related aspects, institutional and training aspects. The study has to include all sector-related national experience gathered as well as the needs and capacities of all institutions and organizations involved at all levels. Data collection comprises also detailed information on the needs and capacities expressed by the target population.

#### TOOLS:

- 11) Topics of the Feasibility Study

### STEP 3: Project Appraisal

On the results of the feasibility study, the appraisal has to be executed concerning the following questions: Will the project meet the needs and capacities of different user groups, especially women, in the project area (short-term population coverage)? Will the proposed project be implemented in such a way that long-term sustainability is obtained?

#### TOOLS:

- 12) Women Involvement in Feasibility Study
- 13) Basic Needs Expressed by the Community

## PROJECT PHASE IV: PROJECT PLANNING AND ORGANIZATION

PROJECT ACTIVITIES	BASIC COMPONENTS IN CPHE	TOOLS
Establishment of Project Organization and CPHE Unit (Information Unit)	Community responds to initial project information and expresses needs and proposals for execution	14) CPHE Unit
Execution of "kick-off" workshop: defining detailed technical design and CPHE methods including division of CPHE tasks at all levels	Representatives of the target community participate in the workshop	15) Types of Organizations and Definition of Tasks
Selection of initial areas / communities for learning by doing / pilot / demonstration project	Participation in preselection of villages, proposals for pilot communities and sites of water supply systems	16) Community Self-Survey (CSS) 17) Community Needs Assessment
Preparation of preliminary CPHE materials (manuals, hygiene education materials, training material) on the basis of available documents and experiences	Community identifies water and sanitation related problem areas where increased information, training and education are required	18) Different Forms of Communication and Audiovisual Media 19) Guidelines for the Development of Visual Aids
Preparation of workplan, including logistics, arrangements and time frame for technical and CPHE activities, budgets	Pilot villages assist in identifying the time frame in relation to their own agricultural / financial calendar	20) Participatory Project Planning 21) Plan of Operation
Training of technical, social and health staff on technical and CPHE related tasks	Community helps to adapt training to their own socio-cultural situation and ways of communication	22) Human Resources 23) Training Community Motivators in WSS Projects
Bringing the integrated project team into the field: first round of visits to selected areas / villages; learning by doing for technical, social and health staff	Community expresses basic needs / capacities and gives information on village	24) Implications For Project Management and Evaluation
Preparation of Call for Tender Documents		

### EXPECTED OUTPUT:

Detailed project implementation plan, including proposed monitoring system, establishment of project organization and CPHE Unit, trained staff of technical and CPHE related services



PROJECT ACTIVITIES	BASIC COMPONENTS IN CPHE	TOOLS
Community study (village diagnostics) to establish local conditions and attitudes for final project allocation, detailed planning and as a baseline for evaluation (including technical and social aspects as well as knowledge, attitudes, practices related to water, sanitation, and hygiene); field testing of CPHE materials	Execution of Community Self Survey (CSS), including selection of sites, models of participation, fees, basic needs, contributions to execution of works	25) Facilitating Participation of Women 26) Community Diagnosis
Participatory planning of project in initial group of communities including discussion of implication of various alternatives on community and user groups	Selection of community members for negotiation and decision on detailed project design in the initial villages representing all groups, men and women; Establishment of user committees and selection of members	27) Options for Community Maintenance Financing System 28) Alternative Water Supply and Sanitation Technologies
Contract between community and agency defining project contents, rights and responsibilities of each party, and agreed steps/sanctions in case any partner does not stick to the contract	Negotiations and decision on the contract, signing of contract	29) Agreement between Project Holder and Community 30) Contract between Community and Project Holder
Organization/strengthening of local institutions with water/sanitation/hygiene education related tasks (training and providing hygiene education materials, management assistance)	User committee members participate in task-oriented training; Selection of personnel undergoing training, participation in regular meetings of "task forces" at village level	31) Assistance to Local Services 32) Statutes of Local Water Organization
Implementation of technical project including organization and management of user contributions in cash/kind	Participation in execution of technical works and management of contributions of the community according to the contracts signed	33) Organization of Self-Help Labour
Planning of local hygiene education and action programme with local groups and organizations in order to reduce risks of transmitting water and sanitation related diseases	Participation in planning by formulation of needs, competences knowledge, attitudes and practices	34) Hygiene Education Assessment Criteria 35) Defining Disease Transmission Routes
Training of selected community members for tasks in operation and maintenance, management and hygiene improvements	Participation in selection of community members, involving women in training	[see Tool No 33]
Implementation of local hygiene education and action programme	Participation in hygiene education lessons, self-organization and execution of proposed hygiene activities	36) Potential Action Points for Hygiene Education 37) The Roles of Women and Children in Hygiene Education
Establishment of self-evaluation system on water, sanitation, and hygiene	Involvement of user organization in information exchange with local services and agency; proposals for problem solving; development of local problem solving activities	38) Form for Planning and Controlling of Activities
Organization of agency support and monitoring system for local maintenance and management (spare parts supply, reporting system, scheduled agency visits) in initial project communities	Participation in a regular information exchange and negotiation process between community and executing agency	[see CPHE paper No 4 "Indicators for success."]

#### EXPECTED OUTPUT:

Field-tested practical procedures for CPHE, including participatory hygiene education and involvement of women; field-tested CPHE materials; CPHE trained field and managerial staff; user committees functioning; monitoring and support system installed, contracts signed.

PROJECT ACTIVITIES	BASIC COMPONENTS IN CPHE	TOOLS
Evaluation of Implementation process and resulting maintenance management/hygiene performance in initial communities	Participation in evaluation: establishment of village level monitoring and evaluation system, collection of data, reporting system and participation in evaluation workshop	39) Evaluation of Social Change 40) Evaluation of Benefits
Feedback of experiences into ongoing implementation project (organization, working procedures, support system, e.g. training, spare parts supply)	Adaptation and application of experiences gained in initial communities, implementation of all training, management, hygiene and technical works listed in the Implementation Phase in the new communities	41) Intervention for Disease Control
Strengthening of local organizations where required (e.g. further training, management assistance)	Participation in further trainings (user organizations)	42) Institutionalization 43) Task Analysis Sheet 44) Cooperation in Project Consolidation, Evaluation and Follow-up

#### EXPECTED OUTPUT:

Initial results on sustainability, plan to improve implementation programme, specific inputs to increase cost effectiveness, necessary project support system in place

## PROJECT PHASE VII: EVALUATION AND FOLLOW-UP

Evaluation of overall results of participatory WS/S project (population coverage, use, functioning, cost recovery, ongoing monitoring, maintenance and problem solving) Evaluation of project impacts (reduction of hygiene risks, developmental use of water and time savings)	Participation in evaluation: providing basic data on community level; proposals for readaptation, if required	45) Minimum Evaluation Procedure 46) Sustainability Assessment Criteria
Exchange of experience with other water projects in the country	Community representatives and members of user organizations participate in exchange visits	47) Training of Trainers
Feedback of lessons learned on CPHE into the country's training programmes for technical/social/health staff	Communities accept practical training and express recommendations for improvement of CPHE methods	[see tool No 43]
When required, adaptation of sector policy and organizational structures (institution building) on the basis of experience gained	Communities are represented in permanent multidisciplinary coordination group for WS/S - CPHE schemes	48) Practical Measures/Hygiene Education (HE)
Establishment of overall MSE system for the water and sanitation sector on the basis of experiences gained, including field tested and agreed on indicators on coverage, functioning, use, hygiene practices, costs, cost recovery and ongoing development action.	Community continues self-evaluation process and informs the partners (programme holder, public administration and services) accordingly	49) Overall Monitoring & Evaluation

#### EXPECTED OUTPUT:

Hard data on overall project results (functioning, use financing, hygiene, ongoing development), integration of learnings into national training system, national monitoring system on key sector results (Steps 2-5 may be subject to separate project proposals and donor funding)



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This special edition on Community Participation and Hygiene Education in Water Supply and Sanitation, consists of 5 papers. Each paper is designed to be used separately.

1. **SUSTAINABILITY AND EFFECTIVE USE. The case for community participation and hygiene education in water supply and sanitation.** This paper summarizes important reasons for **CPHE**, clarifies its concept and conditions and highlights some achievements.
2. **PRACTICAL GUIDELINES FOR INTEGRATING CPHE INTO WATER AND SANITATION PROJECTS.** This paper addresses key components for **CPHE** and indicates practical tools to involve the community.
3. **TOOLS FOR INTEGRATING CPHE INTO WATER AND SANITATION PROJECTS.** This paper summarizes the tools referred to in paper number 2.
4. **INDICATORS FOR SUCCESS. CPHE in water supply and sanitation: How to measure progress and results?** This paper highlights indicators related to **CPHE** and addresses the establishment of a monitoring system.
5. **STRATEGY DEVELOPMENT FOR CPHE.** This paper reflects a strategy framework for the promotion of **CPHE** internationally as well as at national level of a given country.

These papers present the results of the international working group convened by GTZ in 1988 and 1989. Views and valuations expressed in these documents solely represent the opinions of the participants of the working group.

The here presented edition is considered as draft to be improved after applying and testing.



# SUSTAINABILITY AND EFFECTIVE USE

The case for community participation  
and hygiene education in water supply  
and sanitation

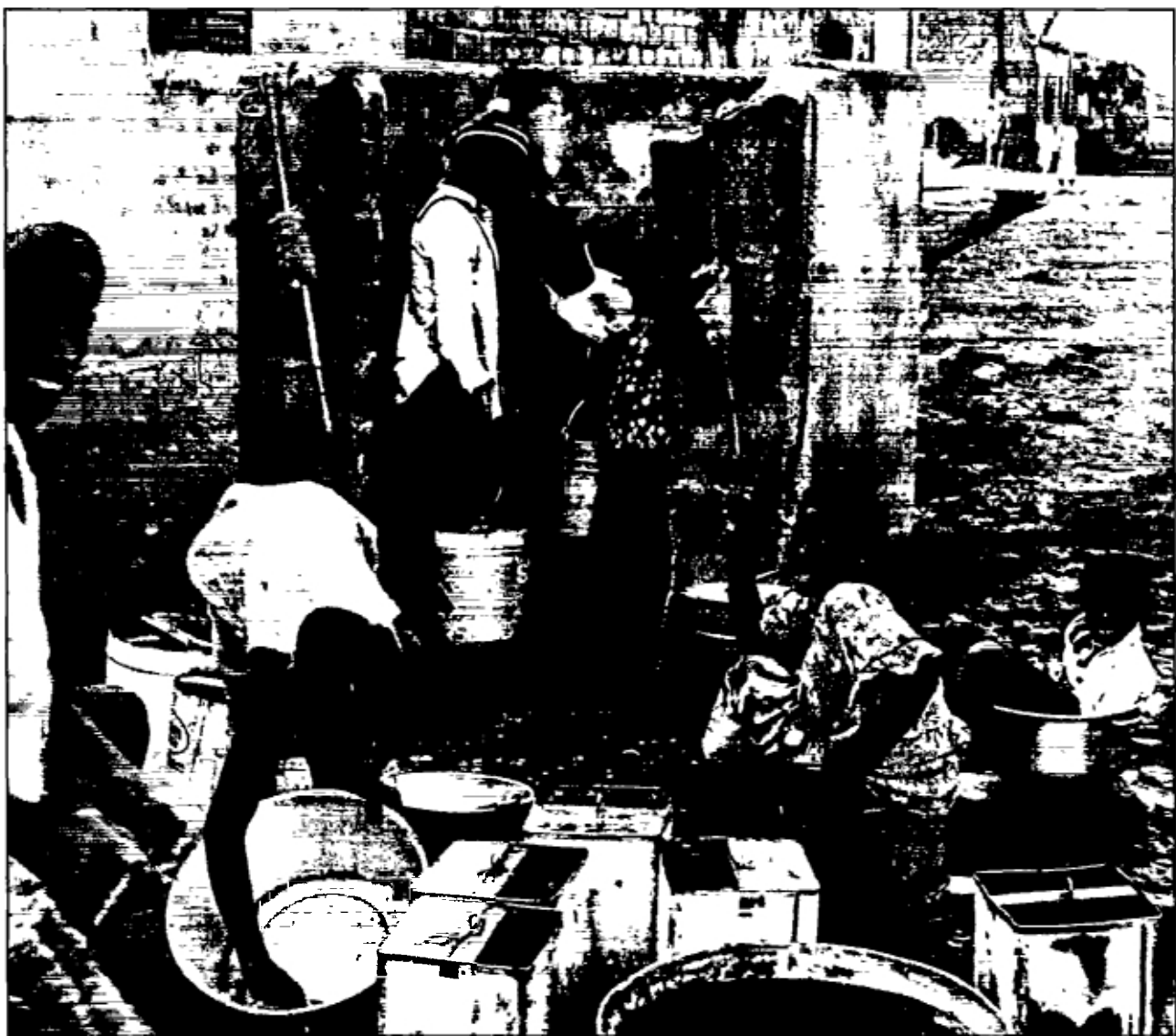
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CPHE

No. 1

Series

October 1989



COMMUNITY PARTICIPATION AND HYGIENE EDUCATION

# PAPERS PUBLISHED IN THE CPHE SERIES

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Only after applying and testing these papers can final versions be produced.



# **SUSTAINABILITY AND EFFECTIVE USE**

**The case for community participation and hygiene  
education in water supply and sanitation**

October 1989

# Foreword

One of the most prominent results of the International Drinking Water Supply and Sanitation Decade is the worldwide recognition of the need for community participation and hygiene education in sector programmes. The plan of action, formulated along similar lines at the Interlaken Consultation in 1987, was based inter alia on the premise that "project development must not only involve engineers but also technicians, health professionals, and social scientists, all of whom must interact with the potential beneficiaries as projects are designed and built." \*

With this understanding and to facilitate the cooperation between engineers, health professionals, social scientists and the community, the following 5 papers on Community Participation and Hygiene Education (CPHE) have been prepared. They can by no means replace the use of field manuals. They are designed for guidance and as a frame of reference in water supply and sanitation projects for

- national and international decision makers (Papers No. 1, 5)
- field managers of water supply and sanitation projects (Papers No. 2, 3, 4).

I would like to thank the following participants of the two working group meetings held in October, 1988 in Eschborn and in May, 1989 in The Hague for their active cooperation, the energy they have put into this venture and their willingness to share their experience and knowledge with others: Mr. P. Adhikary/Nepal; Dr. G. J. Astor/IMC; Ms. M. Cardenas/Paraguay; Mr. R. Ehrlich/FRG; Dr. W. Fischer/GTZ; Mr. F. Greiner/GTZ; Mr. J. D. Gubler/World Bank; Mr. I. Guhr/GTZ; Mr. P. Hirano/WHO; Mr. K. M. Jensen/DANIDA; Ms. N. Khattak/Pakistan; Mr. P. Kohorst/IMC; Mr. S. Kumarasiri/Sri Lanka; Ms. J. Kunguru/Kenya; Ms. M. P. Lefebvre/IMC; Dr. A. Merkle/GTZ; Ms. S. Melchior/PROWWES, Mr. A. Obser/University Konstanz; Mr. J. T. Visscher/IRC; Ms. Dr. E. Weinreben Nunn/Brazil; Ms. C. van Wijk-Sijbesma/IRC; Mr. A. Winnikes/KfW, and Ms. M. Yacoob/WASH.

\* Water and Sanitation: Toward Equitable and Sustainable Development, 1988 International Bank for Reconstruction and Development

As always, there are persons behind such undertakings who initiate processes like this and support it with advice and actions. Therefore, my thanks also go to Mr. M. Acheson/Who; Mr. A. Arlosoroff/World Bank; Mr. H. van Damme/IRC; Mr. D. Grey/World Bank; Mr. J. Kalbermatten; Mr. K. Kresse/GTZ, and Mr. E. Turner/WASH.

It is my sincere hope and expectation that this fruitful cooperation will continue among these colleagues as well as with new working group members so that the process of community participation and hygiene education will lead to sustainable projects and improved health of the target populations.

**Dr. K. Erbel**  
**GTZ/Head of Water Division**

# Summary

It is now generally recognized that water supply and sanitation projects should be based upon community participation and hygiene education, in order to ensure acceptance by the population and sustainability of the facilities.

**CPHE** is indispensable to help achieve:  
project sustainability  
user's acceptance  
effective use  
affordable solutions  
improved hygiene practices  
ongoing development action

Yet few people have the time and opportunity to read and make use of the wealth of instructive materials and research reports available on **CPHE**. Therefore, the attempt has been made here to identify basic components of community participation and hygiene education common to water supply and sanitation projects and to summarize them in 5 short and readable papers.

The series of papers was initiated by an international working group (annex1) convened by GTZ in November, 1988. In their first meeting the outline of the first four papers was defined. Then on the basis of materials provided by the group members, IMC and IRC prepared, commissioned by GTZ, the first drafts which were finalized in a second meeting in May, 1989. During the same meeting the fifth paper, on strategy development for **CPHE**, was produced through goal-oriented project planning.

The current document contains an introduction into the main elements of **CPHE**. It sets out what **CPHE** has done when it is well-designed and implemented and highlights the present stage of knowledge on its key aspects. Intended audiences are all those unfamiliar with **CPHE** who want to get a quick and practical summary on current **CPHE** knowledge and experiences. These include international policy-makers and funders, project formulators and decision-makers, project management and technical and social implementation staff.





**CPHE**

**No. 1**

**Series**

# **1. COMMUNITY PARTICIPATION AND HYGIENE EDUCATION**

## **WHY ARE THEY NEEDED?**

## WHY ARE THEY NEEDED?



### **WATER SYSTEMS NOT FUNCTIONING RELIABLY**

A survey in an East African country in 1983 showed that of the 259 newly established water points, 127 or 49% were not functioning at the time of visit, while 44 or 17 % were functioning poorly. Average duration of breakdowns was almost seven months. Many water supply and sanitation projects in rural and urban fringe areas are facing similar maintenance problems.

### **LATRINES NOT USED BY ALL**

As early as 1957, a project in Asia, India, found that over 30% of the latrines installed were not used. Most beneficiaries had sound reasons for this behaviour, such as lack of water for flushing and personal hygiene, and loss of meeting opportunities for women. Since then many more cases of non- and partial use of improved water supply and sanitation facilities have been recorded.

## **1. COMMUNITY PARTICIPATION AND HYGIENE EDUCATION**



### HYGIENE RISKS CONTINUING

Safe water and sanitation facilities in themselves do not ensure appropriate utilization. Water which was safe at the tap has often become recontaminated bacteriologically by the time it is used.

**Behaviours at the source, en-route and in households are as essential as the technical facilities themselves, if public health benefits are to emerge.**

## WHY ARE THEY NEEDED?

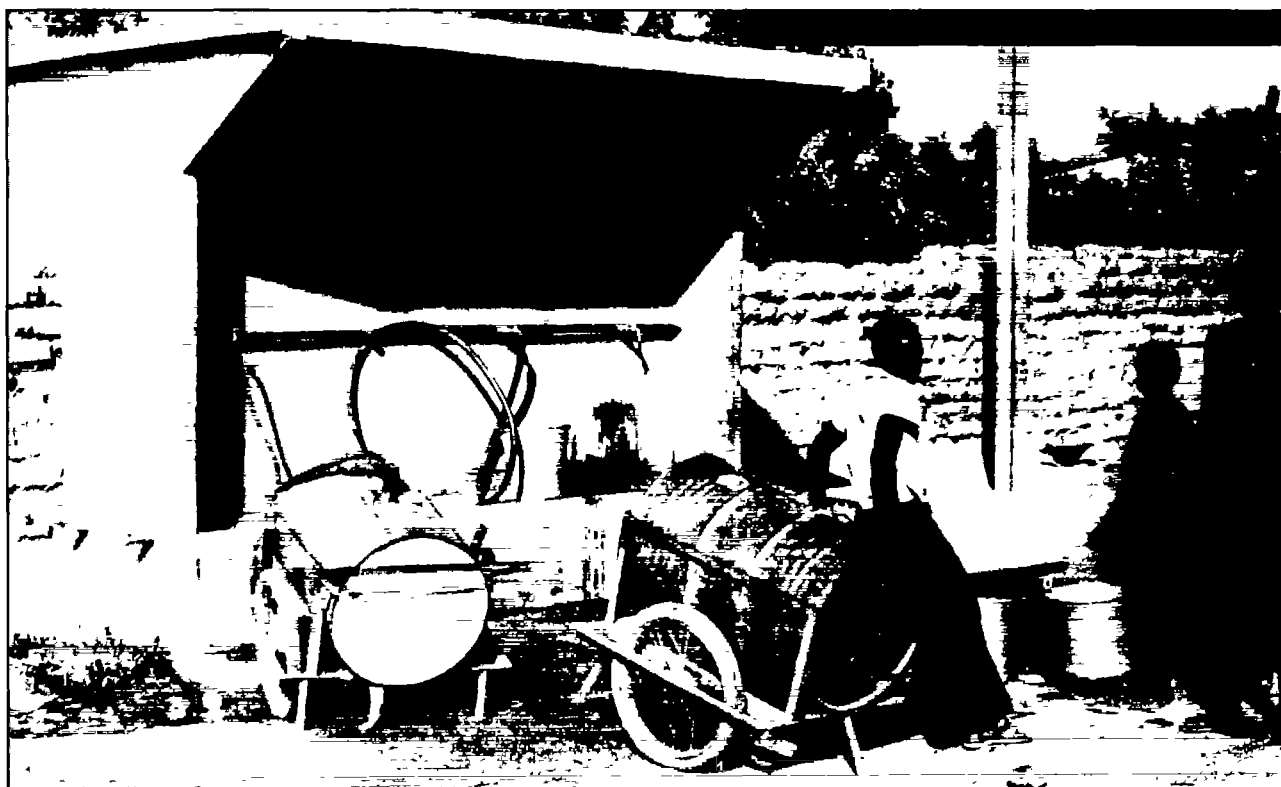


### **FREE SERVICES NOT AFFORDABLE**

Governments and donors are increasingly realizing that they cannot afford to provide full management and funding for all water supplies and sanitation facilities. There is increasing evidence that communities can be involved in finance and management if they have a say in deciding what services they will get and how they will manage them. On the other hand, the dangers of absolving governments and donors of all responsibility should be realized.

### **CHALLENGE OF LOW-INCOME URBAN AREAS**

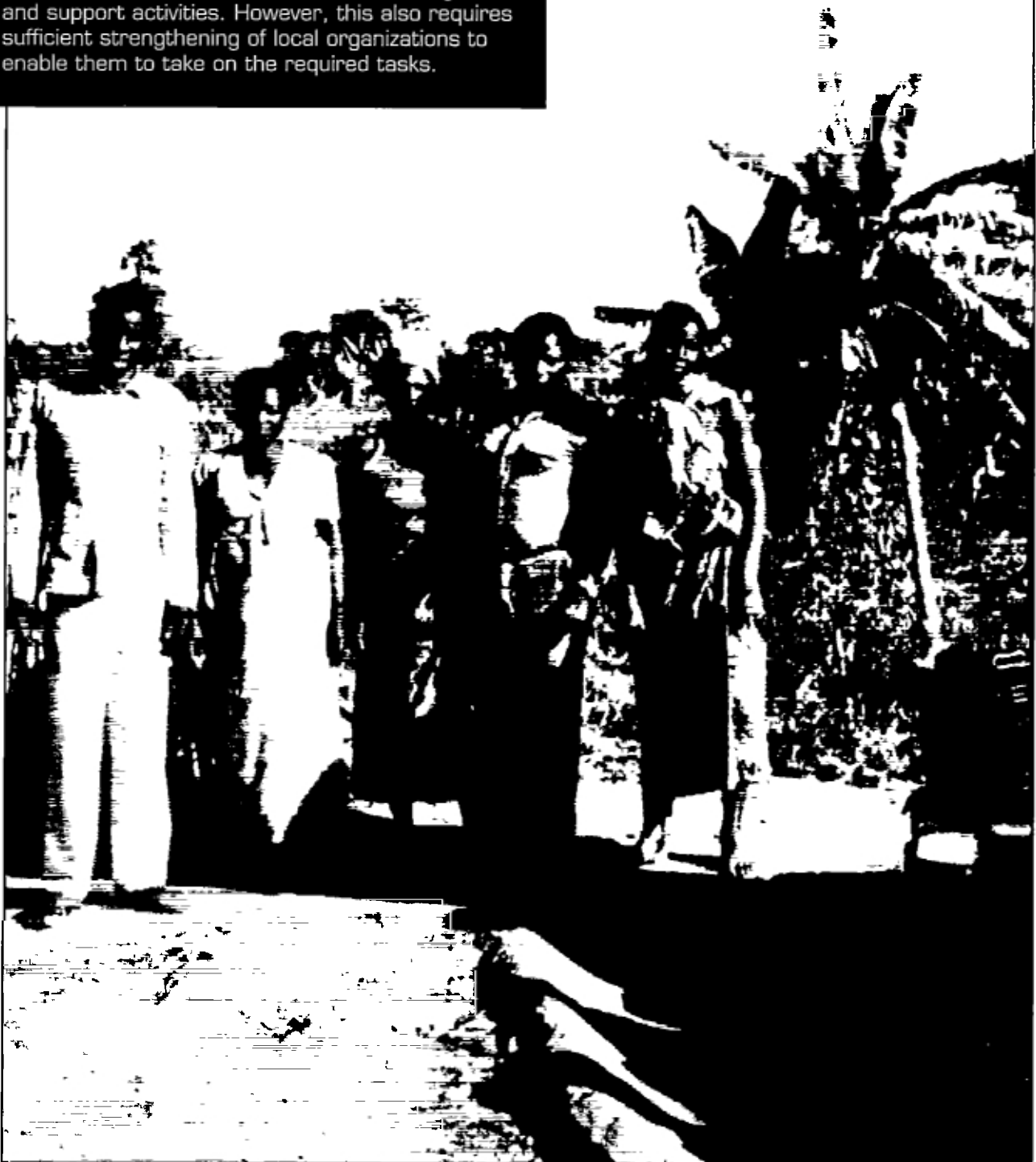
The sector faces remarkable challenges in urban and peri-urban areas. In 2000, half of the urban households will live in high-density, low-income urban neighbourhoods. Highly subsidized conventional services are unsustainable in these areas on a large scale. Creative solutions are therefore required which make full use of local resources and recognize the substantial contributions which low-income urban households make to national economies.



## **1. COMMUNITY PARTICIPATION AND HYGIENE EDUCATION**

## **INSTITUTION-BUILDING**

Involving communities in daily operation, maintenance and management of water, sanitation and hygiene means less overburdening of national agencies and frees them for broader managerial and support activities. However, this also requires sufficient strengthening of local organizations to enable them to take on the required tasks.





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## **2. COMMUNITY PARTICIPATION**

# **WHAT IS IT ALL ABOUT?**

## WHAT IS IT ALL ABOUT?



### **MORE THAN FREE CONTRIBUTIONS**

Participation is also not equal to free labour and financial contributions to construction and maintenance. Physical work and cash alone cannot create sustainable and reliable systems. Experience teaches that it is more important that users are well-informed and can make a realistic choice on what facilities and design they will use and how they will maintain, run and pay for services. Here, a Colombian project worker explains the pros and cons of different treatment systems to a group of community representatives.

## **2. COMMUNITY PARTICIPATION**



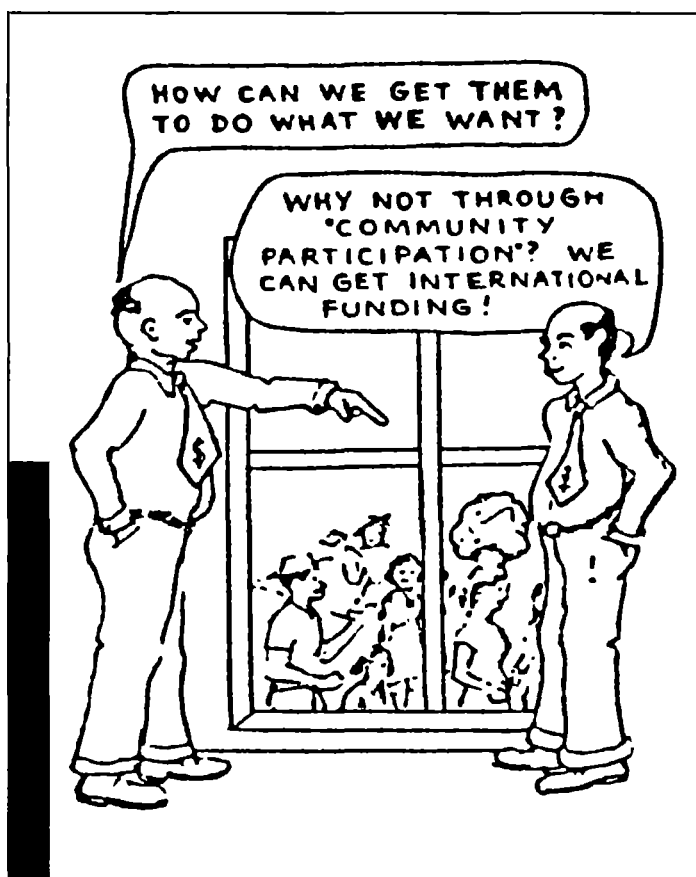


## VARYING DEGREE OF COMMUNITY CHOICE

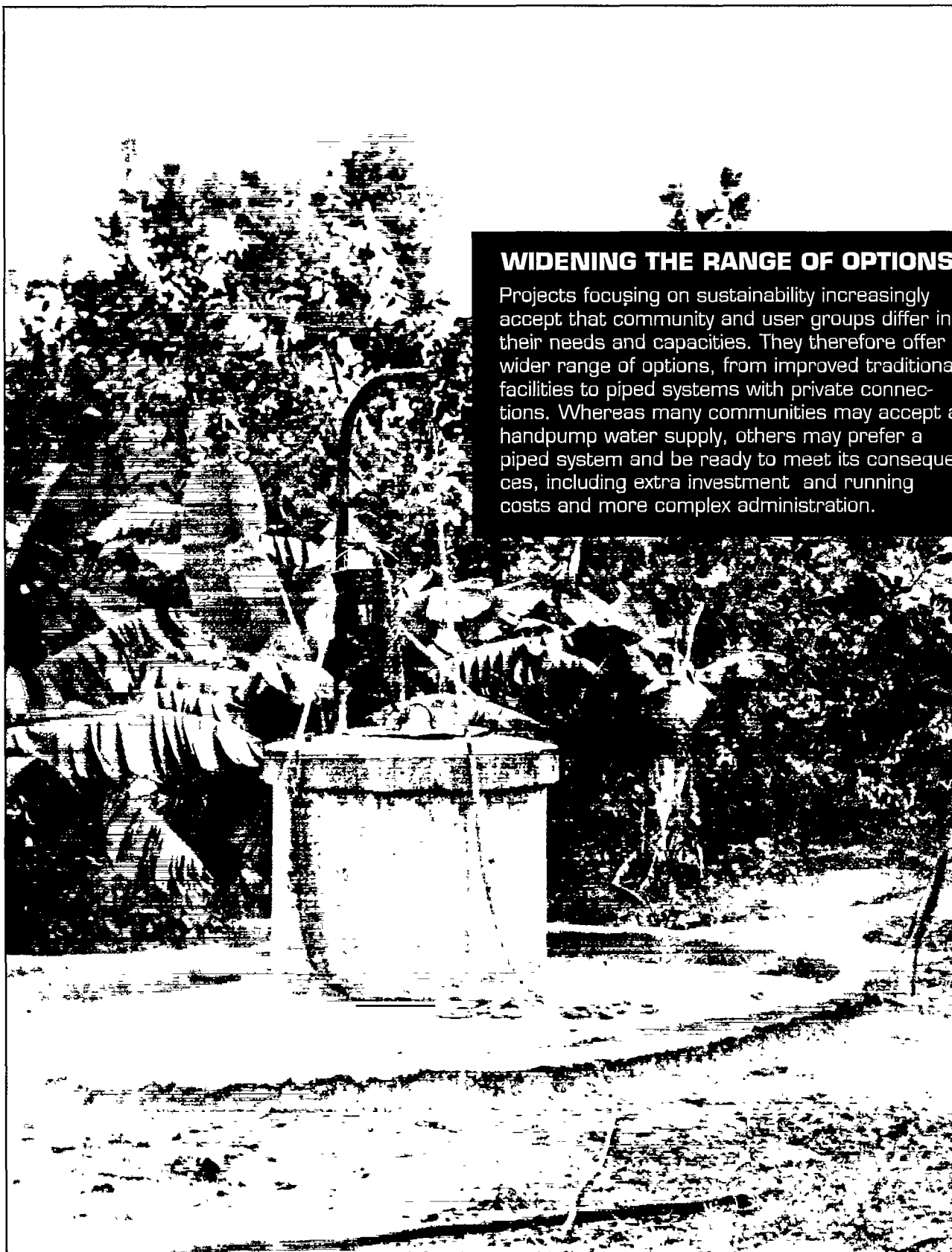
The more the community will have to do by itself later on, the more involvement in local planning, information and training will be required. Minimum involvement includes design and location of facilities, as these latrines in Bangladesh, selection and remuneration of caretakers, etc. Maximum choices include choice of technology and local hygiene improvements, level of services, type of administration and financing systems, implementation schedule, etc.

## A TWO-WAY COMMUNICATION PROCESS

Participation and education do not mean that the engineer and health educator decide what they want to be done and then "inform", "instruct", "motivate", "educate" the people what they should do. **Real participation and education is a partnership approach.** It involves sharing of information, consultation, discussion and negotiation, not imposing of externally developed ideas.



## WHAT IS IT ALL ABOUT?



### WIDENING THE RANGE OF OPTIONS

Projects focusing on sustainability increasingly accept that community and user groups differ in their needs and capacities. They therefore offer a wider range of options, from improved traditional facilities to piped systems with private connections. Whereas many communities may accept a handpump water supply, others may prefer a piped system and be ready to meet its consequences, including extra investment and running costs and more complex administration.

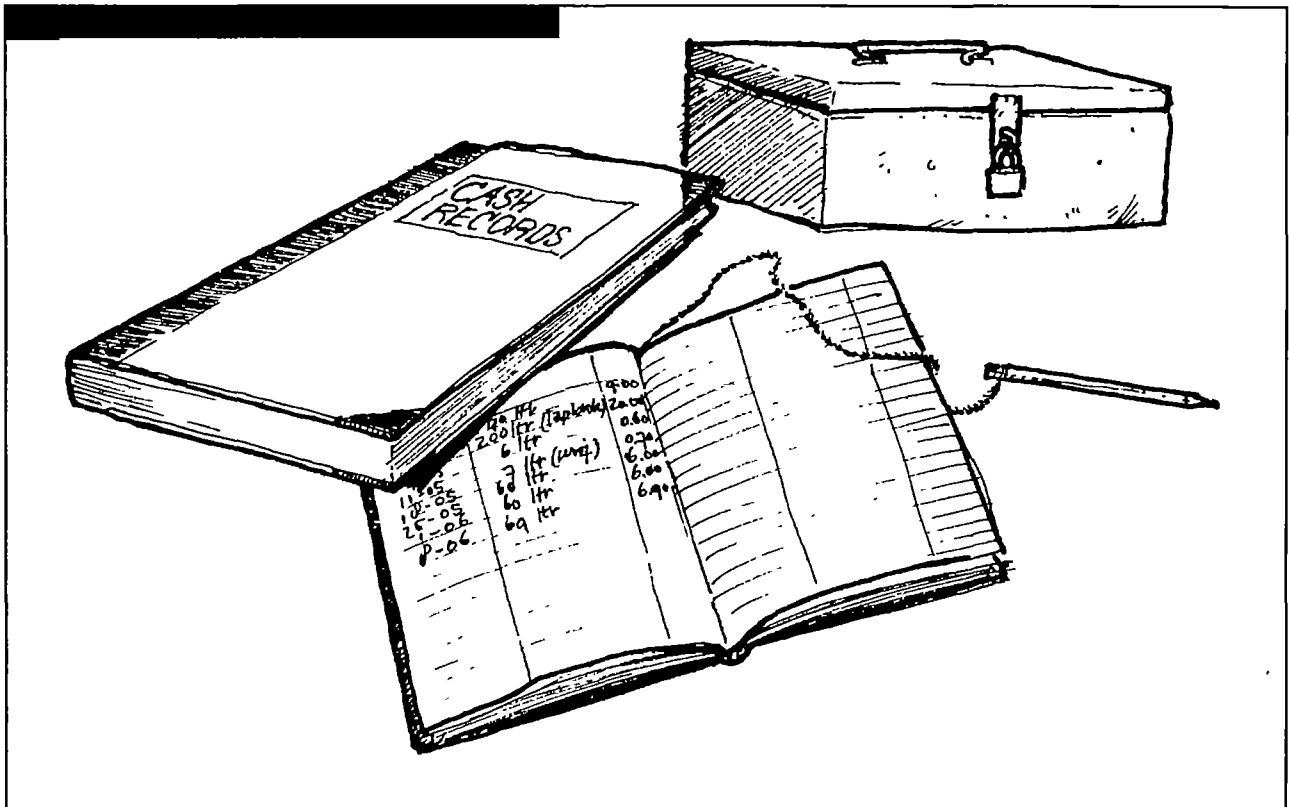
## 2. COMMUNITY PARTICIPATION

**RIGHT AGENCY INPUTS AND APPROACH**

Merely handing over complete schemes to local councils has proved not to work. Agency field staff need skills in communication, negotiation and adult education, in working with women, and in training villagers on technical and managerial tasks, such as simple budgeting and bookkeeping. Management staff need skills in integrated programme preparation and implementation, and in monitoring and evaluation of technical and social processes and results.

**COST-BENEFIT OF CPHE**

Good results in sustained functioning without interruption, use, cost coverage and hygiene can only be obtained with adequate inputs. Total costs of CP depend to a large extent on level of service installed and degree of community self-reliance required. Low-cost, community-managed projects initially require more CP than high-cost, agency-managed systems. On average, and when using national staff, around 15 % of investment costs of low-cost projects need to be reserved for CP. Development costs may require another 10 %. Cost savings, however, may be around 15 % in maintenance and 20 % in construction.





# **3. COMMUNITY PARTICIPATION**

## **WHAT CAN IT DO?**

## WHAT CAN IT DO?



### GETTING FACILITIES ACCEPTED AND USED

**People will not use and support facilities that do not meet their needs and capacities.** Projects must therefore consult the various user categories (men, women, rich, poor) on what they want, find out whether they are ready to contribute, inform them about the options and choices they have, and their costs and benefits, and then jointly with them develop the scheme, as here in Tanzania.



### REACHING MORE PEOPLE WITH SCARCE RESOURCES

Cost-savings from well-organized participation in construction vary from 4% for pumped systems to 40 - 60% for gravity systems and dug wells. In Orangi, Pakistan, participation and controlled management reduced construction costs by 60%. Average savings are around 20%. With another 15% saved on maintenance, and a recurrent CPHE cost of 15%, this leaves 20% more funds for new projects. Moreover, the option to pay partly in free labour has made private facilities such as yard connections and sanitary latrines more affordable to those with low incomes.

## 3. COMMUNITY PARTICIPATION



## **BETTER DESIGNS THROUGH LOCAL KNOWLEDGE**

**Local people have valuable knowledge of their physical and social environment.** Projects in Malawi, The Philippines and Guatemala have benefited from local knowledge in identifying technically and culturally acceptable water sources, in making wise choices on candidates for training in local maintenance and management, in designing appropriate local financing systems, etc.

## WHAT CAN IT DO?

### BETTER MAINTENANCE AT LOWER COST

Obtaining better maintenance results is possible with good quality community involvement during planning and implementation and with reliable support services, e.g. for distribution of spare parts. In Benin the training of villagers in local maintenance and management of handpump wells reduced agency costs by 18%. In Mexico an OECD study found 47% of systems without participation out of order, against 25% of systems with participation.

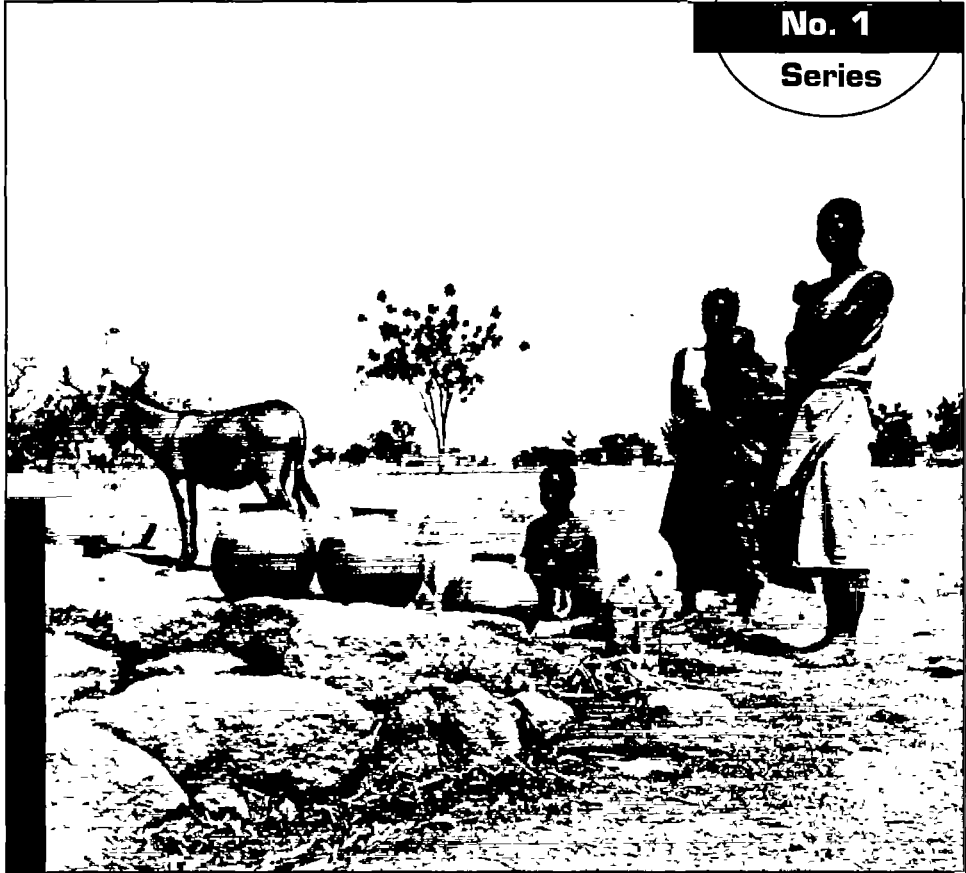


### 3. COMMUNITY PARTICIPATION



## **MORE EQUITABLE SERVICES**

Poor people often get services last and pay the highest price, unless they are actively involved in planning decisions and their interests are guarded in service management. Otherwise, high-income families, who are more able and ready to pay for a good latrine, get the same subsidy as lower-income families. Flat water rates also favour higher income households. They usually have more items to wash, vessels and servants for water collection and cattle and gardens to water for a domestic or economic profit, yet they often pay the same water price.



## **STIMULATION OF OTHER DEVELOPMENT**

Joint problem analysis and identification of suitable solutions in water, sanitation and hygiene not only prepares communities for similar problem solving in maintenance, management and financing. It has also stimulated the initiation of projects in other development fields. These Kenyan women started tree nurseries for reforestation of catchment areas. A 10 to 50 percent higher completed immunization rate was achieved in areas with participatory water projects in Malawi, Togo and Indonesia.



# CASE ANALYSIS

## PEOPLE AND PUMPS IN KENYA

*Two earlier projects in the area had resulted in broken pumps on drilled wells so that they could no longer be used. As a result, the people of Kwale district did not have much confidence in a new water project. This project was different, however. It started with a two-year pilot period in 1983. Ninety nine pumps serving 21,000 people were installed and tested for village maintenance by 29 trained villagers, both men and women.*

*At first, participation was organized by field technicians without training on the socio-cultural aspects of their work. They set off energetically and created 30 water committees in one month. However, the committees proved unsuccessful, as they were not based on the social organization of the area, were dominated by larger landowners and were not clear about their tasks.*

*Applied social research requested by the project manager resulted in a reorganized CP programme. Two sociologists and 5 women extension workers were engaged, who helped the villages to elect more suitable water committees, choose caretakers, establish maintenance funds and train villagers for maintenance and use.*

*After two years and the first promising results the project was expanded. Two more ministries were involved at this stage with formal responsibility for hygiene education and community organization. Technology choices were expanded to include springcapping, rainwater storage and small dams. This complicated the project and stronger management was needed to continue the intergrated participatory approach. Now, two years later, 146 new handpump wells*

*have been installed, 23 springs capped, 17 rain-watertanks built, 1 dam made and 96 demonstration latrines constructed. Estimated cost for CPHE is 15% of total project expenditure.*

*The 125 water committees have all established maintenance funds and collect water rates. All have women treasurers, and 88 have opened a separate bank account. After 2 to 4 years, all pumps are working and many committees have repaired their pumps. Annual maintenance costs for the water agency have been reduced by almost half, from Ksh. 1,112 to Ksh. 608 per pump. Although a causal relationship is hard to prove and requires more data on changes in water use patterns, the cards of the local health clinic show a 70% decline in diarrhoea and skin diseases for 1985 - 1987.*

## **COMMUNITY-MANAGED SANITATION IN THAILAND**

*Interest in sanitation in Thailand has a long history. First progress dates from 1917 to 1928, when a mass latrine campaign resulted in 26% latrine coverage. But results faded away when the campaign ended. Government officials then started compulsory latrine construction, but with opposite effects. A survey of 7,000 households showed that only 0.7% owned and used latrines. In 1960 the Village Health and Sanitation Project was initiated by a dedicated Thai doctor with a long experience in rural villages. The project was backed up by a national sanitation policy. It started in the poorest part of the country with successful pilot experiments with a low-cost, yet culturally acceptable type of latrine.*

*At village level, 2,500 (now: 9,000) Village Health Workers were trained in latrine slab ma-*

*king and provided with the necessary inputs and a budget of 10,000 Baht to set up slab production. Villages got 5,000 - 10,000 Bath to set up a village revolving fund. Individual families can borrow money from this fund to build an improved latrine and pay back their loans after the harvest.*

*Village leaders are trained on sanitation and sanitation-financing, village meetings are organized, local inventories of sanitary conditions made with the villagers, and sanitation committees are set up and trained. At higher levels, government staff is briefed on the programme and trained on monitoring and supervision. Technical support is given by provincial mobile teams manned by young sanitation engineers. Every three months, construction progress is reported. Latrine maintenance*

*and use are not monitored so far.*

*In 1966, latrine ownership had risen from 12,000 to 365,000, an increase of almost 600%. In 1971, latrine coverage was 22%, in 1986 50%. At the current growth of 2% per year, every rural household will own a latrine by the year 2,000. Limited field visits and discussions with key officials indicate that use of latrines and hygiene behaviour are still unsatisfactory. These require a change in the health education strategy from general mass media messages to more personal, locally specific and target-group oriented programmes. Although no direct health impact can be proved, better sanitary conditions are reflected in the reduced mortality from gastro-intestinal diseases: from 44% in 1962 to 7% in 1981.*



## **4. WOMEN'S INVOLVEMENT...**

**...WHAT'S THE DIFFERENCE?**

## WHAT'S THE DIFFERENCE?



### **ACTIVE PLANNERS AND CHANGE AGENTS**

The only way in which women are often involved in water and sanitation projects is as passive beneficiaries. This underestimates their capacities to plan and change their own environment and leaves 50% of village resources unused. **Women will strongly support the installation and maintenance of improved water supply and sanitation facilities, provided projects inform and involve them from the start.**

### **INVOLVEMENT IN DECISION-MAKING**

**As main users and managers, it is the women who decide whether they will use a new tap, handpump or latrine, and educate the children on their use.** In planning and design, and in evaluations, they are the best source of information on the appropriateness of the new provisions. Here Zambian women discuss the location of new taps and the design, maintenance and financing of a laundry facility

## **4. WOMEN'S INVOLVEMENT...**

## TRADITIONAL PRACTICES AND NETWORKS

Women often practice some form of maintenance and management of traditional water sources. Projects can benefit from and build on this experience. Similarly, women often have sound ideas and practices on water use and hygiene and have networks of cooperation with other women as here in Tongo: These make good starting points for the necessary hygiene improvements such as protected water storage. When ideas or practices are wrong, there is usually a good reason for it which women can tell you about.

**CPHE**

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## WHAT'S THE DIFFERENCE?

### MOTIVATED ADMINISTRATORS AND TREASURERS

Experiences with community-run water supplies show that where women are active members of a water committee they make special efforts in problem solving, especially on fee collection and financing of repairs. The most frequently reported position of women on water committees is that of treasurers. Training in bookkeeping and management is a wish frequently expressed in women's meetings, such as here in Shinyanga, Tanzania.

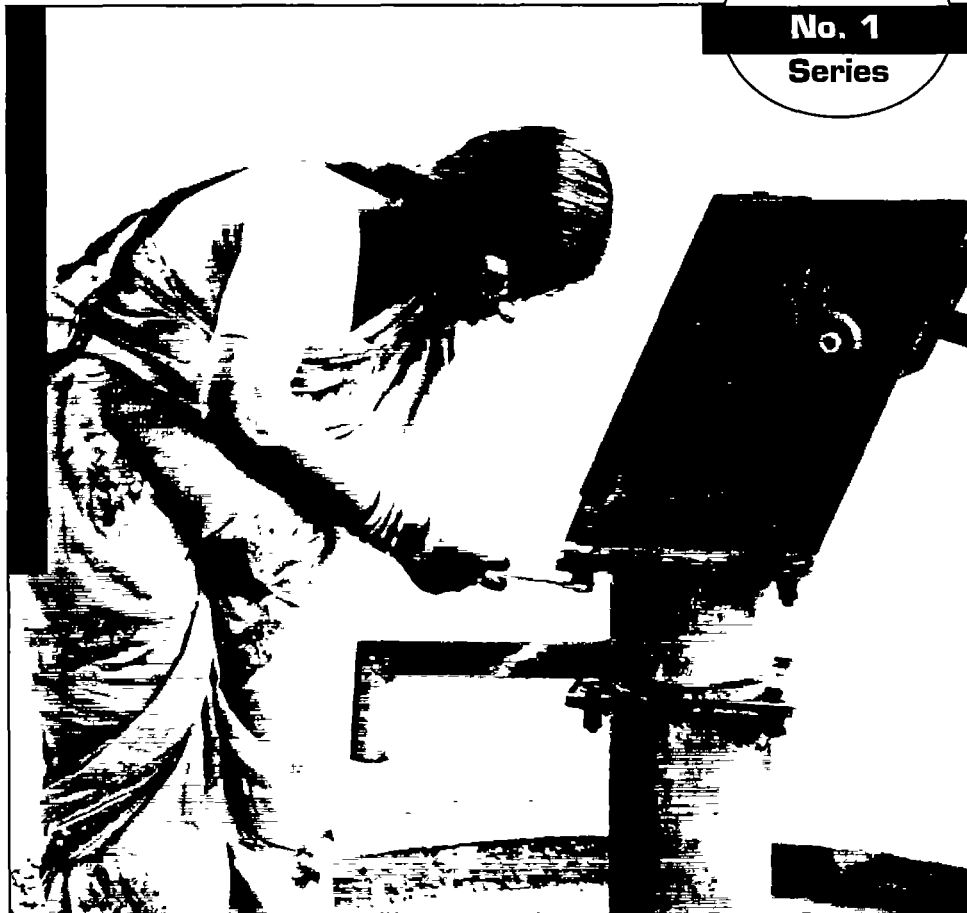


## 4. WOMEN'S INVOLVEMENT...



## **EXCELLENT MAINTENANCE WORKERS**

Women depend on a good water supply and visit taps or pumps every day. This often makes them excellent maintenance workers. Daily maintenance of household latrines is also done or directed by women. Evaluation of the work of women caretakers in Bangladesh gave a reported breakdown of only 3.3% and an 11% better site hygiene than at pumps maintained by men. Further and better monitoring of women's involvement should show the effects on long-term pump performance and design life.



## **ONGOING DEVELOPMENT EFFORTS**

When implemented as participatory development projects, water and sanitation improvements can stimulate new development action. Women in Iringa, Tanzania, have built and maintain this communal bathing enclosure near a public tap. They can now bathe and wash children more frequently with less efforts. More washing reduces skin and eye diseases. They can use time savings for rest or other purposes, such as cooking, weeding and harvesting.





**CPHE**

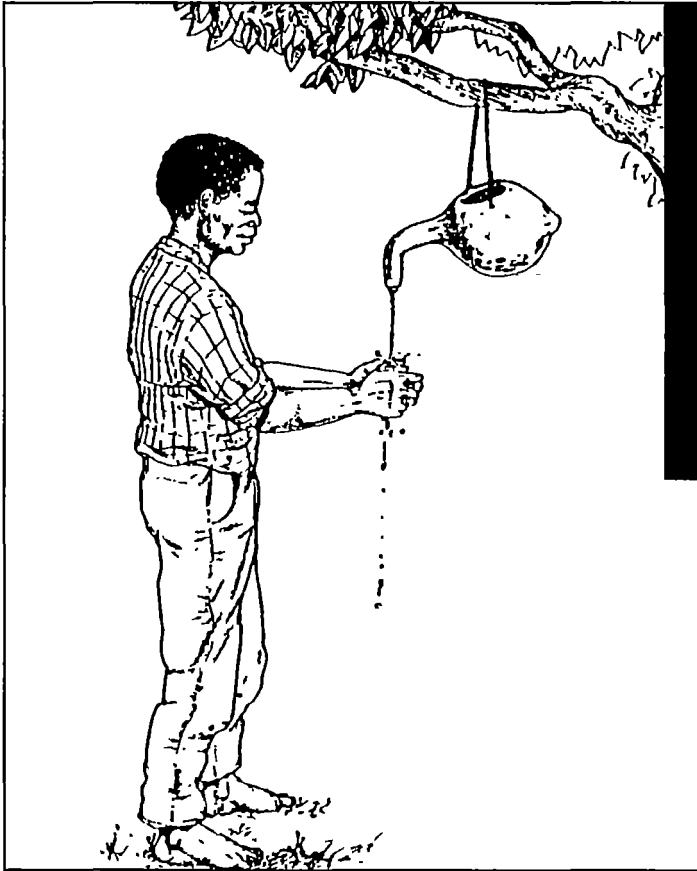
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**5. HYGIENE  
EDUCATION...**

**...AN ESSENTIAL  
SUPPLEMENT**

## AN ESSENTIAL SUPPLEMENT



### IMPROVING HYGIENE PRACTICES

Participation helps to ensure that new water and sanitation facilities are adopted, maintained and used. But improved facilities alone do not ensure changes in hygiene behaviour. Hygiene education helps users adopt better hygiene practices, such as safe collection, storage and drawing of drinking water and more handwashing. New water and sanitation facilities provide a unique opportunity to discuss existing hygiene practices and identify areas for improvement.

### NEED TO UNDERSTAND LOCAL CONDITIONS

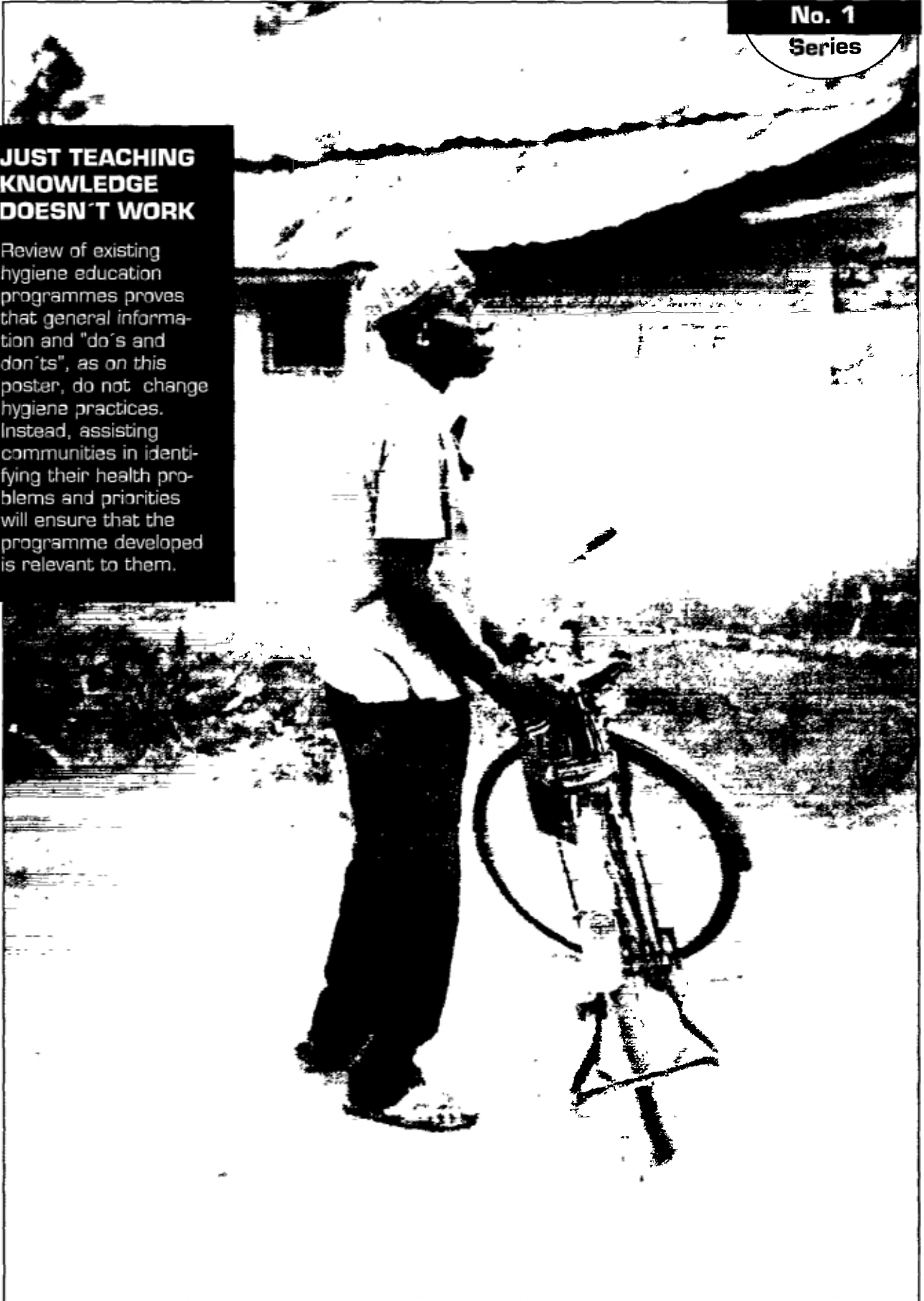
**Hygiene education programmes must be early linked to specific target groups.** Each of these groups has its own interests, resources and needs. This female programme officer meets with local women to learn more about their hygiene practices and the underlying reasons and the main health and hygiene problems in their area.



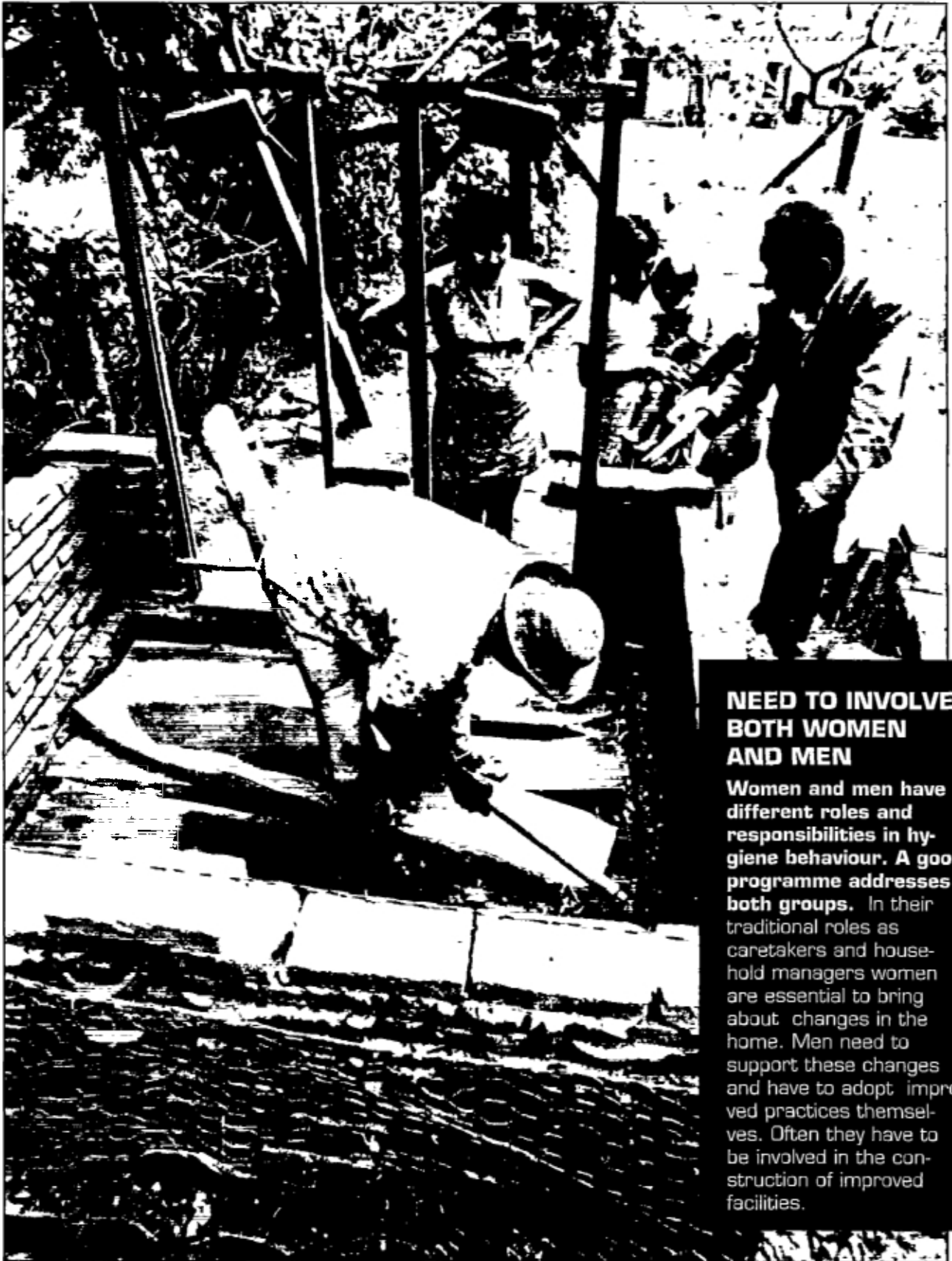
## 5. HYGIENE EDUCATION...

## **JUST TEACHING KNOWLEDGE DOESN'T WORK**

Review of existing hygiene education programmes proves that general information and "do's and don'ts", as on this poster, do not change hygiene practices. Instead, assisting communities in identifying their health problems and priorities will ensure that the programme developed is relevant to them.



## AN ESSENTIAL SUPPLEMENT



### **NEED TO INVOLVE BOTH WOMEN AND MEN**

Women and men have different roles and responsibilities in hygiene behaviour. A good programme addresses both groups. In their traditional roles as caretakers and household managers women are essential to bring about changes in the home. Men need to support these changes and have to adopt improved practices themselves. Often they have to be involved in the construction of improved facilities.

## **5. HYGIENE EDUCATION...**

## PARTICIPATORY HYGIENE EDUCATION

In this scene a local community is identifying and defining its own problems. Community members then help plan and implement their own hygiene education and action programme. This participatory approach to hygiene education makes full use of people's own capacities and helps them to set and attain their own goals. It may also provide a very good entry for the wider issue of health education.



## SCHOOL HYGIENE EDUCATION

**School children are important change agents.** Local schools provide challenging opportunities for hygiene improvement. Practical lessons in class and on site bring basic knowledge and skills. Improvement of school sanitation and hygiene conditions is often an urgent need in which teachers, students and parents can play a part. Increasingly schools take part in community programmes, e.g. plays, clean-up campaigns and inventories of hygiene conditions in public places and at home.



# CASE ANALYSIS

## WOMEN IN PANAMA'S RURAL WATER SUPPLY

*A rural water supply programme in Panama was implemented to provide piped water to villages with 250 to 500 residents. The installation of piped water systems was carefully planned to enlist participation of community residents and increase their commitment to maintain the systems.*

*In 1982 a team of USAID evaluated the programme. A 5% random sample was taken of 26 out of 562 piped water systems which had been in operation since 1980. In the evaluation views of women were specifically sought as they are the main users of the water supply system. Two or three women were interviewed in each community. All project communities had at least one woman on the water committee. This water committee was established as a sub-committee*

*of the community health committee. Women often had initiated the village water project and had participated in construction by carrying sand and preparing food for labourers. They were found to have important roles in maintenance. In several communities with fee collection problems women emerged as local leaders and collected water fees and initiated repairs.*

*The projects were reported to have reduced time and efforts in water collections for women. Sometimes they also had reduced risks to safety of children. The women said they used the time savings for child care, household work, income-generating activities and rest. Water use had increased and many women wanted more water for earning extra income from horticulture and raising small livestock.*

*The latter finding is reconfirmed by similar evaluations in Guatemala, Mexico, India, Kenya and Thailand. These show that where women have opportunities for productive water and time use and marketing of their products, profits are partly used for payment of water rates and domestic hygiene improvements.*

### **HYGIENE EDUCATION TO REDUCE DISEASE TRANSMISSION RISKS**

*Hygiene communication started in 1981 in the Honduras Rural Water and Sanitation Project PRASAR. The specific objectives of this component were: to change at least four user practices, to train all in-service health promoters, to develop participatory methods,*



**HYGIENE EDUCATION TO REDUCE  
DISEASE TRANSMISSION RISKS**

*and to introduce health communication in at least one school in each community in the project area in which over 80,000 people were living. The project also included training of counterparts in planning and management and evaluation of a new health communication methodology.*

*The four practices which the project was stimulating in a participatory way were:*

- *appropriate covering of drinking water vessels in the house to avoid contamination;*
- *drawing water from storage vessels whilst avoiding direct hand contact with the water;*
- *use of latrine covers and ensuring a clean latrine;*
- *financial contribution to the maintenance of the water supply system.*

*After initial training the in-service health promoters organized group sessions in the project communities. They used flipcharts, wall-charts and photono-vels to stimulate dialogue and to generate community participation to solve local water and sanitation problems. The project staff also designed a series of modules for primary schools on the effect of water supply and sanitation on health. What was taught in school was also discussed in group meetings and broadcasted on the radio and repeated in the printed media. Evaluation after four years in 520 families showed that 75% of the target group had put into practice two or more of the recommended four basic practices. Particularly the use and cleanliness of latrines was promising. The most difficult practice to be introduced proved to be*

*the avoidance of direct hand contact with the water whilst drawing it from the storage vessel. Only 40% had adopted this practice.*

*The training of the promoters proved to be very challenging as it made the promoter's approach to the community much more participatory. This training strategy is now adopted by the Ministry of Health for its own programmes, and several other water and sanitation projects have adopted the PRASAR educational model for their field work. This project clearly shows that behavioural change can be brought about by hygiene education and creative approaches can help organizations to break out of the traditional training mould.*



**PARTICIPATING ORGANIZATIONS IN THE  
INTERNATIONAL WORKING GROUP CPHE****PARTICIPANTS****1st Meeting October 17 - 18, 1988 at GTZ**

GTZ, IMC, IRC, KfW, UNDP/PROWESS,  
University of Konstanz, WB, WHO

**2nd Meeting May 8 - 12, 1989 at IRC**

DANIDA, GTZ, IMC, IRC, KfW,  
PROWESS/UNDP, WASH, WB  
Ms. M. Cardenas, Mr. R. Ehrlich, Ms. N. Khattak,  
Mr. S. Kumurasiri, Ms. Dr. E. Weinreben Nunn

**CORE GROUP**

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# PRACTICAL GUIDELINES

For Introducing Community Participation  
and Hygiene Education into Water  
and Sanitation Projects

DRAFT

CPHE

No. 2

Series

October 1989



COMMUNITY PARTICIPATION AND HYGIENE EDUCATION

# PAPERS PUBLISHED IN THE CPHE SERIES

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- 1. SUSTAINABILITY AND EFFECTIVE USE. The case for community participation and hygiene education in water supply and sanitation.** This paper summarizes important reasons for **CPHE**, clarifies its concept and conditions and highlights some achievements.
- 2. PRACTICAL GUIDELINES FOR INTEGRATING CPHE INTO WATER AND SANITATION PROJECTS.** This paper addresses key components for **CPHE** and indicates practical tools to involve the community.
- 3. TOOLS FOR INTEGRATING CPHE INTO WATER AND SANITATION PROJECTS.** This paper summarizes the tools referred to in paper number 2.
- 4. INDICATORS FOR SUCCESS. CPHE in water supply and sanitation: How to measure progress and results?** This paper highlights indicators related to **CPHE** and addresses the establishment of a monitoring system.
- 5. STRATEGY DEVELOPMENT FOR CPHE.** This paper reflects a strategy framework for the promotion of CPHE internationally as well as at national level of a given country.

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# **PRACTICAL GUIDELINES**

**For Introducing Community Participation  
and Hygiene Education into Water  
and Sanitation Projects**

October 1989

# Foreword



One of the most prominent results of the International Drinking Water Supply and Sanitation Decade is the world-wide recognition of the need for community participation and hygiene education in sector programmes. The plan of action, formulated along similar lines at the Interlaken Consultation in 1987, was based inter alia on the premise that "project development must not only involve engineers but also technicians, health professionals, and social scientists, all of whom must interact with the potential beneficiaries as projects are designed and built ." \*

With this understanding and to facilitate the cooperation between engineers, health professionals, social scientists and the community, the following 5 papers on Community Participation and Hygiene Education (CPHE) have been prepared. They can by no means replace the use of field manuals. They are designed for guidance and as a frame of reference in water supply and sanitation projects for

- national and international decision makers (Papers No. 1, 5)
- field managers of water supply and sanitation projects (Papers No. 2, 3, 4).

I would like to thank the following participants of the two working group meetings held in October, 1988 in Eschborn and in May, 1989 in The Hague for their active cooperation, the energy they have put into this venture and their willingness to share their experience and knowledge with others: Mr. P. Adhikary/Nepal; Dr. G. J. Astor/IMC; Ms. M. Cardenas/Paraguay; Mr. R. Ehrlich/FRG; Dr. W. Fischer/GTZ; Mr. F. Greiner/GTZ; Mr. J. D. Gubler/World Bank; Mr. I. Guhr/GTZ; Mr. P. Hirano/WHO; Mr. K. M. Jensen/DANIDA; Ms. N. Khattak/Pakistan; Mr. P. Kohorst/IMC; Mr. S. Kumarasiri/Sri Lanka; Ms. J. Kunguru/Kenya; Ms. M. P. Lefebvre/IMC; Dr. A. Merkle/GTZ; Ms. S. Melchior/PROWWES, Mr. A. Obser/University Konstanz; Mr. J. T. Visscher/IRC; Ms. Dr. E. Weinreben Nunn/Brazil; Ms. C. van Wijk-Sijbesma/IRC; Mr. A. Winnikes/KfW, and Ms. M. Yacoob/WASH.

\* Water and Sanitation: Toward Equitable and Sustainable Development, 1988 International Bank for Reconstruction and Development

As always, there are persons behind such undertakings who initiate processes like this and support it with advice and actions. Therefore, my thanks also go to Mr. M. Acheson/WHO; Mr. A. Arlosoroff/World Bank; Mr. H. van Damme/IRC; Mr. D. Grey/World Bank; Mr. J. Kalbermatten; Mr. K. Kresse/GTZ, and Mr. E. Turner/WASH.

It is my sincere hope and expectation that this fruitful cooperation will continue among these colleagues as well as with new working group members so that the process of community participation and hygiene education will lead to sustainable projects and improved health of the target populations.

**Dr. K. Erbel**  
**GTZ/Head of Water Division**

# Summary

It is now generally recognized that water supply and sanitation projects should be based upon community participation and hygiene education, in order to ensure acceptance by the population and sustainability of the facilities.

**CPHE** is indispensable to help achieve:  
project sustainability  
user's acceptance  
effective use  
affordable solutions  
Improved hygiene practices  
ongoing development action

Yet few people have the time and opportunity to read and make use of the wealth of instructive materials and research reports available on **CPHE**. Therefore, the attempt has been made here to identify basic components of community participation and hygiene education common to water supply and sanitation projects and to summarize them in 5 short and readable papers.

The series of papers was initiated by an international working group (annex1) convened by GTZ in November, 1988. In their first meeting the outline of the first four papers was defined. Then on the basis of materials provided by the group members, IMC and IRC prepared, commissioned by GTZ, the first drafts which were finalized in a second meeting in May, 1989. During the same meeting the fifth paper, on strategy development for **CPHE**, was produced through goal-oriented project planning.

The current document addresses key components for CPHE. The document follows the seven phases of water supply and sanitation projects identified by the Working Group on **CPHE**:

Phase	I:	Sensitization
Phase	II:	Project Identification
Phase	III:	Project Formulation and Approval
Phase	IV:	Project Planning and Organization
Phase	V:	Project Implementation
Phase	VI:	Project Consolidation
Phase	VII:	Evaluation and Follow-up

The preparatory activities on national and international level are described in project phases I - III. Each phase is subdivided into several steps. The main actors in these phases of the projects are governments, donor agencies and national and expatriate experts/planners.

The phases IV - VII, dealing with field activities of the project, are presented in the form of a synopsis of project activities, basic **CPHE** components and corresponding tools for each step of implementation. Main actors in these phases are the community, the local services, the public administration and the project holder, supported by expatriate project implementers.

The tools indicated for each project step refer to **CPHE** Paper 3, in which these tools are given in detail.

A Poster, showing all project phases in an overview, is attached to these "Practical Guidelines".

# **PROJECT PHASE I: SENSITIZATION**

## **STEP I: Verification of Government and Donor Policies**

Before starting the execution of a participatory water and sanitation project, it is necessary to verify if the CPHE approach is recognized as a national strategy in the respective country. The implementing agencies of water / sanitation / hygiene education projects have to accept that CPHE is a partnership approach and requires changes in project organization and implementation procedures from all partners (technical / social / health services / administration / communities). Consensus on and formal adoption of main aspects of operationalization of CPHE must be stated by the government and the implementing agencies.

### **TOOLS:**

- 1) Government and Donor Commitment**
- 2) National Government Commitment to CPHE**



## **STEP 2: Analysis of CPHE Experiences**

The analysis of experiences in CPHE gathered by governmental and non-governmental organizations will help to confirm the formal recognition of CPHE as an essential strategy for sustainable water and sanitation projects. The use of field experience will show the adaptation and operationalization of the sector policy and clarify the sector strategies.

### **TOOLS:**

- 3) CP Conditions for Success**
- 4) CP Capacity Assessment Criteria**
- 5) A New General Approach to Development Projects**



## **PROJECT PHASE II: PROJECT IDENTIFICATION**

### **STEP I: Project Area Identification**

Project identification starts with the identification of the areas with needs of improved water supply and/or sanitation. This identification includes regional criteria as well as demographic and health criteria of the population taken from national statistics and/or national masterplans. Here it must be taken into account whether the communities concerned have been involved in preliminary project area identification.

#### **TOOLS:**

##### **6) BMZ "Sector Paper" (Extract)**

### **STEP 2: Pre-Appraisal Mission**

A multidisciplinary team, including technical, socio-economic and health/hygiene experts has to be established to execute a visit to the proposed project area. The tasks of this pre-appraisal mission include the analysis of needs and potentials of the services, the communities and the population for CPHE, what agencies will implement the project, what experiences/organizational capacities for low-cost water and sanitation technologies and CPHE exist in the area and how men/women/children will participate in the project.

#### **TOOLS:**

##### **7) Topics of a Pre-Appraisal Mission**



### **STEP 3: Preliminary Project Proposal**

On the basis of the results of the pre-appraisal mission, preliminary discussions between government and donor representatives concerning an integrated and participatory project approach have to be held, and a preliminary project proposal defining in broad terms the type of project, its goals and its components (water supply/sanitation/community participation/hygiene education/roles of women) has to be developed.

#### **TOOLS:**

#### **8) Preliminary Project Proposal**

### **STEP 4: Funding Request**

A request to fund the proposed project including CPHE measures has to be elaborated and submitted to funding agencies. Flexible funding of community related activities has to be taken into account.

#### **TOOLS:**

#### **9) Flexible Funding**

## **PROJECT PHASE III: PROJECT FORMULATION AND APPROVAL**

### **STEP 1: Feasibility Study Team**

Project formulation is the main task of the feasibility study. To implement the feasibility study, a multi-disciplinary feasibility study team including national and external experts of different disciplines (technical, socio-economic, health) and also female experts has to be established and the Terms of Reference including CPHE have to be elaborated for the execution of the feasibility study.

#### **TOOLS:**

##### **10) Feasibility Study Example**



### **STEP 2: Implementation of Feasibility Study**

The feasibility study has to be executed according to the Terms of Reference. The study has to deal with technical aspects, socio-economic aspects, health and hygiene related aspects, institutional and training aspects. The study has to include all sector-related national experience gathered as well as the needs and capacities of all institutions and organizations involved at all levels. Data collection comprises also detailed information on the needs and capacities expressed by the target population.

#### **TOOLS:**

##### **11) Topics of the Feasibility Study**

### **STEP 3: Project Appraisal**

On the results of the feasibility study, the appraisal has to be executed concerning the following questions: will the project meet the needs and capacities of different user groups, especially women, in the project area (short-term population coverage)? Will the proposed project be implemented in such a way that long-term sustainability is obtained?

#### **TOOLS:**

- 12) Women Involvement in Feasibility Study**
- 13) Basic Needs Expressed by the Community**



## PROJECT PHASE IV: PROJECT PLANNING AND ORGANIZATION

PROJECT ACTIVITIES	BASIC COMPONENTS IN CPHE	TOOLS
Establishment of Project Organization and CPHE Unit (Information Unit)	Community responds to initial project information and expresses needs and proposals for execution	14) CPHE Unit
Execution of "kick-off" workshop: defining detailed technical design and CPHE methods including division of CPHE tasks at all levels	Representatives of the target community participate in the workshop	15) Types of Organizations and Definition of Tasks
Selection of initial areas / communities for learning by doing / pilot / demonstration project	Participation in preselection of villages, proposals for pilot communities and sites of water supply systems	16) Community Self-Survey (CSS) 17) Community Needs Assessment



PROJECT ACTIVITIES	BASIC COMPONENTS IN CPHE	TOOLS
Preparation of preliminary CPHE materials (manuals, hygiene education materials, training material) on the basis of available documents and experiences	Community identifies water and sanitation related problem areas where increased information, training and education are required	18) Different Forms of Communication and Audiovisual Media 19) Guidelines for the Development of Visual Aids
Preparation of workplan, including logistics, arrangements and time frame for technical and CPHE activities, budgets	Pilot villages assist in identifying the time frame in relation to their own agricultural / financial calendar	20) Participatory Project Planning 21) Plan of Operation
Training of technical, social and health staff on technical and CPHE related tasks	Community helps to adapt training to their own socio-cultural situation and ways of communication	22) Human Resource 23) Training Community Motivators in WSS Projects
Bringing the integrated project team into the field: first round of visits to selected areas / villages; learning by doing for technical, social and health staff	Community expresses basic needs / capacities and gives information on village	24) Implications For Project Management and Evaluation
Preparation of Call for Tender Documents		

**EXPECTED OUTPUT:**

Detailed project implementation plan, including proposed monitoring system, establishment of project organization and CPHE Unit, trained staff of technical and CPHE related services

## PROJECT PHASE V: PROJECT IMPLEMENTATION

PROJECT ACTIVITIES	BASIC COMPONENTS IN CPHE	TOOLS
Community study (village diagnostics) to establish local conditions and attitudes for final project allocation, detailed planning and as a baseline for evaluation (including technical and social aspects as well as knowledge, attitudes, practices related to water, sanitation, and hygiene); field testing of CPHE materials	Execution of Community Self Survey (CSS), including selection of sites, models of participation, fees, basic needs, contributions to execution of works	25) Facilitating Participation of Women 26) Community Diagnosis
Participatory planning of project in initial group of communities including discussion of implication of various alternatives on community and user groups	Selection of community members for negotiation and decision on detailed project design in the initial villages representing all groups, men and women; Establishment of user committees and selection of members	27) Options for Community Maintenance Financing System 28) Alternative Water Supply and Sanitation Technologies
Contract between community and agency defining project contents, rights and responsibilities of each party, and agreed steps/sanctions in case any partner does not stick to the contract	Negotiations and decision on the contract, signing of contract	29) Agreement between Project Holder and Community 30) Contract between Community and Project Holder
Organization/strengthening of local institutions with water/sanitation/hygiene education related tasks (training and providing hygiene education materials, management assistance)	User committee members participate in task-oriented training; Selection of personnel undergoing training, participation in regular meetings of "task force" at village level	31) Assistance to Local Services 32) Statutes of Local Water Organization
Implementation of technical project including organization and management of user contributions in cash/kind	Participation in execution of technical works and management of contributions of the community according to the contracts signed	33) Organization of Self-Help Labour

PROJECT ACTIVITIES	BASIC COMPONENTS IN CPHE	TOOLS
<p>Planning of local hygiene education and action programme with local groups and organizations in order to reduce risks of transmitting water and sanitation related diseases</p>	<p>Participation in planning by formulation of needs, competences knowledge, attitudes and practices</p>	<p>34) Hygiene Education Assessment Criteria 35) Defining Disease Transmission Routes</p>
<p>Training of selected community members for tasks in operation and maintenance, management and hygiene improvements</p>	<p>Participation in selection of community members, involving women in training</p>	
<p>Implementation of local hygiene education and action programme</p>	<p>Participation in hygiene education lessons, self-organization and execution of proposed hygiene activities</p>	<p>36) Potential Action Points for Hygiene Education 37) The Roles of Women and Children in Hygiene Education</p>
<p>Establishment of self-evaluation system on water, sanitation, and hygiene</p>	<p>Involvement of user organization in information exchange with local services and agency; proposals for problem solving; development of local problem solving activities</p>	<p>38) Form for Planning and Controlling of Activities</p>
<p>Organization of agency support and monitoring system for local maintenance and management (spare parts supply, reporting system, scheduled agency visits) in initial project communities</p>	<p>Participation in a regular information exchange and negotiation process between community and executing agency</p>	



**EXPECTED OUTPUT:**

Field-tested practical procedures for CPHE, including participatory hygiene education and involvement of women; field-tested CPHE materials; CPHE trained field and managerial staff; user committees functioning; monitoring and support system installed; contracts signed.

## PROJECT PHASE VI: PROJECT CONSOLIDATION

PROJECT ACTIVITIES	BASIC COMPONENTS IN CPHE	TOOLS
Evaluation of implementation process and resulting maintenance management/hygiene performance in initial communities	Participation in evaluation: establishment of village level monitoring and evaluation system, collection of data, reporting system and participation in evaluation workshop	39) Evaluation of Social Change 40) Evaluation of Benefits
Feedback of experiences into ongoing implementation project (organization, working procedures, support system, e.g. training, spare parts supply)	Adaptation and application of experiences gained in initial communities, implementation of all training, management, hygiene and technical works listed in the Implementation Phase in the new communities	41) Intervention for Disease Control
Strengthening of local organizations where required (e.g. further training, management assistance)	Participation in further trainings (user organizations)	42) Institutionalization 43) Task Analysis Sheet 44) Cooperation in Project Consolidation, Evaluation and Follow-up





**EXPECTED OUTPUT:**

Initial results on sustainability, plan to improve implementation programme, specific inputs to increase cost effectiveness, necessary project support system in place

## PROJECT PHASE VII: EVALUATION AND FOLLOW-UP

PROJECT ACTIVITIES	BASIC COMPONENTS IN CPHE	TOOLS
<p>Evaluation of overall results of participatory WS/S project (population coverage, use, functioning, cost recovery, ongoing monitoring, maintenance and problem solving)</p> <p>Evaluation of project impacts (reduction of hygiene risks, developmental use of water and time savings)</p>	<p>Participation in evaluation: providing basic data on community level; proposals for readaptation, if required</p>	<p>45) Minimum Evaluation Procedure</p> <p>46) Sustainability Assessment Criteria</p>



PROJECT ACTIVITIES	BASIC COMPONENTS IN CPHE	TOOLS
Exchange of experience with other water projects in the country	Community representatives and members of user organizations participate in exchange visits	47) Training of Trainers
Feedback of lessons learned on CPHE into the country's training programmes for technical/ social/ health staff	Communities accept practical training and express recommendations for improvement of CPHE methods	
When required, adaptation of sector policy and organizational structures (institution building) on the basis of experience gained	Communities are represented in permanent multidisciplinary coordination group for WS/S - CPHE schemes	48) Practical Measures/Hygiene Education (HE)
Establishment of overall M&E system for the water and sanitation sector on the basis of experiences gained, including field tested and agreed on indicators on coverage, functioning, use, hygiene practices, costs, cost recovery and ongoing development action.	Community continues self-evaluation process and informs the partners (programme holder, public administration and services) accordingly	49) Overall Monitoring & Evaluation

### EXPECTED OUTPUT:

Hard data on overall project results (functioning, use financing, hygiene, ongoing development), integration of learnings into national training system, national monitoring system on key sector results (Steps 2-5 may be subject to separate project proposals and donor funding)

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**PARTICIPATING ORGANIZATIONS IN THE  
INTERNATIONAL WORKING GROUP CPHE****PARTICIPANTS****1st Meeting October 17 - 18, 1988 at GTZ**

GTZ, IMC, IRC, KfW, UNDP/PROWWESS,  
University of Konstanz, WB, WHO

**2nd Meeting May 8 - 12, 1989 at IRC**

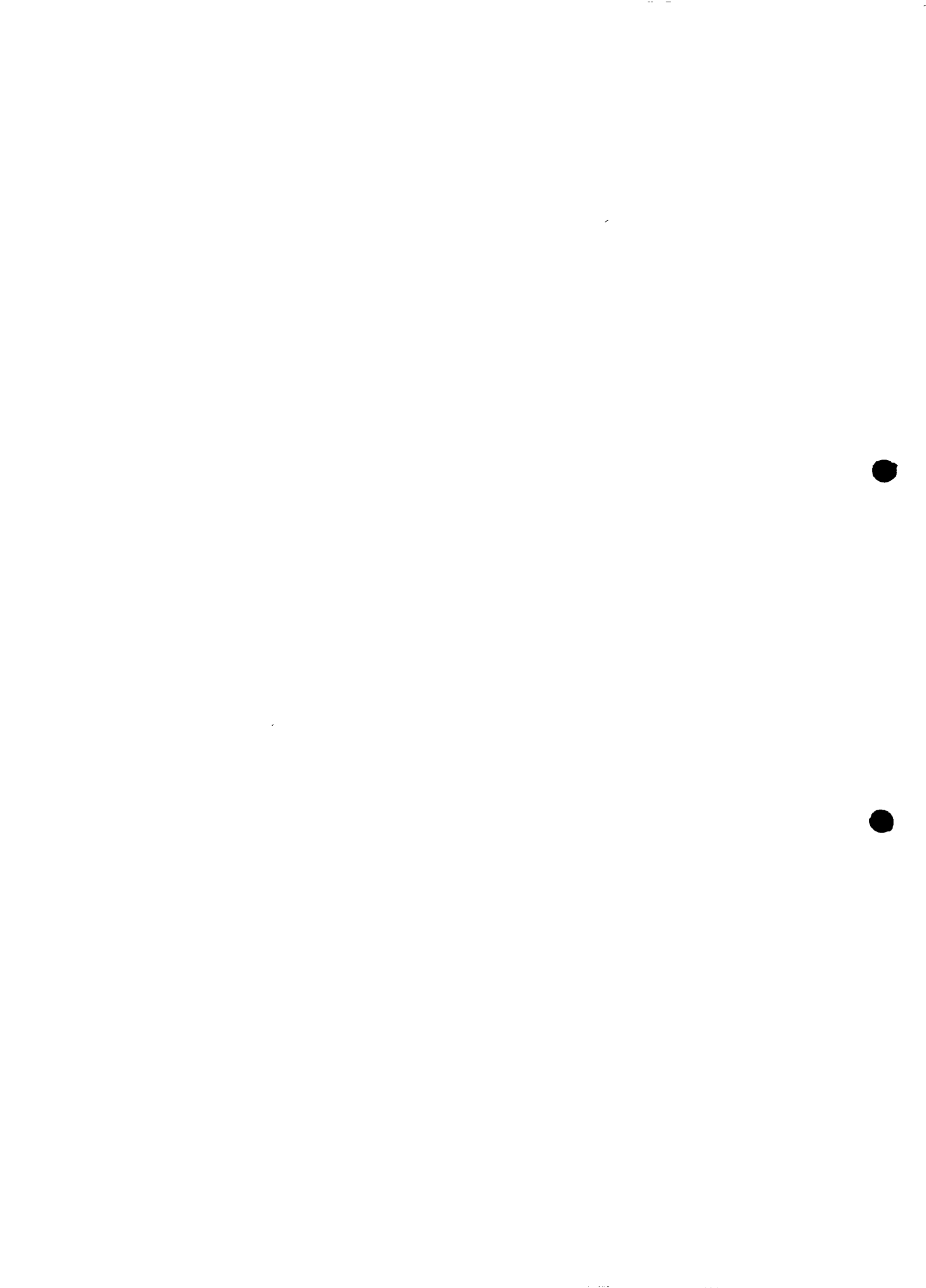
DANIDA, GTZ, IMC, IRC, KfW,  
PROWWESS/UNDP, WASH, WB  
Ms. M. Cardenas, Mr. R. Ehrlich, Ms. N. Khattak,  
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# TOOLS FOR INTEGRATING COMMUNUNITY PARTICIPATION AND HYGIENE EDUCATION INTO WATER AND SANITATION PROJECTS

DRAFT



October 1989



COMMUNITY PARTICIPATION AND HYGIENE EDUCATION

# PAPERS PUBLISHED IN THE CPHE SERIES

- 1. SUSTAINABILITY AND EFFECTIVE USE. The case for community participation and hygiene education in water supply and sanitation.** This paper summarizes important reasons for **CPHE**, clarifies its concept and conditions and highlights some achievements.
- 2. PRACTICAL GUIDELINES FOR INTEGRATING CPHE INTO WATER AND SANITATION PROJECTS.** This paper addresses key components for **CPHE** and indicates practical tools to involve the community.
- 3. TOOLS FOR INTEGRATING CPHE INTO WATER AND SANITATION PROJECTS.** This paper summarizes the tools referred to in paper number 2.
- 4. INDICATORS FOR SUCCESS. CPHE in water supply and sanitation: How to measure progress and results.** This paper highlights indicators related to **CPHE** and addresses the establishment of a monitoring system.
- 5. STRATEGY DEVELOPMENT FOR CPHE.** This paper reflects a strategy framework for the promotion of CPHE internationally as well as at national level of a given country.

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Federal Republic of Germany





**TOOLS FOR INTEGRATING  
COMMUNUNITY PARTICIPATION  
AND HYGIENE EDUCATION  
INTO WATER AND  
SANITATION PROJECTS**

October 1989

# Foreword

One of the most prominent results of the International Drinking Water Supply and Sanitation Decade is the world-wide recognition of the need for community participation and hygiene education in sector programmes. The plan of action, formulated along similar lines at the Interlaken Consultation in 1987, was based inter alia on the premise that "project development must not only involve engineers but also technicians, health professionals, and social scientists, all of whom must interact with the potential beneficiaries as projects are designed and built." \*

With this understanding and to facilitate the cooperation between engineers, health professionals, social scientists and the community, the following 5 papers on Community Participation and Hygiene Education (CPHE) have been prepared. They can by no means replace the use of field manuals. They are designed for guidance and as a frame of reference in water supply and sanitation projects for

- national and international decision makers (Papers No. 1, 5)
- field managers of water supply and sanitation projects (Papers No. 2, 3, 4).

I would like to thank the following participants of the two working group meetings held in October, 1988 in Eschborn and in May, 1989 in The Hague for their active cooperation, the energy they have put into this venture and their willingness to share their experience and knowledge with others: Mr. P. Adhikary/Nepal; Dr. G. J. Astor/IMC; Ms. M. Cardenas/Paraguay; Mr. R. Ehrlich/FRG; Dr. W. Fischer/GTZ; Mr. F. Greiner/GTZ; Mr. J. D. Gubler/World Bank; Mr. I. Guhr/GTZ; Mr. P. Hirano/WHO; Mr. K. M. Jensen/DANIDA; Ms. N. Khattak/Pakistan; Mr. P. Kohorst/IMC; Mr. S. Kumarasiri/Sri Lanka; Ms. J. Kunguru/Kenya; Ms. M. P. Lefebvre/IMC; Dr. A. Merkle/GTZ; Ms. S. Melchior/PROWWES, Mr. A. Obser/University Konstanz; Mr. J. T. Visscher/IRC; Ms. Dr. E. Weinreben Nunn/Brazil; Ms. C. van Wijk-Sijbesma/IRC; Mr. A. Winnikes/KfW, and Ms. M. Yacoob/WASH.

\* Water and Sanitation: Toward Equitable and Sustainable Development, 1988 International Bank for Reconstruction and Development

As always, there are persons behind such undertakings who initiate processes like this and support it with advice and actions. Therefore, my thanks also go to Mr. M. Acheson/Who; Mr. A. Arlosoroff/World Bank; Mr. H. van Damme/IRC; Mr. D. Grey/World Bank; Mr. J. Kalbermatten; Mr. K. Kresse/GTZ, and Mr. E. Turner/WASH.

It is my sincere hope and expectation that this fruitful cooperation will continue among these colleagues as well as with new working group members so that the process of community participation and hygiene education will lead to sustainable projects and improved health of the target populations.

**Dr. K. Erbel**  
**GTZ/Head of Water Division**

# Summary

It is now generally recognized that water supply and sanitation projects should be based upon community participation and hygiene education, in order to ensure acceptance by the population and sustainability of the facilities.

**CPHE**

**is indispensable to help achieve:**  
**project sustainability**  
**user's acceptance**  
**effective use**  
**affordable solutions**  
**improved hygiene practices**  
**ongoing development action**

Yet few people have the time and opportunity to read and make use of the wealth of instructive materials and research reports available on **CPHE**. Therefore, the attempt has been made here to identify basic components of community participation and hygiene education common to water supply and sanitation projects and to summarize them in 5 short and readable papers.

The series of papers was initiated by an international working group (annex1) convened by GTZ in November, 1988. In their first meeting the outline of the first four papers was defined. Then on the basis of materials provided by the group members, IMC and IRC prepared, commissioned by GTZ, the first drafts which were finalized in a second meeting in May, 1989. During the same meeting the fifth paper, on strategy development for **CPHE**, was produced through goal-oriented project planning.

The current document contains a number of tools for the planning, implementation and evaluation of **CPH**. They are selected from various sources; to highlight the main aspects, excerpts from the resource documents had to be made. The listing of the tools follows the steps of a water supply and sanitation project as described in Paper 2.

Each tool is headed by a short description of its content and its contribution to the project steps. It is also indicated by whom of the partners the tool might be used best.

**WHAT ABOUT:**

*The tool describes a "Five Point Strategy" on lasting health and economic benefits through increased community management of water supply and sanitation systems*

**WHAT FOR:**

*The tool is useful to confirm the necessity of CPHE in discussions between decision-makers, planners, hardware and software specialist and the local partners. It can be used by governments and donor agencies*

## **The "FIVE POINT STRATEGY"**

Lasting health and economic benefits for the rural and urban-fringe populations of Africa can be achieved through increased community management of water supply and sanitation systems based on proven low-cost technologies. Governments and donors are urged to identify and commit adequate resources and to provide all necessary support for the direct involvement of communities in choosing, managing and paying for their water and sanitation systems.

**Governments** have recognized that affordable and sustainable progress depends on the adoption of low-cost technologies. This recognition should now be translated into long-term political commitments and establishment of the institutional framework in which community management of water supply systems can be effective. Decentralisation of responsibility for planning and management means optimising the use of public and private sector resources. Central and district government has a key role in organising and supporting training programmes, standardisation policies, and distribution facilities for spare parts and materials. Governments should request donors to support the implementation of projects compatible with the policy of sustainability and replicability. Donors have again declared their collective support for such policies and will intensify their efforts to ensure full inter-agency coordination, as stressed during recent External Support Consultation meetings.

**Communities** will be willing to take effective responsibility for running their own water supply system only if they obtain the system that they have chosen, can afford and have the resources to sustain it. Successful projects involve community members – with women having a vital role – in all stages, beginning with their motivation by skilled community workers well ahead of implementation. Local committees can and should be involved in planning, site selection, construction and installation. With initial training and sustained support from government and other agencies, the committee should take over responsibility for organisation of system maintenance and for the collection and management of funds.



**An integrated approach to health** related development brings maximum benefits from investments in the water supply and sanitation sector. There is strong evidence that water supply improvements planned alongside complementary activities in sanitation and health education have a multiplier effect on health and economic benefits. Similarly, introduction of water supply components into primary health care programmes, or into specific programme production, livestock watering, and general rural and urban fringe development activities will enhance the benefits from each individual investment.

**Technology** choice must match the community resources available for upkeep of the system. Research into low-cost community water supply and sanitation technologies has demonstrated that equipment is now becoming available to match the favoured strategy of full community management of completed systems. Experience has shown, for example, that properly chosen handpumps, suitable for maintenance by trained caretakers, supported where necessary by area mechanics, are the best guarantee of dependable long-term water supplies. In-country manufacture and planned distribution of pumps and spare parts brings added reliability.

**Maintenance** is the key to long-term success. Community maintenance, supported by a national strategy of standardization and well-organised distribution of spare parts, brings substantial increases in reliability and reductions in recurrent costs – bringing per capita costs down appreciably when compared with the alternative of centralised maintenance practised in many countries. The result is more dependable supplies of safe water and continuing improved health. In endorsing this Abidjan Statement, the 100 delegates were united in believing that African countries, with sustained donor support, have the potential to make substantial progress in the second half of the International Drinking Water Supply and Sanitation Decade, and beyond.

## **TOOL No 2**

### **NATIONAL GOVERNMENT COMMITMENT TO CPHE**

#### **WHAT ABOUT:**

*The tool given an example of a national government's commitment (in this case: Indonesia) to CP as a means of increasing the development potentials of the society.*

#### **WHAT FOR:**

*The tool is useful to confirm the willingness of the national government to commit to CP and to clarify the definition of CP in discussions between governments and donor agencies.*

In order to raise fundamentally the efficiency and productivity, continuous refreshing and reforms of the existing institutions must definitely be made, including the continuation of deregulation and debureaucratisation. Because of the limited funds that can be mobilized, there is no other way but to use state fund mainly for sectors which stimulate and encourage self-help and public participation in all development sectors. The role of the government is to provide guidance, support and encouragement for increased development potentials of the society; and not as the principal executor of development. Such support is given through, among other things, the creation of a climate stimulating the participation and self-help of the people and the business world. The creation of such climate was realized through deregulation and debureaucratisation measures, as well as the provision of basic means and infrastructures which really cannot be provided by the people themselves.

**WHAT ABOUT:**

*This tool provides a list of general CP related conditions for successful water supply and sanitation projects. Necessity and ways of integrating community members into the project are pointed out.*


**WHAT FOR:**

*The conditions, formulated as hypotheses, are providing good background information for national and international decision-makers. Project formulators and implementers may use it as a kind of check-list, which may facilitate selection of villages etc.*

**Projects are more likely to succeed when:**

- the initiative has come from the community and the time lag between local initiative and government response is not too long
- the costs and benefits of alternative levels of service have been explained to the community
- the level of service, technology and detailed siting of installations are chosen in cooperation with the community
- the community is relatively homogeneous
- the people understand the benefits of clean water and its relationship to good hygiene
- there is previous successful experience of community property and community action
- collective action is valued and given priority
- a water committee of local people helps to run the project
- a villager is trained and paid to be the mechanic
- tariff structures and payments are set up with local agreement
- a local users group helps to set management policies
- time is made available for the promotion process in each community within the scheduling of RWS programmes and the planners recognise that community involvement is likely to make the project longer
- communication with the villages is not left to the promoter alone but becomes part of the role of everyone working on the project
- local people perceive direct benefits to themselves from the RWS scheme and are highly motivated
- the timing of work on the project fits in with the local agricultural calendar and work cycle as well as social calendars

- special attention is given to the education and involvement of the women, who play a major role in food preparation, water use and child care
- the RWS project, including the participation aspects are designed after social baseline data has been collected, including customs, benefits, water use, personal hygiene habits and social patterns
- participation is not limited to manual labour or cash payment but extends as far as possible into project planning, installation, operation, maintenance, baseline research and evaluation
- the community is allowed to select the leaders and committee members
- large community meetings are held before leaders are identified, or chosen for the project, and are held regularly throughout the development of the project
- the cooperation of traditional influential leaders in the community are sought at the outset
- the creation of new leaders in competing roles and tasks is avoided
- the whole community is reached and ultimately involved (through village meetings, informal networks or house to house visits) rather than relying on special interest groups (including political ones)
- women are trained to work as promoters or even as mechanics (they are less likely to leave the village when trained and more likely to respond to social pressure from other women to do the job properly)
- management decisions, like how to deal with non-payers, be left to the community rather than imposed from above
- participation meetings are scheduled when the majority, especially the women, are free to attend
- different media are used to educate the community and reinforce each other's message (pamphlets, posters, songs, films, plays, radio)
- attention be paid to the concerns of the community about physical space arrangements and their needs for both privacy and social interaction
- the promoter(s) are from the village and are selected by the community for training
- the promoters are paid
- the community has some leverage with the promoters and the mechanic (e.g. pays part of their salary)
- special budgets are set up to enable the community to commemorate important events in the project (e.g. inauguration of supply) with ceremonies or fiestas
- technical experts or professionals involved in the planning and installation of the project make call-back visits to the communities to show their (and their agency and central governments) continued interest in the scheme and how the community is faring

- 
- specific tasks for community work groups are well-defined and realistic before community participation is specifically sought for them
  - the community makes a financial contribution to the scheme but decides themselves how this is to be arranged (e.g. to take account of the poor sections)
  - self-help labour is contributed only by the specific beneficiaries of the scheme and all others are paid wages
  - the community is shown how to do self-surveys to gather baseline data and to evaluate progress.

## TOOL No 4

### CP CAPACITY ASSESSMENT CRITERIA

#### WHAT ABOUT:

*The CP capacity assessment criteria define the degrees and levels of capacity of each partner to participate in the project process, ranking from low to high level.*

#### WHAT FOR:

*The tool can be used by project planners and social experts, e.g. in the feasibility study, to clarify the relations between the partners involved: the population of the community, the participating services, the public administration and the project holder. It may help the partners to define prerequisites for their participation in project planning and implementation and the kind of support they need.*

**The CP capacity assessment criteria define the degrees of the capacity of each partner to participate in the project process. They rank from a low level to a high level.**

#### The partners are:

1. the population of the community
2. the project holder
3. the politico-administrative system
4. the local services

#### The criteria are:

1. Needs assessment: the capacity to realize, define and express the needs and wishes
2. Organization: the capacity to establish a stable structure for internal discussion and decision-making
3. Resource mobilization: the capacity to mobilize relevant resources to the project process (such as money, manpower, knowledge, land, materials)
4. Management: the capacity to plan, implement, execute and evaluate the activities in a cooperative way (cooperative management)
5. Power of decision-making: the capacity to negotiate, bargain and decide

## Levels of CP assessment criteria

	1	3	5
	low ← -----   ----- → high		
<b>1. Needs assessment</b>	Interests are unknown, no experience in identifying, defining, and expressing needs and wishes		Interests are clearly defined, fixed, and agreed upon
<b>2. Organization</b>	No self-created organization for free expression of needs, discussion and common decision-making existing		A stable structure for internal discussion, expression of needs, and common decision-making is existing
<b>3. Resource mobilization</b>	No relevant resources to put into project process available (such as money, manpower, knowledge etc.)		All relevant resources for project process available (such as money, manpower, knowledge, etc.)
<b>4. Management</b>	No capacities for cooperative management existing, no knowledge, experience, and resources for management activities		Cooperative management used in planning, implementing, executing, and evaluation activities, technical and social skills of cooperative management known
<b>5. Decision-making power</b>	No experience in bargaining and decision-making processes; no knowledge of resource mobilization and withholding		Experience in bargaining and decision-making processes; strategies of resource mobilization and withholding known

## Evaluation Scheme

Partner Criteria	POPULATION Community	PROJECT HOLDER Local Services	PUBLIC ADMI- NISTRATION Politico- administrative	PARTICIPATING SERVICES Project Holder
	low – high 1 – 5	low – high 1 – 5	low – high 1 – 5	low – high 1 – 5
<b>1. Needs assessment</b>				
<b>2. Organization</b>				
<b>3. Resource mobilization</b>				
<b>4. Management</b>				
<b>5. Decision- making power</b>				
<b>Total Rank</b>				

### Results

1. The actual capacity of each partner to participate in a project process is known (according to the five criteria)
2. The needs of improvement of the capacity of each partner is known



# TOOL No 5

## A NEW GENERAL APPROACH TO DEVELOPMENT PROJECTS

### WHAT ABOUT:

*This tool describes the new approach to development projects as regards identification, formulation, and implementation in comparison with the "classical" approach.*

### WHAT FOR:

*It may help all partners to define and agree on a common philosophy of participatory project planning and implementation.*

PHASE	CLASSICAL APPROACH	NEW APPROACH
<b>IDENTIFICATION</b>	<ul style="list-style-type: none"> <li>- Projects are defined or imposed by "experts"</li> <li>- Emphasis is put on statistical matter and justification is given for projects already planned and formulated</li> </ul>	<ul style="list-style-type: none"> <li>- Awareness and learning process through the community participation approach</li> <li>- The people and their partners are involved in decision-making</li> </ul>
<b>FORMULATION</b>	<ul style="list-style-type: none"> <li>- Emphasis is put on technical, financial, economic, and marketing aspects</li> <li>- Technical, financial, economic and market data and information required</li> </ul>	<ul style="list-style-type: none"> <li>- Emphasis is put on management, institutional, social and cultural variables, inventory of local material and cultural resources</li> <li>- Criterion is the level of partnership between population, programme holder, public administration, and participation services.</li> </ul>
<b>ORGANIZATION, IMPLEMENTATION, FOLLOW-UP, LONG-TERM MANAGEMENT</b>	<ul style="list-style-type: none"> <li>- Awareness of time, costs, output factors</li> <li>- Emphasis on intra-administrative procedures and systems, which were introduced from western countries</li> <li>- Evaluation: "secret" evaluation system; application of quantitative methods</li> </ul>	<ul style="list-style-type: none"> <li>- Emphasis on required behavioural factors or social change for community participation in relation to the technical project</li> <li>- Basic criteria are co-operation, learning process, testing of social and technical feasibility; benefit assessment; control; admission to means of satisfying basic needs</li> <li>- Evaluation; participatory evaluation system; application of quantitative methods</li> </ul>

**WHAT ABOUT:**

*This example of policy baselines for project planning and implementation is paying thorough attention to community participation strategies and applied technologies.*

**WHAT FOR:**

*It is providing project assessment criteria together with implementation recommendations that are mainly directed at policy makers and project formulators.*

**Conclusions:**

Taking into account that the currently available funds cannot realistically be expected to increase significantly in the years ahead, these must be used more effectively in order nevertheless to bring about a significant improvement in water supplies and sanitation in the developing countries, to reduce health hazards and to meet basic needs. Among other measures, it is therefore necessary to ensure a greater participation of the population in the planning, construction, operation and maintenance of the projects.

For economic as well as technical reasons it is necessary to apply technologies that are as simple as possible and appropriate to the situation in the respective developing country and project region and to reduce the technical standards and water consumption rates (frequently still oriented according to the industrial nations). It is in this context that the process of rethinking that has already begun both in the developing countries and at the donor organisations must be intensified.

# TOOL No 7

## TOPICS OF A PRE-APPRAISAL MISSION

**CPHE**  
**No. 3**  
**Series**


### WHAT ABOUT:

*This tool is listing a number of questions to be answered by a pre-appraisal mission, concerning socio-economic, socio-cultural, technical and geological matters.*

### WHAT FOR:

*It can be used as a check-list when formulating the terms of reference of the pre-appraisal mission and when assessing the results. The project holder, the donor agency as well as the study team may work with it.*

- How many individual communities come within the scope of the project, and what are their sizes and growth projections?
- What is the social structure; the role of women in traditional society; the local political setup?
- What is the health profile; are there any diseases such as schistosomiasis, onchocerciasis, or guinea worm, which have a bearing on the design of a water supply?
- What water supplies are presently available and what resources are available for improvements?
- What are existing practices in water collection, water use and hygiene, and maintenance of traditional water sources?
- How do the groundwater level and quality fluctuate over the project area, and between the wet season and the dry season?
- Are communities interested in having handpump supplies and what are their views on community-based maintenance, maintenance financing, and the composition and role of the organization to be involved in local planning and management?
- Is there a history of using handpumps in the region?
- Is there a need for water uses additional to drinking, cooking and washing?
- Are there environmental hygiene and sanitation constraints which may limit the potential health benefits of a handpump programme?
- What are the institutional needs of the programme, in terms of water supply policy, funding, manpower, equipment, materials, transport and communications?
- What are the training needs to equip the communities for local maintenance, administration and management?

- 
- How can the programme be coordinated with activities of other government departments or agencies, such as health authorities and agencies responsible for well drilling, community development, agricultural development, housing and other related fields?
  - What will be the total requirements of the programme in terms of numbers of handpumps, standposts, etc. plus spare parts and installation equipment?
  - What is the scope for cost recovery of capital and recurrent costs?
  - What are the requirements for a viable organization to maintain the installed pumps, including establishment of dependable sources of spare parts?
    - Are there skills in the private sector which could be applied to implementation and maintenance of the proposed schemes?

**WHAT ABOUT:**

*The tool shows six global concepts related to six main constraints which have to be recognized in formulating the preliminary project proposal. It also shows the role of the external support agencies to overcome the six constraints.*

**WHAT FOR:**

*It may be used by the donor agency and by the government when discussing the preliminary project proposal.*

## **Why Global Concepts are Needed**

The International Drinking Water Supply and Sanitation Decade (1981–1990) has focussed attention on the plight of about two billion people in developing countries who lack adequate sanitation facilities, including access to a safe supply of potable water. Considerable progress was made during the first half of the Decade, but major challenges remain.

External support agencies have been looking closely at the achievements and the disappointments of recent activities in the water supply and sanitation sector. In two multilateral and three regional consultations six major constraints have been identified and analysed.

### **THE CONSTRAINTS**

- 1. Institutions** responsible for water supply and sanitation sector activities in developing countries are frequently inefficient and financially weak.
- 2. Cost recovery** is generally ineffective.
- 3. Imbalances** exist between the provision of water supply and of sanitation facilities; between sector inputs in central urban areas and those in urban fringe and rural areas.
- 4. Operation, maintenance and rehabilitation** receive insufficient attention, and the problem is aggravated by application of inappropriate and often too sophisticated technologies, which are neither affordable nor manageable.
- 5. Community participation and hygiene education** efforts are inadequate.
- 6. Coordination and cooperation** is inadequate among external support agencies, between these agencies and the national water supply and sanitation sector agencies, among the sector agencies themselves, and between the water and sanitation sector and related sector programmes

# **INSTITUTIONAL CHANGES**

## **The Role of External Support Agencies**

- Increase resources for public awareness campaigns and hygiene education.
- Encourage decentralization and/or privatization of water supply and sanitation institutions, or certain functions of these institutions, and promote collaboration with rural development agencies on integrated programmes.
- Involve benefitting communities in project identification, planning, design, implementation, operation and maintenance.
- Establish harmonized strategies to be adopted by all agencies active in particular countries or regions.
- Provide support for institutions' management and staff training (as well as for education in community participation and hygiene awareness) through technical cooperation. TCDC should be encouraged.
- Expand R&D programmes and encourage local manufacture. Press for standardized engineering design criteria relating to appropriate water supply and sanitation technologies.

# **COST RECOVERY**

## **The Role of External Support Agencies**

- Emphasize in all dialogues with recipient country governments, the crucial importance of cost recovery in sustainable and replicable programs.
- Encourage the establishment of strongly progressive, cross-subsidizing tariffs.
- Support public awareness campaigns which stress the benefits of water supply and sanitation services and so promote willingness to pay.
- Promote and support urban project designs based on full cost recovery from affordable technologies. Back sector agencies in strategies to achieve self-sufficiency and financial autonomy.
- Use early community participation in rural areas to establish commitments to contribute cash, labour and materials for construction, operation and maintenance of appropriately designed facilities.
- Extend support where necessary into the operation and maintenance phase of projects, but always with the longterm aim of establishing community responsibility for recurrent costs.

## **BALANCED DEVELOPMENT**

### **The Role of External Support Agencies**

- Ensure that hygiene education campaigns emphasizing the complementarity of water supply and sanitation are included in sector programmes receiving donor support.
- Bring to the attention of programme planners and designers the sources of information on low-cost and socially acceptable sanitation technologies.
- Raise the proportion of technical cooperation and funding support given to integrated projects, and to the expansion of national water supply agencies' capacities, to enable them to cope with liquid and solid waste disposal activities.
- Re-emphasize the key Decade concept of precedence for the underserved urban and rural populations, and encourage recipient countries to balance investments accordingly.

## **OPERATION, MAINTENANCE & REHABILITATION**

### **The Role of External Support Agencies**

- Ensure that project or programme proposals take account of operation and maintenance needs, and that financial and human resources are available.
- Compare proposed investments in new projects with alternatives for rehabilitation of existing systems which are disused or underperforming.
- Assist sector agencies in developing countries to establish policies and institutional structures which provide for adequate operation and maintenance of existing and proposed new facilities.
- Extend programme support, where necessary, beyond completion of construction, to help equip agencies and communities for their O&M tasks.

# COMMUNITY INVOLVEMENT

## The Role of External Support Agencies

- In providing programme support, ensure that the balance of "software" and "hardware" is correct, and that training of community workers is part of the package.
- Use hygiene education programmes to motivate community members to participate in all project phases, with special emphasis on the role of women. Bring the benefits of water supply and sanitation investments into health education messages promoted through other sector agencies.
- Provide technical cooperation to establish – where possible – the support system necessary for community management of completed installations to function effectively.
- Ensure that project proposals have considered and properly reflected the views of the community on technology choice, service level, affordability, and operation and maintenance commitments.

# COORDINATION AND COOPERATION

## The Role of External Support Agencies

- Promote cooperative efforts among sector agencies in developing countries, through UNDP and other aid coordination meetings.
- Encourage integration of water supply and sanitation projects and programmes with plans in other sectors.
- Coordinate with other external support agencies policies of standardization for particular countries or regions, and avoid unnecessary proliferation of equipment types resulting from tied aid, and support the introduction of technologies appropriate for the specific situation of the country concerned.
- Provide timely and accurate information for WHO's monitoring of project plans and progress, and use the proposed CESI system as a basis for sector planning.
- Continue participation in global and regional discussions among groups of external support agencies, to use agreed sector strategies, publicize the findings to as wide an audience as possible, and convince the working level in each organization to acknowledge the new concepts and approaches.



**WHAT ABOUT:**

*The tool provides some indicators for the need of a flexible funding of CPHE projects. Flexible funding is required in relation to the process oriented planning and the ability of the community to contribute.*

**WHAT FOR:**

*The tool may be used by donor agencies and the governments involved to establish an adequate and flexible project budget.*

The **process** orientation in project planning and execution is a grass roots programme approach in which the primary determinants in planning, organizing, and implementation are the people themselves. Within developing countries process oriented programmes take place within a general framework of national development priorities but with an emphasis on human resource development as prerequisite to all development activity at the village level or the level of the urban neighborhood. The role of the government or voluntary worker is that of consultant and facilitator. Through participation in the process the people learn new skills in how to identify and analyze problems, to identify solutions and select among alternatives realistically, to marshal human and material resources, to implement the plan, and to evaluate the results. The goal of the **process** orientation is to help the people to reach a level of skill and self-competence to become self-reliant in planning and initiating community programmes.

Process oriented planning of projects means also flexible planning according to the skills and capacities of the population. Time schedules and budgets of the project have to be flexible to meet the needs expressed by the community and to respond to the skills and capacities available in the community.

What can the community contribute economically to the project in cash, local materials, labour, transport and services? Is there a labour surplus in the area? What are its characteristics? Has the community participated in similar projects before? What are the possibilities for the role of women? What are the payment histories for water (e.g. through vendors), schools, clinics and similar services?

The capacity to pay will affect the solutions possible and/or the financing system; the variation in the payment capacity of groups within the community may affect service levels, construction contributions and rates. Where a labour surplus exists, labour intensive construction methods can be used with voluntary or paid unskilled labour, leading to lower construction costs or short-term employment benefits.

Information on the spread of income over the months of the year can also be useful for later arrangements on the frequency and timing of water-rate payments. They can, for example, be linked to the harvesting and marketing season for cash crops.

**WHAT ABOUT:**

*This tool is presenting the stages of realization of a feasibility study and providing a list of expertise required.*

**WHAT FOR:**

*It may help the national government and the donor agency to estimate the input in personnel, time and budget required and the consultant to plan the implementation of the study.*

## **STAGES OF REALIZATION**

### **Stage 1: Preliminary work**

- preparation of the study; integration of the study at the national level. Location: donor's country/project country

### **Stage 2: Work at the national level**

- analysis of the situation and the national strategy; analysis of the water sector; analysis of the sectors: health, wastewater, education, information, community development. Location: capital of the project country

### **Stage 3: Implementation of surveys**

- introduction at the local level; surveys using: questionnaires, interviews, observations; medical surveys; surveys of communication methods; bacteriological water analysis. Location: project site

### **Stage 4: Evaluation**

- manual evaluation; computer evaluation. Location: project country, donor's country

### **Stage 5: Planning**

- interpretation of results and planning of preliminary projects; preparation of the report. Location: donor's country/project country

### **TIME FRAME**

A time schedule has to be calculated for the work at all stages in the donor's and project country.

### **EXPERTISE REQUIRED**

Expertise is required in sociology, statistics, economics, medicine, health education, hygiene, audio-visual documentation and coordination. The team should be composed of national and foreign experts, women and men to facilitate the contact with the women in the target group. The team has to have perfect knowledge and experiences in community participation methods and in social behaviour.

## ANALYSIS OF RESULTS AND PROJECT PLANNING

After data analysis (computer-processing, if necessary) the results are interpreted jointly. For project planning, the methodology of objectives oriented project planning is recommended. In the workshop representatives of the feasibility team and the other partners: communities, programme holder, public administration and participating governmental and non-governmental services, should work together.

## EXPERTS AND FIELDS OF EXPERTISE

	Expert (expatriate)	Expert (national)
<b>Stage 1</b> Preparation and integration of the study	<ul style="list-style-type: none"> <li>• Sociology</li> <li>• Statistics</li> <li>• Economics</li> <li>• Medicine</li> <li>• Health education</li> <li>• Hygiene</li> <li>• Coordination</li> </ul>	<ul style="list-style-type: none"> <li>• Sociology</li> <li>• Statistics</li> <li>• Economics</li> <li>• Epidemiology</li> <li>• Health education</li> <li>• Hygiene</li> <li>• Coordination</li> </ul>
<b>Stage 2</b> Sector analysis and preparation of the studies	<ul style="list-style-type: none"> <li>• Economics</li> <li>• Medicine</li> <li>• Health education</li> </ul>	<ul style="list-style-type: none"> <li>• Economics</li> <li>• Medicine</li> <li>• Hygiene</li> <li>• Coordination</li> </ul>
<b>Stage 3</b> On-site surveys	<ul style="list-style-type: none"> <li>• Sociology</li> <li>• Economics</li> <li>• Medicine</li> <li>• Health education</li> <li>• Hygiene</li> </ul>	<ul style="list-style-type: none"> <li>• Sociology</li> <li>• Medicine</li> <li>• Health education</li> <li>• Hygiene</li> <li>• Pictorial documentation</li> </ul>
<b>Stage 4</b> Manual and computer evaluation	<ul style="list-style-type: none"> <li>• Sociology</li> <li>• Statistics</li> <li>• Economics</li> <li>• Medicine</li> <li>• Health education</li> </ul>	<ul style="list-style-type: none"> <li>• Sociology</li> <li>• Statistics</li> <li>• Medicine</li> <li>• Health education</li> </ul>
<b>Stage 5</b> Interpretation and planning of preliminary projects	<ul style="list-style-type: none"> <li>• Statistics</li> <li>• Economics</li> <li>• Medicine</li> <li>• Health education</li> <li>• Hygiene</li> <li>• Coordination</li> </ul>	<ul style="list-style-type: none"> <li>• Medicine</li> <li>• Health education</li> <li>• Hygiene</li> <li>• Coordination</li> </ul>

**WHAT ABOUT:**

*The present tool is listing topics to be addressed in interviews with the community, thus giving an example of one important survey technique to be applied.*

**WHAT FOR:**

*This example may illustrate what kind of data could be obtained and be utilized for project planning. Project holder and donor agency may find this tools useful when elaborating the terms of reference, and the feasibility study team could use it as a kind of checklist.*

A basic list of possible questions to be asked villagers was prepared for reference. As appropriate, and depending on time, villager responses, etc. questions were deleted or others added during the course of interviewing.

**Water Sources:**

What are the present sources of water for your village?

In the wet season?

In the dry season?

How far away are they?

What is their reliability, especially in the dry season?

Are any existing water sources not used? If so, why not?

**Water Use and Present Community Practices:**

How is water used in your village, i.e. for what purposes?

How much water is used?

Are different water sources used for different purposes? If yes, why?

Do you have any arrangements/agreements for proper use of traditional water sources? For upkeep of these sources and immediately surrounding areas?

How are these measures carried out? By whom?

Have experiences been good or bad?

**Felt Needs and Expectations:**

Have you heard about an upcoming water project? If yes, what do you think about it?

Is there a need for the project?

Is the project important?

What other priorities does your community have?

What type of water supply do you expect (e.g. piped water, handpumps, charcos, etc.)

In order of priority, what are the most important uses of water?

Which needs must be satisfied first?

Do men and women have different viewpoints?

What benefits do you think the water project will bring?

## **Community Participation, Willingness to Participate:**

Do you feel you should contribute somehow to the water project?

How? During planning? Construction? Maintenance?

Are you prepared to contribute?

What problems do you think might arise if the community is involved?

How can money to meet construction and ongoing operation/maintenance costs be raised?

What training needs to be provided to help the village manage its water supply?

Do men feel women should be involved in water projects? If so, in what ways?

In what ways do women feel that men should be involved in water projects?

Should the community be consulted in the selection of sites for handpumps and stand-post taps?

## **Health, Hygiene and Health Education:**

What diseases are most common in your village?

Do they have anything to do with water or latrines or unhygienic conditions?

What hygiene problems are most serious in your village?

What should be done about them?

Are you willing to do something about them?

Is health education given in your village?

How is it done? How often? By whom?

What is taught?

Is it easy to apply what you have learned?

Do many people practice what is taught?

Do many people participate in health education meetings? Or, is it hard to find the time?

## **Sanitation:**

Does everyone in your village have a latrine? If not, why do you think this is? Are there any problems with the types of latrines built in your village? What can be done about these problems?

## **Women's Issues:**

What are the greatest problems for women in your village?

Do women come together to discuss these problems?

What happens afterwards, i.e. do women decide to do something about these problems and then do it?

Are women in your village organized?

Do women have a say in village affairs?

# TOOL No 12

## WOMEN INVOLVEMENT IN FEASIBILITY STUDY

### WHAT ABOUT:

*Women, who generally play an important role in water supply and sanitation projects, are also valuable resource persons for the feasibility study team.*

### WHAT FOR:

*This tool can contribute to the formulation of the terms of reference and the implementation of the feasibility study and could be used by the project holder, the donor agency and the feasibility study team.*

1. Do women and men have a felt need for the project? What are their respective priorities and expectations?
2. Is the community willing and able to participate fully in the project, including social-economically weaker groups, such as women heads of household?
3. What forms of control have women over continued and adequate functioning of the project facilities?
4. Is the design acceptable for all categories of women with regard to:
  - water quality (colour, taste, odour, etc.), quantity, and reliability
  - access to water points, latrines
  - ease of use and upkeep
  - aesthetic and cultural acceptability?
5. Are additional public facilities required by women for:
  - washing
  - bathing
  - watering of small livestock?

If so, who is to be responsible for:

  - design
  - construction
  - maintenance
  - management?
6. Are conflicts likely to occur over use of facilities between and within groups and households?
7. How can women make economic use of water, waste and time and energy gains resulting from the new facilities:
  - dry season gardens
  - tree nurseries
  - composting
  - education
  - women's groups?

Do they have a need for support? Who will benefit from additional economic activities?

## TOOL No 13

### BASIC NEEDS EXPRESSED BY THE COMMUNITY

#### WHAT ABOUT:

*This tool is giving an example of how the project team may assist the community in needs assessment and identification of solutions together with the related services.*

#### WHAT FOR:

*The tool may help the project team and the community itself to identify their needs and priorities.*

## PROCESS OF NEED ASSESSMENT

During the process of project formulation and implementation the participatory approach puts strong emphasis on the needs expressed by the target group. Often as a result of the need definition by the target groups additional needs are expressed which cannot be taken into account by the Water and Sanitation Project. To increase the acceptance of the water and sanitation scheme and to increase the social dynamization, assistance must be given by the project team to implement necessary activities related to these additional needs.

## A CASE-STUDY: MWENE-DITU, ZAIRE

During a gathering with the target population and the local services the following additional needs have been identified by the community:

Priority	Needs expressed
1	Improvement of housing
2	Improvement of nutrition
3	Disease control
4	Facilitate the transport of corpses to the graveyard
5	Protection against thunderstorms
6	Reduce female manpower of work in the fields
7	Maintain nearby sources of drinking water

Through participation of the local services a direct information between the target groups and the responsible services was established. The main problem was to translate the expressed needs of the population into a priority list.



## **HOW COULD THE PROJECT TEAM ASSIST?**

The project team assisted in: arranging the village gathering, guiding the discussion, translating expressed needs into action inducing formulations and establishing contacts between the target groups and the services involved.

## **WHAT HAS TO BE DONE?**

In general, a concept of balanced development has to be set out with water supply, sanitation and hygiene education as the core of recommended development programmes and additional components according to the expressed needs of the population. Thus an integrated package of activities should be developed. This needs a flexible planning in time and budgeting and the assistance of the project team in formulation and implementation of needs and actions required, in establishing a stable information and communication system to the services involved and in selection of appropriate measures to be undertaken. The integrated approach may also lead to a closer inter-services-cooperation on the local level through the joint discussion and problem solving process.



**WHAT ABOUT:**

*The tool gives an example of the design of a CPHE unit. The importance of the involvement of different services and national governmental agencies is pointed out. The size of the Unit (manpower, equipment, money) depends on local resources available.*

**WHAT FOR:**

*The tool could be used by the project holder and the services involved to define their possible contributions to the project. It can be integrated into the participatory planning process.*

## **ESTABLISHMENT OF THE PROJECT UNIT**

For the implementation of CPHE measures a special project unit is to be established.

Appropriate contractual agreements are needed in order to integrate the national structures. This integration helps to ensure that the activities will be continued after termination of the project.

## **AREAS OF WORK AND TASKS**

Regardless of its organizational structure, the project unit must be able to deal with the following areas of work:

- Planning, coordination and monitoring
- Basic and further training
- Production of audiovisual materials
- Documentation
- Procurement, maintenance and repair
- Implementation of measures at the project location with the aid of one or more mobile units

The actual tasks involved are determined by the matrix of objectives and the measures required in order to achieve them. Analysis of these work areas yields a surprisingly large number of necessary activities.

## **PERSONNEL SELECTION**

The staff directly involved in the PSC can be recruited from one or more government agencies. Contractual agreements should be concluded to bind the personnel to the project and ensure continuation of measures following project termination.

In some developing countries free-lance experts or specialists from independent organizations (universities, non-governmental organizations, etc.) may have to be employed. It is nevertheless essential for communication measures to be an integral part of the activities of government agencies and ministries.

## **PROFESSIONS**

Project manager  
Social communicator  
Training specialist  
Photographer  
Cameraman  
Designer  
Calligrapher  
Sound technician  
Technician  
Script writer  
Commentator  
Bookkeeper  
Secretary (EDP)  
Driver  
Auxiliary personnel

## **COOPERATION**

The CPHE unit gives support and assistance to all ongoing and planned activities. Monitoring of the CPHE participatory process is the task of a "multisectoral monitoring group" composed of representatives of all partners: community, project holder, public administration and governmental/non-governmental services.

# TOOL No 15

## TYPES OF ORGANIZATIONS AND DEFINITION OF TASKS

### WHAT ABOUT:

*The tool describes different types of organizations and their tasks and activities on different levels (neighbourhood to national levels) and helps to define the different tasks of each organization.*

### WHAT FOR:

*The tool can best be used in the organization phase of the project to define the different tasks of each organization. It also helps to structure the planning and implementation process. It can be used by the members of the participatory planning process: consultant, project holder, public administration, services involved and representatives of the communities concerned.*

Level	Type of organization	Tasks and activities
Neighbourhood, hamlet, ward	Water users group, tap committee, neighbourhood group	Management of communal waterpoints. Collection of water rates. Advice on rate classification. Communication with users and higher level organizations.
Community, township	Community water committee, water board, local or municipal council, community development committee	Management of community water supply. Rate setting and administration. Organization and financing of maintenance. Employment of local workers. Communication with users, higher level organizations and government agencies.
District	District development committee, district water committee, district water council  Governmental departments (Water, Health, Local Government etc.)	Supervision, advice and assistance to community organizations.  Community organization. Training for maintenance, administration and community hygiene improvements. Monitoring and evaluation.
Regional, zonal	Governmental departments (Water, Health, Local Government etc.)	Programme supervision, monitoring and evaluation. Development of training programmes. Administration of programme funds.
National	Governmental departments (Water, Health, Local Government etc.)	Programme and policy development, financing, evaluation, legislation.

## TOOL No 16

### COMMUNITY SELF-SURVEY (CSS)

#### WHAT ABOUT:

*The tool explains the great importance of community data. It gives an example of how an even illiterate community is able to collect necessary data by itself and gives some indications on basic principles for a participatory analysis (Community Self-Survey).*

#### WHAT FOR:

*The tool is important in the process of data collection on village level in the project planning phase as well as in the implementation phase. It can be used by the interviewers, the community population, and the responsible expert.*

In CPHE oriented projects, the community has to be involved in all phases and to the maximum extent possible. This tool is indicating some basic principles for a participatory analysis approach, the so-called Community Self-Survey (CSS).





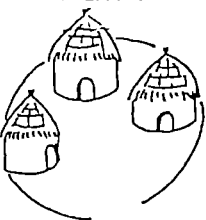
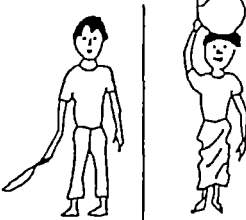
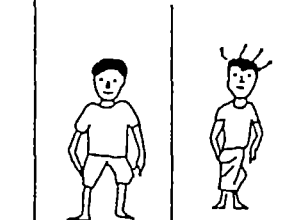
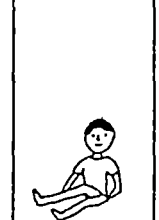



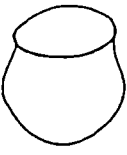


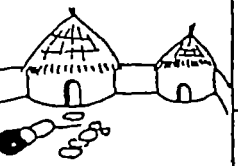
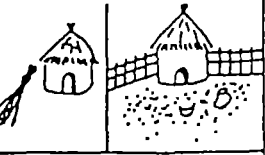
Among the data required for project planning and monitoring, community data are of great importance. The idea behind CSS is that the collection of data and information should not be simply conducted on the community, but with or even by the community. CSS thus means a qualitative change of data collection, involving the people and providing them with information on what kind of data are needed and how these are related to their project.

## ADVANTAGES

CSS means the active involvement of the community in data collection concerning their present situation and project needs. The degree of information of the community and their active involvement is one of the advantages of CSS. Another one is that community preferences and (socio-cultural) constraints will be clearly established. Finally, this approach is very trust-inducing, as the community is formulating its views and needs itself, not being filtered through experts' eyes.

## QUESTIONNAIRE DESIGN

The following example adopted from a KfW "Working Aid", shows how the classical approach of statistical data collection by external specialists can be replaced by a community based approach. The questionnaire is designed for illiterates to analyze the health and hygiene situation of their own community. The self-survey will be followed by further education and voluntary action.

PROJET HYDRAULIQUE VILLAGEOISE EST-BURKINA ONPF/KFW		N° d'ordre village : _____	S1	
BILAN SANTÉ FAMILLES ECHANTILLON		Bilan n° : _____		
		Date : _____		
Village : _____		Nom du chef de concession _____		
Quartier : _____		Concession située a moins de 500 m <input type="checkbox"/>		
		plus de 500 m du forage <input type="checkbox"/>		
ORIGINE DE L'EAU DE BOISSON				
				
Pompe	Puits cimenté	Puits trad. pulsard	Marigot, mare, barrage	
MALADIES	ADULTES+VEUX	ENFANTS		BEBES
				
Personnes dans la concession				
 Diarrhée				Aujourd'hui
				Semaine dernière
 Bilharziose				Aujourd'hui
				Dernière saison
 Ver de Guinée				Aujourd'hui
				Dernière saison des pluies
PROPRETÉ DE LA CONCESSION				
				

BURCE/AP/E. 1405/86

# TOOL No 17

## COMMUNITY NEEDS ASSESSMENT

**CPHE**  
**No. 3**  
**Series**

### WHAT ABOUT:

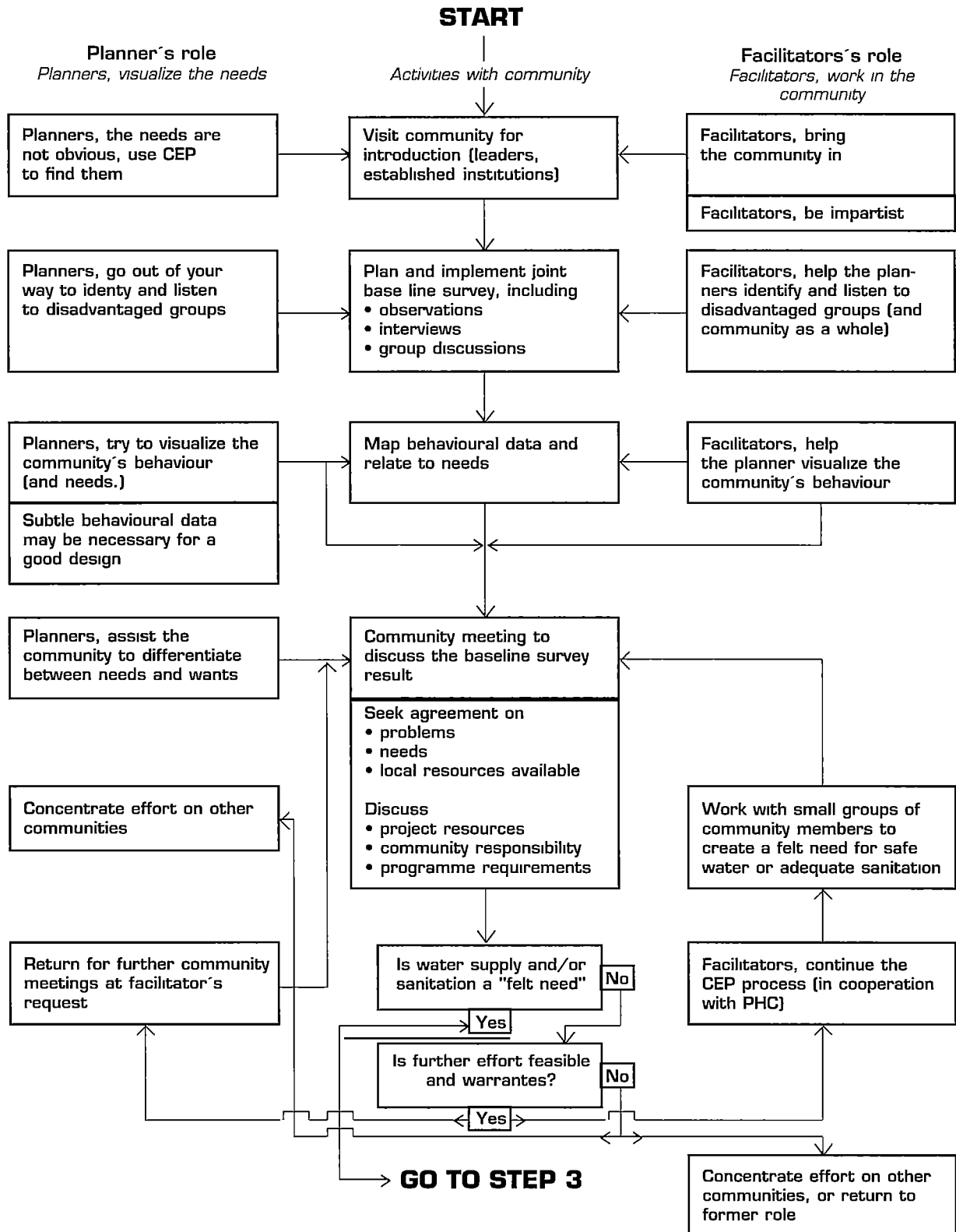
*The tool points out the importance of a self-definition of problems and needs by the population for project planning and implementation (Village Diagnosis). It gives some rules of how to gather information with and on the community.*

### WHAT FOR:

*The tool can best be used in training project staff (interviewers) and in executing the village diagnosis. It is useful for the interviewers, the socio-cultural expert, the national project holder, and the community.*

(see overleaf)

## USE COMMUNITY EDUCATION AND PARTICIPATION (CEP) TO FIND NEEDS



**TOOL No 18****DIFFERENT FORMS OF COMMUNICATION AND  
AUDIOVISUAL MEDIA****WHAT ABOUT:**

*The tool provides a list of communication forms and corresponding audiovisual media and points out their advantages. It may facilitate the decision on which media could be useful and at which stage of the communication process.*

**WHAT FOR:**

*This tool has to be integrated into the project planning process. Project team and project holder might find it helpful for a pre-selection of audiovisual media.*

(see overleaf)



Form	Advantages	Comments	Form	Advantages	Comments
Radio	<ul style="list-style-type: none"> <li>• Easily distributed</li> <li>• Illiterate persons can also be reached</li> <li>• Wide variety of presentation forms available</li> </ul>	Topics should be discussed at local meetings and applied to local conditions	Slide shows with synchronized soundtrack	<ul style="list-style-type: none"> <li>• Can be produced for specific topics and target groups</li> <li>• Graphic depiction of topics</li> </ul>	Pictures and accompanying text must be coordinated; without sufficient preparation and follow-up discussion the learning effect is minimal
Television	<ul style="list-style-type: none"> <li>• Combination of sound and pictures permits depiction of complex issues</li> <li>• High degree of attention</li> <li>• Suited for information, motivation and education</li> </ul>	Follow-up discussion of broadcasts is difficult without video systems/textbooks	Slides	<ul style="list-style-type: none"> <li>• Possible to produce, select and arrange topics for specific target groups</li> <li>• Possible to deal with topics in depth</li> </ul>	It is essential to avoid redundant information; priority should be given to detailed shots rather than overall pictures
Cinema	<ul style="list-style-type: none"> <li>• Attracts all social classes</li> </ul>	Can only be used indirectly as an educational medium	Posters	<ul style="list-style-type: none"> <li>• Large target groups can be addressed</li> <li>• Simple messages can be rapidly conveyed</li> <li>• Very cost-effective medium</li> </ul>	Choice of proper sites is important; careful preliminary testing is necessary
Newspapers	<ul style="list-style-type: none"> <li>• Effective for influencing opinions and awareness</li> <li>• Suited for detailed explanations</li> <li>• Important component when combining different media</li> </ul>	Long-term impact achievable with article series	Exhibitions	<ul style="list-style-type: none"> <li>• Can be used to address specific target groups</li> <li>• Overall depiction of topics with variable use of media is possible</li> <li>• Graphic depiction with broad impact</li> </ul>	Limited, permanent and mobile exhibitions are possible; tends to be cost-intensive
Video	<ul style="list-style-type: none"> <li>• Production in close contact with target population</li> <li>• Viewer participation/commitment</li> <li>• Good documentation medium</li> <li>• Teaching medium for small groups</li> </ul>	When used for educational purposes, it is recommended to combine it with brochures and leaflets	Flip charts	<ul style="list-style-type: none"> <li>• Suited for providing information on specific topics</li> <li>• Inexpensive to produce locally</li> <li>• Easy to transport</li> <li>• Versatile</li> <li>• Can be flexibly combined with other media</li> </ul>	Only suited for conveying less complex information; effectiveness depends on the abilities of communicator
Film	<ul style="list-style-type: none"> <li>• High degree of attention</li> <li>• High emotional stimulation</li> <li>• Large groups can be addressed</li> <li>• Effective teaching aid with lasting impact</li> </ul>	Subsequent group discussions are easy to hold	Blackboards	<ul style="list-style-type: none"> <li>• Simple traditional medium</li> <li>• Can be used anywhere</li> <li>• Processes and learning steps are illustrated</li> <li>• Direct illustration by means of text and graphics, possibly colors</li> </ul>	Structure and style of text and pictures are important

Form	Advantages	Comments	Form	Advantages	Comments
Meetings and lectures	<ul style="list-style-type: none"> <li>• Easy to organize</li> </ul>	Social hierarchy can prevent participation	Role games	<ul style="list-style-type: none"> <li>• Topics can be illuminated from different points of view in the form of a game</li> <li>• Call attention to typical unmeditated behavior</li> </ul>	Follow-up treatment of topics is necessary
Group discussions	<ul style="list-style-type: none"> <li>• Direct and complex exchange of opinions</li> <li>• Provides an overview of the overall problem situation</li> </ul>	Dominance by certain individuals can be a problem	Drama	<ul style="list-style-type: none"> <li>• High entertainment value</li> <li>• Stimulates audience to critically analyze the situation</li> </ul>	Presentation of too many topics at once must be avoided
Cards/diagrams	<ul style="list-style-type: none"> <li>• Illustration of selected topics</li> <li>• Focus on important aspects</li> </ul>	Target group must have already received instruction	Puppet and shadow plays	<ul style="list-style-type: none"> <li>• High degree of acceptance, since these are traditional media</li> <li>• Puppets are produced locally</li> <li>• Information can be embedded in the cultural context</li> <li>• Impact is enhanced by linking entertainment and learning</li> </ul>	Use of puppet and shadow plays requires familiarity with the local culture
Models	<ul style="list-style-type: none"> <li>• Highly effective demonstration of processes and constructions</li> <li>• Encourages imitation</li> </ul>	Production is difficult and expensive; transport is problematic	Case studies	<ul style="list-style-type: none"> <li>• Provides incentive for initiative if connections with local phenomena are recognized</li> </ul>	Group being addressed should prepare its own case studies
Brochures/leaflets	<ul style="list-style-type: none"> <li>• Can be used for specific target groups</li> <li>• Permits graphic illustration and in-depth presentation of topics</li> <li>• Easily combinable with other media</li> <li>• Effective and vivid means of conveying lasting information</li> </ul>	Production costs are relatively high; effectiveness depends on graphic and didactic quality	House visit	<ul style="list-style-type: none"> <li>• Establishment of good personal relations between field workers and target group</li> <li>• Increases community participation</li> <li>• Provides additional source of information</li> </ul>	It is recommended that the talks be taped
			Demonstrations	<ul style="list-style-type: none"> <li>• High degree of attention</li> <li>• Encourage and motivate the target group to participate</li> <li>• Practical learning process</li> <li>• Increase receptivity of the target group</li> </ul>	Brochures must be distributed after the demonstration

# TOOL No 19

## GUIDELINES FOR THE DEVELOPMENT OF VISUAL AIDS

CPHE  
No. 3  
Series

### WHAT ABOUT:


*The tool defines criteria for the production/selection of visual aids (pictures, posters) and gives an example of pre-testing these aids in the field.*

### WHAT FOR:

*National training experts and the members of the project unit (in cooperation with the consultant) could use this tool for the preparation and implementation of educational measures.*

## GUIDELINES FOR THE DEVELOPMENT OF VISUAL AIDS

1. Keep pictures as simple as possible. The simpler the picture, the easier it is to draw the attention of the audience to what you want to show them.
2. Leave out unnecessary details, but make the picture not too simple. Line drawings toned in are the easiest to recognise.
3. Leave out backgrounds. Backgrounds draw the attention away from what you want to tell.
4. A picture is better understood when it has only one, sharp meaning. When you want to tell more than one thing, it is better to make a series of pictures.
5. When you show a series of pictures together on one page or poster, make sure that the right order is understood. Not everybody looks at pictures in the same order.
6. Illustrate a person's whole body and not only a part of it. If only a part of the body is shown (for example a head, hands or feet) it is often not easily understood.
7. Pictures will be more successful if faces, clothing and buildings are based on what is familiar locally.
8. Food, animals and objects (like a spoon or a pot) are more difficult to recognise than pictures of persons.
9. Use only common objects. For example do not show an uncommon water vessel.
10. Coloured pictures are attractive, but are no easier to recognise than black and white pictures.
11. If you want to use pictures before an audience, be sure that they are big enough to be seen by everybody.
12. Avoid making very small objects or animals too big. For example, when you show a picture of a very big mosquito, people will not recognise it as the insect they know.

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- 13.** Perspective (for example a house at a distance) is often very difficult to recognise.
  - 14.** Use only words in pictures (of course in local language) when your audience can read.
  - 15.** Combining upper and lower case letters is easier to read than only capital letters.
  - 16.** Symbols such as crosses, arrows, lines for speed, and so on, are difficult to understand when they are not carefully explained.
  - 17.** Remember local customs. For example, some colours may have a special meaning; some topics may be too sensitive to show in pictures.
  - 18.** Always test (try out) the pictures before you are using them in hygiene education activities. Just ask some people in the community to tell you what is on the picture and what do they feel about it. If your pictures prove to be unclear or if they do not correspond with what you want to show, you can adapt them.
  - 19.** When you show a picture before an audience, give the people plenty of time to look at it and to ask questions about it.

**WHAT ABOUT:**

*The tool describes the steps of the participatory planning process and indicates the respective community gatherings. It also provides an example of the professional input into a community meeting.*

**WHAT FOR:**

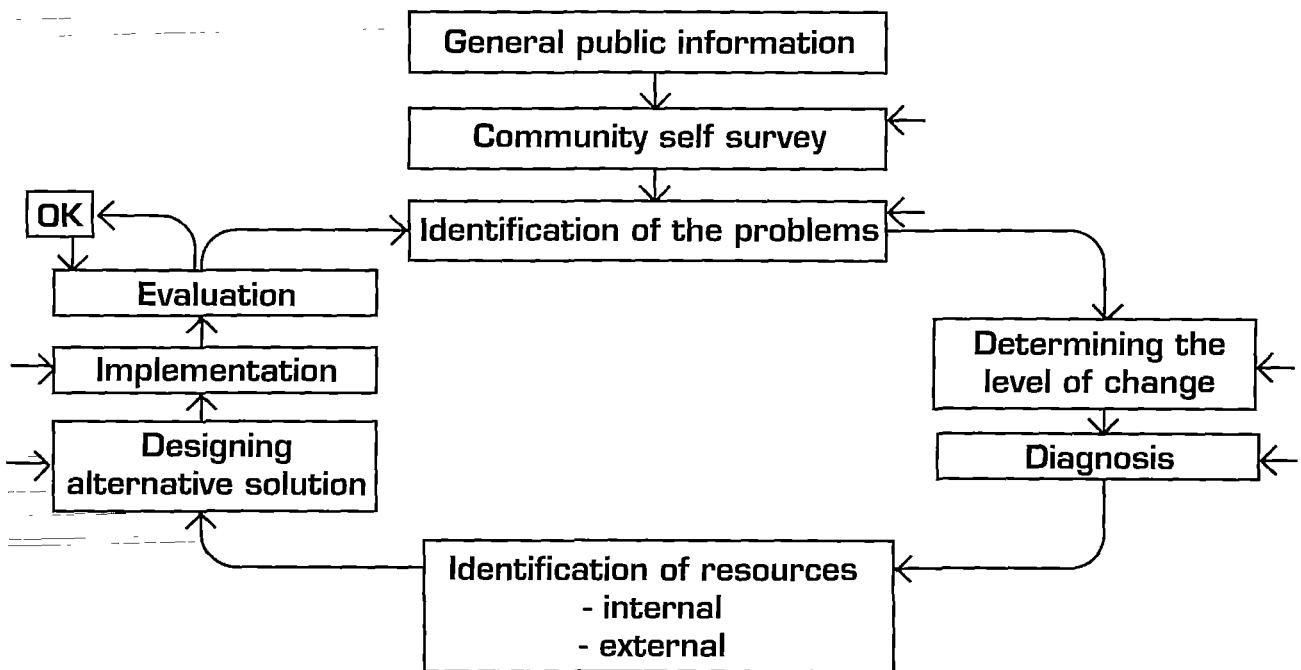
*Within the project planning and preparation process, this tool may be useful for the national project holder, the consultant, the administration and the local services for village diagnosis and training of project staff.*

**THE PARTICIPATORY PROCESS**

**A sequence of gatherings with the community:**

- identification of problems :
- determining the level of change :
- diagnosis :
- identification of resources :
- designing alternative solutions :
- implementation :
- evaluation :

- to agree on problem formulation
- consensus on services required
- former and actual obstacles
- consensus on contribution
- consensus on physical design
- to work together
- auto-evaluation



**Chart:** Guided Process for Participatory Planning  
 → Professional inputs

## METHODS/TECHNIQUES

The participatory approach needs careful guidance by professionals; these have to learn new ways of thinking and to adopt new social communication techniques. The following example for analysis has been field-tested in rural sanitation projects.

### EXAMPLE FOR ANALYSIS

**SETTING:** a village gathering

**TIME:** two hours

**PURPOSE:** to enable villagers define their own criteria for community participation and to compare these criteria with their own performances.

**PREPARATION:**

- 1) gather 8–10 different photographs showing various groups of people engaged in various activities
- 2) Make 5 or 6 copies of each of the photographs

**PROCEDURE:**

- 1) divide participants into small groups of 5–8 people
- 2) give each group a set of photographs and request that the photographs be ranked from most participatory to least participatory
- 3) each group should then present its report in plenary
- 4) discuss the reports by getting participants to define their respective group criteria for participation
- 5) have participants reflect on their individual levels of participation during this activity and compare with list
- 6) request participants to compare their communities' extent of participation in community projects and determine how community participation could be enhanced.

# TOOL No 21

## PLAN OF OPERATION

### WHAT ABOUT:

*The tool gives an example of a plan of operation, including time-table and responsibilities.*

### WHAT FOR:

*It may help to monitor and coordinate the different activities of the members of the project unit. Thus it may be a good management tool for project managers.*

## FLOW OF MAIN ACTIVITIES FOR THE SOCIO-ECONOMIC UNITS\*

Main activity	Staff responsible	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II
1 Recruitment/housing	Coord/head	X													
2 Materials equipment	- do -	X													
3. In-service training	- do -	X													
4. Yearplan + buget	- do -	X													
5. Baseline data	Head ass	X													
6 Mapping	Dr/head	X													
7. Conscientisation	Co/He	X													
8 Community meetings	Co/He	X													
9. Ward water committee	Co	X													
10 Standpost location	Co	X													
11 Sanitation	Co	X													
12 Health education	He	X													
13. Audio-visual aids	He/coord	X													
14 Village OM workers	Co	X													
15 Sanitary survey	Dr/head	X													
16. Monitoring	Dr/head	X													

Coord = coordinator      He = Health educator  
 Head = head of SEU      Co = community organiser  
 Dr = draftman      Ass = assistant data collectors

\* as one type of a CPHE unit

**WHAT ABOUT:**

*The tool shows three categories of manpower and gives examples of the selection of trainers and training needs in different countries. It points out the need of training female field workers.*

**WHAT FOR:**

*The tool can be used best by the national project holder, the services involved and the consultant in the organization phase of the project (selection of project personnel).*

## **Human resource development and use**

The most important determinants of successful community participation are likely to be related to manpower selection, training, supervision and logistic support. Decisions will be needed regarding categories of workers who have specific responsibilities for community participation. Three categories of manpower can be distinguished: (1) technical workers from water and sanitation agencies who also have organizational and promotional responsibilities; (2) non-technical promoters working within the technical agency; and (3) non-technical promoters from other developmental agencies such as health or agriculture. In Malawi and Guatemala, the first model is used. Here project fieldstaff have been recruited for their communication skills. In the Agua del Pueblo Project, training in health education skills is also part of the basic pre-service training. In other countries in Latin America and elsewhere, water supply and sanitation programmes often establish separate promotion units within the water organization with specific responsibilities for community participation. In parts of Tanzania, projects are carried out jointly by fieldstaff from the water, health and community development departments.

Which model is most cost-effective or applicable will probably be influenced by the particular government structure and "organizational culture". The Malawian piped water programme, for example, uses model 1. This project originated in the Ministry of Community Development and Social Services. This may have facilitated the combination of technical and social activities, and time spent on social organization by technical staff. Model 2, a promotion service within the technical department, combines greater specialization with ease of co-ordination. But projects originally financed by donors may have problems to continue financing a separate extension service when national agencies take over financing. Some countries have therefore preferred to divide technical, health education and community organization tasks between existing services (model 3). This reduces costs but makes co-ordination of fieldwork more difficult.

In this context, rewards and career opportunities for project staff involved in participatory water and sanitation projects deserve special attention. For example, the International Labour Foundation found that the creation of a separate career path for rural areas stimulated Kenyan engineers to specialize in low-cost technology and participatory methods. On the other hand, absence of such opportunities in Malawi made the engineers focus increasingly on mastering high-cost technology, so as to be assured of promotion within the department.



In most programmes there has been a tendency to select men for community participation work. However, there are distinct advantages in also having female workers, since they can more easily communicate with local women and help organize their involvement in the project. In Guinea Bissau, a male/female team is used. In Zimbabwe and Zambia special efforts are made to draw upon the services of female community organization workers in various departments. In countries where women lead secluded lives, such as the case of Pakistan, female workers were essential for an advantageous involvement of women in the projects.

A number of countries have developed field manuals for water supply and sanitation workers which also cover community participation. One of the earliest was published by the Thailand Ministry of Public Health in 1957 and has provided a solid foundation for all subsequent community health organization. In Colombia, Ecuador and Malawi manuals have helped to integrate community participation procedures into government systems, and are useful in training programmes. A guide on developing training programmes and manuals for community motivators was recently prepared for WHO.

Training strategies to prepare workers for community participation responsibilities will strongly influence their performance in the field. Lecturing, which has a place in more academic training, is often inappropriate for training in community participation skills. Trainee motivation, functional communication skills, and specialized community organization and education skills are all required.

Competency-based training is more appropriate than traditional subject-oriented or fact-oriented training. Special attention must be paid to the relationship between agencies which employ field workers for community participation, institutions responsible for their training, and local institutions which have direct responsibility for project implementation. A key issue is to assure that training content is consistent with the skills needed in the field. These issues are addressed especially in the Malawi, Guatemala and Philippines case studies.

# TOOL No 23

## TRAINING COMMUNITY MOTIVATORS IN WSS PROJECTS



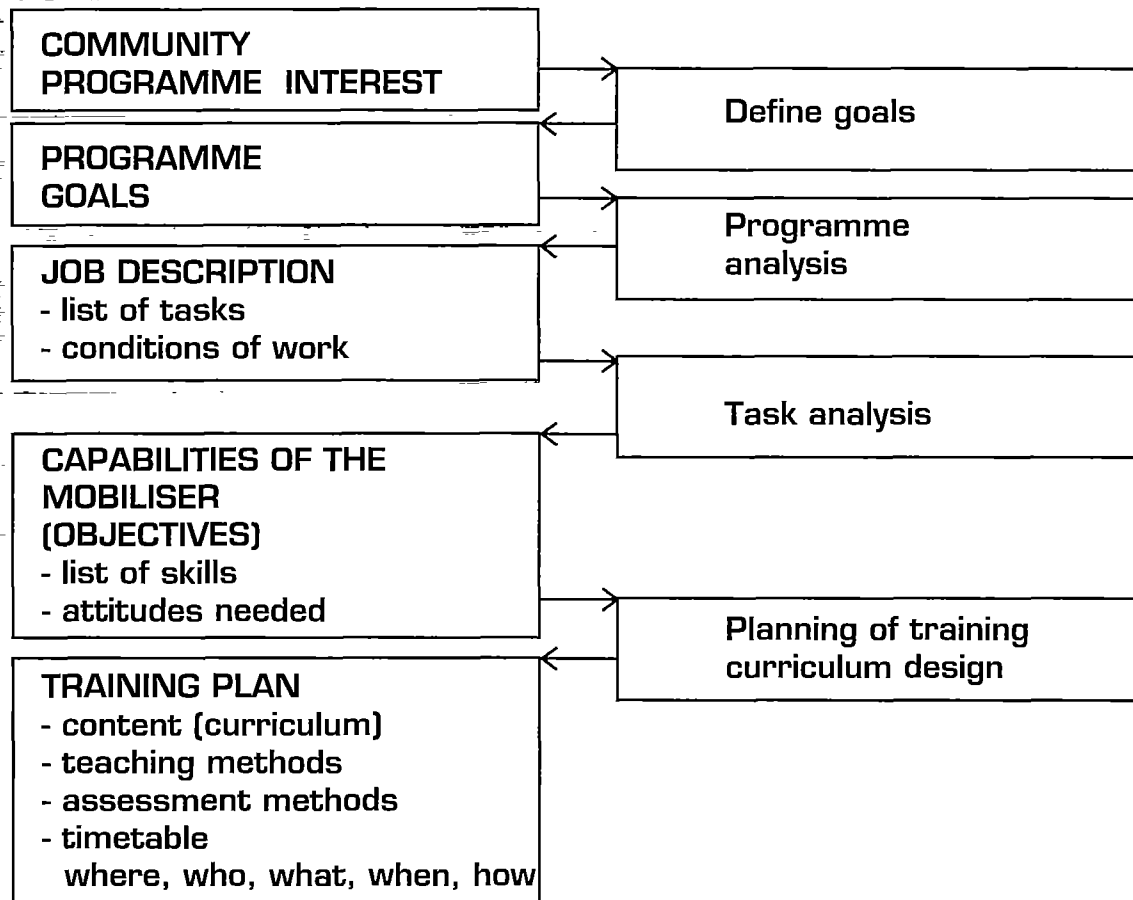
### WHAT ABOUT:

The tool points out the relevance of task-oriented training programmes, related to knowledge and experience of trainees, to project goals and the needs of the population.

### WHAT FOR:

Within the planning phase of the project, national project holder, national training experts and the consultant may refer to it when selecting training methods and tasks and when pre-testing and selecting training materials in the field.

Are you starting a new programme, or do you already have a programme in operation? Either way, the first step in planning your training course is to think about the goals of your programme, and the most effective way to achieve them. The planning of the training course follows on from the planning of your programme in the following steps:



**You need to plan the organization of the course. This will include:**

- A course outline;
- A timetable showing the time and place where the students will learn theoretical and practical aspects;
- The methods used to assess the students as condition for employment as mobilisers;
- Development of specific lesson plans, written materials or manuals.

## **A job manual**

We recommend that you prepare a manual which lists the mobiliser's tasks, and gives detailed information which mobilisers should look up rather than memorise. This might be technical information or standard procedures for setting up a community committee and so on. Use simple language which all the mobilisers can understand. Include sample formal documents used by the mobilisers. For example, requests for a water supply, or documents for the donation or purchase of land.

Set out what the mobiliser is expected to do, in as much specific detail as possible. Include, however, only what is realistically expected: do not overload the mobiliser with instructions which will in reality be ignored because of lack of time or because the mobilisers do not really have the skills to carry them out properly. You can then organize the training course around the topics covered in the manual. The trainer explains and expands each topic, and then gives trainees an opportunity to see the tasks being done, before practising them themselves.

You can only write a fully developed manual for your programme after it has been running for some time. Even here you should leave room for further adaptations and improvements as you go on learning. After some time you will know exactly what tasks and working methods work best in your situation. For a new programme, this chapter may provide suggestions for the contents of a preliminary draft manual, if you select topics applicable to your circumstances.

Teachers should be involved in curriculum planning whether this is for a new course, or improving an existing course. When they are teaching they should constantly think of ways to improve the curricula.

## **Planning the course outline**

1. Break the course into smaller parts. Base the course outline on the mobilisers' tasks, rather than separate theoretical subjects taught apart from practical work. Therefore, do not follow this:

**Example of a poor course outline:**

	<b>Hours:</b>
Sociology	90
Microbiology	30
Psychology	60
Hygiene	60
Surveying	60
Construction	150
Communications	100
Technical I	210
Technical II	220
Community work I	120
Community work II	345

Here the facts are taught separately from their application. The sciences, presented in rigid one hour lectures, are likely to be presented in too theoretical a way, so that the students cannot see their relevance and will forget them or retain them only as isolated knowledge for answering test questions but not for using in what they do.

**A better outline based on tasks might be:**

**Community work**

- consultation
- working with groups
- working with leaders
- organising contributions
- dealing with faction
- involving women

**Construction**

- water supplies
- latrines
- training local people
- supervision


**Maintenance**

- water supplies
- latrines
- training caretakers

**Health education**

**Surveying**

**Design**



In this outline, the whole course is designed to give students the necessary skills. Theory is learnt at the same time as practical work which makes learning more meaningful. The timetable can be more flexible with longer periods for project work.

## **Timetable: time for classroom learning and for practice**

Most courses spend too much time teaching facts in the classroom. You need to spend **much more** time giving students opportunities to **practise skills**, using their hands, making decisions and communicating, than in teaching facts. Organising this practice takes time and effort, but you must do it if students are to learn. They must experience working in the community, away from the training school.

# **TOOL No 24**

## **IMPLICATIONS FOR PROJECT MANAGEMENT AND EVALUATION**

### **WHAT ABOUT:**

*The tool describes the framework of a participatory design and management of sustainable water supply and sanitation projects.*

### **WHAT FOR:**

*National and international decision-makers, project holder and consultant may use it for planning a participatory project design and management.*

## **SUSTAINABILITY**

A re-definition of participation is a necessary starting point for any strategy on achieving sustainability: participation is the learning process by which communities control and deal with technology, change and development. It is a necessary component of every water supply project that has maintenance and long-term sustainability as its objective.

The amount of change that will be experienced by the community as it undertakes the management and maintenance of a new water point is the key indicator for success and long-term sustainability.

## **LOCAL MANAGEMENT PARTICIPATORY PROCESS (LMPP)**

In brief, the LMPP focuses on three elements – identification of local management systems, recognition and negotiation of local control, and establishment of two-way information systems. To use this replicable process, the donor decision-maker and project must plan, provide for and manage each of the three elements if sustainable projects are to be achieved. Specific implications of the LMPP need to be documented and assessed at the field, country mission and headquarters level for a number of projects in a number of different sectors. Then the management process for collaborative participatory projects would attain the consistency and predictability that it does not have at present.

## **PROJECT EVALUATION METHODS**

The initiation type of project with its focus on inputs and outputs calls for evaluation tools that measure the what or the efficiency of delivering tangible products. The responsibility type of project with its focus on sustainability calls for assessment and evaluation tools that primarily document the how or increased problem-solving capacity and learning expansion of the community; then measurement and analysis of this learning expansion in terms of management and maintenance capacity indicates whether or not the project is successful. Assessment and evaluation that focus on how events and capacities evolve, so that adjustments can be made throughout the life of the project, must be carried out by insiders in a participatory and collaborative manner and must start at the beginning of the project.

## **EVALUATION TECHNIQUES**

Participatory project evaluation techniques focus on two-way information exchange and local responsibility and control. The major objective is to allow the community to develop and implement its own assessment and evaluation of the project. In some cases, communities can design and administer their own questionnaires with the information being relayed to the project in verbal form through workshops. In others, communities work with an assigned evaluator to design and implement a workshop forum where project assumptions, implications, and impacts are discussed and analysed by the community. The information and learning resulting from these types of endeavors allows the necessary "inside-out" perspective to emerge.

## **ACTIVITIES NEEDED**

In order to measure the capacity for sustainability, development workers must attempt to identify rigorous and accepted indicators that can measure the learning, capacity-building and expansion of development that focuses on responsibility and local control, rather than initiation and dependence.

The process for sustainability means to donor decision-makers that the participatory learning process at the local level must be given a central place on the organizational docket, along with the present focuses on organizational management and technical expertise. This implies that the donor institution's long term organizational policies and short-term operational procedures will need to be reassessed.

**WHAT ABOUT:**

*The tool underlines the importance of women's participation in project implementation and shows the requirements of training and organization of female community representatives.*

**WHAT FOR:**

*The tool can be used in the project implementation phase to establish women's participation in project measures. It is important for the community, the project staff and the local services.*

Although the literature contains many accounts of women being excluded from local planning, it also suggests several mechanisms to enhance their participation in this phase. These are the promotion of meeting attendance, stimulation of two-way communication, selection and training of women representatives, and formation and strengthening of parallel women's organizations.

### **Promotion of meeting attendance**

Awareness of village leaders of the value of women's involvement in water supply and sanitation and support of their participation are primary conditions. Meetings must be held at suitable times and places for women and women should be informed and encouraged to attend through both men's and women's channels, for example, village authorities and women's organizations. A second, separate meeting with local women for more detailed discussion of planning issues related to their responsibilities and knowledge has been found to be very effective. Special efforts must be made to involve poor women, who are often not represented in women's organizations. Neighbourhood delegations or meetings may help in this regard, because often poor and wealthy households are located in different parts of the community. Small neighbourhood meetings also facilitate women's participation.

### **Increase of two-way communication**

As already shown, project information may not reach women attending local meetings unless the local language is used and seating arrangements are adapted so that they can participate on equal terms with men. Feedback from women and also men can be improved by the attitude of the discussion leaders and also by prior discussion with the women. A break in meeting proceedings for women to discuss issues and use of a spokesman or spokeswoman to voice their opinion can also assist.

Local, educated women, such as midwives, nurses and teachers, may be suitable intermediaries provided they discuss the issues with the women concerned. Their professional status makes their involvement more acceptable to male leadership in societies requiring the seclusion of women. In Latin America, schoolteachers have often played an important role in rural water projects as local promoters and spokeswomen. The same role can be played by representatives of local women's organizations, such as women's clubs and women's wings of political parties. The use of small-scale models, photographs and drawings of the proposed facilities has also stimulated women to participate in decision-making and to provide valuable feedback.



## **Selection and training of women representatives**

The women selected should represent the interest of various socio-economic groups in the community and have sufficient time and mobility to carry out the work. Their position must be respected by both men and women and they should have the support of their relatives. Often single women are selected because of their greater freedom of movement. A strong personality and experience with organizational work are also advantages. As socio-cultural patterns vary considerably, the local women themselves often make the best reasoned choice of their representatives. Their participation is more readily accepted if responsibilities are divided along existing lines, for example, if women on water committees are responsible for health aspects.

Two women on a committee can give one another mutual support. Attendance of the first meetings by an extension worker, who may need to be a woman, may also help. However in many cases, women representatives will need special training, particularly in leadership skills, confidence building and communication with those they represent. Similarly, training must be given to the men to prevent them from feeling passed by.

## **Parallel organizations of women**

A second option to enhance the involvement of women, especially in areas where matters of concern to men and women are divided, is parallel organizations. This can sometimes be achieved through existing women's organizations.

In parts of Melanesia and West Africa, for example, women's organizations have a long tradition and considerable status in women's issues, such as health, cleaning and village beautification and financing of women's activities (savings and loan associations).

*In Tonga, local women boycotted a sanitation project when they were excluded wilfully from the discussion of the community survey results and the planning of a village action programme by the men's committee. Involvement by the agency of both the women's health committee and the men's water and agricultural committees in a neighbouring community led to a successful piped water supply and sanitation project, with total latrine coverage and satisfactory maintenance. Their example stimulated 18 villages to join the project. In other cases, women's organizations or committees have been established with the aid of women field-workers and the support of local men.*

Another method used effectively in segregated but non-secluded societies is to contact women at their places of work especially if they do not have the time to meet elsewhere. These approaches may not be appropriate in areas where women live in seclusion and social contacts are confined to the family. In such cases, agency intermediaries or development workers have made home visits and organized meetings in the homes of leading local women.

**WHAT ABOUT:**

*The tool explains the advantages (and disadvantages) of a community diagnosis. It gives some clear indications on how community/health workers might conduct a community diagnosis.*

**WHAT FOR:**

*It can be used by the project staff in execution of the community diagnosis as well as by the training expert in the training of community/health workers.*

## **Community diagnosis – whom does it serve?**

Ideally, a community diagnosis is a self-analysis by a community of the problems that concern people most. But watch out! The term community diagnosis is used quite differently by many of the larger health programs. To them it has come to mean a detailed survey, which health workers are required to conduct in their communities after training. Often the information collected through these surveys serves the needs of the health authorities, but means little to the people themselves.

To require a new health worker to conduct a long, complicated community survey can turn people against him from the first. Many people dislike or distrust surveys. This is especially true for the poorest of the poor, who are repeatedly studied but seldom see any real benefits.

## **When does information gathering make sense?**

Although starting off with a detailed community survey is often a mistake, there are times when a health worker and the people in his community may want to gather specific information. For example:

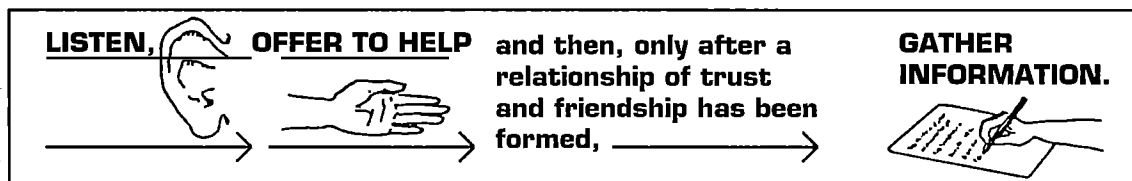
- People may want to see whether many children are underweight (poorly nourished) and therefore more likely to get sick.
- They may want to find out if bottle-fed babies in their village get diarrhea more often than breast-fed babies.
- They may want to see whether a particular health activity produces results. For example, a village may plan a campaign to control malaria. The people can take a survey before they begin, to find out how many persons have had fevers and chills. Then – after everyone has taken part by draining ditches, sleeping under mosquito nets, and getting early treatment – the villagers can take another survey and compare the results.

Because surveys often show results that would not otherwise be noticed, they can help to renew people's enthusiasm for continuing an activity (or to stop or change an activity that is not working).

## Suggestions for gathering community information

There are no set rules or one "right" approach for gathering needed information in a community. However, several people-centered programs have come up with the following ideas:

1. Go to people's homes and get to know them. **But do not start by taking a survey.** Information learned through friendly, casual visits is often truer and more useful. Put the needs and feelings of the people first.



2. When gathering information, try to find out what problems people feel are most important or want to solve first. Learn what ideas they have for solving them.
3. Ask only for information that makes sense (and not simply because you were told to collect it). Be sure you and the people understand why the information is needed. For example, be sure parents understand why you weigh children before you do it.
4. **Involve local people in gathering the information.** Be sure studies are not of the people, but by the people.
5. When conducting a survey or community diagnosis, **try to avoid taking along written questionnaires.** Avoid writing notes while a person is talking to you. Listen carefully, remember what you can, and **write your notes later.** Always be honest and open about the purpose of your visit.
6. Look for ways of making the survey a learning, exploring experience for those being questioned. Try to ask questions that not only seek information, but that also get people thinking and looking at things in new ways.  
  
For example, instead of simply asking, "How many people in your family can read?" follow up by asking, "What good is it to know how to read and write?" "Does the school here teach your children what they most need to know?" "If not, who does?"
7. Observe people carefully. You can find out as much by watching the way people act and do things as you can by asking questions. Learn to look and listen.
8. **Go slowly when giving people advice,** especially when it concerns their attitudes and habits. It is often better to tell a story about how others solved a similar problem by trying a new way. And **set a good example yourself.**

# TOOL No 27

## OPTIONS FOR COMMUNITY MAINTENANCE FINANCING SYSTEM

### WHAT ABOUT:

The tool provides different criteria for the selection of an adequate maintenance financing system of WSS systems. A commonly agreed financing system is a major contribution to sustainability of WSS systems.

### WHAT FOR:

The tool can be used by the project holder, the project team and the community itself to establish a commonly agreed maintenance financing system of WSS systems.

### Main questions for village decision making on maintenance financing

<b>Questions for discussion</b>	<b>Options open to the village</b>
What costs to budget for?	Remuneration of Scheme Attendants/ Village Mechanics Tools and spare parts for repairs Replacement of handpumps Extension of the system
What funds to use?	Village funds Voluntary contributions Regular user payments
What rates to set?	Flat rate (all pay the same) Weighted (according to benefit/ payment capacity)
How to collect money?	Fund raising on breakdown Taking money from a village fund Reserving part of village funds to establish a separate water fund Regular collection of household contributions
When to collect?	Monthly At the beginning of the financial year After harvest
Who collects?	Village water committee Handpump user group Community leaders
How to keep the money?	Village account Water account Who signs?
How to administer the funds?	Receipts for book-keeping Financial control User feedback
Who to administer the funds?	Village water committee Village accountant
How to pay the caretakers and/ or area mechanics?	Per job Per month Per year after harvest In cash/kind

## OPTIONS FOR COMMUNITY FINANCING OF WATER SYSTEM

	What?	When?	What for?	Who organizes?	How?
<b>C O M M U N A L  F U N D S</b>	voluntary funds	in communities with a tradition of fund-raising, seasonal income, and a good knowledge and control of payments according to household capacity and benefits	financial contributions to construction; occasional larger contributions to maintenance and repair of simple systems with public water points	traditional leadership, voluntary organizations, e.g. women's groups, tap organizations	targets are set and funds collected periodically through meetings, house-to-house collections, bazars etc. Funds are collected in advance or when required
	general community revenue	in communities with own sources of income and a water supply with public facilities	annual maintenance and repair, financial contributions to construction; depreciation and expansion where possible	local government, community water committee or subcommittee	reservation of funds based on the estimated costs and net annual income of the community, cost-reduction or income generation where necessary
	cooperative funds	water supply initiated and financed through production cooperative or village revolving fund, no direct payments for water used	annual maintenance and repairs; repayment of construction loan; depreciation and expansion where possible	cooperative's executive committee, community water committee or subcommittee	reservation of funds based on estimated costs and income from cooperative ventures and/or member fees, cost-reduction or income generation where necessary
<b>U S E R  C H A R G E S</b>	flat rates	families have private taps, or share taps with well-defined social group, have fairly reliable incomes, and benefit more or less equally	repayment of community loan for construction, annual maintenance and repairs, depreciation and expansion where possible	water committee or subcommittee, board of water users cooperative, local government, tap users' committee	project agency advises on initial rate for approval by users, rates are collected and administered by the local water organization
	graded rates	in communities with appreciable differences in water use and benefits and sufficient community spirit to divide user households into different payment categories	repayments of community loan for construction; annual maintenance and repairs, depreciation and expansion where possible	community water organization with support from promoters or other social experts assisting the project agency	private tap owners are classified in high and low rate categories, using local indicators of water use and wealth, users sharing tap may pay lower or equivalent individual rate
	mixed systems	in communities with large differences in payment capacity and water use, with high and low-income households living in separate sections	repayments of community loan for construction, annual maintenance and repairs, depreciation and expansion where possible	water agency with community water committee or subcommittee	surpluses or private taps are used to finance the costs of free public taps in poorer sections
	water metering	in large communities with limited water resources and an efficient administration	repayments of community loan for construction, annual maintenance and repairs, depreciation and expansion where possible	water agency and/or community water organization	meter reading, billing and rate collecting by separate workers, or payment through banks, at central government offices or local branches

## OPTIONS FOR COMMUNITY FINANCING OF WATER SYSTEM

(continued)

	What?	When?	What for?	Who organizes?	How?
<b>V E N D I N G</b>	vending instead of a piped distribution network	in communities where a socially valuable vending system can be improved, where other solutions are technically, economically or politically impossible	contribution towards financing of the recurrent costs of the agency, and financing of vendor service costs, including upkeep of hygiene and simple repair	water agency with paid operators, women's groups or water sellers' cooperative	water is sold from metered taps at controlled prices, when buying prices are subsidized, selling prices may equal private rates, the difference forming the vendors' income
	vending as part of a piped distribution network	in communities where group connections or cross subsidies between private and public taps have not worked	contribution towards financing of the recurrence costs of public taps and the service of the vendors, including upkeep of hygiene and simple repairs	water agency with paid operators or socio-economically appropriate concessionaires, e.g. women heads of households	
	coin-operated taps	not recommended because of their great sensitivity to breakdown and interference			
<b>T A X E S</b>	direct or indirect water taxes	in communities where the transfer of sufficient funds to the water organization is assured and taxation can be related to water use and costs	annual maintenance and repair, repayment of construction loan, depreciation and expansion where possible	local government service organization for a specific area, e.g. a low-cost housing scheme	taxes are used exclusively for financing one or several basic services, categories of payment are based on level or service or house conditions

# TOOL No 28

## ALTERNATIVE WATER SUPPLY AND SANITATION TECHNOLOGIES

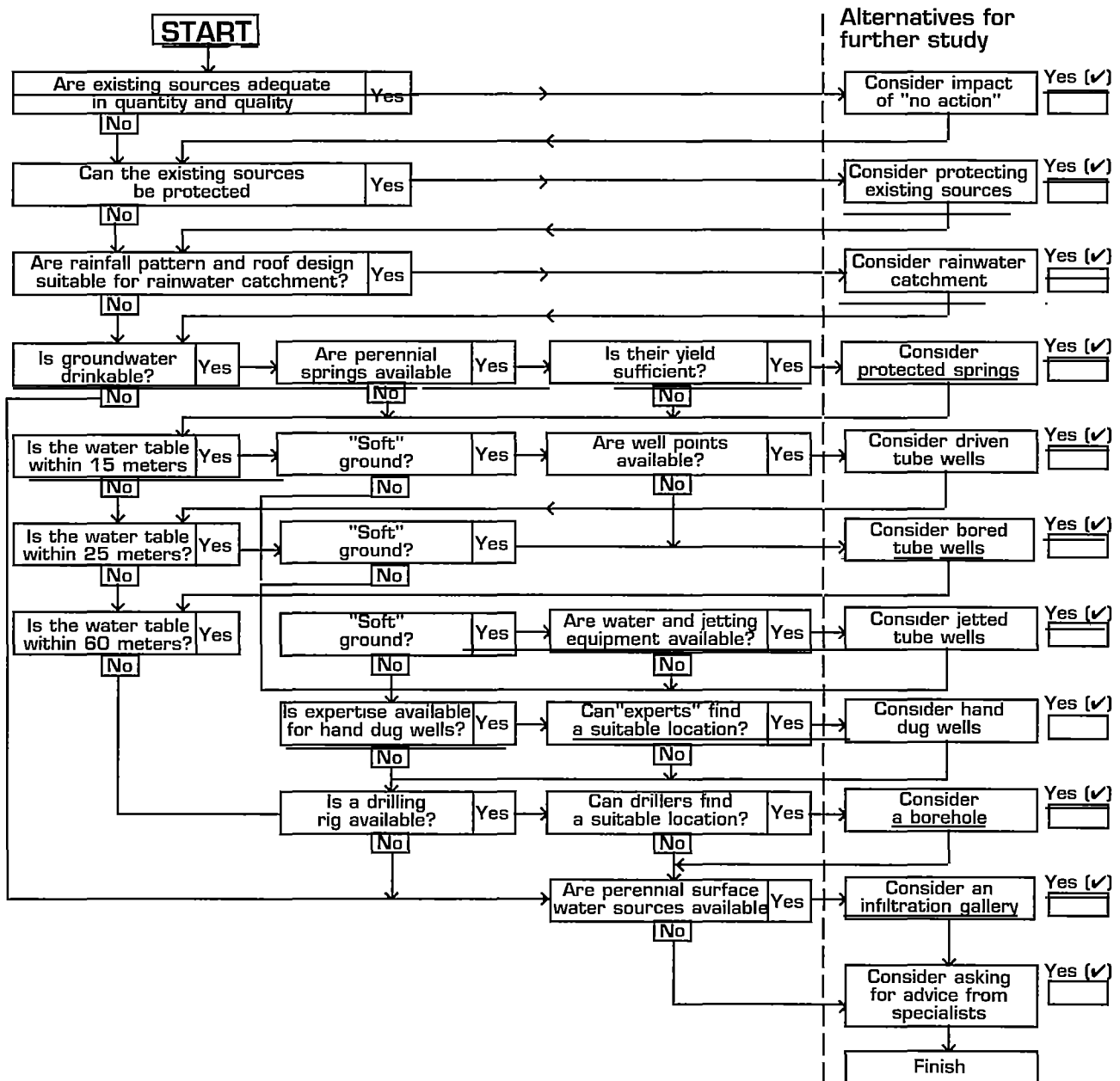
### WHAT ABOUT:

The tool provides technical and socio-economic criteria for the selection of WSS technologies appropriate to the situation of the respective community.

### WHAT FOR:

Within the participatory planning process, the tool could be used by project staff as well as by community members (e.g. village gatherings).

### DRAWING UP LIST OF WATER SUPPLY SOURCE ALTERNATIVES COMMUNITIES



Reference No 7  
© Cairncross/Feachem

Which alternatives have been checked (✓) for further study?

# TOOL No 29

## AGREEMENT BETWEEN PROJECT HOLDER AND COMMUNITY

### WHAT ABOUT:

*This model agreement between project holder and community on the execution of construction works indicates the necessity of a clear definition of contributions from both sides.*

### WHAT FOR:

*Community representatives, the project holder and the consultant may refer to it during project implementation and adapt it to their own needs.*

### ISSUES COMMONLY COVERED IN THE AGREEMENT BETWEEN A PROJECT HOLDER AND A COMMUNITY FOR THE CONSTRUCTION OF WORKS IN WSS PROJECTS

**1. General characteristics:**

Name of the Project Holder, name of the Community, representatives of both parties who will sign the agreement

**2. Definition of works:**

Purpose of the construction works, sites and number of units to be installed, duration of works, methods of execution of construction works

**3. Total costs:**

Total amount, definition of payments

**4. Contributions (a):**

Contributions of the Project Holder in cash, materials, labor

**5. Contributions (b):**

Contributions of the Community in cash, materials and labor

**6. Duties (a):**

Duties of the Project Holder, detailed description of responsibilities of the project holder concerning construction, maintenance, spare parts etc.

**7. Duties (b):**

Duties of the Community, detailed description of the responsibilities of the community concerning construction, maintenance, spare parts etc.

**8. Regulations of Functioning:**

Administrative and financial regulations related to the functioning and use of the installations, methods of fund raising in the Community, methods of payment, responsibilities and organization in the Community related to maintenance and control

**9. Final regulations:**

Rules of arbitration, signing regulations, place and date of signing



# TOOL No 30

## CONTRACT BETWEEN COMMUNITY AND PROJECT HOLDER



### WHAT ABOUT:

*The following example of a "Householder's Latrine Contract" points out the necessity of clearly defined rights and obligations of the parties involved.*

### WHAT FOR:

*Project holder, community and consultant may refer to it when discussing contracts to be signed by project holder and community in the implementation phase.*

## Householder's Latrine Contract

I \_\_\_\_\_ of \_\_\_\_\_ village,  
\_\_\_\_\_ District, agree to pay the sum of \_\_\_\_\_  
Pula to the Council Revenue Officer.

In return for this fee \_\_\_\_\_ District Council will  
provide me with:

- a) 3 latrine slabs
- b) 1 ventpipe
- c) the technical assistance necessary to construct my own latrine
- d) 1 3-metre piece of Typar
- e) 1 3-metre piece of wire mesh
- f) labour and materials necessary to install a reinforced concrete ringbeam

(Delete that which does not apply)

The terms of payment will be \_\_\_\_\_  
\_\_\_\_\_

Signature of Home Owner \_\_\_\_\_ Date \_\_\_\_\_

Signature of Headman \_\_\_\_\_ Date \_\_\_\_\_

Signature of Council Secretary \_\_\_\_\_ Date \_\_\_\_\_

**WHAT ABOUT:**

*The following list of activities and goals of an Environmental Sanitation Service is giving an example of how the capacities of local services can be examined in order to find out what reinforcements may be required.*

**WHAT FOR:**


*This tool could be used during project implementation by the project manager and the services involved.*

**DUTIES OF THE SERVICE**

The description of the duties of the service for environmental sanitation is showing the wide range of activities the project may utilize:

**Activities**

- |  |  |
|--|--|
| 1. Community diagnostics                           | Collection of data on the health and hygiene situation                           |
| 2. Planning and organization                       | Multisectoral planning, organization and management                              |
| 3. Drinking water supply                           | Suitable supply lines for rural and urban areas; maintenance and quality control |
| 4. Disposal of excreta, solid waste and wastewater | Elimination of sources of infection and interruption of transmission paths       |
| 5. Control of animal vectors                       | Elimination of transmission factors  |
| 6. Food hygiene                                    | Quality control to eliminate pathogens   |
| 7. School hygiene                                  | Control of communicable diseases   |
| 8. Industrial hygiene                              | Reduction of the risk of contagion and environmental pollution                   |
| 9. Household hygiene                               | Control of direct and indirect transmission by animal vectors                    |
| 10. Individual hygiene                             | Reduction of contagion risks for healthy individuals                             |

- 
- |                                     |  |
|-------------------------------------|--|
| 11. Health education and motivation | Changing of behaviour and practices, as well as motivation of community participation                              |
| 12. Health services                 | Improvement of detection and treatment in order to eliminate sources of infection by treating diseased individuals |
| 13. Training and instruction        | Recognition of the extremely great importance of hygiene; training and technical instruction for staff             |

## **WORKING CAPACITIES WEAK**

In many countries, however, the working capacities of sanitation services are weak. Their importance tends to be underestimated by the university and by the project holder. This results in lack of equipment and budget and low salaries. The staff therefore may be less motivated than in other health services.

## **REINFORCEMENT THROUGH PROJECT**

Environmental sanitation services play an important role during the project period and later on by continuing to supply the communities with technical advice. Quality control is their main task: bacteriological and chemical analysis of water, inspection of the hygiene situation in communities, food control etc. The question arises, why e.g. laboratories for water-quality control are only sponsored for the project holder and not for this service.

# TOOL No 32

## STATUTES OF LOCAL WATER ORGANIZATION

### WHAT ABOUT:

The tool lists the issues commonly covered in the statutes of a local water organization.

### WHAT FOR:

The tool can be used best in the implementation of the technical project by hard and software specialists, project holder and community members.

## ISSUES COMMONLY COVERED IN THE STATUTES OF A LOCAL WATER ORGANIZATION

### General characteristics:

Name, place of residence and purpose of the organization;  
Date of establishment;  
Legal status;

### Membership:

Qualifications and conditions for membership;  
Procedures for application, acceptance and cancellation as member of the organization;

### Sources of income:

Contributions, rates, subsidies, loans and other rightful revenues;

### Committee(s):

**Composition:** number and functions of committee members; composition of executive committee, and sub-committees where necessary;  
**Election:** occasion; procedure; length of term-of-office; possibility of re-election; by-elections in case of resignation etc.;  
**Representation:** of the interest of all user categories, including women and low-income households.  
**Functions:** responsibilities and authority of each function, character of the work (voluntary or paid; type of remuneration)

### Meetings:

**Committee(s):** frequency, purpose and authority of meetings of the committee(s).  
**General assemblies:** frequency of assembly; minimal period between announcement and assembly; user information on time, place, purpose;  
**Purposes of meeting:** rendering an account of the preceding period; appointment of a financial control committee for the next financial period; recruitment and election of committee candidates; other relevant business etc.;  
**Validity of meetings:** representation of various user categories; voting rights (e.g. heads of households only, or male and female heads, or one adult, one vote); quorum for important decisions; conditions for a general meeting on request of the users;

### Changes:

Procedures for changing the statutes; procedures for winding up the organization.

**WHAT ABOUT:**

*The tool explains the necessity of organizing self-help labour to reduce costs and to get good quality water.*

**WHAT FOR:**

*The models of organization provided may be used by project staff and representatives / members of the community during implementation and execution of the technical work.*


## **ORGANIZATION OF SELF-HELP LABOUR**

Community self-help labour can lead to valuable cost reductions. The success of community self-help depends to a great extent on the quality of the labour organization and the attitudes of the project staff to working with the community. Project staff sometimes blame the community for not showing up in sufficient numbers or delivering poor quality work. However, this may well be due to the fact that the work coincides with other important community activities such as harvesting which the people cannot or should not neglect. Merely imposing the project on the community, or putting sanctions on non-attendance will not increase people's interest and dedication.

Good labour organization can guide the initial enthusiasm when hundreds of people may turn up, and contributes to a high quality labour performance. The usual tasks of the local committee are to divide the work in a fair way, check attendance, supervise the quality of the work and exercise sanctions on defaulters. These sanctions may consist of moral and social pressure, fines or, in extreme cases and with private or group connections, exclusion from use of a tap. Checking defaulting of community contributions in the initial stages sets a good example for controlling user payments later on. Training committee members in organization and management of voluntary labour will in addition develop administrative skills for later water supply management.

Basically, piped water supply projects practise two types of community labour organization. In the first type the whole community turns out for work every day for a concentrated period of time, or once a week, on a free day, depending on the local economy and planning of the work. For large schemes, the total work may be divided into more or less equal parts in co-operation with the local authorities and water committees. Each community or section is then given its part to complete. Thus, in some multi-village schemes in Malawi, the community nearest to the intake does the unskilled work for the headworks. The main line is divided between the remaining villages, and work for the distribution system is done by each village concerned.

In the second type of labour organization, project and water committee form small work teams of one adult member from each user family, some teams for Monday, some for Tuesday and so on. These teams work together for one day every week, doing all the unskilled work necessary until the water supply is ready. Because the teams stay together for a long time there is usually good control within the group to ensure that members contribute their full share of labour. In addition, the groups usually know which families



cannot contribute much labour, such as old couples and single women with small children, so that other solutions can be found for their share. Those not able or willing to work while able to pay may also finance a substitute worker.

Local committees can also help to demonstrate to their fellow workers what will happen when certain work standards are not maintained, so that the villagers will understand how the quality of their work will affect the quality of their water service. Shallow trenches, for example, can cause exposure and damage to PVC pipes by sun, bushfires and vehicles or agricultural implements. Demonstrations of the risks caused by poor quality work and simple tools for checking, such as a measuring stick to check depth and width of trenches can be useful aids to obtain a better quality of work.

Similar demands of good organization also apply to the project agency itself. When the community undertakes its part of the agreement e.g. the digging of trenches, but finds that upon completion the pipes have not arrived, it will be hard to keep up morale and dedication. And when by the time the pipes arrive the trenches have caved in, it is not surprising to find that few people are prepared to start the work all over again.

# TOOL No 34

## HYGIENE EDUCATION ASSESSMENT CRITERIA



### WHAT ABOUT:

The tool provides hygiene education assessment criteria which can be used to judge the degrees of adaptation of HE to the structures and the situation of the target group. They rank from a high to a low level.

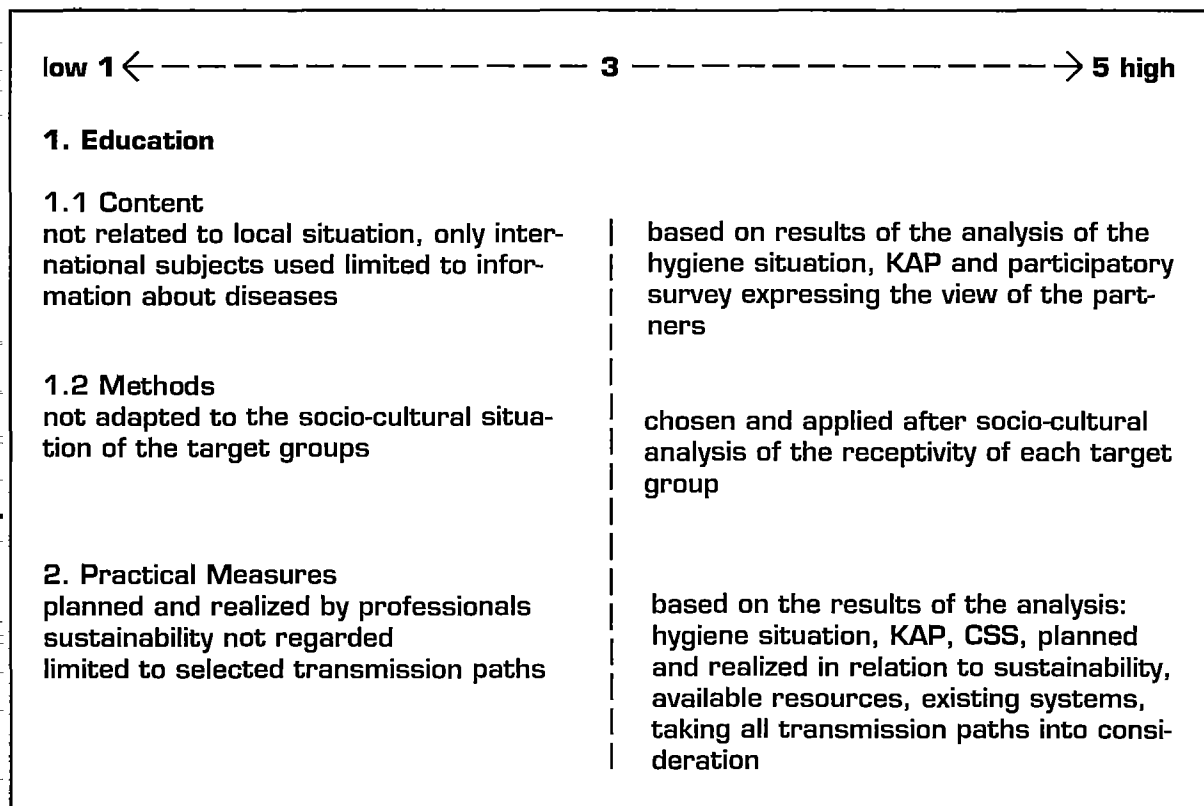
### WHAT FOR:

It can be used for the sensitization of decision-makers, project holder and project implementers on the importance of a participatory hygiene education.

Water and sanitation schemes are part of the measures to cut the transmission of diseases through human excreta, water, food, vectors, hands, and soil. Each path of transmission needs specific activities to be interrupted:

TRANSMISSION CYCLE	ACTIVITIES
<p style="text-align: center;"><b>INFECTED INDIVIDUAL</b></p> <p style="text-align: center;"><b>E X C R E T A</b></p> <p style="text-align: center;">WATER FOOD VECTORS HANDS SOIL</p> <p style="text-align: center;"><b>INFECTION OF HEALTHY INDIVIDUALS AS A RESULT OF TRANSMISSION</b></p>	<p>Diagnosis and treatment</p> <p>Construction of sanitary facilities (disposal of human excreta)</p> <p>Supply of drinking water</p> <p>Protection fo food</p> <p>Protection against vectors, eradication</p> <p>Washing of hands</p> <p>Treatment of the soil and protection against excreta</p> <p style="text-align: center;"><b>COMBINATION OF EDUCATIONAL AND PRACTICAL MEASURES</b></p>

The components of HE, educational and practical measures can be judged using the following scheme:



The results of a combination of educational and practical measures concerning hygiene lead to an improvement of the health situation of the population: The prevalence of diseases related to individual and public hygiene declines and the awareness of the population concerning these diseases increases. Thus more people will be treated and, consequently, the number of registrations in the health statistics will go up during the first phases of HE: The declining tendencies – and thus the efforts of HE – are showing in the health statistics with a time-lag. Apart from this, seasonal influences have to be considered.



**TOOL No 35**  
**DEFINING DISEASE TRANSMISSION ROUTES**

**WHAT ABOUT:**

*The tool gives an example of how to identify transmission routes together with the community. It may strengthen the awareness that hygiene education is not just teaching but a process of finding the risks of disease transmission together with the community in its own environment.*

**WHAT FOR:**

*The tool may be used by project staff and community members in the village diagnosis and in the implementation of hygiene related measures.*

**PEDAGOGICAL APPROACH**

The following approach would be used to identify transmission routes with a rural community.

**BLOCKING THE ROUTES**

**SETTING:** A village gathering or community learning group.

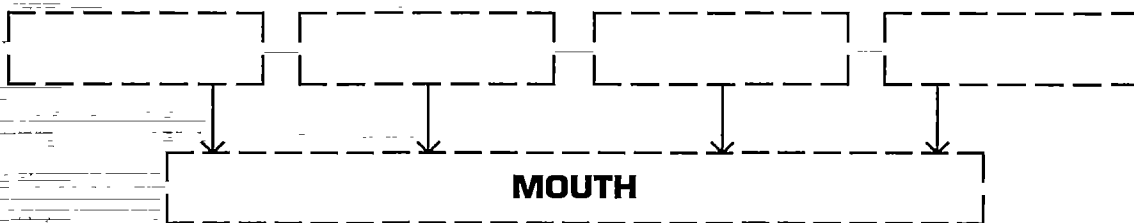
**TIME:** 1-2 hours

**PURPOSE:** To enable participants understand the principles underlying recommended sanitation and related practices.

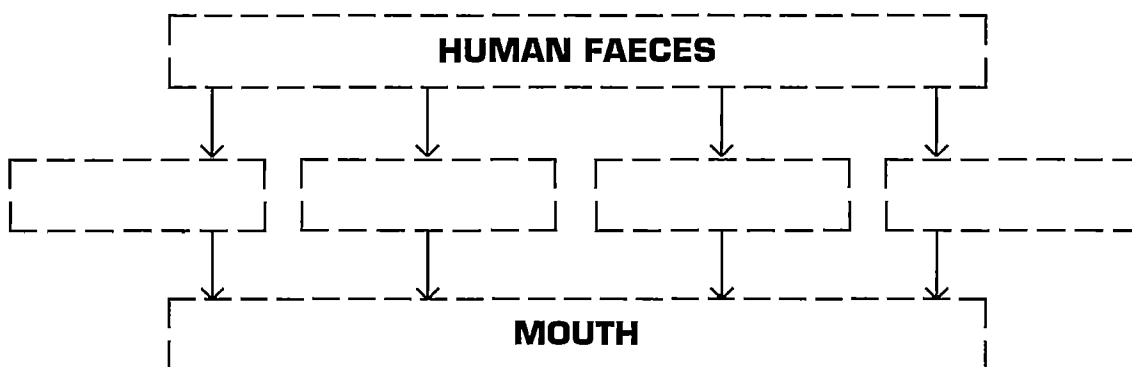
**PREPARATION:** Cut out 5 to 10 large pieces of paper (15 cm x 20 cm). In addition cut out 20-30 strips of paper (5 cm x 15 cm).

**PROCEDURE:** 1. Place one large piece of paper on a blackboard and label it **MOUTH**.

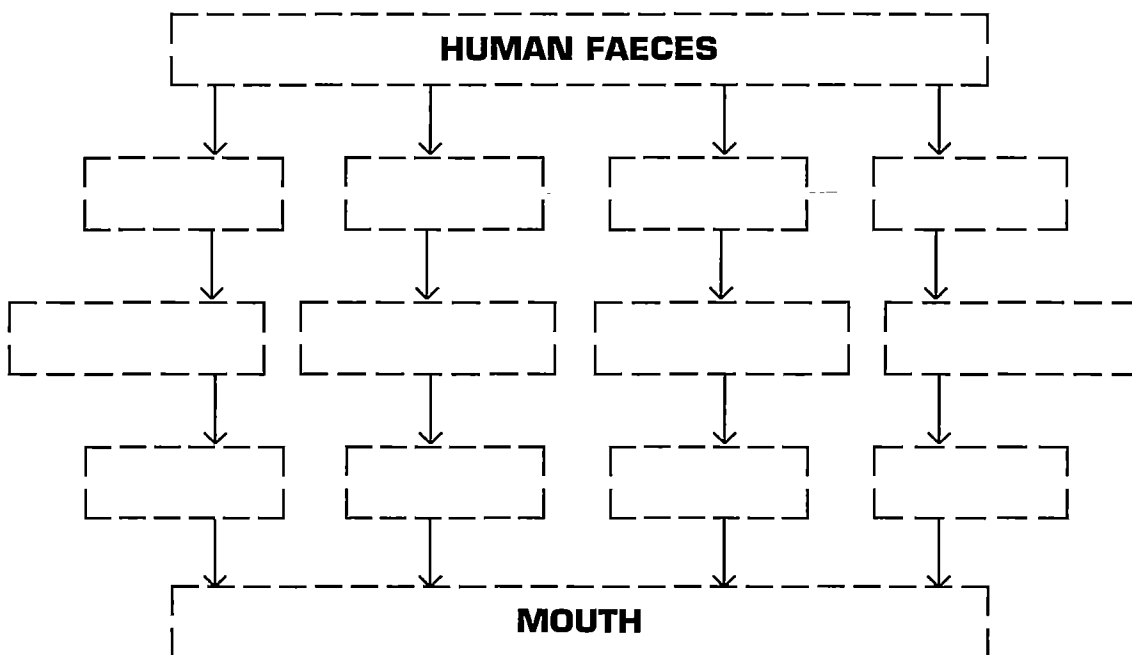
Ask participants to list various items or objects which make regular contact with the human mouth. Label each listed item/object on one of the the large pieces of paper. Have participants place the labels on a blackboard and link with arrows as shown.



Have the participants discuss whether and how each of the listed items or objects can be contaminated with human faeces. Place the card labelled **HUMAN FAECES** also on the blackboard and link with arrows to the listed objects/items.

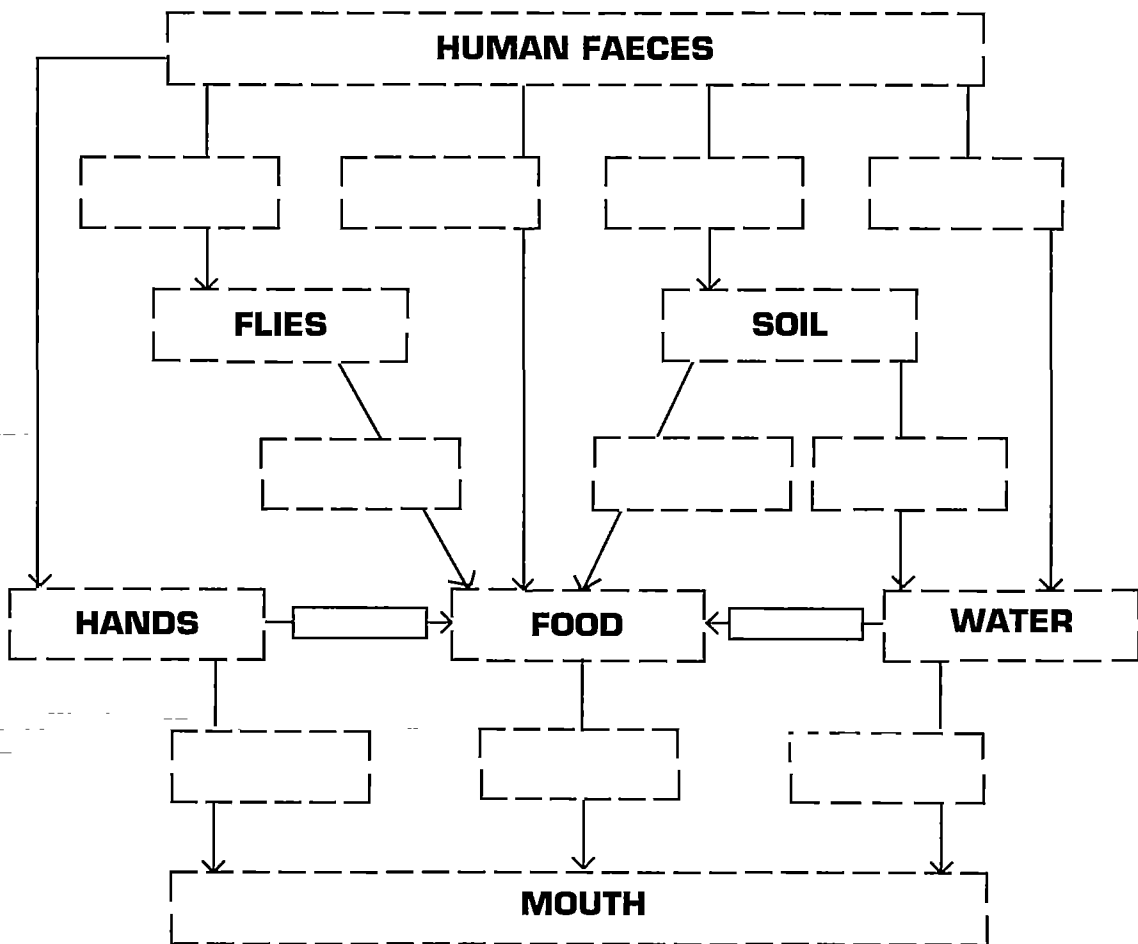


When all the various ways appear to have been exhausted, have the participants discuss the various methods of blocking each of the transmission routes. When the participants agree on a method for blocking a route, let one of them label a small strip of paper appropriately and place it on the arrow representing the route that is blocked.



Discuss strategies for facilitating each station at individual as well as community level

**RESULT**  
**AN EXAMPLE OF HOW THE CHART MAY LOOK LIKE**  
**WHEN COMPLETED**



# TOOL No 36

## POTENTIAL ACTION POINTS FOR HYGIENE EDUCATION

**CPHE**  
**No. 3**  
Series

### WHAT ABOUT:

*The tool lists different points of action which have to be introduced into hygiene education and improvement.*

### WHAT FOR:

*Project staff and community members may use this tool in village diagnosis and project implementation.*

## Potential action points for hygiene education

### WATER SOURCE

- Does the whole community (children, women and men) use safe water sources for drinking, clothes washing, and bathing?
- Are improved water sources looked after and well kept?
- Is there risk of contamination of water sources from nearby latrines, poor drainage or free ranging cattle?

### WATER COLLECTION

- Is drinking water collected in clean vessels, without coming into contact with hands?
- Is water transported in a covered water container?

### WATER STORAGE

- Is water stored in vessels which are covered and cleaned regularly?

### WATER USE

- Are adequate amounts of water available, transported and used for personal and domestic hygiene?

### WATER DRAWING

- Is drinking water taken from the storage vessel in such a way that hands, cups or other objects cannot contaminate the water?

## **FOOD HANDLING**

- Are hands washed before preparing and eating food?
- Are vegetables and fruits washed with clean water, and is food properly covered?
- Are kitchen utensils washed with safe water and kept clean?

## **EXCRETA DISPOSAL**

- Do all men, women and children use hygienic means for excreta disposal at home and at work?
- Are stools of infants and young children safely disposed of?
- Are hygienic facilities used by all throughout the year and are these regularly cleaned and maintained?
- Are handwashing facilities available and hands washed after defaecation?

## **WASTE WATER**

- Is household wastewater disposed of or reused properly? Are measures taken to ensure that wastewater is not left to create breeding places for mosquitoes and other disease transmission vectors, or to contaminate the safe water?
- Can excreta wash into water sources or enter the groundwater-table through drainage or latrines?

# TOOL No 37

## THE ROLES OF WOMEN AND CHILDREN IN HYGIENE EDUCATION

**CPHE**  
**No. 3**  
**Series**

### WHAT ABOUT:

*The tool puts special emphasis on the roles of women and children in HE. It defines the different action points to involve women and children in the project activities.*

### WHAT FOR:

*The tool can be used to develop HE programmes according to the activities, roles and capacities of these groups by the project staff and the local services involved.*

4. "All members of the family have an important contribution to make to the project". Identify what role (a) women (b) children and (c) men play in a hygiene education program, and what their different concerns are.

#### a) Women

- Women are the major water drawers and users in the community.
- They also have major influence on hygiene in the home.
- Concerns of women: the time spent per day collecting water; availability of water year round; whether or not the water is clean and safe; whether or not the home and yard is sanitary; clean and safe for their family; whether the rest of the family members observe recognized hygiene practices.
- When water fetching time is decreased, saved time may be put to productive and perhaps wage earning use.

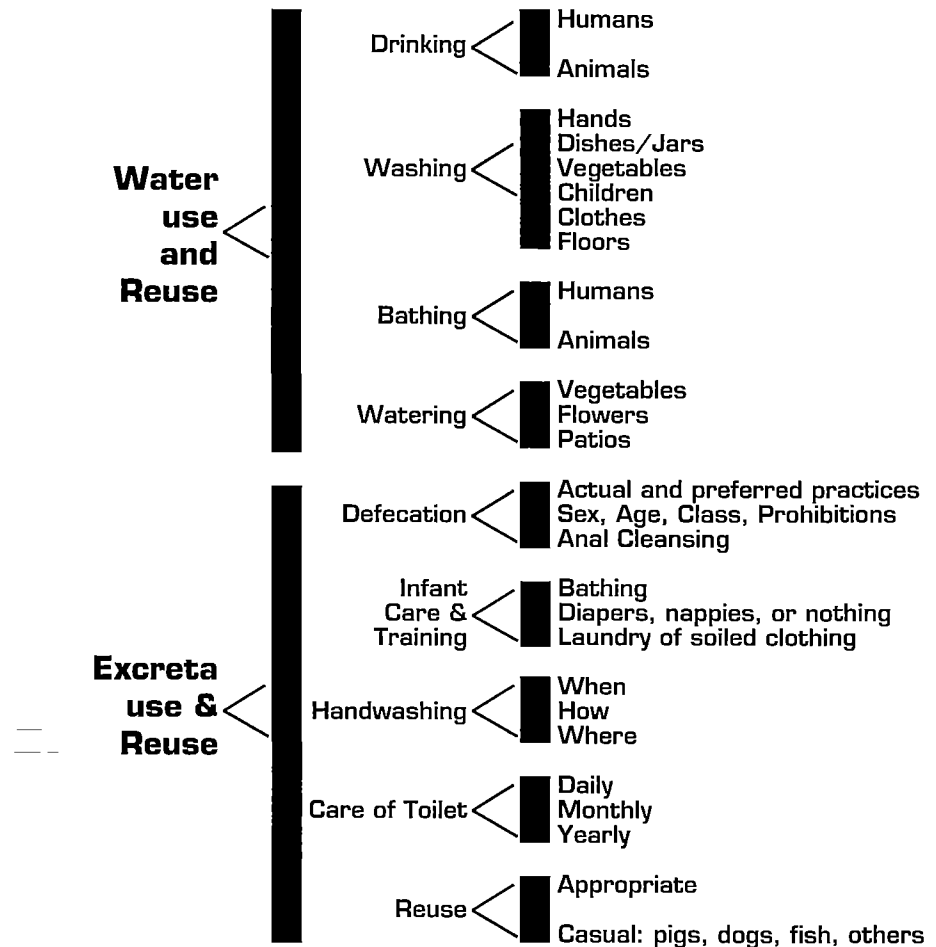
#### b) Children

- Children are a major segment of the population and a very important target group for hygiene education.
- Youngsters will hopefully carry on what they learn through their life.
- They get hygiene education from several sources outside the home.
- They are able to learn, absorb and use new ideas easily.
- They are involved in hygiene practices such as fetching water and helping clean the household.
- Children easily influence their peers, younger brothers and sisters – this includes hygiene practices.
- Children help to look after babies, therefore children's washing and feces disposal habits are important.

#### c) Men

- Men are the authoritative figures in the homes. They have concerns about water supply, defecation practices, health and environment. Because of their status in the community the project is more likely to succeed with their commitment and support for changes in hygiene practices.

## Women's Role in Hygiene Education



## Children's Role in Hygiene Education

"Child-to-Child extends the WHO concept of Primary Health Care and the UNICEF emphasis on Child Survival and Development by helping to enlist 'Children Power' to spread both. Children can be a great force in spreading good health ideas and practices. They can do so in four ways:

- Through the care they provide for younger brothers and sisters and other young children in the community (Child-to-Child).
- Through their influence upon other children in their age-group and community... especially those with less opportunities in education than they have had (Children-to-Children).
- Through the influence of children as a group upon their own communities (Children-to-Community).
- Through the individual influence of children upon their families (Child-to-Family)."

# TOOL No 38

## FORM FOR PLANNING AND CONTROLLING OF ACTIVITIES



### WHAT ABOUT:

*The tool provides forms for planning and controlling of activities in the frame of a multisectoral cooperation.*

### WHAT FOR:

*The national project manager may use it to monitor the implementation of project activities.*

<b>Planning Form No.:</b> _____ <b>Sector:</b> _____	<b>Subject:</b> _____ <b>Date:</b> _____
<ol style="list-style-type: none"> <li>1. Objectives:</li> <li>2. Expected Results:</li> <li>3. Measurable Indicators/Meethods of Evaluation:</li> <li>4. Methods of Intervention/Activities:</li> <li>5. Planning Sheet: (see overleaf)</li> <li>6. Time Schedule: (see overleaf)</li> <li>7. Resources/Costs           <ul style="list-style-type: none"> <li>- Personnel:</li> <li>- Logistics:</li> <li>- Budget:</li> </ul> </li> <li>8. Total Costs           <ul style="list-style-type: none"> <li>- National/Local Contributions:</li> <li>- External Funding:</li> </ul> </li> <li>9. Cost-Benefit-Relation:</li> <li>10. Results/Recommendations:</li> <li>11. Final Remarks:</li> </ol>	





<b>5. Planning sheet</b> Period: _____	Subject: _____
---	----------------

ACTIVITIES	START FORE- SEEN	START EXEC.	END FORE- SEEN	END EXEC.	RESPONSIBLE	REMARKS

<b>6. Time Schedule: Planned Activities</b> Period: _____
--

ACTIVITIES	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	W	D	8	9	0	1	2	RESOURCES	PERSONNEL
	88												89																		

# TOOL No 39

## EVALUATION OF SOCIAL CHANGE



### WHAT ABOUT:

*This tool provides some indicators to measure social change resulting from the new participatory project approach.*

### WHAT FOR:

*The tool may be used by the project holder and by the services involved when establishing a monitoring system on community level.*

To measure and evaluate the impact of a participatory project approach on changes in social behaviour is more difficult than to evaluate technical inputs. Social changes are largely depending on the local situation and environment; thus no standardized evaluation scheme can be elaborated.

## CASE-STUDY: PROJECT MWENE-DITU, ZAIRE

The following sheet gives an example on how changing attitudes and practices of the local services may be evaluated according to the impact of a participatory project approach.

Service: ..... Objectives/new capacities: the services adapt the participatory approach; they negotiate the activities with the target groups

Methods of Intervention	Performance		Indicators
	Old	New	
Seminars on the professional execution of the work of the services together with project team and delegates of the group	Technical language, diffusion of information by directives; hard to understand by the population	Increasing interest of the technicians in communicational problems	Joint elaboration of concepts (technicians/target group)
Each village meeting is recognized and joint discussion on results is established	Reference is the national development plan taken as an order	References are the expressed needs of the population	Definition of objectives of the services according to the needs defined by population

(continued)

Service: ..... Objectives/new capacities: the services adapt the participatory approach; they negotiate the activities with the target groups

Methods of Intervention	Performance		Indicators
	Old	New	
Meetings between services, project team and population; field visits	The clients of the services are individuals or specific interest groups. Selection of work sites and interest groups by the service	The client of the services is the target population (community). Field of works and clientel are chosen by population	New activities create new interest group to discuss and act with; the agreed activities are officialized and accepted by all target groups
Establishment of a follow-up system of cooperation and autoevaluation between the services and the population	No follow-up system existing	Negotiation and execution of measures of maintenance and new activities according to the priority needs of population	Stable communication system between population and services (regular meetings); execution of jointly agreed additional measures

### WHAT ABOUT:

*The tool gives some indications on how a WSS project may worsen the situation of marginalized groups of the community (e.g. women and the poor).*

### WHAT FOR:

*The tool may be used by the project holder and the evaluation team to evaluate the benefits of project measures and to initiate necessary re-adjustments.*

#### **Reduced benefits to and negative impacts on women of domestic water supply and sanitation projects**

- 1. Certain categories of women are excluded from access:**
  - poor
  - minority groups
  - women heads of household
- 2. Greater benefits and development spin-offs have accrued to women from wealthier households, thus widening the gap between rich and poor.**
- 3. Workload of women is increased by:**
  - voluntary labour for construction
  - loss of assistance in water collection
- 4. Poor women and/or their husbands have lost employment or resources in:**
  - water collection
  - waste collection and reuse
- 5. Women have no control over income from economic use of time and energy gains or increased availability of water and waste for economic purposes:**
  - agriculture
  - horticulture
  - dairy cattle
- 6. Special needs of women are not met:**
  - laundry and bathing facilities
  - service operating hours
  - privacy
  - alternatives for meetings and social learning
- 7. The involvement of women has been relegated to:**
  - health education
  - special projects
- 8. Improved facilities have led to reduction of:**
  - traditional spheres of influence
  - organizational skills
  - social status

## **Ways in Which Water Supply Projects Might Possibly Lead to a Worsening of the Relative Position of the Poor.**

1. Dominant groups might get a subsidised service which the poor do not receive, e.g. individual supply to their homes.
2. Access to the new water supply might be restricted or monopolised. This danger includes cases where the design of the project appears to cover the poor too, but actual flow is limited or diverted, so that only the dominant group benefits, e.g. by use of water for farming purposes, in such quantities that the supply does not reach the homes of the poor.
3. Water used for agricultural or commercial purposes by dominant groups may increase their income in ways which are not available for the poor; this can then lead to changes which worsen not just the relative but also the absolute position of the poor – changes in land tenure, or others, such as the discontinuance of arrangements to share food in times of disaster.
4. Removal of an employment opportunity in water carrying, well-digging or any other activity linked to the existing system, such as the manufacture of equipment used.
5. Equal contributions exacted from all inhabitants for the construction or running costs of the water supply may mean a charge which poor families are in no position to afford.
6. Voluntary work demanded at peak times in the agricultural work cycle may lead to substantial loss of production.
7. The power of dominant groups may be increased by patronage available, e.g. in the form of selection of a water supply operator on a salary. At the least, the village-level organisation of the programme, in collaboration with a powerful external agency, will be a political resource in terms of prestige.

# TOOL No 41

## INTERVENTION FOR DISEASE CONTROL



### WHAT ABOUT:

The tool shows the impact of international drinking water programmes and of other intervention variables on community health.

### WHAT FOR:

The project holder and the medical services involved may use it to decide on indicators and to establish a monitoring and evaluation system concerning the health status of the community.

## MAXIMIZING BENEFITS TO HEALTH

An appraisal methodology has been elaborated by WHO for water supply and sanitation projects providing a series of indicators. The following chart shows the interventions for disease control necessary to interrupt transmission. Other variables related to health, economics, decade programmes and unknown or unplanned variables are shown in the table on the next page. Activities can be planned accordingly.

**Intervention for Disease Control**

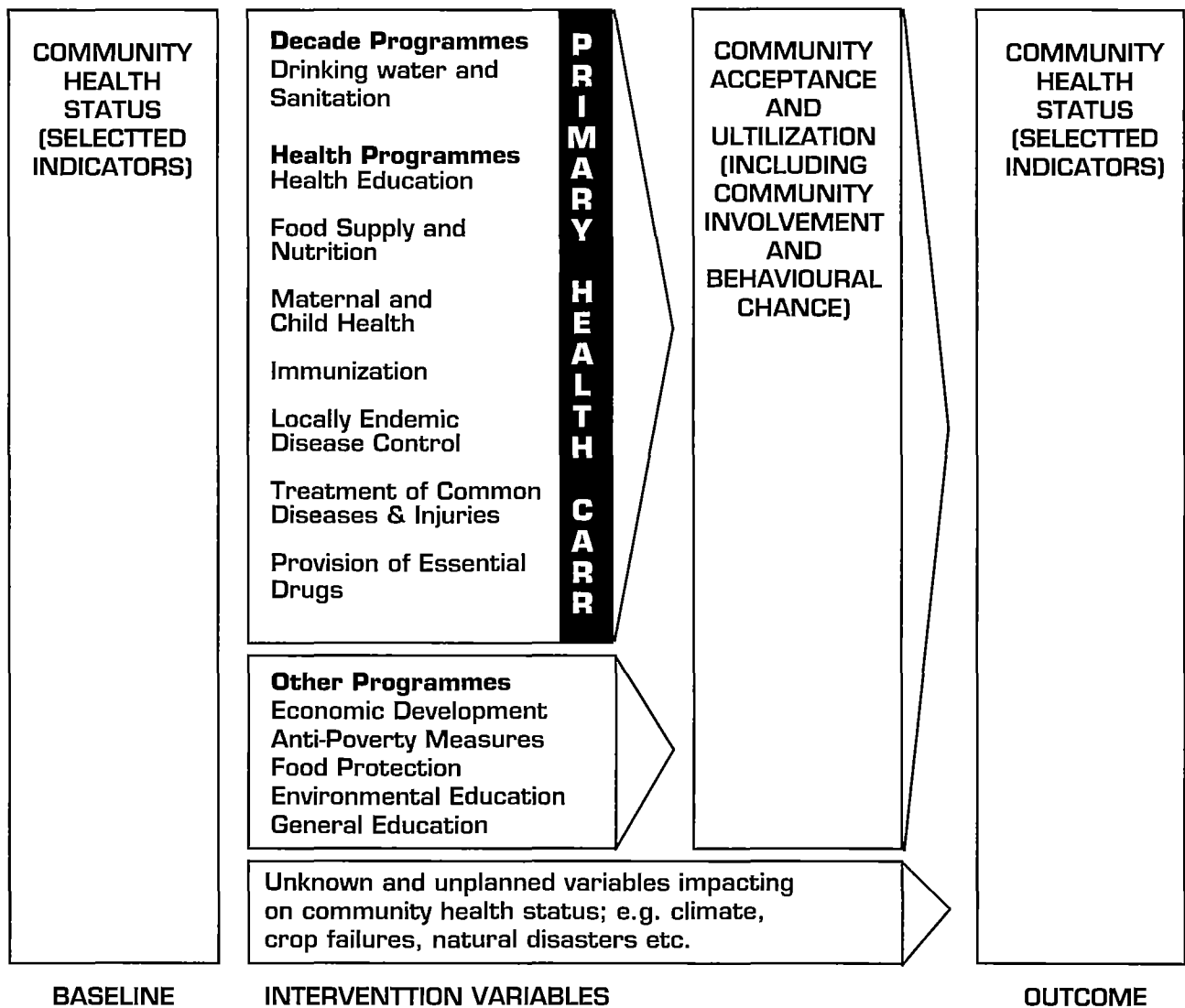
Degree of Importance of Intervention: ●●● high      ●● medium      ● low      - negligible

Diseases	water quality	water quantity/ convenience	personal & domestic hygiene	wastewater disposal/ drainage	excreta disposal	food sanitation
<b>Diarrhoeas</b>						
(a) Viral Diarrhoea	●●	●●●	●●●	—	●●	●●
(b) Bacterial Diarrhoea	●●●	●●●	●●●	—	●●	●●●
(c) Protozoal Diarrhoea	●	●●●	●●●	—	●●	●●
<b>Poliomyelitis &amp; Hepatitis A</b>	●	●●●	●●●	—	●●	●●
<b>Worm infections</b>						
(a) Ascaris, Trichuris	●	●	●	●	●●●	●●
(b) Hookworm	●	●	●	—	●●●	—
(c) Pinworm, dwarf tapeworm	—	●●●	●●●	—	●●	●
(d) Other Tapeworms	—	●	●	—	●●●	●●●
(e) Schistosomiasis	●	●	—	●	●●●	—
(f) Guinea worm	●●●	—	—	—	—	—
(g) Other worms with aquatic hosts	—	—	—	—	●●	●●●
<b>Skin Infections</b>	—	●●●	●●●	—	—	—
<b>Eye Infections</b>	●	●●●	●●●	●	●	—
<b>Insect transmitted</b>						
(a) Malaria	—	—	—	●	—	—
(b) Urban Yellow Fever, Dengue	—	—	●*	●●	—	—
(c) Bancroftian Filariasis	—	—	—	●●●	●●●	—
(d) Onchocerciasis	—	—	—	—	—	—

\* Vectors breed in water storage containers

Adapted from Benenson (9) & Feachem (unpublished)

# INTERVENTION VARIABLES



Epidemiological methodology concept model 1 - The impact of Decade Programmes and other intervention variables on community health status

**WHAT ABOUT:**

*The tool provides some indicators on the institutionalization of project measures, e.g. replicability, sustainability, diffusion and organizational learning.*

**WHAT FOR:**

*It helps to transform the project measures into longlasting activities ("institution"). It can be used by the project holder, the local services and the community to consolidate the project activities.*

## **Institutionalization Process**

### **The Project Objective**

Any new program, especially one involving a new approach and philosophy, can be launched through some special effort. After it achieves its objectives, it should become a part of the regular work. This is institutionalization. Unless a program becomes institutionalized, it cannot be said to have fully succeeded, because its achievements may end after the special efforts are withdrawn.

Institutionalization is a complex process. It involves several aspects. These are reflected in questions of replicability, sustainability, diffusion (spread to other areas), and organizational learning (learning from and building on experiences).

### **Replicability**

As a part of institutionalization the question of replicability is often raised, i.e. can it be multiplied? Replicability means replicability of processes, approaches and values.

- Replicability is high if an activity is simple enough to be adopted elsewhere.
- Low cost activities are likely to have higher replicability.
- Replicability is also related to perceived need. If an activity responds to highly felt need of a population, it is likely to be replicated.

### **Sustainability**

Another aspect of institutionalization is sustainability of a new approach. Sustainability is concerned with continued use of a new practice. Three main questions can be raised in relation to sustainability:

- (a) Is there enough motivation and interest in the province, so that they will continue to use it in their regular work? Is this interest widespread, at all levels in the provincial health system, and in all concerned sections, like the community volunteers, etc.?



(b) Are human resources, both in terms of competence and quantity, available to continue the new activity? Can such resources be supplemented, from the community?

(c) Can the activity be continued with the available financial resources? This also relates to the cost-effectiveness of an activity. How much probability exists of supplementing financial resources, from the community, industries, local government etc.?

- Activities requiring simple techniques and skills are likely to be sustained.
- Sustainability depends very much on availability of resources, certainly trained personnel, but much more on financial resources. And financial resources may depend on demonstration of cost effectiveness.

## Diffusion

Institutionalization also involves spread of the new approach or program to other areas. When an area or a province has adopted a program, tested its utility, and finally accepted it, there is a natural eagerness that the benefits of the change also be shared by other areas or provinces. Diffusion makes start-up of a similar activity in a new region less expensive than the initial model. The replicators have the advantage of learning from the experiences of the innovators, and do not have to spend the same amount of resources to develop the basic design.

## Organizational Learning

Organizational learning is the process of making use of and building on cumulative experiences. As the individual learns (or does not learn), similarly organizations learn (or do not learn). Institutionalization includes the process of organizational learning.

Organizational learning has three phases: innovation, implementation, and stabilization; and four mechanisms used by a system (like a province): mechanisms for flexibility, for mutuality, for contingency planning, for competency building (like training).

# TOOL No 43

## TASK ANALYSIS SHEET

### WHAT ABOUT:

The tool gives an example of a training module for community/health workers (here: introducing latrines). It explains the different stages of the task, the knowledge and skills needed and the ways to learn.




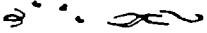









### WHAT FOR:

The tool may be used in further trainings of community/health workers and of the staff of local services by foreign and national training experts.

## TASK ANALYSIS SHEET



### The Task: Introducing latrines

Stages of Task Actions (A) Decisions (D) Communications (C)	Knowledge and Skills needed ↓	Ways to Learn ↓
1. Find out community interest. (C) 	ability to explain and listen 	talk with experienced health workers; role plays; group dialogue
2. Decide if latrine project is possible at this time. (D)	understanding of people and customs 	community dynamics; discussions about traditions & behavior
3. Help people learn importance of latrines to health. (C) 	knowledge of how disease spreads; teaching skills 	from observation, books, and discussions; practice teaching 
4. Decide where latrines will be built. (D)	knowledge of safety factors 	books and discussions; thinking it through with local people
5. Get materials needed. (A) 	what local materials can be used; what else is needed; where to buy at low cost, etc.	talk with local mason; trip to market 
6. Help people build the latrines. (A) 	dimensions of pit and platform; how to mix, cast reinforce, and cure cement; how to build outhouse & lid	have students take part in actually making latrines 
7. Encourage people to use latrines and to keep them covered and clean. (C)	home visits; art of giving suggestions in a friendly way 	practice, role plays, and discussion 

# TOOL No 44

## COOPERATION IN PROJECT CONSOLIDATION, EVALUATION AND FOLLOW-UP

### WHAT ABOUT:

*The tool gives an example of the institutionalization of the cooperation between all partners involved in the project (Board of Partners). Some regulations on the cooperation are cited as well.*

### WHAT FOR:

*The tool can best be used by the partners (i.e. the public administration, the local services, the population, and the project holder) to establish a stable communication and decision-making organization.*

The sustainability of water supply and sanitation programmes depends mainly on a stable and long-lasting cooperation between the local services involved, the public administration, the project holder and the community. To develop a stable communication and decision-making framework between these partners, it might be useful to create a "Board of Partners" consisting of delegates representing the opinion of all partners involved.

## STRUCTURES OF THE "BOARD OF PARTNERS"

To fulfill its tasks, the Board of Partners should have some basic structures:

- the Board should be independent to specific external interests,
- the Board should represent all partners in an equal way,
- rules and regulations of communication, decision-making and conflict solving between the partners have to be created and agreed upon by all partners,
- coordination with the regional/national level on a regular basis should be established by a mutual agreement
- contracts of integration and cooperation with the population should be elaborated, discussed and agreed upon by all partners.

## TASKS OF THE "BOARD OF PARTNERS"

The tasks of the "Board of Partners" are:

- to function as a steering committee for all ongoing works,
- to establish a regular monitoring and evaluation system,
- to function as an arbitration institution in case of any conflict related to the project measures and to develop mutually agreed solutions,
- to take up and support new topics (e.g. waste disposal) expressed by the community and to develop proposals/plans for the realization of these issues.

## SUPPORT TO THE "BOARD OF PARTNERS"

As the Board of Partners may take over the overall responsibility of the water supply and sanitation schemes, support should be given to the board:

- a step-by-step process of taking-over of project management, decision-making, evaluation and re-adaptation of activities by the local partners should be introduced (learning by doing),
- a system of interval management and assistance of the programme holder should be established and executed,
- funds for re-adaptation measures of additional measures should be available,
- further training and refresher courses on management, monitoring and evaluation should be held.

**WHAT ABOUT:**

*The tool gives a short introduction to an evaluation method. It helps to structure the evaluation procedures related to functioning, utilization and impact of the water and sanitation systems installed.*

**WHAT FOR:**

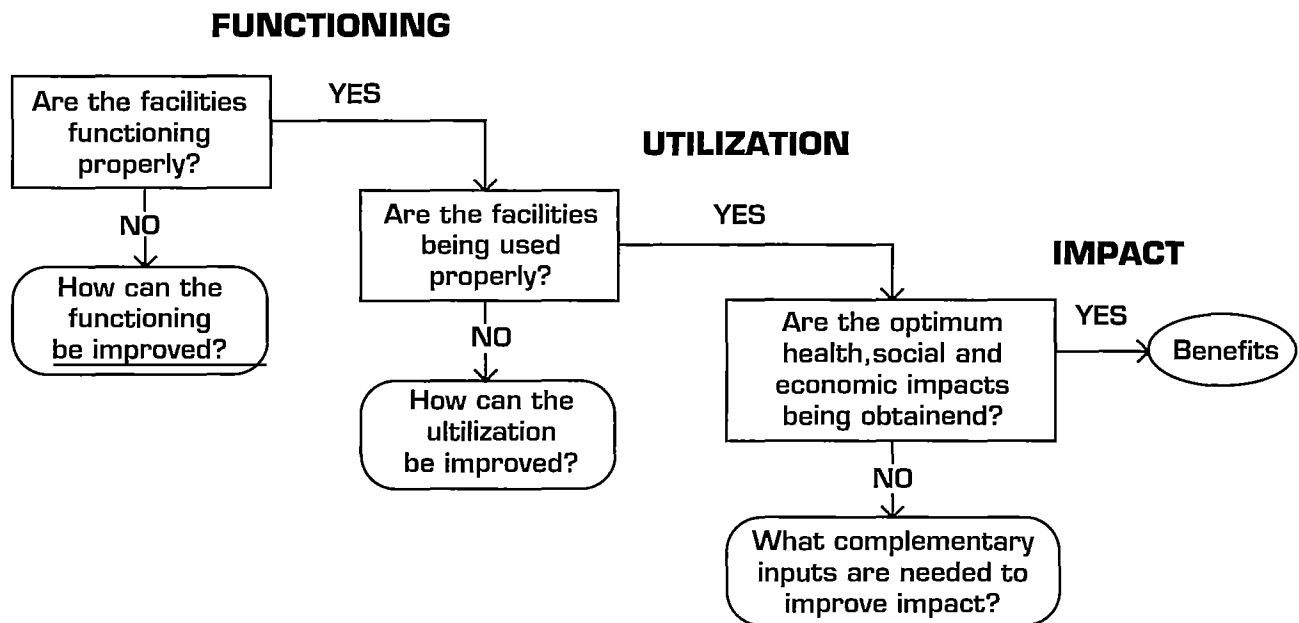
*The tool may be used by the project holder, the services involved and the community itself when establishing a monitoring and evaluation system on community level.*

**What is MEP?**

The letters stand for Minimum Evaluation Procedure – a relatively inexpensive and simple method of evaluating water supply and sanitation projects, developed and tested by the World Health Organization.

The technique is quick, allowing judgements to be made in a matter of weeks rather than months, with few resources in terms of money or manpower.

MEP follows the three step system, but to keep the method simple, description of data collection and analysis is limited to the first two steps; evaluation of functioning and of utilization. Evaluation of impacts will be dealt with in a later document.



## Step-by-step

There are three parts to evaluation:

1. Are the facilities functioning properly?  
If the answer is NO, ways of improving the functioning should be sought before a full evaluation can be made of the next part;
2. Are the facilities being utilized properly?  
Some information on utilization will have been collected during the first stage, more will come when functioning defects have been remedied. Again, proper use of facilities should be assured before proceeding to –
3. Are the optimum health, social and economic impacts being achieved?  
This last step is not always needed. Basically a system which functions and is used properly can be expected to produce impact. The idea behind the procedure is that experience from the real world helps in two ways: it shows how to get the most out of an operating system by making improvements where necessary; and it provides knowledge for application elsewhere. The focus is not just on engineering; functioning and utilization depend equally on many social factors, which are reflected in the MEP.

## What to measure

Collecting too little information during evaluation may put the whole exercise in jeopardy, while collecting too much is both time-consuming and expensive. In MEP, WHO identifies the key parameters which should be measured when evaluating, for example, the quantity of water provided from a water supply facility: Comparison of theoretical and actual values for demand and production is one of the ways to judge the functioning of the facility (along with water quality, reliability, and convenience).

In the second step, the evaluator will want to know the proportion of households using the facilities and the way that different amounts of water are being used.

# TOOL No 46

## SUSTAINABILITY ASSESSMENT CRITERIA

### WHAT ABOUT:

*The tool shows the importance of CPHE for the long-term efforts of water and sanitation projects. Sustainability assessment criteria are used to measure the sustainability of WSS projects; they are a combination of technical and CPHE criteria.*

### WHAT FOR:

*This tool may sensitize decision-makers, project implementers and technical staff on the long-term advantages of participatory water and sanitation projects.*

Sustainability means the maintaining and even increase of the levels of technical infrastructure, social dynamization and health. Sustainability thus means the long-term effect of the project measures. When sustainability fails, a decline of all levels will appear.

When sustainability is assured, the levels of technical infrastructure, social dynamization and health will be maintained or even increased. According to models of marketing and social dynamization, the life cycle of a project shows typical ups and downs related to increasing acceptance, point of saturation, decline and new increase due to inputs.

An effective CPHE will increase the sustainability, make acceptance of the WSS project quicker and reduce the frequency and the degrees of decline phases.

Sustainability is measured in the consolidation phase. As "Success Indicators" of a WSS project often the following indicators are taken into consideration:

- number of installations built,
- number of installations used,
- number of installations broken down,
- quantity of water bought.

**WHAT ABOUT:**

*The tool gives an example of the adoption of experiences gathered in the execution of trainings (e.g. teaching/learning principles). New pedagogical approaches may be integrated into the training of trainers and trainees.*

**WHAT FOR:**

*The tool may help to introduce new pedagogical methods and/or new curricula into the training programmes. It can be used by national training administrators.*

## **TRAINING – OF – TRAINERS COURSE MATERIALS**

### **FIVE TEACHING/LEARNING PRINCIPLES**

To provide effective training, instruction must be planned in advance. It should consider not just how the teacher will teach, but how the learner will learn. Advances in educational research and technology make this possible, enabling trainers to analyze and plan instructional sequences precisely and effectively.

While educators recognize many principles of education, we will limit ourselves to the most basic, since it is preferable to become proficient in the use of a few principles than bogged down in trying to apply a large number.

1. The trainee must see why he or she should study something.
2. The trainee must proceed step by step, and each step must be more difficult in some way than the previous step.
3. Each trainee should be given the opportunity to learn in the way best suited to him or her.
4. All trainees must practice doing the action described in the behavioral objective.
5. As the trainee practices, he or she must know whether the activity is being correctly performed or not.

### **THE CONDUCT OF TEACHING/LEARNING ACTIVITIES**

When planning instruction, it is essential that the trainer always keep the behavioral objective in mind. By thinking constantly in terms of exactly what it is that the participant is expected to learn, the trainer enhances the likelihood that the process of planning will be simple, and the process will be relevant.

## TOOL No 48

### PRACTICAL MEASURES/HYGIENE EDUCATION (HE)

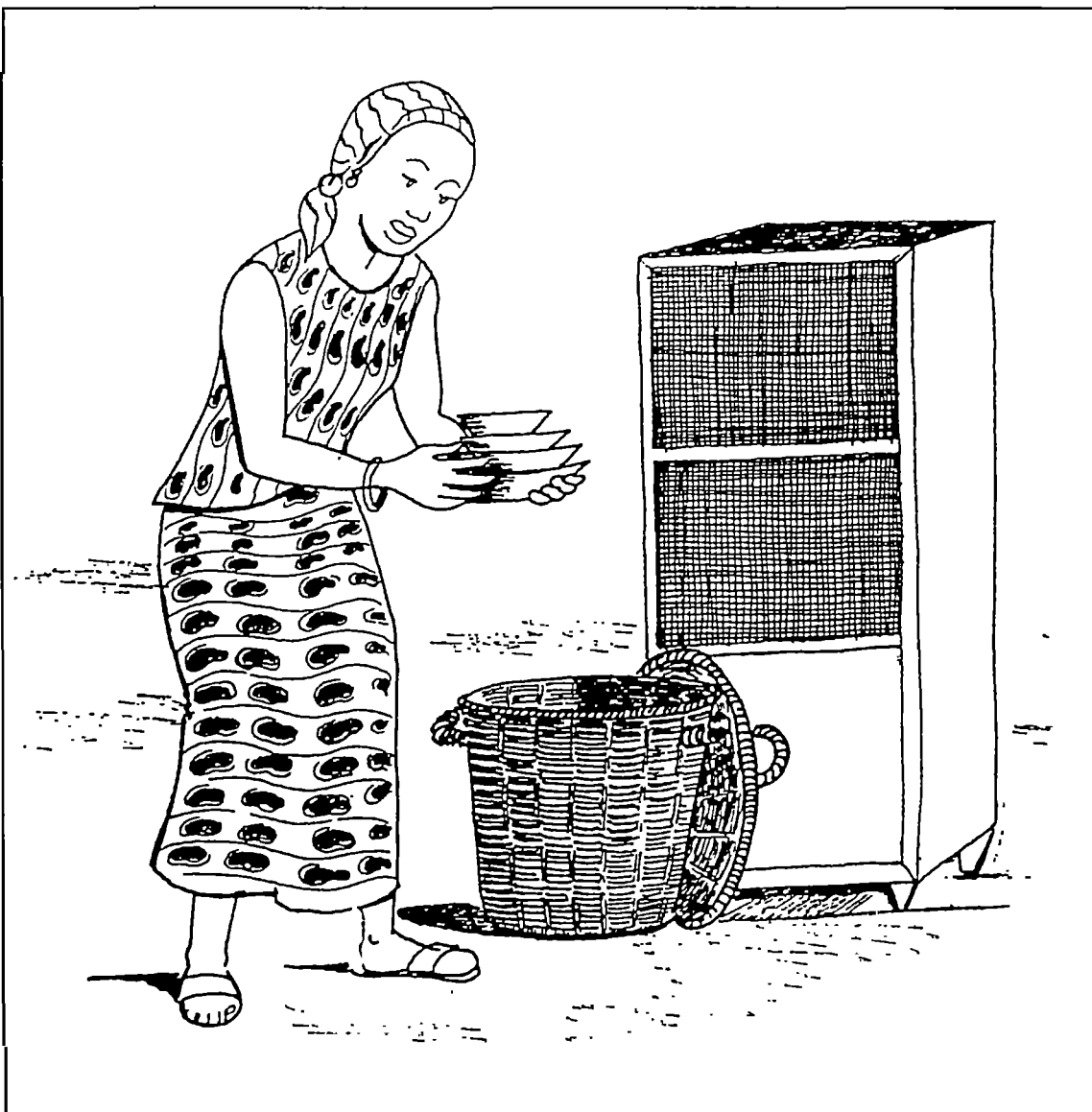
#### WHAT ABOUT:

*The tool gives two examples (food protection, waste disposal) of additional micro-realizations to be elaborated with the community.*

#### WHAT FOR:

*The tool may be used by the services involved to elaborate practical hygiene-related measures, based on community needs and experiences gathered.*

### PROTECTION OF FOOD





## WASTE DISPOSAL



# TOOL No 49

## OVERALL MONITORING & EVALUATION

**CPHE**  
**No. 3**  
**Series**

### WHAT ABOUT:

*The tool shows the results of an overall evaluation of a WSS system in Indonesia. It differentiates between technical, organizational and social factors. As a result, the importance of CP to increase the users' responsibility is clearly stated.*

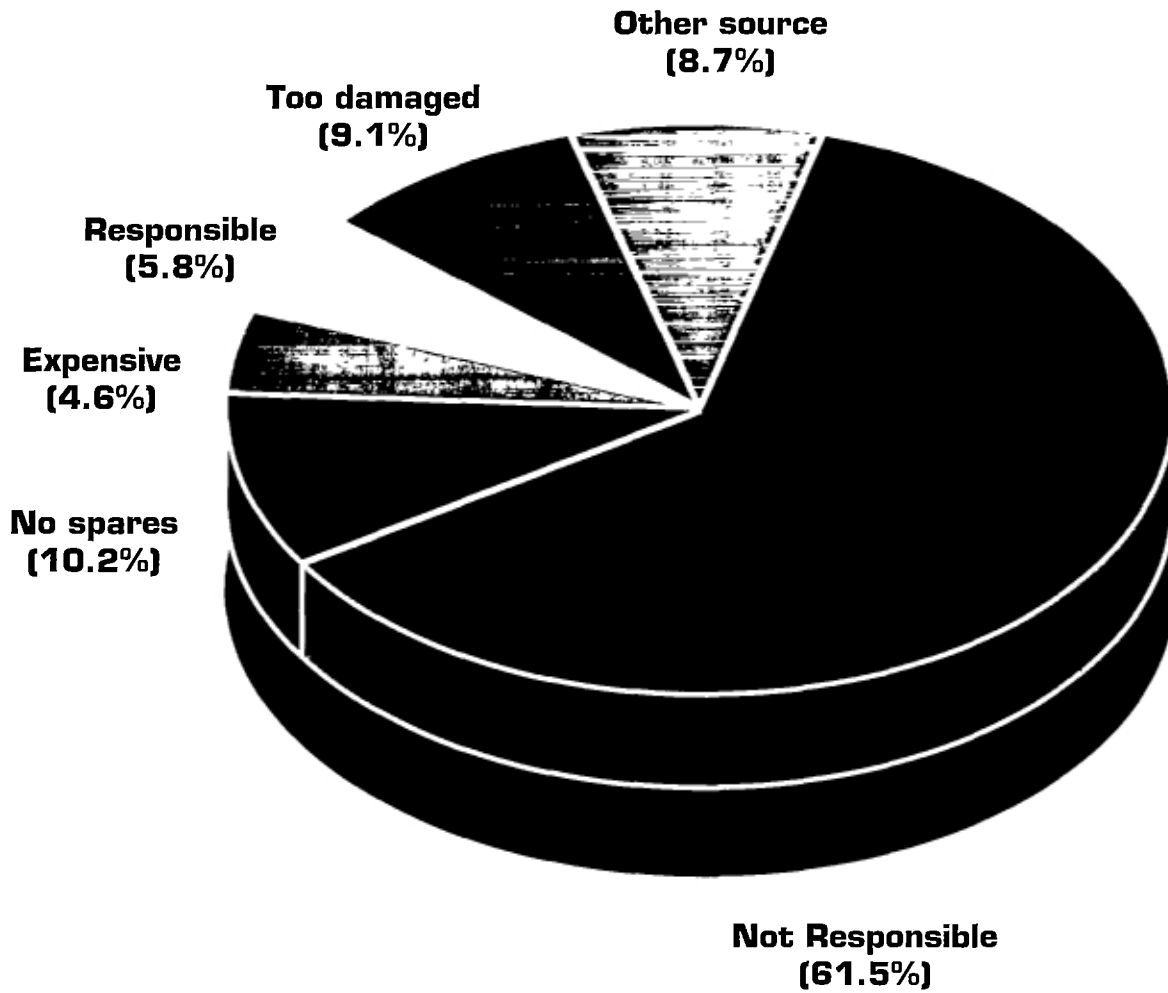
### WHAT FOR:

*The tool can be used by the project holder and the local services to evaluate the functioning of WSS systems. It is corresponding to TOOL No. 45, "Minimum Evaluation Procedures".*

Users were asked what factors prevented maintenance of facilities. The overwhelming response by the users was that they were not responsible for maintaining the facility (61.5%), see the graph on factors preventing maintenance. While it had been expected that lack of spare parts would be a major factor, no spares was cited as a reason in only 10.2% of the cases. Too damaged and other source were given the same importance as no spares, 9.1% and 8.7% respectively, expensive and government responsibility were cited in 4.6% and 5.8% of the cases. This lack of a sense of responsibility on the part of the users indicates that facilities are viewed as a convenience, that users are not organized as user groups, and that facilities are treated as common properties, to be used by all but belonging to none, as a result the facilities are used as long as they function and then left.

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## Factors Preventing Maintenance



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**PARTICIPATING ORGANIZATIONS IN THE  
INTERNATIONAL WORKING GROUP CPHE****PARTICIPANTS****1st Meeting October 17 - 18, 1988 at GTZ**

GTZ, IMC, IRC, KfW, UNDP/PROWWESS,  
University of Konstanz, WB, WHO

**2nd Meeting May 8 - 12, 1989 at IRC**

DANIDA, GTZ, IMC, IRC, KfW,  
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# INDICATORS FOR SUCCESS

**CPHE in water supply and sanitation:  
How to measure progress and results?**

October 1989

**DRAFT**

**CPHE  
No. 4  
Series**



**COMMUNITY PARTICIPATION AND HYGIENE EDUCATION**

# PAPERS PUBLISHED IN THE CPHE SERIES

- 1. SUSTAINABILITY AND EFFECTIVE USE. The case for community participation and hygiene education in water supply and sanitation.** This paper summarizes important reasons for **CPHE**, clarifies its concept and conditions and highlights some achievements.
- 2. PRACTICAL GUIDELINES FOR INTEGRATING CPHE INTO WATER AND SANITATION PROJECTS.** This paper addresses key components for **CPHE** and indicates practical tools to involve the community.
- 3. TOOLS FOR INTEGRATING CPHE INTO WATER AND SANITATION PROJECTS.** This paper summarizes the tools referred to in paper number 2.
- 4. INDICATORS FOR SUCCESS. CPHE in water supply and sanitation: How to measure progress and results?** This paper highlights indicators related to **CPHE** and addresses the establishment of a monitoring system.
- 5. STRATEGY DEVELOPMENT FOR CPHE.** This paper reflects a strategy framework for the promotion of CPHE internationally as well as at national level of a given country.

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# **INDICATORS FOR SUCCESS**

**CPHE in water supply and sanitation:  
How to measure progress  
and results?**

October 1989

# Foreword



One of the most prominent results of the International Drinking Water Supply and Sanitation Decade is the world-wide recognition of the need for community participation and hygiene education in sector programmes. The plan of action, formulated along similar lines at the Interlaken Consultation in 1987, was based inter alia on the premise that "project development must not only involve engineers but also technicians, health professionals, and social scientists, all of whom must interact with the potential beneficiaries as projects are designed and built." \*

With this understanding and to facilitate the cooperation between engineers, health professionals, social scientists and the community, the following 5 papers on Community Participation and Hygiene Education (CPHE) have been prepared. They can by no means replace the use of field manuals. They are designed for guidance and as a frame of reference in water supply and sanitation projects for

- national and international decision makers (Papers No. 1, 5)
- field managers of water supply and sanitation projects (Papers No. 2, 3, 4).

I would like to thank the following participants of the two working group meetings held in October, 1988 in Eschborn and in May, 1989 in The Hague for their active cooperation, the energy they have put into this venture and their willingness to share their experience and knowledge with others: Mr. P. Adhikary/Nepal; Dr. G. J. Astor/IMC; Ms. M. Cardenas/Paraguay; Mr. R. Ehrlich/FRG; Dr. W. Fischer/GTZ; Mr. F. Greiner/GTZ; Mr. J. D. Gubler/World Bank; Mr. I. Guhr/GTZ; Mr. P. Hirano/WHO; Mr. K. M. Jensen/DANIDA; Ms. N. Khattak/Pakistan; Mr. P. Kohorst/IMC; Mr. S. Kumarasiri/Sri Lanka; Ms. J. Kunguru/Kenya; Ms. M. P. Lefebvre/IMC; Dr. A. Merkle/GTZ; Ms. S. Melchior/PROWWES, Mr. A. Obser/University Konstanz; Mr. J. T. Visscher/IRC; Ms. Dr. E. Weinreben Nunn/Brazil; Ms. C. van Wijk-Sijbesma/IRC; Mr. A. Winnikes/KfW, and Ms. M. Yacoob/WASH.

\* Water and Sanitation: Toward Equitable and Sustainable Development, 1988 International Bank for Reconstruction and Development

As always, there are persons behind such undertakings who initiate processes like this and support it with advice and actions. Therefore, my thanks also go to Mr. M. Acheson/Who; Mr. A. Arlosoroff/World Bank; Mr. H. van Damme/IRC; Mr. D. Grey/World Bank; Mr. J. Kalbermatten; Mr. K. Kresse/GTZ, and Mr. E. Turner/WASH.

It is my sincere hope and expectation that this fruitful cooperation will continue among these colleagues as well as with new working group members so that the process of community participation and hygiene education will lead to sustainable projects and improved health of the target populations.

**Dr. K. Erbel**  
**GTZ/Head of Water Division**

# Summary

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National governments, donors and projects have a growing need for easy-to-use, reliable and valid tools with which to measure performance of community participation and hygiene education (**CPHE**) processes, as well as ultimate results of water and sanitation projects. This discussion paper, no. 4 in the **CPHE** series, describes how to:

- a. assess the extent and quality of community participation and participatory hygiene education in technical water supply and sanitation projects;
- b. determine with what **CPHE** inputs and at what costs sustained functioning, use and hygiene practices in water supply and sanitation projects are achieved.

Chapter 1 sets out the relationship between general objectives of improved health and socio-economic benefits and their problems of measurement on the one hand, and the more measurable intermediate project objectives of sustained functioning, use and hygiene on the other hand. In chapter 2 five general variables and their indicators are given to monitor implementation and results of **CPHE** programmes. Chapters 3 and 4 describe five variables with matching indicators to monitor functioning, use and hygiene achieved under a given **CPHE** programme, and the costs involved (see Box 1 and Box 2). Chapter 5 discusses the establishment of community-based monitoring systems and gives examples of monitoring formats used in participatory water and sanitation projects.



**Box 1: MONITORING THE IMPLEMENTATION OF CPH**

**Adequate user consultation in local planning and design**

**Adequate community organization for CPHE**

**Adequate training of community functionaries**

**Active involvement of women in water supply, sanitation and hygiene education activities**

**Locally-specific hygiene education programme established**

**Box 2: MONITORING OF SUSTAINED FUNCTIONING, USE AND HYGIENE**

**Sustained increase in water quantity and latrine construction**

**Adequate water and latrine quality provided and sustained**

**Sustained reliable functioning of completed water supply and sanitation facilities**

**Sustained use of completed water supply and sanitation facilities**

**Sustained hygiene practices**

# 1. ASSESSING RESULTS OF WATER AND SANITATION PROJECTS:

## General programme objectives

General objectives of most drinking water supply and sanitation projects are the improvement of public health and socio-economic conditions. These goals are long-term and technically difficult to measure. Moreover, impact studies of water supply and sanitation projects do not make sense when the necessary preconditions of sustained functioning, use, and hygiene are not fulfilled.

**Example 1:** Improved water supply facilities have been established which after a while stop functioning for prolonged periods. As a result, users are forced to return to contaminated and more distant water sources. Meanwhile their resistance to water-related diseases has been reduced. **Result:** loss of time and energy savings; renewed and increased health risks.

**Example 2:** Water supply and sanitation facilities are properly designed, constructed and maintained and function well. However, a large part of the population does not use them, or uses them only part of the time. **Result:** risks to public health continue; socio-economic benefits limited to user households;

**Example 3:** Water and sanitation facilities function reliably and safely and are used by all throughout the year, but drinking water in the home is stored and drawn in a risky way and other local hygiene risks (waste disposal, drainage) continue to exist. **Result:** potential health benefits and health-cost reductions not realized.

## 2. MONITORING THE IMPLEMENTATION OF CPHE

Realizing the importance of community participation and hygiene education, many projects now want to monitor:

- a. to what extent and results planned CPHE activities are taking place;
- b. what effects they have on the intermediate objectives of sustained functioning, use, hygiene and local development;
- c. with what inputs and costs these effects have been achieved:


To monitor the implementation and results of CPHE activities, five general variables are proposed (CPHE variables 1–5). These should be adapted further to the particular circumstances of the project concerned, in close cooperation with the local organizations and people involved in the monitoring process.

### CPHE VARIABLE 1: ADEQUATE USER CONSULTATION IN LOCAL PLANNING AND DESIGN

Rationale: Proper user consultation on socio-economic and cultural appropriateness of technical designs, on local maintenance, management and financing arrangements, and on local hygiene improvements leads to more realistic, acceptable and sustainable services, provided other conditions, such as training, availability of materials and equipment, etc. are also fulfilled.

Proposed areas where indicators are to be developed together with the partners in the field are:

- Indicator 1.1: The project partners have 1) identified the different user groups (men/women/children, rich/poor, domestic/economic, different ethnic groups, etc.) and 2) established their needs and views on the improvement of water supply, sanitation and hygiene conditions;
- Indicator 1.2: The user groups have 1) received information on the technical project options as well as options for local management, maintenance and financing, and 2) the implications of the options for the community have been discussed in detail;
- Indicator 1.3: All user groups (or their representatives) are actively involved in those decisions which concern them directly, e.g. 1) technology choice, service level and affordability, 2) design and location of facilities, 3) appropriate choices for local maintenance, management and financing, 4) planning of local hygiene programmes, and 5) developing a monitoring system and choosing indicators.



Operationalization of these indicators will vary with the local circumstances. In some areas, for example, consultations with the users take place in community meetings. In these cases indicator 1 may be, whether meetings were held, their attendance by the different user groups, the options presented and the agreements achieved. In other areas it may be difficult for women or other user groups, e.g. scheduled castes and tribes, to attend and speak out in public meetings. Here, indicator 1 may include the holding and attendance of small neighbourhood meetings, and their outcome.

## **CPHE VARIABLE 2: ADEQUATE COMMUNITY ORGANIZATION FOR CPHE**

Rationale: Community participation in planning, implementation, maintenance, management and monitoring of improved water supplies and sanitation requires sufficient local organization. Similarly, if communities are to participate in planning, implementation and monitoring of hygiene education programmes, capable and strong local organizations are required.

- Indicator 2.1: User organizations or other local bodies, either new or existing, have formally agreed to plan and implement the various project activities;
- Indicator 2.2: The organizations have 1) the support, and 2) represent the interests of all user groups, not only those of a particular section or faction in the community;
- Indicator 2.3: The responsibilities as well as authority of the organization(s) vis-a-vis 1) the users and 2) the project agency have been clearly established, including 3) the means of leverage for their realization;
- Indicator 2.4: The 1) local organization(s) and 2) the project team implement the agreed water/sanitation/hygiene improvements according to plan and fulfill their obligations (labour supply, materials, adherence to time schedules, etc.)
- Indicator 2.5: During local management, the organization(s) 1) continue to meet, 2) take decisions, 3) solve problems, 4) collect fees, 5) take care of maintenance, 6) communicate with the users, and 7) account for their management and financial administration.

### **CPHE VARIABLE 3: ADEQUATE TRAINING OF COMMUNITY FUNCTIONARIES**

Rationale: Local organizations and functionaries cannot function well when they are not properly trained, equipped and supervised.

- Indicator 3.1: The 1) tasks of each community functionary in water supply, sanitation and hygiene education have been clearly defined and 2) training needs established;
- Indicator 3.2: Performance-oriented training has been given for each task;
- Indicator 3.3: All "tools" to carry out the jobs properly are available, e.g. 1) materials and equipment, 2) spare parts, 3) training, 4) supervision, 5) refresher courses and 6) monitoring and support.

### **CPHE VARIABLE 4: ACTIVE INVOLVEMENT OF WOMEN IN WATER SUPPLY, SANITATION AND HYGIENE EDUCATION ACTIVITIES**

Rationale: Active participation of women in planning, implementation and maintenance can contribute considerably to programme success in terms of acceptance, use, reliability and financing. It also means recognition and strengthening of women's traditional roles in water supply, hygiene and community development. However, participation of women does not come about automatically: special steps are needed to get their involvement and support.

- Indicator 4.1: Specific steps are taken as part of the project implementation process 1) to inform women about the project, 2) to involve them in local planning and decision-making, and 3) to use their information to adapt the water and sanitation projects and the hygiene education programme;
- Indicator 4.2: Women are 1) members of local management organizations, 2) attend their meetings and 3) take part in their decision-making;
- Indicator 4.3: Women can in theory and practice 1) take equal part in training programmes, and 2) fulfill community-supported functions in maintenance of water supplies, promotion and installation of latrines and planning and promotion of hygiene improvements.



## **CPHE VARIABLE 5: LOCALLY-SPECIFIC HYGIENE EDUCATION PROGRAMME ESTABLISHED**

Rationale: Increased knowledge of the users on the relationship between water supply, sanitation and health by itself does not lead to better health practices. Furthermore, health impacts of improved water and sanitation systems are difficult to prove and require rigorous studies. However, once major local disease transmission risks have been reduced significantly through interventions in water and sanitation and through CPHE, health benefits will follow. A reduction in risky hygiene practices forms an easy-to-measure and low-cost indicator for health impacts of water and sanitation projects.

Indicator 5.1: Together with community members and organizations 1) risky health conditions and practices have been identified, e.g. hands touching during transport and drawing of drinking water, improper drainage at waterpoints, and latrines sited near wells, and 2) priorities set for problem solving;

Indicator 5.2: Hygiene education and action plans have been made by each project community to reduce the community-identified risks;

Indicator 5.3: A monitoring system to follow implementation and results of local hygiene improvement programmes is 1) established and 2) implemented.

The above indicators together will give a summary view of the forms and extent to which CPHE is implemented in the project communities. It allows donor agencies and national governments to get a rapid and comparative overview of CPHE processes in the various ongoing projects. By monitoring on key CPHE issues, project managers can more easily check actual progress against planned implementation of CPHE activities and detect problems for early action. For project communities, monitoring of CPHE activities can speed up their actual operationalization in the field. This in turn makes it possible to start assessing cost-effectiveness of projects with a CPHE component, in terms of sustained functioning, use and hygiene of water supply and sanitation facilities.

### 3. MONITORING OF SUSTAINED FUNCTIONING, USE AND HYGIENE

In order to be effective, improved water supply and sanitation facilities and hygiene education need not only be established. They should also continue to function properly and be generally and adequately used. Below, five general variables are described to monitor sustained functioning of water supply, sanitation and hygiene education projects with given technical and CPHE programmes, and two variables to measure actual use.

#### OUTPUT VARIABLE 1: SUSTAINED INCREASE IN WATER QUANTITY AND LATRINE CONSTRUCTION

Rationale: To achieve general health and economic benefits, enough water must be supplied to cover at least the basic needs of the users, as well as meet natural population growth. While in general 20-40 l/c/d is needed to cover basic needs for drinking, cooking and hygiene, some groups and communities may need and be ready to pay for higher water quantities. Not meeting justified local demands often leads to vandalism and illegal use. Similarly, over time each family needs to obtain its own latrine, except where sharing is physically and socio-culturally possible. The number of latrines at schools and other public places should also be adequate to meet the needs of both male and female users.

- Indicator 1.1 The amount of water produced and supplied over time is 1) enough to meet the basic water needs of all community members, and 2) meet additional demands from users ready to pay all additional costs of a higher service level;
- Indicator 1.2: There is 1) a steady increase in the proportion of households owning a latrine, and 2) low-income households are well-represented in the group of latrine owners;
- Indicator 1.3: There is an adequate number of latrines for 1) the number of boys/girls at the local schools, and 2) users at other public places (schools, clinics, places of work, etc.).

## **OUTPUT VARIABLE 2: ADEQUATE WATER AND LATRINE QUALITY PROVIDED AND SUSTAINED**

Rationale: High water contamination at any points in the system, or during collection, storage and drawing of drinking water in the homes may be due to poor technology and/or inadequate CPHE. Poor quality water continues water-borne disease and impedes potential health and economic benefits. Similarly, soiled latrines become health hazards rather than health facilitators. Water quality tests are preferable as final yardstick of water quality, but are not always feasible or suitable for community monitoring. Observing risky conditions from source to cup can then be a low-cost and practical intermediate step. Carried out with community members, observations are also an educational monitoring tool.

- Indicator 2.1: Absence of observed contamination risks from people, cattle and latrines at all points of the water system, from intake to outlet;
- Indicator 2.2: Reduction in observed risky storage and drawing of drinking water in the homes of a significant number of users;
- Indicator 2.3: Observed good hygiene in installed institutional and household latrines at increasing intervals after latrine installation;

## **OUTPUT VARIABLE 3: SUSTAINED RELIABLE FUNCTIONING OF COMPLETED WATER SUPPLY AND SANITATION FACILITIES**

Rationale: When community water systems and household and institutional latrines do not work well, they are unlikely to be used, and people will dislike paying for them. This means that no potential health and socio-economic benefits can be realized. A more reliable water supply, well-working latrines and drainage systems and better payment are important evidence for the effectiveness of a CPHE programme.

- Indicator 3.1: % of waterpoints reported to be out of order at given moments in time;
- Indicator 3.2: Average frequency and duration of breakdowns since time of installation;
- Indicator 3.3: Fair user contributions 1) set and collected and 2) prompt financing of maintenance and repairs;
- Indicator 3.4: % of installed latrines observed to be maintained and working properly at increasing intervals after completion;



## **OUTPUT VARIABLE 4: SUSTAINED USE OF COMPLETED WATER SUPPLY AND SANITATION FACILITIES**

Rationale: When waterpoints are used by less people than designed for, or family latrines not used by the whole family, part of the economic investments remain unutilized. Nor can health benefits and health cost savings be realized, when water supply and latrines are not used consistently. If women and children cannot save time from water collection due to distance, steep slopes or queuing, or surplus water remains unused, opportunities for economic and developmental use, e.g. for vegetable gardening, domestic livestock raising and attendance of schools and women's classes cannot be utilized. This also affects cost-coverage and hygiene, since income created by women is largely spent on basic family needs, including soap, extra vessels, and payment of water rates.

Indicator 4.1: For point sources: Average number of inhabitants per waterpoint over time. For private connections: % of households with house/yard/group connection over time;

Indicator 4.2: Observed 1) ongoing use of risky water sources for drinking (in cases of e.g. schistosomiasis, river blindness and guinea worm, also washing and bathing); 2) extent and reasons;

Indicator 4.3: % of households reporting 1) exclusive use of latrines by all household members (including for disposal of child excreta), coupled with 2) observed absence of human excreta near homes and in public places;

Indicator 4.4: Creation of opportunities for beneficial use of project spin-offs, such as 1) reduced water collection distances, and 2) inputs for economic use of surplus water and time-savings at domestic level;

## **OUTPUT VARIABLE 5: SUSTAINED HYGIENE PRACTICES**

Rationale: Apart from general and safe use of water and latrines, many other hygiene practices have to be improved to achieve health benefits. As local conditions, patterns of disease, hygiene habits and felt priorities vary considerably, indicators for monitoring sustained hygiene practices generally have to be chosen in consultation with the communities, as part of local hygiene education. Used below are some of the more generally applicable indicators. There is for example growing evidence that, in general, use of more water for hygiene is more important for disease reduction than the quality of the water used. Handwashing with soap or a soap-substitute is another more generally applicable indicator of sustained hygiene.

Indicator 5.1: Increase quantities of water used from \*\*\* l/c/d (the amount used with original water sources) to 20-40 l/c/d;

Indicator 5.2: Observed reduction over time by all target groups of selected risky water use practices, e.g. 1) areas around water points cleaned and fenced, 2) grey water properly disposed of, 3) drinking water in home safely stored and drawn, 4) increased number of bathing facilities;

Indicator 5.3: Observed reduction over time of selected risky sanitation practices by all target groups, e.g. 1) more people keep water and soap/soap substitute for handwashing in latrine and cooking area, 2) increase in use of ventpipes, flycovers and ash or similar substance in latrines against flies and bad smells, 3) grey water properly disposed of, 4) solid waste burnt or buried.

## **4. MONITORING CPHE INPUTS AND COSTS**

For assessing the cost-effectiveness of CPHE, it is necessary to monitor the CPHE inputs and costs of both agency and community.

Ongoing CPHE inputs of the agency of which the costs need to be established include:

- **number of working hours on CPHE of various staff with CPHE tasks;**
- **CPHE materials and equipment;**
- **transport;**
- **management;**
- **supervision.**

Fig. 1 and 2 are examples of formats used to monitor fieldwork of CPHE staff in the WADS project in Southern Dafur Province, Sudan.

In addition there are investment and development costs in the initial stages of the programme, e.g. for training, development and testing of CPHE materials and initial try-out of CPHE methods and approaches in so-called demonstration projects.

A WHO/BMZ meeting in 1985 recommended that 5% of the investment costs of water supply and sanitation projects is reserved for CPHE inputs. However, with low-cost technologies, such as handpump wells and piped gravity systems with public taps, a relative higher proportion of investment costs is usually needed, because consistent use and user payments are more difficult to achieve than with higher level services. The limited amount of monitored CPHE inputs in low-cost technology projects give an average expenditure on CPHE activities for low-cost technologies of 15% of the total project costs (excluding development costs).

Typical community inputs in water supply and sanitation projects are:

- **time inputs (for meetings, administration, maintenance and repairs, community surveys, home-visits on latrine use and hygiene, etc.);**
- **labour inputs in construction (either measured as time inputs or as km. of length of trench digging, pipe laying, number of latrine pits dug, outhouses constructed)**
- **local materials (e.g. sand, gravel);**
- **service contributions (e.g. housing, meals)**
- **cash contributions and payments to community functionaries (caretakers, mechanics, fee collectors).**

**Fig. 1: Monitoring Sheet  
Visits to the Village**

<i>Rural Council:</i>
<i>Village:</i>
<i>Page:</i>

Activity	Planned date	Actual date	If planned and actual date not the same: Why not?	Subjects covered	With whom?	No. of staff	Total time spent	Remarks

Source: Boot et al (1988)

**Fig. 2: Monitoring Sheet Transport Village Promotion Section**

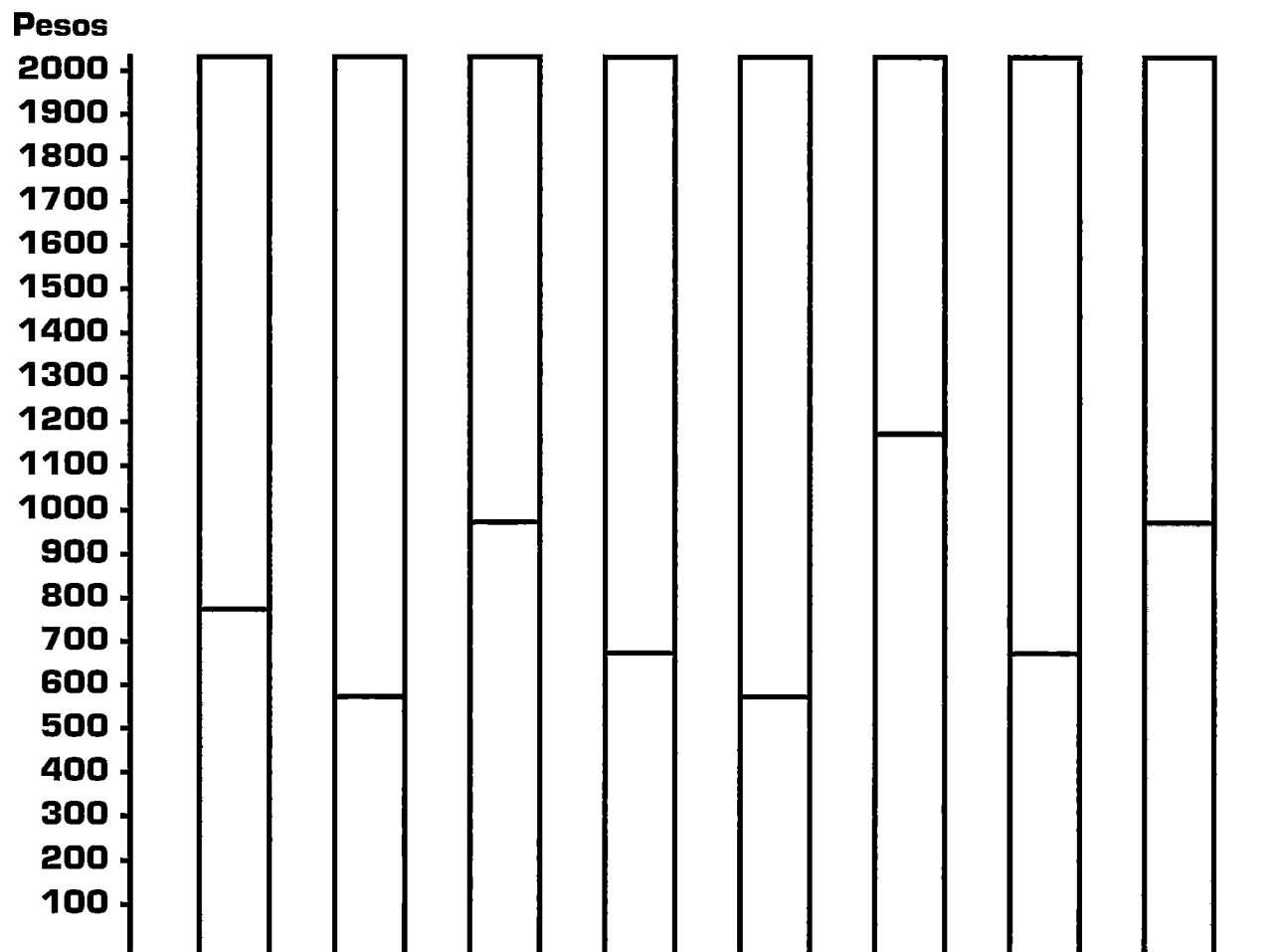
Type of Transport	Departure date	Odometer reading start	Return date	Odometer reading finish	Total no. of kms travelled	Villages visited	Remarks *

\*Minor repairs, etc.

Fig. 3 gives an example for graphical recording of household contributions to the construction costs of piped rural water supply schemes in Colombia. The average total value of community labour and cash contributions is 15–20%, but labour contributions can be worth as much as 40% in piped gravity schemes and 60% with handdug wells. From these savings to construction costs should be deducted the inputs given by project staff to help local organizations organize and manage user contributions and to train voluntary labour for a good quality performance. The limited data on the costs involved in these inputs indicate that they amount to about one-third of the savings in construction costs.

**Fig. 3: Monitoring of Payment of Connection Charges by Local Households**

<i>Place:</i>	<i>Type of project:</i>
<i>Starting Date:</i>	<i>Expected completion date:</i>



<i>Date of chart:</i>
-----------------------

Source: Whyte (1982)

Much less is known about the value of community contributions in other phases and activities of the projects, such as planning, maintenance and hygiene education. Monitoring these inputs is important, since they are more crucial to the long-term success of water and sanitation projects than unskilled labour or one-time cash contributions. Several projects, such as the WADS project in Sudan, the Morogoro/Shinyanga project in Tanzania and the ONPF/KFW project in eastern Burkina Faso now also monitor community contributions in time and labour to planning and maintenance (Fig. 4).

**Fig. 4: Monitoring Sheet  
Village Project Meetings**

<b>VILLAGE WATER SUPPLY PROJECT EAST BURKINA FASO ONDF/KfW</b>	No. of Village :	171	A4	
	No. IRH :	2 Fn 16		
<b>PROJECT INFORMATION MEETING</b>	Works :	INF		
Village :	Piega	Department :	Matiakoali	
Place of meeting :	Piega centre	Duration :	1 hour 20	
Meeting held :	15-01-87 at 9.00 hrs	Promoter :	Thiombiano Salamata	
<b>PARTICIPANTS</b>		<i>m</i>	<i>f</i>	children
Number :	101, of which	53	26	22
Key persons present :	Delegates CDR, Assint delegate, A.S.V., A.V.			
<b>ISSUES AND RESULTS</b>				
Payment (amount and manner) :	11.500 Frs, 250 Frs per person over 14			
Water point committee :	not yet elected			
Siting water point :	between Baobab and Tamarind tree, north of the road			
Caretakers :	not yet chosen			
<b>OBSERVATION</b>				
The villagers seem motivated and get on well. The location of the water point was accepted by all without problems.				
Next meeting set for :	22/01/87 at 9.00 hrs			

## **5. ESTABLISHING A COMMUNITY-BASED MONITORING SYSTEM**

### **5.1. Gradual Development in the Field**

To assess to what extent a CPHE programme has been established, and with what results, a good monitoring and evaluation system has to be established in all water supply and sanitation projects. This system should record all CPHE inputs, costs and performance indicators such as proposed above and monitor results in terms of sustained functioning, use, hygiene and coverage of recurrent and sometimes capital costs. In addition, monitoring systems can also measure ongoing development initiatives of water committees, community women and youth groups, etc.

To monitor progress, information is required at different levels. Good monitoring starts at community level. Already, community members such as pump caretakers, water and health committees and community health workers have been trained to keep simple records and monitor and report on functioning, use and cost-coverage of water supplies and latrines. In some programmes, for example, community members keep handpump logbooks and water accounts, and monitor and report on latrine installation, use and maintenance.

At higher levels, this village-level information is subsequently condensed into more area-wise and comprehensive data on, for instance, % of population served, % of recorded use and satisfactory hygiene conditions, % of waterpoints not functioning well in measured period, duration of repairs, overall maintenance costs, % of user payment of capital/recurrent cost and ongoing development activities. Fig. 5 is an example of area monitoring sheets on functioning and financing of community-managed rural piped water supply systems in Colombia.

A viable monitoring system from community level upward cannot be established and kept on working without the active support and involvement of the communities themselves. Community members will only visit sites and keep records when they (1) appreciate the need for monitoring, (2) have decided who will monitor what, in what manner, how frequently and with what internal control system, (3) get the necessary training to implement the chosen monitoring system, and (4) see results of the monitoring in the better functioning of the water system, in improved hygiene and living conditions and in a better response of government services to local needs and problems.

Steps to develop a participatory monitoring system through a gradual approach of "learning-by-doing-and-reviewing" include:

- **discussion of the relevance of monitoring with the implementing community members in the first project communities;**
- **agreement on who will collect what information and with what frequency, including the question of internal and external supervision and control;**



**Fig. 5: Area Monitoring Sheet Community Financing and System Functioning**

<i>MINISTRY OF HEALTH</i>	<i>NATIONAL HEALTH INSTITUTE</i>	<i>DATE</i>
<i>FINANCIAL STATUS OF RURAL WATER SUPPLY AND SEWERAGE SYSTEMS</i>		
<i>INFORMATION ON</i>	<i>SEMESTER OF 198</i>	<i>OF DISTRICT</i>

No.	Code	Locality	Type of system	Balance period		Community loan			Reimbursement			No. subscribers	System condition	System working?	
				from	to	Initial	Saldo	Date	Value	Paid	Debit				

No.	Code	FINANCIAL STATUS WATER COMMITTEES							USER PAYMENTS			Type of administration
		Total Income	Expenditures				Dept on loan repayment	Bank and cash saldo	Rate(s) set	Total collected	Total debts	
			Loan re-payment	O&M	Adm.	Expansion						

Source: Instituto Nacional de Salud, Bogota, Colombia. Unpublished paper

- agreement on methods of data collection, e.g. visits to pump/tap sites, intake and school latrines; homevisits to follow up latrine installation; meetings of village water or health committee and scheduled meetings with agency staff;
- agreement on how information will be registered and passed on (logbooks/minutes/printed formats; mailed/collected/reviewed on the spot);
- review of workload and need for remuneration;
- practical training on how to fill in specific monitoring forms;
- information of users how maintenance, management and hygiene will be monitored and accounted for, and what users themselves can do (e.g. when not satisfied with the operation of the system);
- trying out the agreed monitoring system during a selected period;
- review of experiences, adaptation of the system and expansion to the next group of communities.

The development of community-based monitoring in this way is a gradual and participatory learning process which results in a practical and field-tested system. Monitoring itself should not involve much paperwork and at village level be suitable for people with low literacy. Only data that are used afterwards should be collected, to avoid bureaucracy and to show the communities that their work has an influence. Also, indicators chosen for testing should be directly related to the short- and long-term objectives of the project or programme. Typical items monitored by project staff are:

- number, attendance and decisions of community meetings;
- composition, meeting, attendance and decisions water of committee or other community organization;
- community labour and/or cash contributions to construction (alternatively, lists are kept by community management organization)
- time, transport and material inputs of fieldvisits;
- training activities carried out;
- presence and size of water maintenance funds;
- implementation of management tasks, such as payment of maintenance workers, account keeping, organization of user assemblies, etc.



Items monitored by community members may include:

- adequate functioning of handpumps/taps during the monitored period;
- discontinuation of unsafe use of traditional water sources;
- frequency and costs of water supply maintenance;
- frequency and duration of breakdown and costs of repair;
- setting and payment of water rates;
- income and expenditures of water supply/sanitation fund; use of surplus money;
- installation, maintenance and use of household/school latrines;
- improvement of selected hygiene practices, e.g. no standing water at public water points, observed clean water and soap/soap substitute near latrine and cooking area, observed safe drawing methods for drinking water; improved disposal of solid waste/waste water;
- committee/community meetings held after project completion; attendance and results.

Examples of monitoring sheets for handpump functioning and repairs are given in Fig. 6 from Morogoro, Tanzania and Fig. 7 from Karnataka, India. Fig. 8 is an example of a monitoring sheet for latrine construction and payments in Botswana. Fig. 9 gives the financial status of village revolving funds for water supply and sanitation in Thailand. Fig. 10 is a monitoring form on installation, use and upkeep of ventilated improved pit latrines in Nigeria, but without assessment and cross-checking of consistent latrine use by other members of the family besides mothers and children.

## **5.2 External Cooperation and Support**

There is a great need to extend monitoring and evaluation systems beyond number of systems/taps/latrines installed, population covered and per capita construction costs. Implementing agencies should get specific support (training, funds) to monitor their CPHE processes and set up community-based monitoring and evaluation systems on functioning, use and hygiene improvements. Agreement between donors on the definition of general indicators on CPHE and project results, and on the methods of measurement would increase the comparability of project findings. In addition, more systematic monitoring of CPHE inputs, performance and results would greatly enhance current knowledge on the cost-effectiveness of participatory water supply, sanitation and hygiene education projects under different circumstances and with different technologies.

**Fig. 6: Monitoring Sheet Handpump Functioning**

Pump No:					
Month:					
Name of caretaker:					
	<b>week1</b>	<b>week2</b>	<b>week3</b>	<b>week4</b>	<b>week 5</b>
<b>Does water come within 6 strokes?</b>					
<b>Is flow good when pumping slowly?</b>					
<b>Is pumping easy?</b>					
<b>Are nuts and bolts tight?</b>					
<b>Is handle firm after tightening?</b>					
<b>Is pump firm on its base?</b>					
<b>Is slab firm and unracked?</b>					
<b>Is drain clean?</b>					
<b>Is site clean?</b>					
<b>Does water seep away?</b>					

**IN CASE OF PROBLEMS REPORT TO VILLAGE MECHANIC AND FILL IN WORK REPORT FORM**

**CHECK BY VILLAGE MECHANIC**

Date:	Name:
Remarks:	
	Signature:

Fig. 7: Monitoring Sheet Handpump Repairs

**Government of Karnataka  
PUBLIC HEALTH ENGINEERING DEPARTMENT**

**Tubewell Handpump Caretaker**

<i>Village:</i>	<i>Hand Pump No:</i>
<i>Block:</i>	<i>Depth of Borewell:</i>
<i>Taluk:</i>	<i>Static water level:</i>
<i>District:</i>	<i>Date of pump installation:</i>
<i>Name of caretaker</i>	

S. No.	Details of repair	Date of breakdown	Date of reporting breakdown	Name of mechanic	Date of pump repaired	Details of repair	Spare parts used	Remarks

Source: Ottosen, Copenhagen.

**Fig. 8: Village Latrine Inventory Sheet**

<i>Village</i>						<i>Village Sanitation Assistant</i>					
Name of Builder Placed	Ringbeam Completed	Pit Dug	Wire/ Typer	Slabs Delivered	Slabs Placed	Foundation Completed	Walls Completed	Ventpipe Delivered	Roof Completed	Seat Completed	Payment

**Fig. 9: Cash Record of Revolving Village Fund for Water, Sanitation and Other Village Development**

Number	Year		Category	Cash		Bank account			Signature of Committee
	Month	Date		Credit	Debit	Balance	Deposit	Balance	

Source: Menaruchi et al (1985)

Remarks:



**Fig. 10: Monitoring Sheet for Village Sanitation**

		SCORE					COMMUNITY MAXIMUM PERCENT		
		Mother	Mother	Mother	Mother	Mother	SCORE	SCORE	OBTAINED
		1	2	3	4	5	CS		
A)	Do you have a latrine?      yes (1) no (0)							5	%
B)	Have you ever heard of latrines?      yes (1) no (0)							5	%
C)	Do you have a private VIP latrine?      yes (1) no (0)							5	%
D)	Does this Community have a Communcal VIP latrine?      yes (1) no (0)							5	%
E)	Do you use a VIP latrine frequently?      yes (1) no (0)							5	%
F)	Do your children use a VIP latrine frequently?      yes (1) no (0)							5	%
G)	The interviewer should see the latrine(s) and decide whether they are well kept:							5	%
(I)	clean      yes (1) no (0)							5	%
(II)	mosquito net well installed and in good condition      yes (1) no (0)							5	%
(III)	Slabs well cemented      yes (1) no (0)							5	%
(IV)	Door closing well      yes (1) no (0)							5	%
<b>TOTAL POINTS SANITATION</b>								<b>50</b>	

**TOTAL SANITATION**

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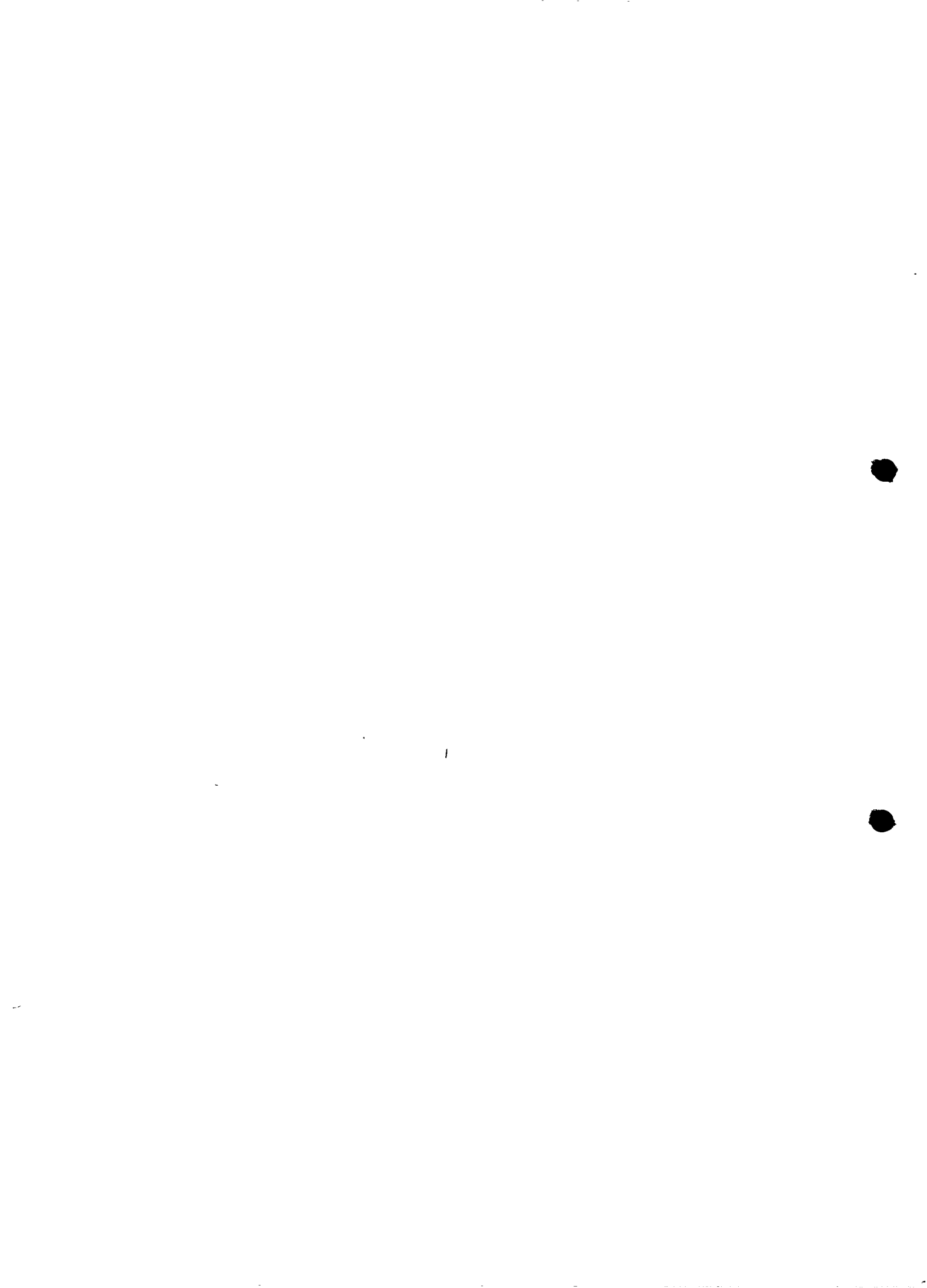
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# STRATEGY DEVELOPMENT FOR CPHE

DRAFT



October 1989



**COMMUNITY PARTICIPATION AND HYGIENE EDUCATION**

# PAPERS PUBLISHED IN THE CPHE SERIES

- 1. SUSTAINABILITY AND EFFECTIVE USE. The case for community participation and hygiene education in water supply and sanitation.** This paper summarizes important reasons for **CPHE**, clarifies its concept and conditions and highlights some achievements.
- 2. PRACTICAL GUIDELINES FOR INTEGRATING CPHE INTO WATER AND SANITATION PROJECTS.** This paper addresses key components for **CPHE** and indicates practical tools to involve the community.
- 3. TOOLS FOR INTEGRATING CPHE INTO WATER AND SANITATION PROJECTS.** This paper summarizes the tools referred to in paper number 2.
- 4. INDICATORS FOR SUCCESS. CPHE in water supply and sanitation: How to measure progress and results?** This paper highlights indicators related to **CPHE** and addresses the establishment of a monitoring system.
- 5. STRATEGY DEVELOPMENT FOR CPHE.** This paper reflects a strategy framework for the promotion of **CPHE** internationally as well as at national level of a given country.

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Postfach 5180, D-6236 Eschborn  
Federal Republic of Germany







# **STRATEGY DEVELOPMENT FOR CPHE**

October 1989

# Foreword

One of the most prominent results of the International Drinking Water Supply and Sanitation Decade is the world-wide recognition of the need for community participation and hygiene education in sector programmes. The plan of action, formulated along similar lines at the Interlaken Consultation in 1987, was based inter alia on the premise that "project development must not only involve engineers but also technicians, health professionals, and social scientists, all of whom must interact with the potential beneficiaries as projects are designed and built ." \*

With this understanding and to facilitate the cooperation between engineers, health professionals, social scientists and the community, the following 5 papers on Community Participation and Hygiene Education (CPHE) have been prepared. They can by no means replace the use of field manuals. They are designed for guidance and as a frame of reference in water supply and sanitation projects for

- national and international decision makers (Papers No. 1, 5)
- field managers of water supply and sanitation projects (Papers No. 2, 3, 4).

I would like to thank the following participants of the two working group meetings held in October, 1988 in Eschborn and in May, 1989 in The Hague for their active cooperation, the energy they have put into this venture and their willingness to share their experience and knowledge with others: Mr. P. Adhikary/Nepal; Dr. G. J. Astor/IMC; Ms. M. Cardenas/Paraguay; Mr. R. Ehrlich/FRG; Dr. W. Fischer/GTZ; Mr. F. Greiner/GTZ; Mr. J. D. Gubler/World Bank; Mr. I. Guhr/GTZ; Mr. P. Hirano/WHO; Mr. K. M. Jensen/DANIDA; Ms. N. Khattak/Pakistan; Mr. P. Kohorst/IMC; Mr. S. Kumarasiri/Sri Lanka; Ms. J. Kunguru/Kenya; Ms. M. P. Lefebvre/IMC; Dr. A. Merkle/GTZ; Ms. S. Melchior/PROWVES, Mr. A. Obser/University Konstanz; Mr. J. T. Visscher/IRC; Ms. Dr. E. Weinreben Nunn/Brazil; Ms. C. van Wijk-Sijbesma/IRC; Mr. A. Winnikes/KfW, and Ms. M. Yacoob/WASH.

\* Water and Sanitation: Toward Equitable and Sustainable Development, 1988 International Bank for Reconstruction and Development

As always, there are persons behind such undertakings who initiate processes like this and support it with advice and actions. Therefore, my thanks also go to Mr. M. Acheson/Who; Mr. A. Arlosoroff/World Bank; Mr. H. van Damme/IRC; Mr. D. Grey/World Bank; Mr. J. Kalbermatten; Mr. K. Kresse/GTZ, and Mr. E. Turner/WASH.

It is my sincere hope and expectation that this fruitful cooperation will continue among these colleagues as well as with new working group members so that the process of community participation and hygiene education will lead to sustainable projects and improved health of the target populations.

**Dr. K. Erbel**  
**GTZ/Head of Water Division**

# Summary

It is now generally recognized that water supply and sanitation projects should be based upon community participation and hygiene education, in order to ensure acceptance by the population and sustainability of the facilities.

**CPHE**

**is indispensable to help achieve:**  
**project sustainability**  
**user's acceptance**  
**effective use**  
**affordable solutions**  
**improved hygiene practices**  
**ongoing development action**

Yet few people have the time and opportunity to read and make use of the wealth of instructive materials and research reports available on **CPHE**. Therefore, the attempt has been made here to identify basic components of community participation and hygiene education common to water supply and sanitation projects and to summarize them in 5 short and readable papers.

The series of papers was initiated by an international working group (annex 1) convened by GTZ in November, 1988. In their first meeting the outline of the first four papers was defined. Then on the basis of materials provided by the group members, IMC and IRC prepared, commissioned by GTZ, the first drafts which were finalized in a second meeting in May, 1989. During the same meeting the fifth paper, on strategy development for **CPHE**, was produced through goal-oriented project planning.

This document shows the results of a four-day workshop with the members of the international working group on **CPHE** held in The Hague in May, 1989. The objectives oriented project planning approach (ZOPP, see Annexes II - V) was used to define strategies for promoting **CPHE** in water supply and sanitation projects. At international level, activities are listed which donors might undertake to integrate **CPHE** into their programmes. At country level, an example is given how development agencies might design their own **CPHE** strategy for their country programme.





# 1. INTRODUCTION

Around the world, most of the projects in water supply and sanitation tend to follow a certain common pattern (basic components) for community participation and hygiene education. Following the identification of those basic components in Papers No. 1-4, a strategy framework was to be developed for the design and implementation of CPHE projects.

## 2. PARTICIPATION ANALYSIS

The first step of the ZOPP methodology is the participation analysis. It gives an overview of all persons, groups, organizations and institutions connected with a project or a programme. The parties related to the promotion and implementation of CPHE in water supply and sanitation had already been identified by the first working group meeting in Eschborn as:

- national and international policy makers and donors
- national and international project formulators and planners
- national and international decision makers for approval of projects
- project managers and international advisors on project management
- national and international software and hardware technicians
- community members.

## 3. PROBLEM ANALYSIS

Why is a common strategy for CPHE necessary? What exactly is the problem area? What are the major problem conditions in water supply and sanitation projects at the moment? What exactly is the core problem of everything, what are its causes and effects? The answers to these questions were discussed by each participant giving his/her ideas what the biggest obstacle to CPHE was, by placing the problems stated into a cause-effect relationship and by jointly defining as **the core problem**:

**WATER SUPPLY AND SANITATION PROJECTS DO NOT MATCH LOCAL CONDITIONS FOR LONG-TERM FUNCTIONING AND USE.**

The immediate and major causes of the core problem were identified as:

**AGENCIES DO NOT CARRY OUT PROJECTS JOINTLY WITH COMMUNITIES.**

**COMMUNITIES ARE NOT ABLE/USED TO CARRY OUT PROJECTS JOINTLY WITH AGENCIES.**

**TECHNICAL SOLUTIONS INSTALLED ARE NOT APPROPRIATE.**

For

## AGENCIES DO NOT CARRY OUT PROJECTS JOINTLY WITH COMMUNITIES

the following major causes were identified:

- not enough ability of agencies to work together with the community,
- not enough willingness on their part to do so.

The inability to work with the community is caused by:

- inadequate outreach staff for CPHE purposes,
- insufficient access to appropriate software technology,
- inappropriate organizational structure of agencies,
- insufficient fund allocation to CPHE.

The **EFFECTS** of the core problem include:

**UNDER-  
UTILIZATION OF  
WS/S  
SYSTEMS.**

**BREAK-  
DOWN OF  
WS/S  
SYSTEMS.**

**VILLAGERS  
LOSING TRUST  
IN PUBLIC  
PROJECTS.**

**COMMUNITY NOT  
WILLING TO CON-  
TRIBUTE TO OPERATION  
AND MAINTENANCE.**

These problems again contribute to the fact of


## NO REDUCTION IN WATER-BORNE DISEASES

The problems tree (Annex II) provides a complete and integrated picture of this cause-effect relationship.

## 4. OBJECTIVES ANALYSIS

In the problem analysis, the existing negative conditions of WS/S projects have been identified. In the objectives analysis, the hierarchy of problems is transformed into a hierarchy of objectives hypothesizing the future positive conditions with active community participation and carried out hygiene education. For example, the core problem has been transformed into the following positive condition:

**WATER SUPPLY AND SANITATION PROJECTS BETTER ADAPTED TO  
LOCAL CONDITIONS FOR LONG-TERM FUNCTIONING AND USE**



The immediate means to achieving the above positive condition are identified to be:

**CPHE  
PROJECTS  
EFFECTIVELY  
PROMOTED  
BY AGENCIES**

**COMMUNITIES  
ENABLED TO BE  
MORE IN  
CONTROL OF THEIR  
PROJECTS**

**MORE  
APPROPRIATE  
TECHNICAL  
SOLUTIONS  
INSTALLED**

The means to have CPHE projects effectively promoted by agencies are: their ability and willingness to implement CPHE have to be improved.

The means to improve the abilities of agencies to implement CPHE are:

- **improved cooperation between agencies and departments achieved**
- **adequate staff made available for CPHE**
- **adequate budgetary allocation for CPHE made available**
- **software technology made more easily available**

For detailed information, also on other objectives, please refer to the Objectives Analysis (Annex III). Once an objective like "water supply and sanitation projects are better adapted to local conditions for longterm functioning and use" has been achieved, one could also expect to reach such conditions as:

- **greater trust of communities in the agencies realized**
- **fewer breakdowns of systems occurring**
- **willingness of community to contribute to maintenance increased**
- **water supply and sanitation facilities better utilized**

All these positive conditions could then lead to an ultimate improvement of living conditions of the communities concerned. These objectives have all a means-end relationship. The Objectives Tree (Annex III) provides the complete and integrated graph of this relationship.



## **5. LOGFRAME ON THE INTEGRATION OF CPHE IN WS/S PROJECTS**

The logframe or the Project Planning Matrix (PPM) provides the essential elements of the programme or the project being planned. A one-page summary in the form of a matrix attempts to answer such questions as:

- why is a project/programme planned?
- what is it that is expected of it at a particular time (at the end of the project/programme phase) if everything goes according to plans?
- what specific achievements or results are to be expected for which the project/programme team is held responsible?
- what specific activities are to be carried out in order to achieve the specified objectives?
- what could the performance standards be for monitoring and evaluating the project/programme progress?
- where and how can such indicators of the performance standards be found?
- what external factors are crucial to the success of the project/programme?
- what inputs in terms of time as well as of human and material resources are needed to carry out the activities?

In a standard ZOPP workshop the above questions are answered to complete the PPM or the logframe.

As for the identification of a strategy framework for integration of CPHE in WS/S projects, only the first four questions were answered. The performance standards and indicators and corresponding means of verification for monitoring and evaluation should be provided by the paper no. 4: Indicators for Success.



## **6. OBJECTIVES OF THE STRATEGY FRAMEWORK**

### **6.1 Purpose**

The purpose of the common strategy for the integration of CPHE in WS/S projects is the result of the dual objective of promotion and execution of CPHE which can be stated as:

**The water supply and sanitation systems (are) made to become sustainable**

(meaning that they will be functional over a longer period and are managed and used effectively by the communities concerned).

### **6.2 Goal**

The goal of the integration of CPHE in WS/S projects could be

**Living conditions of the communities improved**

(meaning that CPHE integrated WS/S projects can contribute to better living conditions for the communities).

### **6.3 Outputs**

The outputs needed as specific achievements of the integration of CPHE in WS/S projects are expressed in a dual strategy of promoting and executing CPHE.

### **International strategy**

- 1. CPHE programme promoted at the level of national and international donor and development agencies**

## **National strategy**

2. National governments and NGOs assisted in developing a national strategy to overcome the constraints hindering CPHE.
3. Pre-service and in-service technical personnel (project managers, engineers, social scientists) sensitized on the value and possibilities of integration of CPHE in WS/S projects.
4. Agency and community jointly managed CPHE programmes provided with appropriate finance, equipment and facilities.
5. CPHE programmes provided with appropriate training materials and manuals for programme staff and community members.
6. Appropriately qualified manpower provided to CPHE programme implementation.
7. Community managed water supply and sanitation (WS/S) systems made operational, with an integration of hygiene education.
8. An effective monitoring and evaluation system established for WS/S projects with an integration of CPHE.

The output No. 1 above corresponds with the strategy for promoting CPHE at the international donor level. The outputs No. 2 to 8 correspond with the implementation of the CPHE component in WS/S projects at country or national levels. When all of these outputs, both at the promotion and implementation levels, are achieved, then only the purpose of sustainable water supply and sanitation systems can be reached by means of the common strategy on CPHE as an integral component of WS/S projects.

## **6.4 Activities**

Each of the above outputs can be achieved by listing a set of activities. For example, to achieve the output No. 4

**Agency and community jointly managed CPHE programmes provided with appropriate finance, equipment and facilities**

one would need to carry out activities such as:

- **getting a separate budget allocation for CPHE**
- **ensuring that MOH (Ministry of Health) hygiene education programmes department has appropriate funds**
- **ensuring that hygiene education has a budgetary line item in projects**
- **planning inputs (physical facilities and equipment necessary using available resources)**
- **purchasing equipment and needed material**
- **carrying out internal and organizing external financial control activities.**

Similarly activities have been identified that are necessary for achieving the other outputs. For detailed information, please refer to the logframe (Project Planning Matrix) on integrating CPHE for sustainability of WS&S projects (Annex IV).

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## Excerpt from:

# ZOPP: An Introduction to the Method (GTZ)

1. **The ZOPP planning method** was officially introduced at the GTZ in 1983. It is to be applied in planning all project preparation and implementation phases.

Since 1986 the new commissioning procedure between the GTZ and the BMZ - the German Federal Ministry for Economic Cooperation - has also made the use of ZOPP compulsory in project planning. ZOPP ensures a consistent train of thought and procedure and uniform understanding of the terms used. It thus facilitates communication and cooperation between all parties involved. This does not mean, however, that ZOPP has to be applied in a stereotyped manner in all its steps. The amount of information available, the task to be tackled and the number of persons participating in ZOPP will determine how comprehensively the planning steps can be implemented in each case. To apply the method flexibly, the basic elements of ZOPP presented hereafter must be mastered.

2. **ZOPP consists of inter-supportive elements:**

- (1) **The method**, which is explained in this brochure and is the guideline for work in the planning group.
- (2) **The team approach** as the framework for studying interdisciplinary problems and the participation of important interest groups and target groups.
- (3) **Visualisation** - which means the contributions by the planning team and the results of discussions are recorded on cards.
- (4) **The rules of application**, which in the project preparation phase determine the timing, participation and purpose of the ZOPP workshops. The rules are laid down in the GTZ Organisation Manual.
- (5) **Project management**, which is based on ZOPP and has the task of turning planning into project work.

The ZOPP method draws on the knowledge, ideas and experience contributed by the team members. ZOPP is to improve the **quality** of planning, which in turn determines the benefit for the decisionmakers and practical project work. In the final instance, the benefit obtained must justify the planning input made.

### 3. ZOPP is based on a few very simple underlying principles:

- (1) Cooperation between the project staff and partner organisations is smoother and more productive if all involved have jointly agreed their objectives and expressed them clearly.
- (2) In development cooperation we try to solve or alleviate problems by tackling them at their roots - their cause. We therefore analyse the **problems** and their **causes** and **effects**. We then deduce feasible and expedient objectives from them.
- (3) Problems and their causes do not exist in isolation, but are intimately linked with people, groups or organisations. Therefore we can only talk about problems if we have a comprehensive picture of and insight into the **interest groups, individuals and institutions involved**.

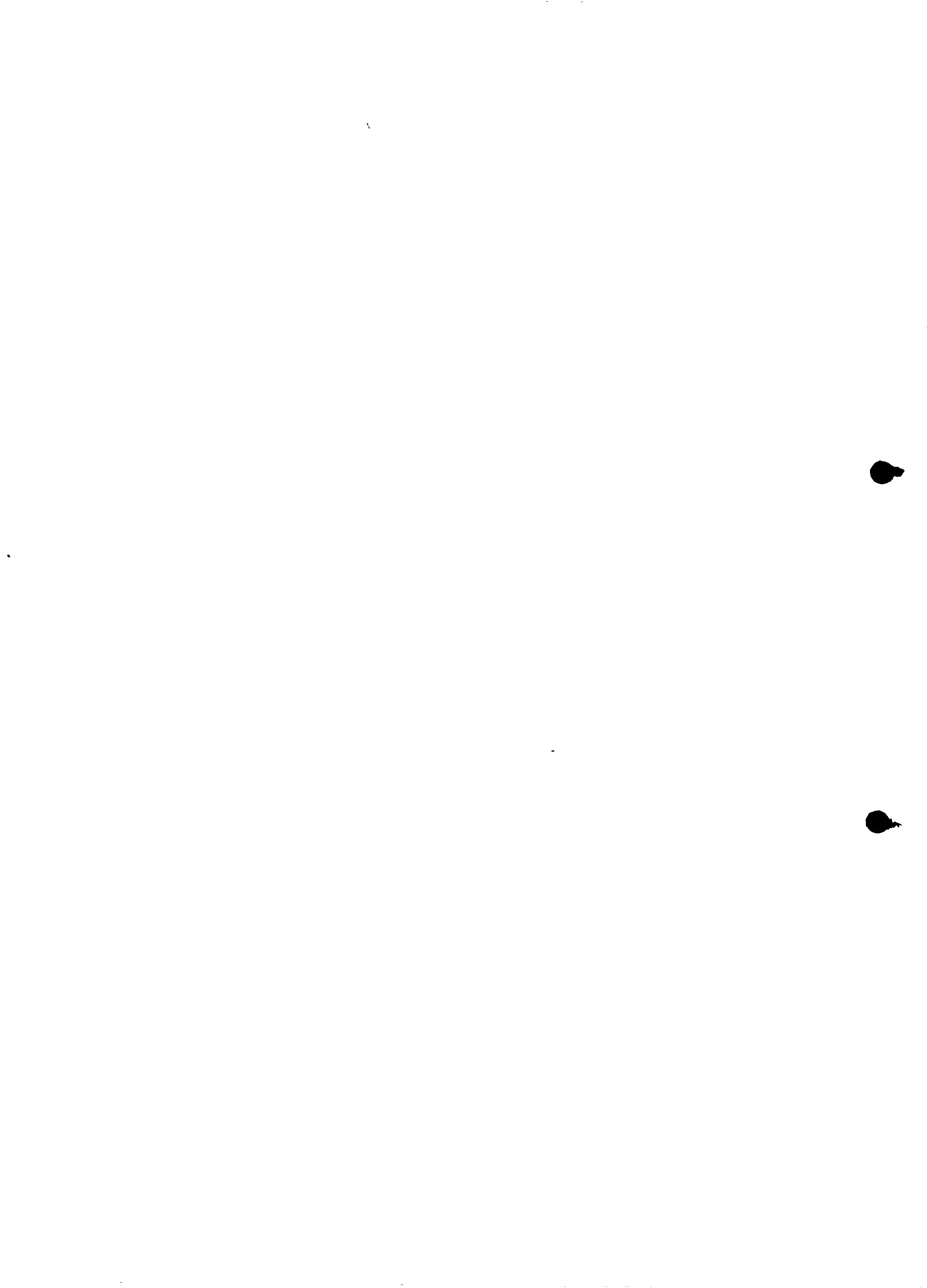
The analysis thus attempts to extract typical perspectives of a situation which in reality is very complex. These characteristics then become tangible and can be analysed and worked on by the planning groups. In the interests of the target groups and project personnel a conscious and pragmatic effort is made to simplify methods, as complex ones are often not applicable in practical project planning.

### 4. During the analysis phase the work results are recorded in the following documents:

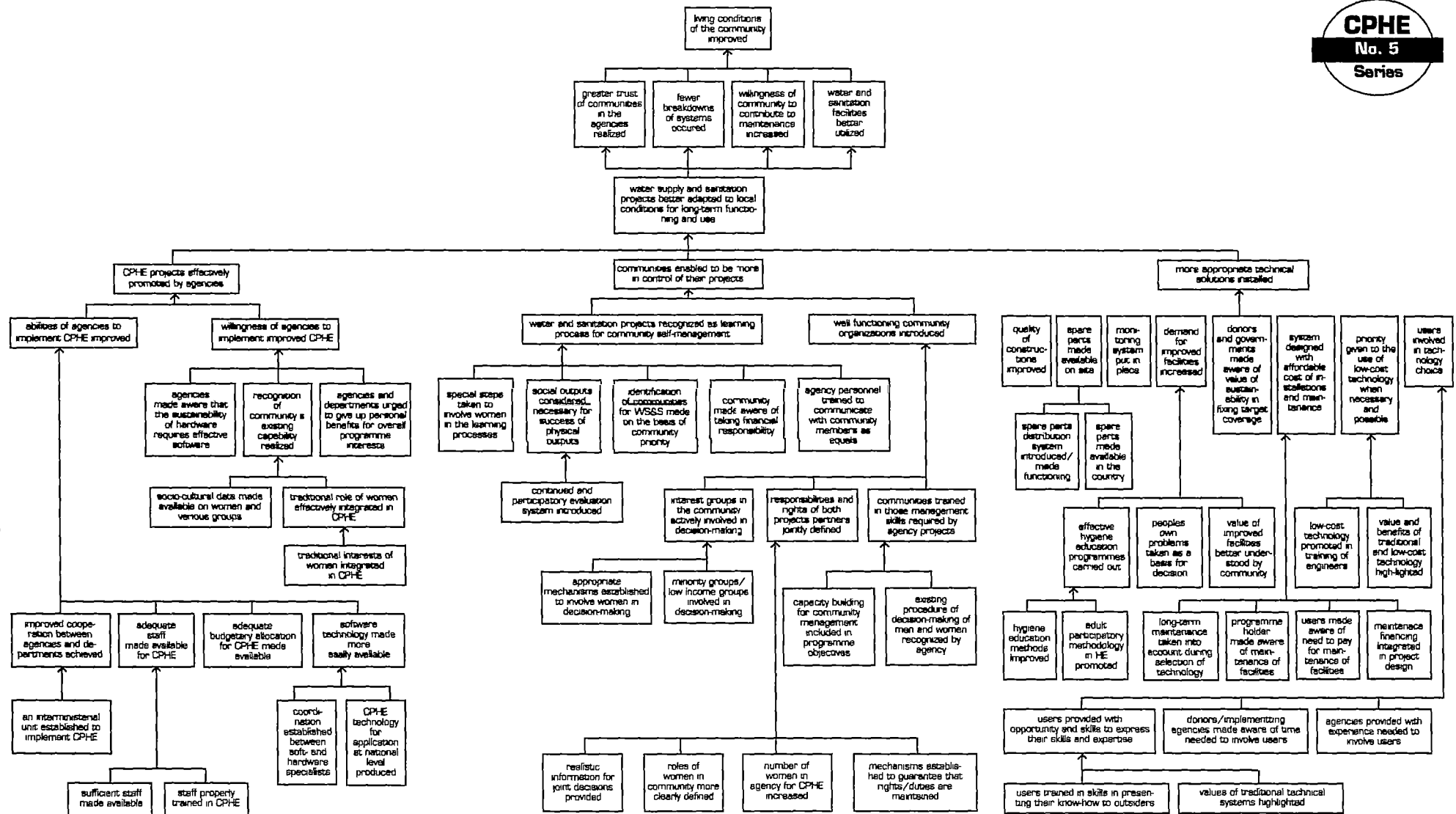
- participation review
- problem tree
- objectives tree, indicating potential alternative solutions

The steps of analysis are followed by planning steps in the narrower sense, using a project planning matrix, which contains the overall basic structure of a logical and feasible project.

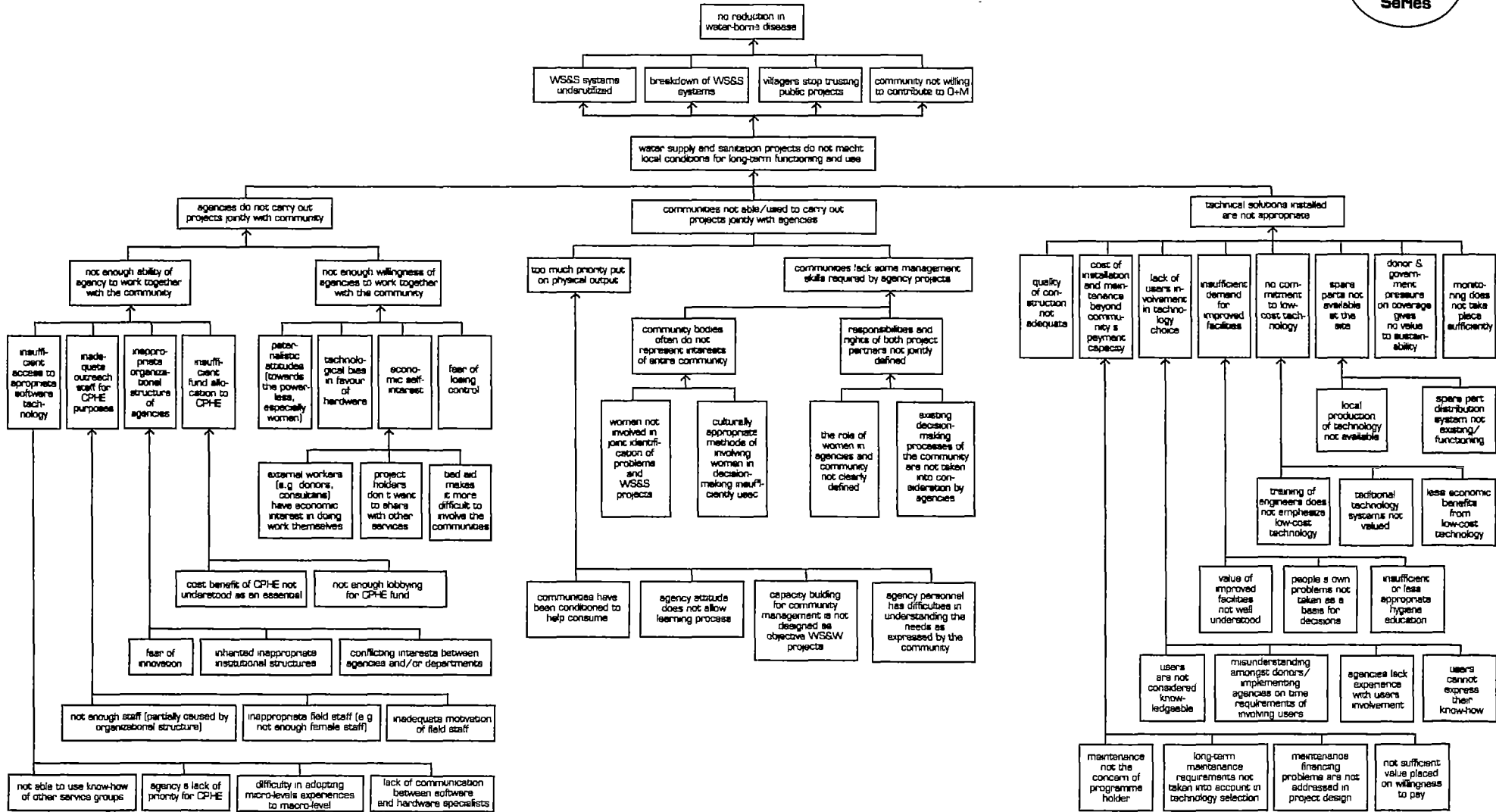
The ZOPP documents become more detailed in the consecutive stages called ZOPP 1 to 5. The overall planning horizon should be a reasonable time-span, more or less covering the entire promotion phase under review.













# PROJECT PLANNING MATRIX ON CPHE FOR SUSTAINABILITY OF WS/S PROJECTS



Water supply and sanitation facilities made to become sustainable (sustainability includes long-term functioning of the facilities and their effective use and management by the communities concerned)

## International level

## Country level

1 CPHE programme promoted at the level of national and international donor and development agencies	2. Communication system between CPHE promoters and country governments established	3. Presence and exercise technical personnel (project managers, engineers, social scientists) sensitized on the value of possibilities of integration of CPHE in WS/S projects	4. Agency and community jointly integrated CPHE programmes provided with appropriate finance, equipment and facilities
1.1 Collect and disseminate positive examples of CPHE in WSSS	2.1 Analyse level of CPHE commitment of government	3.1 Develop CPHE information clearance system	4.1 Get a separate budget allocation for CPHE programmes
1.2 Establish development of promotional materials on CPHE	2.2 Make results of local projects available to policy makers	3.2 Spread information about positive results of CPHE WSSS through mass media	4.1.1 Assure adequate finance to hygiene education programmes
1.3 Provide clear evidence for sustainability of WSSS projects as a result of CPHE	2.3 Arrange visits of policy makers to WSSS projects with CPHE	3.3 Invite heads of engineering and social science departments to high ranking ZOPs (1-5)	4.1.2 Ensure that MOH hygiene education department has funds
1.4 Engage marketing specialists for modifying existing promotional materials appropriate to national and international target groups	2.4 Make sure decision makers are briefed by project and that sustainability has positive economic effects	3.4 Organize educational tours with community emphasis	4.1.3 Hygiene education has a budgetary line item in projects
1.5 Encourage high status organizations like World Bank to organize ZOPP or Action Planning workshops with Board on objectives of WSSS high officials	2.5 Organize national workshops presenting discussion of problems experienced in the field with CP to seniorize directors and managers of technical services of participating minister	3.5 Train social & health specialists on basic technical aspects of WS/S projects	4.2 Plan inputs (physical facilities and equipment necessary using available resources)
1.6 Propose to donors (e.g. BMZ) to finance an experimental integrated (applied social science, economic, technical) CPHE participatory training programme	2.6 Assess in workshop so that fieldworkers can present their experiences to policy makers presenting case and lessons learned from success and failure	3.6 Establish programme for young engineers and social/health specialists to get on-the-job experience in CPHE	4.2.1 Organize physical facilities including work space
1.7 Organize regular monitoring and evaluation of promotion of CPHE in WSSS projects	2.7 Include fieldworkers' recommendations in interministerial committees	3.7 Ensure that sociologists get experience so that they appreciate engineering implications	4.2.2 Purchase equipment and material
1.8 Assess national governments and NGOs in developing a national strategy to overcome the constraints hindering CPHE	2.8 Organize donor supported meeting for CPHE (national level)	3.8 Train engineers on social aspect of WS/S projects	4.3 Carry out income and organize external financial control activities
	2.9 Make an agreement in bilateral negotiation on (1) change of policy regarding free water (2) sustainability and CPHE as major elements of WSSS projects	3.9 Finance a specialist to assist heads of dept in developing appropriate curricula	4.4 Carry out regular equipment maintenance and control activities
	2.10 Focus on women's role as main users of water, beneficiaries of sanitation and participants of HE in policy formulating	3.10 Provide feedback of CPHE field experience into national training programmes	
	2.11 Involve political people in solving problems of CP in ongoing projects	3.11 Show tools that can be used to apply CPHE	
	2.12 Shock politicians with effects of wrong approaches (step 1)	3.12 Make CPHE training compulsory for consulting engineers	
	2.13 Develop tools using computer (mathematical modeling if necessary for national policy makers)	3.13 Implement experimental CPHE programmes as models	
	2.14 Involve independent media in above activities for public impact	3.14 Define social marketing strategy for CPHE promotion in WSSS schemes	
		3.15 Sensitize project managers regarding the importance of training of women in technical issues	
		3.16 Develop training courses for specific groups including a strategy + making efforts	
		3.18 Form joint units of engineers and social scientists in universities for practical work	

### Activities

### Sub-activities

5 CPHE programme provided with appropriate training materials and manuals for programme staff and community members	6. Appropriately qualified manpower provided to CPHE programme implementation	7. Community managed water supply and sanitation systems made operational with an integration of hygiene education	8. An effective monitoring and evaluation system established for WS/S projects with an integration of CPHE component
5.1 Identify needs for materials for different target groups	6.1 Hire appropriate staff for CPHE programmes	7.1 Establish contract between agency and community	8.1 Establish uniform indicators to measure appropriate project results in perspective of long-term functioning and use
5.2 Review existing CPHE materials	6.1.1 Make national local experts/specialists available	7.2 Carry out WSSS project planning jointly with community	8.2 Get international agreement on common indicators on functioning and use after handing-over
5.3 Design training materials for different selected groups	6.1.2 Recruit specialists in hygiene education	7.2.1 Establish community water/sanitation committee	8.3 Design participatory monitoring and evaluation system
5.4 Develop materials for use by village committees - using adults through existing social and religious institutions - specific for school children - using traditional communication methods - developing local materials for planning of community hygiene programmes participatory data gathering - capabilities of WS/S systems	6.1.3 Recruit specialists in social/behavioural sciences	7.2.2 Jointly define rights and responsibilities of committee	8.3.1 Elaborate organization and workshop
	6.1.4 Ensure women staff are included and have major responsibilities	7.2.3 Carry out community self-survey on physical conditions + planning + construction jobs/needs and needs	8.3.2 Select priority areas of monitoring and indicators
	6.2 Assess training needs of CPHE programme staff and community members	7.2.4 Assess community members in selection of appropriate WS/S technologies	8.3.3 Elaborate participatory evaluation system
5.5 Produce sufficient quantities of CPHE materials for implementation of programmes	6.2.1 Carry out socio-cultural studies	7.2.5 Establish agreement on service level and design and construction standards	8.3.4 Dis system recognized by parties involved
5.6 Distribute sufficient CPHE materials for implementation in programmes to different target groups	6.2.2 Select different target groups for designing training programmes	7.3 Enable users to take care of WS/S system	8.4 Train people involved in participatory monitoring and evaluation
5.7 Develop an overall training manual for training of CPHE staff	6.3 Train trainers in participatory methodologies for CPHE staff	7.3.1 Assess users to select appropriate operators	8.5 Jointly and regularly carry out monitoring and evaluation
5.8 Review the impact of CPHE materials and their development	6.4 Carry out training of staff in tasks relevant to WSSS implementation - adult learning practices and techniques - community participation and group formation	7.3.2 Train male and female operators to maintain facilities	8.6 Plan follow-up visits for supervision
	6.5 Plan and realize refresher programmes	7.4 Carry out construction jointly with users	8.7 Carry out regularly reporting of status WS/S Projects with CPHE components
	6.6 Introduce appropriate system for incentives	7.4.1 Include traditional craftsmen for construction and maintenance	8.8 Document successful projects
	6.7 Organize tasks oriented training for support staff	7.4.2 Train users to check quality of works	8.9 Use some evaluation tools common to each level (local/regional/national)
	6.8 Carry out performance evaluation of programme staff	7.4.3 Involve users in review of WS/S designs	8.10 Involve ministers and high-level policy makers in monitoring evaluation system
	6.9 Work out programmes for career development of programme staff	7.4.4 Involve users in testing of technology prototypes	8.11 Evaluate completed WS/S Projects on functioning and use (sustainability of the systems)
		7.4.5 Develop resource centre on appropriate technology	
		7.5 Establish repair and maintenance system	
		7.5.1 Check community ability and willingness to pay for operators and maintenance	
		7.5.2 Establish payment system	
		7.5.3 Establish spare part supply system	
		7.5.4 Include local traders in spare parts supply	
		7.5.5 Assess private sector to carry out maintenance works	
		7.6 Carry out schemes to discourage illegal connections and leakage of revenue	
		7.6.1 Form hygiene education programme planning and execution committee	
		7.6.2 Assess communities to plan their own hygiene improvement programmes	
		7.6.3 Identify with community specific hygiene practices	
		7.6.4 Assess women for active participation in hygiene programme planning and implementation	
		7.6.5 Use community resources/women organizations in hygiene education	



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