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Workshop on Goals and Indicators for Monitoring and Evaluation for Water Supply and Sanitation



June 25-29, 1990

Geneva, Sv

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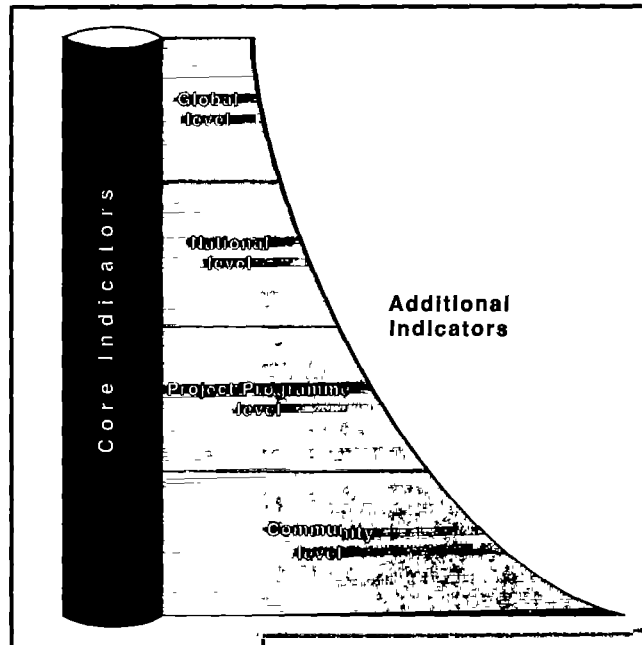
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**WORKSHOP
ON
GOALS AND INDICATORS
FOR
MONITORING AND EVALUATION
FOR
WATER SUPPLY AND SANITATION**

25-29 June 1990, Geneva



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WORKSHOP BACKGROUND

In February 1988, the UNDP interregional programme for Promotion of the Role of Women in Water and Environmental Sanitation Services (PROWWESS) published PEGESUS, a framework for planning and evaluation in partnership with people. Developed by PROWWESS, based on the *Minimum Evaluation Procedure for Water Supply and Sanitation Projects* (MEP) published by the World Health Organization in the early 1980s, PEGESUS aimed to provide a simple and quick means of evaluating water supply and sanitation projects, by involving community members, particularly women, in data collection and analysis. The prime objectives of the new approach were to achieve **sustainability, effective use, and replicability**, by giving a central place to the users of water and sanitation facilities.

The new framework, which evolved from field experience, was used to evaluate two other UNDP/World Bank funded projects, one in Indonesia and the other in Kenya. These documented case studies helped in the development of Goals and Indicators which were refined after review by UNICEF, WHO, IDRC and CIDA, and published separately by PROWWESS. Feedback on both PEGESUS and *Goals and Indicators* prompted a PROWWESS proposal at the meeting of the ESA Collaborative Council Meeting in Sophia Antipolis, France, in November 1989 that external support agencies (ESAs) should seek to develop a monitoring and evaluation framework for use in the field. The proposal was approved, with PROWWESS designated as lead agency. Discussions between PROWWESS and IDRC then resulted in a collaborative agreement, including plans for a Workshop to share monitoring and evaluation experiences among ESAs and developing country experts.

As agreed in the Collaborative Council, PROWWESS prepared a draft paper, *Participatory Evaluation: Tools for Managing Change in Water and Sanitation*, which, after review and revision, was distributed to the Workshop participants as a focus for their discussions. Participants were also invited to present and/or distribute papers (and most did), summarizing monitoring and evaluation (M&E) experiences in their own agencies. Additional background on the problems associated with attempts to measure the health impacts of water supply and sanitation interventions came from a historical review paper prepared for the Workshop by Dr Dennis Warner of WHO.

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PREFACE

The 1980s saw the development and testing of significant new approaches in the planning and implementation of water supply and sanitation projects in developing countries. Most notably, increased participation of users in scheme design and management is now recognized as a key way to improve the chances of new facilities being looked after properly and used effectively. For governments and donors, that means more effective investment, more people benefiting from reliable services, and a greater capacity of communities to identify and carry out their own development activities.

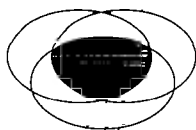
There is increasing experience in ways to involve communities in all stages of development programmes. It is clear that success comes when all users – women, men and children – are aware from the start of the value of the planned new facilities, and of what is needed to keep them functioning satisfactorily. Success also depends on governments establishing the institutional frameworks, support mechanisms and processes to enable communities to play a full part in the planning and upkeep of the new services. This requires continual feedback to all interest groups from ongoing and completed projects.

Monitoring and evaluation of water supply and sanitation programmes are still comparatively rare. Where they do occur, it is usually external consultants or agency staff who collect information on progress in installing pumps, pipes and latrines, or on the number of people gaining access to new services. Targets and inputs may then be adjusted on the basis of measured progress. External evaluations may be carried out on completion of donor inputs, as an auditing exercise, and to influence future policies. Again, these are commonly based on assessment of measured outputs against programme objectives.

In participatory projects, the monitoring and evaluation needs are somewhat different. In the early stages of projects, capacity building within the community is the critical factor. That takes time, and the goals and progress indicators have to be adjusted to suit. As community-centred decision making is a prime objective, the timing, substance and form of data collected need to support that goal.

Community-centred monitoring and evaluation is itself part of the capacity-building process. It does not exclude external evaluators, though their role is primarily to promote and facilitate the collection, analysis and interpretation of data by community members and agency project staff.

Recognizing that production-related indicators may give a false guide to progress on participatory projects, a number of specialized agencies have been developing new approaches to monitoring and evaluation. The process is generally built around the community. Users are the best source of information about how facilities are functioning and how they are being used. As managers, they also require data which can be used to take corrective action if things are not going according to plan.



Early experiences of this participatory evaluation process have been encouraging, but efforts have been scattered and uncoordinated. Researchers and practitioners need to share experiences, to give collective thought to ways of promoting participatory evaluation concepts among development agencies, and to develop common tools and indicators which will make the process easier to implement and its results more recognizable.

The Geneva Workshop brought together 25 specialists from external support agencies and developing country-based non-governmental organizations, to discuss goals and indicators for participatory evaluation in water supply and sanitation, and to provide a basis for draft guidelines for monitoring and evaluation. As with any participatory exercise, the outcome was not entirely predictable. Anticipated discussions on detailed indicators, for example, were less conclusive than the substantive agreement reached on the primary conditions/situations which should be monitored.

The meeting's recommendations for integrating participatory evaluation into government and ESA programmes, for an applied research and development network to coordinate future activities, and for further development of tools and indicators will be of interest both to agency project staff and to planners and policy makers in developing country governments and external support agencies. The UNDP interregional programme for Promotion of the Role of Women in Water and Environmental Sanitation Services (PROWWESS), which organized the Workshop, will now revise the publication *Participatory Evaluation* which formed the basis for the Workshop discussions. PROWWESS plans to issue a second version, a tool kit, specifically designed for use by field workers and community members undertaking monitoring and evaluation of water supply and sanitation activities.

AGENCIES PARTICIPATING IN THE WORKSHOP

| | |
|--|---|
| African Development Foundation | NORAD – Norwegian Agency for Development Cooperation |
| AMREF – African Medical Research Foundation | PROWWESS – Promotion of the Role of Women in Water and Environmental Sanitation Services |
| CUSO – Canada | SDC – Swiss Development Corporation |
| DANIDA – Danish International Development Agency | SIDA – Swedish International Development Authority |
| FUNDATEC (Costa Rica) | UNDP – UN Development Programme |
| GTZ – German Technical Cooperation Agency | UNICEF – UN Children's Fund |
| IDRC – International Development Research Centre, Canada | UNIFEM – United Nations Development Fund for Women |
| INSTRAW – UN International Research and Training Institute for the Advancement of Women | WASH – Water and Sanitation for Health |
| IRC – IRC International Water and Sanitation Centre | World Bank |
| NORCONSULT | World Health Organization |

1. SUMMARY OF WORKSHOP CONCLUSIONS AND RECOMMENDATIONS

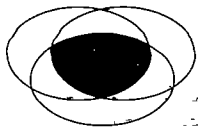
Community-centred development

- A common objective of water supply and sanitation programmes in the 1990s is to improve the quality of life, in particular human health, through sustainable and effectively used water and sanitation services. To achieve that objective, local communities in rural and low-income urban areas must possess the capacity to manage their own environment.
- It requires a strong *central* agency to implement and support the *devolved* system which is necessary for successful community management of water and sanitation systems.
- For community-centred development, the conventional monitoring and evaluation process needs to be substantially modified. That means different kinds of indicators, signifying the development of community strengths in decision making and management, and user awareness of health and hygiene improvements indicated by behavioural changes. More fundamentally, the concept of community participation needs to be extended to encompass user involvement in the evaluation process itself. Sector agencies need to use new approaches to ensure that community-generated data feed into the planning process at all levels – and are seen to do so.



Active involvement of users distinguishes participatory evaluation from more conventional types of project evaluation.

From D Narayan-Parker, Participatory Evaluation



Participatory evaluation

- Participatory evaluation is a partnership approach to problem solving. It differs from the more usual process of project evaluation, in that the users are actively involved in the development of the evaluation framework, in data collection and assessment, and in the planning of follow-up activities. Corrective action can often be taken directly and promptly, and the evaluation process itself contributes to the building of local capacity for decision making and community-centred development.
- As the prime beneficiaries of improved water and sanitation services, women are encouraged to play a pivotal role in community planning and management of new services.
- In the participatory process, monitoring and evaluation tend to merge into a continuous process of review and adjustment of inputs to match the resources available to the community. Project staff are closely involved with the users in collecting data and providing technical advice.
- The results of participatory evaluation need to feed into monitoring at national level. In that way, user views can be reflected in sector planning and policy setting, and building of local capacity can become a tangible objective.

Sector strategies

- The first step in introducing community-centred monitoring and evaluation of water supply and sanitation projects and programmes is a commitment from the central planning and sector agencies. Essentially, the sector agency changes from a direct provider of services, to a role which involves promotion and advocacy, training and facilitating.
- Sector strategies and implementation schedules cannot be based solely on production targets. Rather, they must reflect the primary role of communities in decisions affecting both the pace and the form of development. Within overall national budgeting and programming constraints, strategies need the flexibility to respond to regular feedback from communities, and to divert resources according to changing priorities. The benefits of this built-in

WORKSHOP ON GOALS AND INDICATORS FOR MONITORING AND EVALUATION FOR WATER SUPPLY AND SANITATION

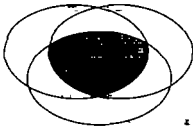
25-29 June 1990, Geneva

FOREWORD

The Decade of the 1990s confronts us with the enormous problem of poor people still unserved with safe water and sanitation. Experience of the 1980s led to a common vision and an agreement that, to reach the poor, especially in rural areas, requires that governments become supporters and facilitators of community management, with people in communities taking key decisions from planning through to monitoring and evaluation. This approach requires major institutional reorientation, providing managers and bureaucrats with incentives to support people's involvement in decision-making. Studies of institutional performance show how important clearly defined accountability systems are in determining outputs and personnel performance.

In a broad sense, one of the greatest challenges facing us is to establish indicators which hold us accountable for achieving effective participation of community members in decision making. We don't want parallel systems. We must not create a situation in which there is one evaluation system for managers, one for engineers, one for economists, one for community development workers, and one for community members. The challenge is to establish overriding goals and objectives which incorporate people's involvement centrally, and which can then serve as guides for different activities at global, national, provincial and community level. This challenge is being pursued by several agencies. Perhaps PROWESS and IDRC have been particularly vigorous in this pursuit, because it is our firm belief that the only way of giving people a voice in a sector involving thousands of small and large institutions worldwide, is by establishing common objectives that are people-centred and are stated in ways that make them measurable.

The Geneva Workshop was unique in many ways. It brought together senior managers from UN agencies with experienced professionals from several disciplines from bilateral agencies, and national and international non-governmental organizations. The Workshop was organized to encourage active participation of everyone. This meant constant changes of schedules, to match the changing needs of groups. It also resulted in rigorous questioning of the concepts, definitions and indicators proposed in the participatory evaluation document prepared for the meeting. In effect, the participatory evaluation document became the springboard for the groups' work to develop their own sets of indicators for the three unanimously endorsed objectives of *sustainability*, *effective use* and *replicability*. After five



days of intensive debate, the Workshop supported the main indicators and sub-indicators presented in the document.

The intense collective work in Geneva resulted in consensus on three issues. First was endorsement of the three overall objectives for the sector. Second was collective acceptance of the need for *core indicators*, valid at community, national and global levels. Third was endorsement of the validity of participatory data collection and evaluation techniques, including the key concept of community-generated data becoming part of national planning processes.

This report seeks to capture the conclusions of the debates at Geneva. Rather than produce formal proceedings, we have tried to draw on the contents of the papers prepared for the Workshop to supplement the conclusions of the Working Groups. In this we have been ably assisted by technical writer Brian Appleton, whose magic techniques for converting the apparent chaos of complex meetings into coherent documents are familiar to those working in the water and sanitation sector.

We could not have undertaken the Workshop or this publication without the strong support of Siri Melchior-Tellier, Programme Manager, PROWWESS and Jim Chauvin, former Senior Programme Officer, IDRC. The greatest credit goes to the Workshop participants, most of whom were self-financed, and some of whom cut short summer vacations to be with us in Geneva. To all of them we owe a special debt of gratitude.

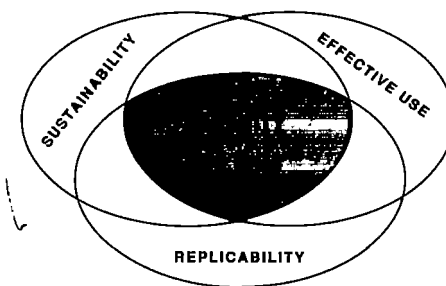
This is the beginning of a new Decade. We invite you to join us in further developing this exciting approach, in using it, and in refining it.

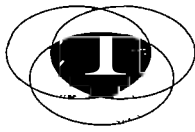
Deepa Narayan-Parker
PROWWESS Coordinator
UNDP-World Bank Water and Sanitation Program

flexibility come in increasing community self-sufficiency and the freeing of resources to be used for replicating projects in other communities.

Goals and indicators

- The three goals of **sustainability**, **effective use**, and **replicability** should be the main elements of country sector strategies. The term *replicability* is interpreted in different ways: at the community level, the goal is to achieve a high degree of self sufficiency, so that user-driven *extension* of services matches rising demands; for the sector agency, the *transfer* of successful methods and approaches to other projects is equally important.
- Capacity building within the community and at all levels in sector agencies is the main requirement for progress towards all three goals. The ways in which villagers transmit knowledge and skills among themselves, the extent to which women gain influence in collective decision making, and the extent to which users organize and manage local finance for the upkeep of facilities and the implementation of new activities, all reflect increasing self sufficiency.
- Because effective evaluation involves analysis of *causes* as well as effects, and because capacity building itself needs to be seen as an early objective, behavioural and managerial factors are important, and appropriate quantifiable indicators need to be found. Examples of indicators which can be used to demonstrate behavioural change include household water protection measures and the availability of soap and other cleansing materials at latrines. Organizational strengthening can be indicated by the functioning of a Water Committee, the existence of rules and responsibility lines for operation and maintenance, or the availability and accessibility of tools and spare parts within the community.
- Workshop participants discussed the type of indicators which could be of most use for local management of water and sanitation facilities, those required by regional and central agencies as a





means of evaluating and adjusting overall sector strategies, and the implications for external support agencies and for global monitoring of sector progress. The idea was to determine a set of **core indicators**, which would be collected in community-based surveys and used at all levels, in conjunction with other data, as tools for managing the sector.

- One concern of the Workshop was to ensure that community views and commitment should be reflected in national planning and policy making. That meant finding indicators which could be measured in participatory evaluations and would help to guide national planners in the setting and review of sector objectives and resource allocations. The participatory evaluation data would then supplement national budgetary and programming information in helping to direct sector activities and donor support.

Tools and methodologies

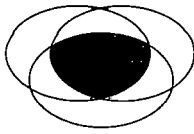
- Experiences shared during the Workshop highlighted a number of promising techniques and approaches for participatory evaluation. These include simple drawings, games and voting methods for ensuring that community members have the opportunity to participate in data gathering and decision making. The case studies in Indonesia, Kenya, Lesotho and Costa Rica described in the main report demonstrate both the benefits and some of the problems of achieving effective participatory evaluation.
- PROWWESS is collecting more case studies, to assist in the development of guidelines for conducting evaluations. ESAs and NGOs are encouraged to share their own experiences, and to accelerate the use of participatory evaluation in documented case studies and demonstration projects.

Workshop follow-up

- PROWWESS has undertaken to revise the publication *Participatory Evaluation* reflecting the outcome of the Workshop and including further review comments. A second version will also be produced, aimed specifically at extension workers and community members. The format/packaging of the documents will be designed to convince potential users, at all levels, of the

benefits of participatory evaluation, and to encourage a “phased” approach where appropriate.

- Support is being sought for the preparation and distribution of promotional pamphlets for use in convincing policy makers in governments and ESAs to adopt a new approach to monitoring and evaluation.
- Government agencies and ESAs are urged to seek opportunities for using participatory evaluation on ongoing and future projects. All applications should be treated as potential case studies and experiences shared through a focal point (initially PROWWESS). ESAs are encouraged to help organize country or regional workshops to share experiences and promote the cause of community-centred monitoring and evaluation.
- The aim should now be to incorporate provision for participatory evaluation in country sector strategies. ESAs assisting countries in developing or reviewing strategies should advocate regular monitoring and evaluation, and the UNDP/World Bank sector strategy guidelines will include promotion of participatory evaluation. Through the Collaborative Council and other cooperative fora, ESAs will seek to cooperate in encouraging developing country partners, and in introducing provision for responding to the results of participatory evaluations within their own sector strategies and bilateral programmes.
- WASH is lead agency in the establishment of a Global Applied Research Network (GARNET) on behalf of the WSS Collaborative Council. A series of topic-related networks are being established to share research information and determine future needs. The Workshop established one such network for monitoring and evaluation, with PROWWESS initially acting as the focal point (the medium term aim is that research activities should be centred on developing country institutions). The network will seek information from collaborating institutions throughout the world, and make the results accessible to all. Researchers and implementors will be encouraged to identify gaps in knowledge about community-centred monitoring and evaluation, and to seek support to undertake applied research projects.



- Initially, there is thought to be a need for further research into participatory methodologies, testing of the impact of community-centred monitoring and evaluation, development and testing of suitable indicators, and development of training materials for all levels. IDRC will consider support for priority research activities in this area. It is seen as important that developing country agencies should direct future research.
- A regional workshop on participatory evaluation was organized by PROWWESS in Kenya in November 1990, with support from the UNDP/World Bank Regional Water and Sanitation Group (RWSG) and IDRC, and hosted by NETWAS, the water and sanitation training centre of AMREF, Nairobi. Further workshops will be organized depending on country demand and ESA support.

2. EVOLUTION OF MONITORING AND EVALUATION IN WATER SUPPLY AND SANITATION

A paper by Dennis Warner presented an historical overview of the objectives and methods of monitoring and evaluating water and sanitation projects. It emphasized the great difficulty in isolating and quantifying the health impacts directly attributable to improvements in water and sanitation services. Attempts to judge projects on the basis of health benefits conditioned approaches to monitoring and evaluation for a long time. More recently, “surrogate” indicators of behavioural change have provided a more measurable and less costly way of assessing project success.

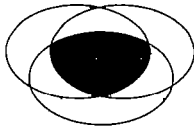
Why monitor?

Monitoring and evaluation are not ends in themselves. Their purpose is to help planners and implementors at community and agency level to achieve successful projects and programmes. So, what is a successful project? A minimum definition is that it should produce the intended results or benefits, be sustainable over a significant period of time, and operate at reasonable cost.

Hence, monitoring and evaluation should assist in assessment of the outcomes and costs. They should also provide information which can be fed back into the project to improve subsequent performance. Finally, they may be seen as research tools, for improving future project development.

Traditionally, monitoring has been seen as routine collection of data, as a means of gauging ongoing operational activities. In the best of situations, the information influences operational changes. All too often, the data are ignored because there are not enough resources for follow-up actions, or the value of the information is not appreciated.

Evaluation, on the other hand, is seen as a one-off event, linked to judgments on project implementation. Whereas monitoring is related to operation, evaluations usually reflect development objectives. In water supply and sanitation, for many years, this meant concentrating either on the number of facilities installed or on public health impacts. Though this broadened from the 1960s onwards to encompass economic and social consequences, progress was still hampered by the difficulty of showing direct causative links between water and sanitation interventions



on the one hand and specific benefits, especially health benefits, on the other. Evaluations which did attempt to demonstrate and quantify health and economic impacts tended to be inconclusive or methodologically flawed. Most were also very costly.

Recent trends

The advent of the International Drinking Water Supply and Sanitation Decade (IDWSSD) brought new centres of attention. Appropriate technology, institutional development and community participation gained prominence as the key ingredients of successful water and sanitation projects. Monitoring and evaluation approaches followed the same trends.

Two significant changes took place in 1983:

- An international Workshop at Cox's Bazar, Bangladesh, gave prominence to an alternative technique – the case-control method – for measuring impacts on diarrhoeal disease in less time and at lower cost than with conventional methods. Subsequent studies provided the necessary evidence that improved water supplies, excreta disposal and hygiene education have a significant impact on diarrhoeal disease. At the same time, the diversity of results made it clear that individual health impact studies are not a dependable tool for evaluating project interventions.
- WHO published the *Minimum Evaluation Procedure*, which argued that measurement of health impacts was not necessary for routine planning and implementation purposes. Instead, MEP proposed monitoring of the *functioning* and *utilization* of water and sanitation facilities, as the precursors of health benefits. Appropriate indicators were developed for assessing both concepts, and MEP provided a rapid and low-cost method of collecting and analysing data which could have an immediate impact on both current operations and future planning.

Together, these two initiatives prompted the adoption of intermediate indicators of behavioural change as surrogates for health impact indicators. By monitoring changes in user behaviour (taking water from a tap rather than the stream; washing hands after defecation, paying water bills, reporting system malfunctions to the local technician, etc),

evaluators could assess whether the preconditions for health improvements were being met.

New issues

The lessons of the IDWSSD have led water and sanitation agencies and external support agencies (ESAs) to adopt new goals and approaches in the 1990s.

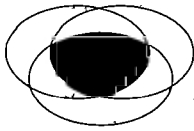
Sustainability is an overriding goal, supplementing, and to an extent modifying, the IDWSSD target of universal coverage. The concept is simple and persuasive: to be successful, water and sanitation projects must continue to provide acceptable levels of service over a prolonged period. Application of the concept is sometimes not so simple. Water and sanitation agencies are commonly judged on the number of new facilities they have installed, rather than on the standard of services they provide and maintain. This bias is often institutionalized, as attention, funds and career advancement opportunities relate to capital development much more than operational efficiency.

Effective use encompasses all the ways that men, women and children make use of installed facilities. Unless there is optimal hygienic and consistent use, anticipated health benefits will not be achieved. The emphasis on *use* is critical in giving central place to users (especially women) and to supportive hygiene education.

Replicability has always been a goal of development agencies. In the water and sanitation sector, the concept now has a new emphasis. As well as technological standardization, institutional aspects like community involvement and local decision making are now stressed.

Community management is being seen as a vital element in meeting the basic needs of poor communities. It involves transfer of power and ownership, with beneficiaries taking responsibility for the upkeep of their water and sanitation systems. It also requires important support and back-up arrangements on the part of central authorities. And, there are many institutional and financial implications.

Adoption of the new approaches has significant implications for monitoring and evaluation. Both the methods and the indicators require major rethinking.



The case for participatory evaluation

Most commonly, project/programme evaluations are carried out at arms length by individuals who try to avoid directly influencing the project. This classical scientific approach was originally developed for controlled laboratory conditions, where measurement of causes and effects was of greater interest than manipulation of the final effects.

In the practical application of monitoring and evaluation in community water supplies, this premise is invalid. Far from being unwelcome, it is in fact highly desirable that the monitoring and evaluation process should influence ongoing activities, and that it should do so as rapidly as possible.

Rather than waiting for the conclusion of formal evaluations, project implementors want to initiate mid-course corrections in response to any relevant monitoring data. Interference with the scientific purity of the data is at best a secondary consideration.

The inevitable logical extension of MEP and the new water and sanitation sector approaches for the 1990s is that greater involvement of beneficiaries in the monitoring and evaluation process can only be beneficial. The benefits come at all levels, as national, provincial and local planning become responsive to community-generated data.

As always, the simple concept has less-than-simple implications. Participatory evaluation requires commitments and organizational structures at all levels. It also depends on the communities concerned expressing interest in becoming involved in evaluation. Sharing of ideas and experiences in international fora like the Geneva Workshop, is an important and urgent part of this process.

3. WORKSHOP AIMS

Field focus

The Geneva Workshop was part of a PROWESS initiative to produce a monitoring and evaluation framework which can be used in the field. Through the shared experiences of the 25 specialists, it sought to develop a basis for draft guidelines, by identifying a set of goals and indicators suitable for planning and implementing water and sanitation projects to bring optimum benefits.

These Workshop recommendations are part of a planned PROWESS publication series on Participatory Evaluation. They have also helped to set the agenda for further research into participatory evaluation methods and approaches. The Workshop itself did not specifically seek to make recommendations about evaluation methods, but the reported experiences of Workshop participants have made it possible to document examples of successful approaches in different situations.

Working document

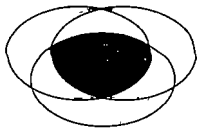
The principal aim was to develop the concepts outlined in Dr Narayan-Parker's draft paper *Participatory Evaluation: Tools for Managing Change in Water and Sanitation* into specific indicators which could be used at all levels – community, project/programme, national and global. During the Workshop discussions, the objective became more focused, in seeking a set of *core indicators* appropriate for all levels which would enable the concerns and experiences of users (or intended users) to influence sector planning decisions and policies. Discussions therefore centred on the objectives of successful water and sanitation programmes, and on the data which can be collected within communities, to assess whether those objectives are being achieved.

Definitions

The Workshop developed its own set of working definitions to help clarify some recurring terms:

Monitoring

Regular collection and use of information for project assessment and guidance.



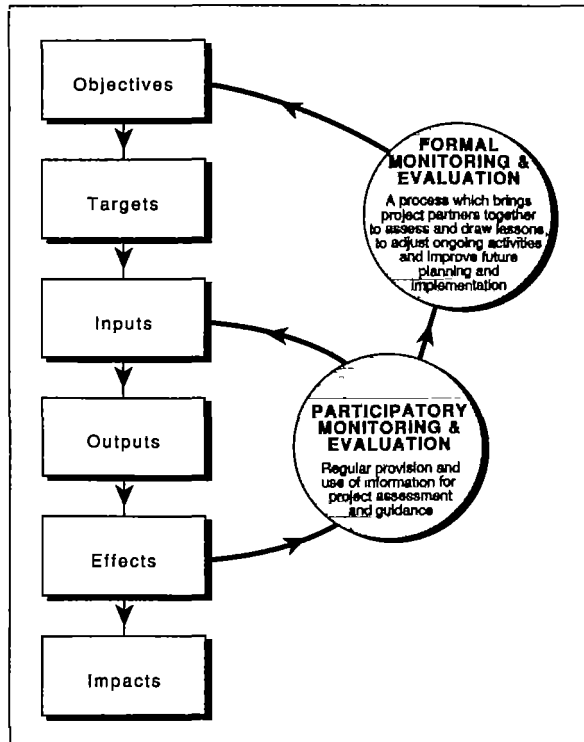
Evaluation

A process which brings project partners (stakeholders) together to assess and draw lessons, to adjust ongoing activities and improve future planning and implementation.

Indicator

A proxy for measuring a condition which may not be readily quantifiable, and so monitoring the achievement of project objectives.

In applying these definitions, participants recognized that Participatory Evaluation, in which users and agency staff share the gathering and analysis of data, includes local monitoring and contributes to external evaluations carried out on behalf of governments and donor agencies. Under the agreed definition of indicator, many of the individual items listed as Goals and Indicators in the Workshop working document (opposite) are seen as conditions for which more precise indicators are needed. In general, Workshop participants endorsed the list, and saw their task as identifying additional conditions and, where possible, finding indicators for those conditions.



Participatory monitoring and evaluation is a valuable way of adjusting project approaches at the local level. It also needs to feed into the planning process at higher levels.

SUSTAINABILITY

Functioning systems

- Quality and quantity of facilities
- Breakdown and repairs
- Cost sharing and unit costs

Human capacity development (community/agency)

- Management abilities (decision making/execution)
- Knowledge and skills
- Confidence/self-concept

Local institutional capacity

- Autonomy
- Supportive leadership
- Systems for learning and problem solving

Interorganizational collaboration in planning and activities

EFFECTIVE USE

Optimal use

- Number and characteristics of users
- Quantity of water used, all purposes
- Time taken to use facilities
- Conservation of water resources

Hygienic use

- Water quality at home
- Water transport and storage practices
- Home practices to improve water quality
- Site and home cleanliness
- Personal hygiene practices

Consistent use

- Pattern of daily use
- Pattern of seasonal use

REPLICABILITY

Proportion and role of specialized personnel

- High input of specialized personnel
- Mostly regular staff, decline in specialists
- Existing staff, further decline in specialists

Established institutional framework

- Semi-autonomous organization
- Less bypassing/more sharing with other agencies
- No bypassing/close inter-agency collaboration

Budget size and sheltering

- Generous and sheltered
- Medium size and partially sheltered
- Average size and regular budget item

Documented planning and implementation procedures

- General guidelines and strategies
- Standardized procedures emerging
- Documented simplified procedures

Stages

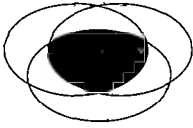
Pilot
Demonstration
Replication

Pilot
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The Workshop's main working document • Dr Narayan-Parker's draft paper Participatory Evaluation: Tools for Managing Change in Water and Sanitation – contained this preliminary listing of "Goals and Indicators". These formed the starting point for Workshop discussions on the "conditions" for which more precise indicators are needed



4. COMMUNITY-LEVEL MONITORING AND EVALUATION

Principles of community management

Development agencies learned many lessons during the International Drinking Water Supply and Sanitation Decade. Among the most widely recognized has been the benefit of involving the intended users of water and sanitation services in the planning, provision and maintenance of those services. The term community management has become popular towards the end of the Decade, as a way of distinguishing projects in which communities have real power and responsibility for their own services from those where they simply contribute labour and materials to projects controlled by the government.

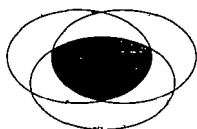
Growing experience is enabling sector specialists to identify the key aspects of successful community management. A popular way of expressing the changed approach is that government's role should change from that of provider of water and sanitation services to that of promoter and facilitator. The idea is one of partnership, in which government helps to establish the financial and institutional mechanisms by which communities can own and control their water and sanitation systems, while having access to technical support and services when needed. The partnership should also provide for use of special skills and services available from non-governmental organizations and through private enterprise.

Early involvement of the community in project planning and development is crucial, as is the flexibility for projects to be adjusted as lessons are learned. Rigid timetables for achieving a fixed number of operating facilities are inappropriate. Often, the development of organizational skills within the community will be a far more important indicator of sustainable progress than achievement of production targets.

On water and sanitation projects, the extent to which women are able to influence policy decisions can have a significant impact on the sustainability and the effectiveness of the services. That may mean special project components, or linked programmes, which empower women to take positions of responsibility, not just at community level, but as part of the decision-making teams in sector agencies. As Carolyn Hannan-Andersson emphasizes in her paper *The Challenge of Measuring Gender Issues in Water and Sanitation*, the aim must be to integrate

Table 1 Efforts made to Involve women in water and sanitation programmes

| Project phases | Previous conventional approaches to involving women | Possible future approaches |
|------------------------------------|---|--|
| Initiation and Preparation | Information collected on women (sometimes collected from the women themselves) – usually late in the process | Information collected from women on women, and from men on men – as part of baseline data from the beginning of the project |
| | Women present at meetings when they know about them and have time | Information directly to women and stimulation of more active roles at village meetings (support mechanisms) |
| | Sometimes women present on Village Water Committees (usually through a quota system) – but participation normally very passive | Development of more active roles for women on Village Water Committees especially in the area of management (support mechanisms) |
| Human Resources Development | Women trained as: Village Health Workers (quota); Caretakers; and in some cases more qualified maintenance officers (pump or well attendants) | Efforts to involve more women alongside men in all these areas, but especially in the more “technical” areas and in management (support mechanisms) |
| | Many competent interested women do not participate because of timing, location, etc. | Adapt training to realities of women in terms of timing, location, qualification requirements, etc. |
| Implementation | Labour inputs are expected of women and women contribute with supplies of local materials | Required labour inputs of men and women are assessed according to the total work situation in given seasonal contexts. Women may already be overworked at that time. Contributions should be on the same terms as men, especially with regard to payment |
| Operation and maintenance | In many cases, women’s involvement is limited to an extension of their reproductive roles – in a “caretaker” capacity | Efforts to involve more women as pump attendants on the same conditions as men (support mechanisms) |
| | Fewer women are involved in technical areas as pump attendants to carry out simple repairs | |
| | Women sometimes involved with different conditions from those of men, even when doing the same work, e.g. men are paid and women expected to work as volunteers | Ensure that women and men doing the same work get the same conditions |
| | Women involved on Village Water Committees play a passive role and have few real responsibilities | Promote the inclusion of women in areas of responsibility such as financial control, store-keeping, etc. |
| Monitoring and evaluation | Women are not involved in monitoring and evaluation exercises and do not get access to information from such exercises (same situation for men) | Efforts to develop participatory methodology and train communities (men and women) to utilize them |



women alongside men into the mainstream of project/programme planning. In the gender approach, the roles of men and women are considered together, with men's involvement in family welfare stimulated as well as women's involvement in technological and management aspects. Table 1, taken from Ms Hannan-Andersson's paper highlights the changes in emphasis which can encourage fuller integration of women in water and sanitation programmes.

To implement water and sanitation programmes based on community management, agencies need to devolve operational responsibilities, including the authority to collect and disburse funds. That will often mean strengthening of regional and district level offices, and introduction of improved information management and communication systems. Effective links are important if community views are to be taken into account in overall sector planning and policy formulation. Training and career development programmes need to cover a broad range of issues beyond technical skill development, and participation should be open to men and women.

Achieving optimum health benefits from investments in improved water and sanitation services depends on behavioural changes among the users. Public awareness campaigns and hygiene education programmes are therefore important.

It was not a task of the Workshop to prescribe implementation models for community management. The accepted principles are however important in determining ways of monitoring and evaluating such projects. It is also logical to conclude that if communities are to have a decision-making role in the management of water and sanitation systems, they should also be involved in elaborating the framework, and in collecting and analyzing the data on which those decisions will be based. And that is the basis of Participatory Evaluation.

Participatory evaluation

Evaluations of development projects tend to be carried out on behalf of donor agencies or government sector agencies. Generally, external consultants assess project achievements by comparing outputs with initial objectives. Almost invariably, the indicators represent production targets. The data on which evaluations are based are collected by the consultants themselves or by agency staff.

This approach evolved as a type of performance audit for financing agencies, and the results can have an important bearing on future investment policy and sectoral allocations. For community-managed projects, however, it is at best incomplete and often highly misleading in its judgment of project achievements. No account is taken of the vital capacity-building role of such projects – even though many development agencies identify capacity building as an objective of development assistance. The conventional strategy also suffers from being a lengthy process conducted at a late stage in project implementation. Response to the findings must necessarily be too late to affect the evaluated project, and can only influence future programmes.

The most serious drawback of conventional evaluations, however, is that they do not involve the users themselves in either data collection or analysis. They thus miss an opportunity to contribute to capacity building both in the agency and in the community, and to benefit from user views and new initiatives.

In the water and sanitation sector, problems in project evaluation methods were highlighted and alternatives presented in 1983 with the publication by WHO of the Minimum Evaluation Procedure for Water

Kibwezi evaluation brings rapid results

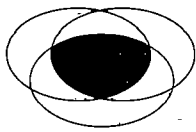
In the Kibwezi Water Project in Kenya, described to the Workshop by Melvin Woodhouse, a community Wells Committee initiated an evaluation of a water programme which had been under way for about six years. Because the community had been closely involved with the project from the start, they were able to devise their own ways of identifying problems and combating them.

With help from the African Medical and Research Foundation, the Wells Committee undertook a sanitary survey of wells and also tested the quality of water in people's homes. Committee members quickly learned how to use bacterial dipslides to test for water pollution. The visual evidence – bacteria growing on the dipslides are visible to the naked eye – made a lasting impression on householders, and greatly helped their understanding of disease transmission.

Photographs also played a big part in the project evaluation, helping to identify pollution sources and prompting rapid corrective actions by community members.

A very high degree of interest was stimulated by the evaluation surveys, and by the Committee regularly reporting results back to users. The Committee's plan of action included repairing well linings, education of community members, increased chlorination, and further examination of the condition, colour and translucency of jerry cans.

Significantly, the user interest was converted into individual and collective efforts to replicate the water supply systems, by building extra wells.



Supply and Sanitation Projects (MEP). MEP emphasized rapid assessment methods and gave equal weight to the “functioning” and “utilization” of facilities. It also brought the process closer to the community, by recommending indicators which could be measured and evaluated by community workers, and which could lead to timely corrective action when necessary.

Participatory evaluation extends the concepts of MEP, encompassing the principles of community management. The aim is to make the community the centre of the monitoring and evaluation process. Community members and agency project staff together collect and interpret data and can initiate some corrective action spontaneously. By involving the users in an organized way in project assessment and decision making, participatory evaluation itself contributes to capacity building in the community. It also provides an effective way of bringing women’s special water and sanitation expertise into play.

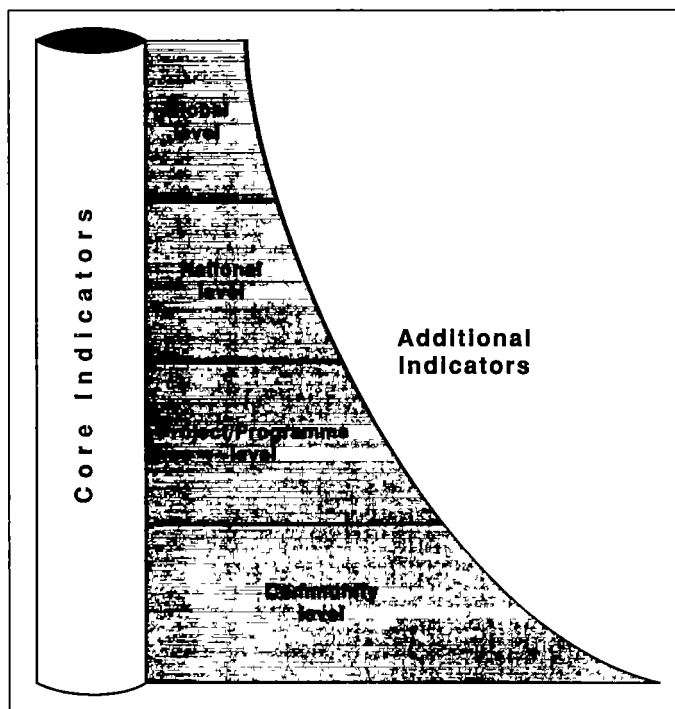
The participatory evaluation approach has been used by a number of agencies, both in the water and sanitation sector and in other development activities. Individual experiences have been positive, but prior to the Geneva meeting there had been no opportunity for proponents to compare notes and seek to develop practical guidelines. Also, experience is generally limited to application of participatory evaluation techniques on individual projects. There are few practical examples of data being used at higher levels to influence future programmes in other areas. In that sense, the Workshop was attempting to break new ground, in suggesting links between community-centred evaluations and other programme monitoring exercises, right up to the global level.

Choice of indicators

The indicators needed to evaluate progress towards the agreed goals fall into two categories. First, a broad range of indicators may be needed to assist with local management and operation of a project, and to guide community members and local agency staff in assessing whether any corrective action is needed. Community management, and particularly participatory evaluation, is based on community members carrying out a self evaluation and taking their own decisions. Because of this dependence on local initiatives and responses, precise indicators will need to be selected on a community-specific basis. With this in mind, the Workshop focused on key issues, or conditions, for which indicators

are needed, translating these into individual indicators only where it was clear that these would be universally applicable.

Second, higher levels of management in the agency require regular checks on the achievement of project goals, to help in overall planning and project management, and for aggregation with data from other projects. In most cases, the indicators needed at the higher levels will be a subset of the community-level indicators. More specific guidance can be given on requirements at the higher levels for information which has to be collected at the community level. It was these “core indicators” which were the main focus of the Workshop



discussions. The resulting recommendations, listed in Table 2, are seen by Workshop participants as a supplement to those included in the PROWESS document *Participatory Evaluation* not as replacements.

The first step in identifying the types of data which should be collected in community-centred surveys is to agree on the overall goals of the project or programme concerned. While individual goals may be specified for any particular project, the Workshop agreed that the goals listed in the background document – **Sustainability, Effective Use, and Replicability** – encompass current thinking on the desirable objectives of water supply and sanitation development. In endorsing these goals, Workshop participants drew a distinction between the interpretation of *replicability* at the community level, where the aim should be to develop activities which can be extended in a self-sustaining way as demands increase, and *replicability* in the eyes of the sector agency, which will wish to transfer elements of successful technologies and approaches to other projects.

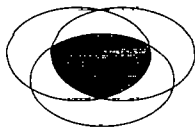


Table 2 Key indicators at the community and project/programme level

| <i>Condition to be monitored</i> | <i>Organizational indicators</i> | <i>Technical indicators</i> |
|--|--|--|
| Sustainability | | |
| Functioning of facilities | Availability of spare parts No. of trained mechanics/caretakers, by gender | Percent of facilities in working order Average downtime Types of breakdown |
| Community capabilities and decision-making | Definition of O&M roles (community M/F, agency, private sector, NGOs) No. served by systems managed by: govt; private sector; NGOs; community Communication channels available for technical support Are skills and knowledge shared within the community? How? | |
| Training provision | Existence/membership (M/F) of Water Committee Frequency of training covering technical, financial, management topics? Nos. of trainees by gender | |
| Cost sharing/willingness to pay | Collection and management system for O&M funds Community choice of technology/service levels Benefits perceived by users (M/F) | Total investments (capital & recurrent costs) Community contributions (capital and O&M) |
| Effective Use | | |
| Access | Protection of water source | No. of users/design population Characteristics (gender) of users Average distance to water source Water quantity (seasonal) Water quality at source and in homes Time taken to use facilities |
| Hygienic use | Home hygiene practices Availability of cleansing materials Cleanliness of facilities Community views (M/F) of facilities | Form of wastewater disposal Provision for latrine emptying Household water protection/treatment Proportion of water used for personal hygiene |
| Replicability | | |
| Extension | New activities initiated by the community (WSS and other development). How? Local financing mechanisms (revolving funds) Community ranking of priorities/constraints | Nos. of external specialized staff involved in scheme operation |
| Transfer | Regular budget covering training, salaries, overheads in agency Integrated institutional framework Documentation of accumulated experience Communication channels | |

Under the heading of **Sustainability**, the four key conditions to be monitored are:

- Are facilities *functioning* properly? A high proportion of handpumps, standposts or latrines out of order, or long downtimes when breakdowns do occur, suggest inadequacies in operation and maintenance arrangements, which may be technical, financial or organizational. Full diagnosis requires information on the types of breakdown, the availability of local skills and spare parts, and the attitudes of users, particularly women.
- Is the community *equipped and empowered* to manage the facilities? This is a critical long-term test of sustainability. In successful projects, the responsibilities and commitments of community members, non-governmental organizations, private sector enterprises, and local and national agency staff are defined and accepted. Within the community this is reflected in functioning water committees with appropriate male/female representation, established communication channels for technical support when needed, organized sharing of knowledge and skills among community members, and an active private industry providing supplementary skills and materials.
- Is *training* provided? The continuity and the quality of training are important. New projects often include initial instruction of community members in technical, financial and management skills. Fewer provide for refresher courses and future training of replacements. Accessibility of training courses for women may require special timing and other arrangements. A gender count on trainees can indicate whether women are being given the scope to influence management decisions.
- Are *financial arrangements* sustainable? The willingness of users to contribute towards the costs of water and sanitation services is an important element in assuring that installed facilities will be reliably maintained. Cost sharing and willingness to pay are affected by the extent to which users are able to influence the choice of technology and service levels, users' perceptions of the benefits (gender analysis is revealing here), and the transparency and effectiveness of collection systems and use of collected funds.



The extent to which capital and recurrent costs are covered by community contributions is a key indicator of both sustainability and replicability. Cross subsidies are used effectively in some situations, and may require their own indicators to evaluate long-term sustainability.

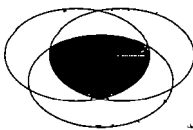
To evaluate the **effective use** of water and sanitation facilities, managers need information on user behaviour, as well as more technical data about accessibility of services. The two prime conditions to be monitored are therefore:

- Do all potential users have *convenient access* to installed facilities? This question extends the conventional indicator of *service coverage* (number of users in relation to the design population). If water supply facilities are to be effective, users must be able to obtain *enough* water of acceptable *quality* and at a reasonable *distance*. The service should be available throughout the day and in all seasons. Use of sanitation facilities needs to be measured separately for men, women and children, to help gauge the effectiveness of educational campaigns. Latrines must be appropriate for users of both sexes and all ages, and should provide effective and environmentally acceptable disposal of excreta and access to suitable cleansing materials. There must be provisions for protecting water sources from contamination, and specific measures or hygiene awareness campaigns to safeguard water quality between collection and consumption. The amount of water used for different purposes (drinking, cooking, bathing, washing, home cleanliness, . . .) indicates the effectiveness of health messages, and hence how likely it is that full health impacts will be achieved. Data on water quantity are also important in terms of effective water management and conservation of water resources. Avoidance of waste and effective disposal of wastewater have both economic and health implications.
- Are available facilities being *used* in the most effective way? To obtain optimum benefits from water and sanitation services, users must be aware of key health messages, appreciate the microbe theory of disease transmittal, and behave in a health-promoting way in the home and village environment. Visual indicators of

effective use include the cleanliness of water and sanitation facilities and their surroundings, and the presence of cleansing materials. Within homes, safe storage of drinking water, and protection of food and water from flies and animals are positive indicators. Equally important are the perceptions of community members (male, female and children) about the use of facilities and the need for hygienic behaviour.

As already noted, the conditions for achieving **replicability** cover *extension* of services within the community, and *transfer* of experience and approaches to other agency projects in other communities. The questions to be addressed are:

- Can the community initiate and manage programmes to *extend* the water and sanitation services as demand grows, and convert the WSS experience into new initiatives in other forms of development? The issues are principally financial and organizational. One key indicator will be the trends in involvement of external specialized staff. Less external support indicates increasing self sufficiency and a greater chance of community-initiated replication. New activities should be recorded, together with the reasons and mechanisms which brought them into being. Changes in the community's views on future priorities and/or constraints may indicate a growing capacity for self-help. Existence of financial management systems, including revolving credit facilities available to women-led households, provides clear evidence of the institutional capacity needed to develop further.
- Can the project experience be *transferred* to other agency projects? Though the answer to this question depends principally on institutional arrangements within the sector agency (discussed in the next section), data from community-level surveys will be important evidence. In particular, there will need to be adequate documentation of project experience, with established procedures for communicating data to local/district offices. Opportunities for trained village workers to progress within the agency, and other institutional integration, supported by adequate budget lines for training, career development and information exchange all support replication of successful approaches. Gradual development and



application of standard specifications and procedures can be expected, as confidence is gained.

Further analysis of the conditions identified under each of the main goals led to the listing of organizational and technical indicators in Table 2.

Local interpretation

Though the second and third columns of Table 2 are headed *Organizational indicators* and *Technical indicators* respectively, many require further amplification before they can be used on individual projects. Other indicators will also usually need to be added to meet local community management needs.

Take for example the Technical indicator for effective use listed as “Water quality at source and in homes”. The purpose of such an indicator, is to enable community members and project agency staff to assess whether users have real access to safe water, and whether the water remains safe after it is transported home and stored. In combination with other data on protection measures and hygiene practice, it will help to judge the effectiveness of community hygiene campaigns, as well as the appropriateness of water sources and collection measures.

A prime requirement of evaluation indicators is that they should indicate progress, positive or negative, between studies. They therefore



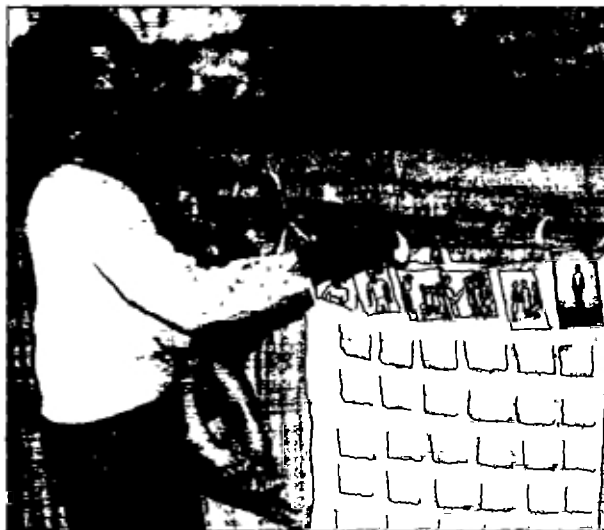
Members of the Kibwezi Wells Committee found bacterial dipslides easy to use, and a useful way of demonstrating disease risks to householders

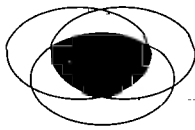
need to be stated in ways which make them comparable. "Is the water clean or dirty?" does not yield a very suitable indicator; "Do bacteria grow on a dipslide which has been immersed in the water?" may do, if the testers have been shown what to look for and how to use the simple dipslides (see Kibwezi example on page 21). Aggregation of such data helps to evaluate progress, while the actual carrying out of the test can itself promote immediate corrective measures by individual householders or pump attendants.

This Workshop was not directly concerned with the processes by which monitoring and evaluation data may be collected. It did though emphasize the critical importance of gender issues and socio-cultural factors in the data collection and subsequent analysis. As well as ensuring that progress indicators reflect the importance of women in decision-making and management, participatory evaluation seeks to involve both men and women in the collection and analysis of data and the resulting corrective actions to improve performance. It follows that all sections of the community should also be involved in the initial determination of indicators to be monitored, on a project-by-project basis.

Techniques for gathering data, and the indicators themselves, need to be tailored to community capabilities and wishes. Illiteracy need not prevent men or women from participating in project evaluations. There are many examples of community studies in which the most important information comes from group interviews or pictorial voting

This "pocket chart" voting method, developed by Lyra Srinivasan of PROWWESS, provided water user groups in West Timor, Indonesia, with an effective means of expressing their views on the decision-making processes in their community. The pictures over each row of pockets represent different decision makers (an ordinary woman, an ordinary man, a female leader, a male leader, the water users group, and a water and sanitation field worker). Votes are cast one row at a time, to indicate who the voter believes makes decisions on such issues as "Who decides the size of monthly contributions?" or "Who selects the group leaders?" or "Who decides where the taps, tanks or pumps should be located?"





Do fleas have moustaches? This intriguing question, captured the attention of three communities in Costa Rica, where national NGO FUNDATEC began a programme to improve water supply and sanitation conditions. When microscopes provided the answer ("yes, they do"), lessons extended to demonstrate the presence of microorganisms in water. FUNDATEC reports immediate and lasting modifications to hygiene practices, when people realized that even clean looking water could contain disease-carrying microbes. Consumers developed their own indicators for evaluating benefits of water and sanitation improvements, including incidence of diarrhoea in children and back pains in women.

“games”. These may be either tests of knowledge of basic health concepts, or expressions of user preferences or opinions.

One non-traditional technique seen as extremely useful in participatory evaluation is photography. Periodic photographs of handpump installations, latrines, and household storage facilities can be highly effective in prompting corrective actions when they highlight deterioration. Pictorial records are also helpful in transferring knowledge and experience from one project to another, and for education and training purposes throughout the agency.

In its simplest form, participatory evaluation remains a community-based operation. Achievements and problems are recorded and corrective action taken, and the project benefits. This in itself is a major contribution towards building self-reliance. However, it is apparent that the data collected in community surveys can be of great importance in directing sector policy. For that to happen, there has to be some standardization in the collection and presentation of data, and mechanisms for conveying information to higher levels.

5. NATIONAL AND GLOBAL MONITORING

Agency requirements

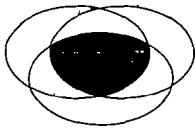
Local agency staff have to be actively involved in any participatory evaluation. Accompanied by community representatives, they help to record evaluation findings, assist in the measurement of technical indicators such as pump flows, water quality and use of facilities, and provide advice and support on follow-up activities or interpretation of results. The process itself can be highly instructive for the agency staff involved, as well as providing a valuable data bank for planning and management within the agency.

A great deal of the information collected in participatory evaluation is specific to the project concerned. Community members select indicators appropriate for their own management of their water and sanitation facilities. One village, for instance, may be especially worried about a mosquito nuisance caused by stagnant pools, and so put special emphasis on linking the incidence of mosquito infestation with improvements in drainage arrangements at water points and household wastewater disposal. Another may give priority to the generation of ancillary activities, and measure progress through the number of vegetables grown in new horticultural enterprises. For the communities concerned, and for the agency staff advising them, these indicators are highly significant in building up motivation and commitment, and structuring project activities.

Other indicators may be common to all projects. The percentage of working facilities, the composition of the water committee, the knowledge of hygienic practices, and many other indicators provide valuable information which can be aggregated and correlated for groups of projects, to improve future project planning. Collection of this information in a standard form should be a basic requirement. The Workshop sees an urgent need for published guidelines on the types of indicators which may be used, and the way in which they should be measured.

Additional indicators

To support community-managed water and sanitation programmes, regular backup assistance is needed from government agencies or the private sector. The onus for managing day-to-day operations, revenue



collection where appropriate, refresher training and technical support will fall on district or regional offices. Increasing decentralization means such offices will have responsibility for advance planning and budgeting for their own programmes, within national sector plans.

Information from participatory evaluations of individual projects is a major input into the decision-making process. These data will need to be supplemented by the district office's own data on tariffs, unit costs, technical standards, water resources, and so on, and by national guidelines and technical information flowing the other way in the communication channels. Aggregation of these separate sources of information and interpretation of the results will form the basis of future planning.

It is vital for the success of community-managed projects that such planning exercises should recognize the critical importance of capacity building as a goal in itself. Records and reports should give emphasis to demonstrating progress in community organizational strengthening, hygienic behaviour of users, etc, using developments of the organizational indicators highlighted in Table 2, supplemented with the extra information already discussed.

Sector strategies

Governments have the responsibility for setting national priorities and assigning resources to individual sectors. It is then the job of particular ministries to decide on strategies to make the most effective use of the resources available. Policy formulation and sector planning are based on official perceptions of sector needs, and these perceptions are in turn based on the information available to the decision makers from a variety of sources.

International information exchange helps to identify successful and unsuccessful approaches, which have then to be put into the national perspective. Currently, countries have a wealth of information on the lessons from the International Drinking Water Supply and Sanitation Decade. Much of this multilateral advice urges the framing of integrated sector strategies based on community management.

Countries formulating new sector strategies for the 1990s or reviewing existing ones, are highly likely to adopt community management as a principle for reaching the poorest sections of society. In doing so, they will need to recognize that the decision has wide-

ranging implications in terms of their planning, monitoring and evaluation of water and sanitation programmes.

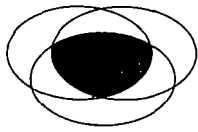
Again, it is the critical issue of capacity building which has to influence all sector programmes. For national agencies, capacity building needs extend to all levels. With decentralization as an important component of the strategy, training, institutional development, communication support, and financial policy aspects all have to be taken into consideration. A basic requirement of community management – that the views of the users of water and sanitation services must be able to influence policies and actions – is simple and persuasive to state, but not necessarily so easy to achieve.

Sector promotion

Water supply and sanitation is one of many sectors competing for government and ESA funds in the 1990s. The sector has powerful arguments for increased spending, but they need to be backed by clear evidence of value for money. Facts and figures help to promote achievements and to illustrate the multiple benefits of water and sanitation investments. Global publicity helps national efforts too. Publicity messages have to be consistent and verifiable, and to demonstrate progress towards declared targets. Both the targets and the indicators need to reflect current development approaches – in other words, they should emphasize the development of self-sufficiency, and the resulting improvements in sustainability, effective use and replicability.

International coordination

During the later years of the International Drinking Water Supply and Sanitation Decade, a number of new initiatives were taken to improve cooperation among developing countries and between developing countries and external support agencies. From global and regional consultations, a high degree of consensus was reached on the types of approaches which should form the basis of sector strategies in the 1990s. This cooperative process will continue, and will need regular information on achievements in individual countries to add to global statistics gathered from multilateral and bilateral donors and UN agencies. Future collaborative meetings of ESAs and developing country representatives need to share experiences and seek agreement on a set of indicators and tools for participatory evaluation.



UNICEF and WHO are offering support to developing countries in the establishment of monitoring and evaluation systems, and are including the core indicators discussed at the Workshop in their recommendations on the types of indicators which will be of most use for global monitoring in the 1990s.

6. PLANNING FOR MONITORING AND EVALUATION

Capacity building

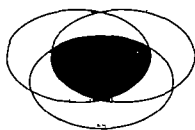
The advantages of participatory evaluation can be felt at all levels of sector agencies. For full benefits to be achieved, monitoring and evaluation procedures have to be built into sector projects and programmes in the planning phase. The procedures should be based on *core indicators*, developed from those defined by the Geneva Workshop, monitored and analysed with full involvement of community members, and feeding in a transparent way into all levels of the national planning process.

If sector strategies are to reflect the importance of capacity building, the organizational indicators listed in Table 1 need to be made available to decision makers in an aggregated form. Meaningful targets can then be set and progress monitored according to the true objectives of the investments made. Politicians and the public need to be made aware that provision of sustainable and effectively used water and sanitation services is not simply a matter of pumps, pipes and latrines.

One return for implementing strategies which build up community self-sufficiency should be that demands on the public purse decline and available funds can be spread more widely. The proportion of government funds going into ongoing projects is already an important indicator for external support agencies appraising potential water and sanitation programmes. Monitoring which shows users covering an increasing proportion of recurrent and capital costs can provide powerful argument for further investment.

External support

In responding to government requests for sector assistance, many ESAs are guided by their own concepts of the right approaches to achieve successful water supply and sanitation projects. Recent collaboration has brought a high degree of consensus on what these approaches should be. Generally, they give a high priority to community involvement and to capacity building. In most cases though, donor-led evaluations of ongoing or completed projects focus primarily on whether coverage/production targets have been reached and funds disbursed.



In recommending that the organizational indicators measured in participatory evaluation should be transmitted along the chain to the highest levels of government, the Workshop also stressed that there is a need for new attitudes and approaches in ESAs. Indeed, several ESA members present put in a plea for persuasive literature suitable for conveying the key messages to policy makers within ESAs.

Just as governments need to review strategies to bring in the benefits of participatory evaluation, so ESAs must reflect community-

LFA + ZOPP = Structured planning

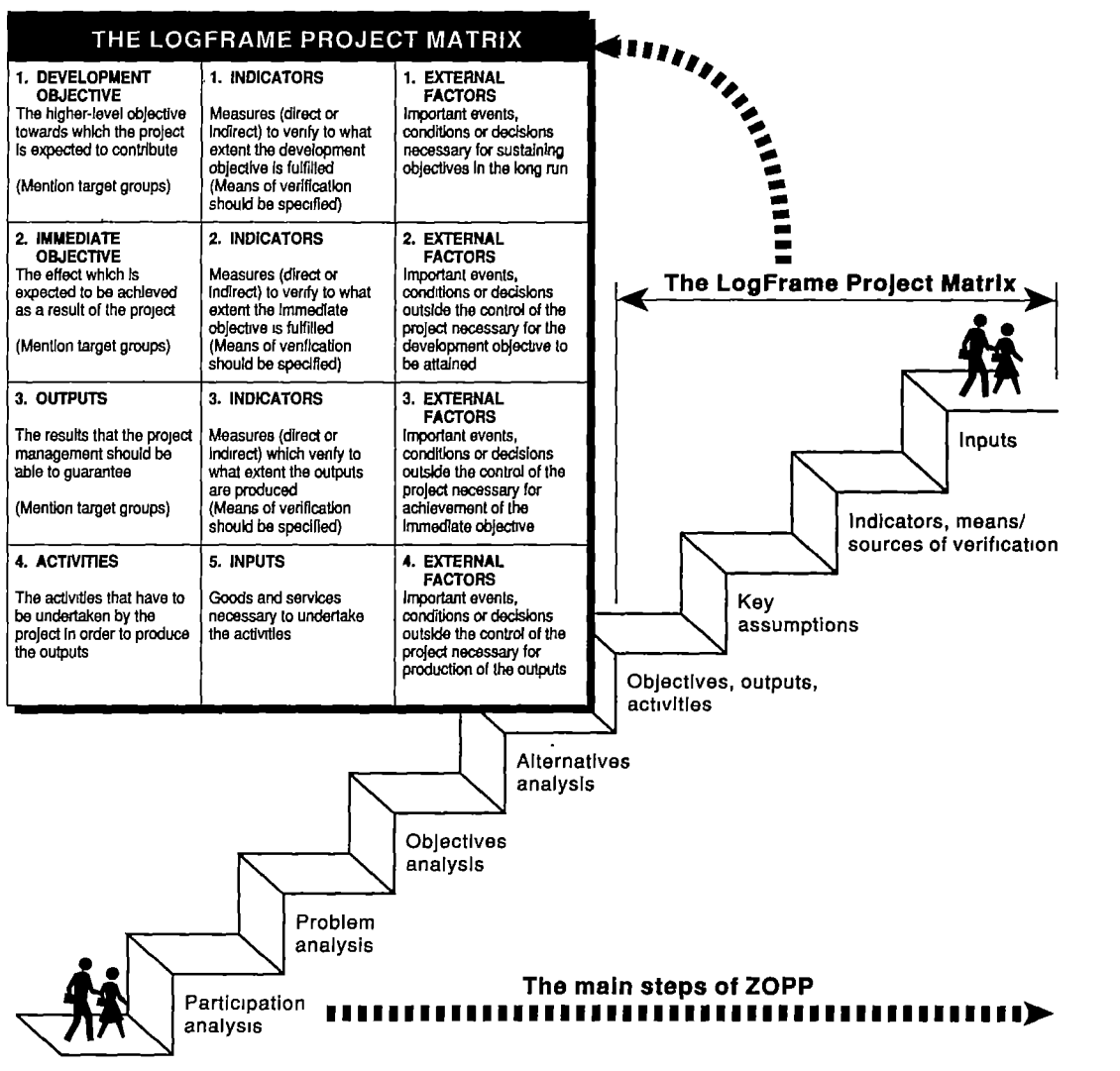
The diagram on the right represents a step-by-step approach to project planning which enables the views, needs and capabilities of target groups to influence the project objectives and activities right from the start. It is a combination of the German ZOPP (*Zielorientierte Projektplanung* or objective-oriented project planning) method and the Logical Framework Approach (LFA) originally developed by USAID. Peter Tschumi, Clifford Wang and Kristian Laubjerg each described applications of such a structured planning approach.

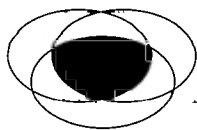
The basic principle is to formulate highly specific project objectives, based on analyses which involve all parties. Appropriate indicators can then be selected on the basis of the defined objectives (a few examples are given in the box on Danida's experiences in Tanzania on page 39). Regular monitoring of the chosen indicators provides the raw data for project evaluations, and enables the objectives and inputs to be adjusted as experience is gained. Using participatory evaluation techniques, the response can be rapid at all levels, with many simple corrections being implemented directly by the involved communities.

ZOPP and LFA are tools. They do not in themselves trigger corrective actions. That requires matching management approaches and organizational structures. However, if the process illustrated on the right is implemented, some immediate benefits can be expected:

- Greater potential to focus on the community's interests. The first step – described as *Participation analysis* – involves identifying the principal target groups and ensuring that their interests are reflected throughout the planning process.
- Greater potential for multidisciplinary planning teams. ZOPP planning exercises are carried out in workshop-style settings, which provide the opportunity for technical and non-technical advisors from all disciplines to contribute to the discussions
- Greater potential to get good indicators. Selection of indicators is one of the last tasks in the planning process, so that they can reflect the project objectives as precisely as possible. Identifying sources of information and methods of collection is just as important as indicator selection.
- Monitoring and evaluation based on what project designers are willing to call "success". By integrating indicator selection with the full planning process, planners ensure that implementors obtain highly relevant data from which they can judge the need for changes in a timely way.

based institutional strengthening in their own sector objectives and evaluations. Planning tools like the Logical Framework Approach (LFA) and the ZOPP (*Zielorientierte Projektplanung* or objective-oriented project planning) method are being used by some ESAs to determine highly specific project objectives. While there is a danger that such a high degree of specificity may be in conflict with the desire for flexibility and responsiveness to community priorities, the highly focused approach does provide the opportunity to ensure that both original goal setting





and future evaluations incorporate the results of participatory processes. It is possible to adapt the LFA as a tool which integrates community objectives and indicator setting into the overall framework.

The Workshop saw a need for more promotion and training within ESAs, to bring wider recognition of the benefits of participatory evaluation (not just in the water and sanitation sector). Enough is now known for participatory evaluation to be incorporated in a number of future programmes, with the experiences documented and shared.

Practical steps

It is fair to assume that, on any particular water and sanitation programme, the responsible government agency and the ESA(s) share a common objective, which involves achieving sustainability, effective use and replicability. That being the case, the first practical step towards establishing an effective monitoring and evaluation process is to define the individual activities needed to achieve the objective, and to agree on the core indicators and the means of monitoring and analysing them. Needs will vary from community to community and with time. Communities must therefore be involved from the start in identifying and monitoring the indicators which matter to them.

The project plan should include a schedule for monitoring and reporting of these core indicators, including mechanisms for adjusting project targets and inputs in response to community-generated data. Use of indicators listed in Table 1 will help to ensure that monitoring and evaluation is not too "production orientated", but more related to building up local capacity for the management and upkeep of facilities and their replication.

In the Tanzania example described by Kristian Laubjerg, and summarised in the panel opposite, the Logical Framework Approach was used to establish a comprehensive list of project activities, each linked to an appropriate indicator, and with defined output targets. The chief difference between this programme and most others is that the outputs relate primarily to developing the organizational and institutional capacity for achieving sustainable services, not to the numbers of pumps installed. While it is useful in building local agency capacity, this process does not raise the community's own capacity for self evaluation.

Monitoring capacity building in Tanzania

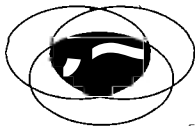
A new system for planning and monitoring implementation of the DANIDA-assisted water and sanitation programme in Tanzania was introduced in 1989. By then, the programme had been running for nearly ten years and had been guided by project staff who recognized the benefits of community mobilization and the building of local operation and maintenance capabilities. The problem was that past evaluations had been based on production targets. Institutional and community-development goals were unspecified and therefore unchecked.

The new system was developed using the Logical Framework Approach (LFA – see box on page 36). While it is too early to draw conclusions about *use* of the system for implementing and evaluating the WSS programme, its development provides interesting examples of the types of indicators which can be used. It demonstrates too why it is not possible to establish universally applicable indicators – only general types of project activities and outputs for which appropriate local indicators can be determined on a project-by-project basis.

In Tanzania, for example, project objectives specifically include raising the capacity of individual districts and villages to operate and maintain water supply schemes and sanitation facilities at primary schools and dispensaries. Monitoring involves regular checks on a series of indicators which include such items as the existence of job descriptions for scheme attendants, the time taken to restore supplies after minor and major breakdowns, the establishment of bank accounts for village water committees, the transfer of responsibility for O&M to community development support offices, and many more.

Another series of indicators tracks the effectiveness of regional level support for the districts, and the diminishing role of outside advisers. Yet another series is related to the national capacity for planning and implementing rural water supply and sanitation activities.

Each series of indicators includes production-related targets, but these are linked to effective use and to sustainability. Monitoring of progress in the sanitation component, for instance, includes recording the number of latrines *in daily use*, thus linking production, maintenance and use of facilities. The comprehensive list of indicators together ensure that monitoring is relevant to recognized successful capacity-building approaches.



7. IMPLEMENTING PARTICIPATORY EVALUATION

Making the case

All those who have been involved in participatory evaluation are convinced of its benefits. Workshop participants spoke enthusiastically of their experiences and their wish to see the concept widely accepted. The evidence is persuasive, but it has to be promoted. National policy makers have to be convinced that the process is both cost-effective and socially beneficial.

Enthusiasm can be infectious, and the “conversion” of friends and colleagues is one way of achieving wider recognition and application of participatory evaluation techniques. Additional regional and national workshops also spread the message to a wider audience. But there is a limit to the extent and pace of dissemination through individual contact. Also, the converts need documentary support and technical advice in their efforts to implement what they have heard. There is an urgent need for additional promotional and training materials, to supplement the PROWESS publications, which participants agreed provide an excellent introduction to the concepts of participatory evaluation, and the types of indicators and methodologies involved in its use.

UNIFEM's Knowledge bank, described to the Workshop by Aster Zaoude (see box opposite), demonstrates how the results of participatory evaluation can assist in the planning and implementation of future projects – including planning the monitoring and evaluation of those projects. The iterative nature of the participatory evaluation process is one of its great attractions. For national planners attuned to the process, successful approaches can be replicated quickly and mistakes corrected before they spread too far.

Wider application of participatory evaluation, and particularly its extension to all levels of water and sanitation planning and monitoring, will depend on government and ESA commitment. Monitoring and evaluation needs to be established as a regular part of the sector planning process. To influence the policy makers, proponents of participatory evaluation need to give a lasting impression of the benefits, emphasizing that participatory evaluation is a way of measuring and accomplishing desired objectives, not simply another data gathering exercise.

UNIFEM'S Knowledge Bank

As part of its mandate to support the advancement of women in development, UNIFEM has, since 1983, maintained a growing data base containing the results of project monitoring and evaluation. This *Knowledge Bank*, which includes both ongoing monitoring data and impact evaluations of completed projects, has been designed to enable planners and implementors of UNIFEM-supported projects to learn the lessons of past and present projects.

External users are able to use the Bank's baseline and impact analyses to help judge the effects on women of alternative development efforts or approaches. UNIFEM also encourages others to add their own experiences to the Bank's data, and to adopt a similar system for monitoring and evaluating their own projects.

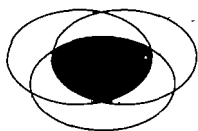
The emphasis in the Knowledge Bank is on lessons learned. The computerized system stores abstract data from project documents, progress reports, etc. It also contains on-going monitoring and impact data, which can be analysed and printed out as needed. Finally, the Bank holds the results of impact assessments by skilled evaluators, who rate and rank the projects, backing each quantitative rating with a qualitative statement.

A key element of the data held on each project is a *participant profile*, which provides an overview of family, education, income and living conditions of intended project beneficiaries. Participants' expectations are assessed by surveys at the start of projects, and their judgments on the extent to which those expectations have been met are collected by matching surveys at the end. UNIFEM sees this as an embryonic form of project evaluation by the participants themselves, and wants to progress to full participatory monitoring and evaluation, with impact indicators updated all through project implementation.

Documented examples are the principal raw material for raising awareness. In an evolving procedure like participatory evaluation, new experiences need to be shared promptly, so that emerging guidelines can take advantage of the most up-to-date information. PROWESS is seen as a logical focal point, and all participatory evaluation practitioners are urged to let PROWESS know about what they are doing and how it is working. PROWESS will use its own resources, and seek extra support from other agencies, to publish and circulate promotional literature and practical advice on a regular basis.

The demonstration approach

For most government agencies, the way that new ideas are introduced and tested is through demonstration projects. Participatory evaluation is well suited for the demonstration project approach, particularly as it has replicability built in as a prime objective. There is enough experience



now of participatory evaluation for a viable component to be built into any new community water supply and sanitation project. The important criteria are that users should be actively involved in the determination of project objectives and the indicators to be used to monitor their achievement, and that the results of community-level data collection and problem solving should influence policies within the implementing agency at all levels.

Experience suggests that carefully planned participatory evaluation produces rapid results in motivating community members and local agency staff. A prime focus of future demonstration projects should be ways of spreading the local benefits to higher levels – and documentation of the results. It is also important that comparisons are made of the appropriateness of particular indicators, and demonstration projects provide a useful opportunity of measuring their effectiveness, so that checklists and guidelines can be progressively extended. Projects should include a training element for agency staff, to develop expertise in participatory evaluation techniques.

Guidance is also necessary on the optimum frequency for conducting participatory evaluation – recognizing that some practitioners see it as a continuing process, with different indicators being monitored at different times, and leading to immediate corrective action where needed. This aspect of participatory evaluation has the advantage that a modular approach can be used. For example, it can allow the community to become familiar with the process in connection with the financing of operation and maintenance, before extending into other aspects.

ESAs will have an important influence on whether the benefits of participatory evaluation spread as rapidly as they should. First, in their dialogues with developing country partners, ESAs can indicate a willingness to support project components for participatory evaluation, and the technical advice necessary to develop such components. Second, individual ESAs can alter their own formal evaluation procedures, to take account of the results of participatory evaluation. That means ensuring that investment objectives include capacity building and the appropriate indicators for measuring it, and that judgments of investment efficiency reflect those objectives, not just production targets.

Though the role of ESAs will be important as an “act of faith”, to give impetus to participatory evaluation, the Workshop was clear in its recommendation that building self reliance is the main aim of

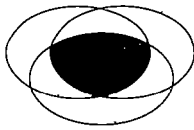
development assistance, and that it will be the developing country agencies themselves which determine the form of participatory evaluation best suited to their needs. Once a country has done so, it will be in a strong position to incorporate participatory evaluation in its national sector strategy, and to seek ESA support for programmes based on community management of water and sanitation services.

Information management

The volume of information available to sector agencies is growing all the time, and new initiatives invariably add to the task of managing the data. One recent tool, developed by the World Health Organization with the support of several donor agencies, is the CESI-PROFILE computerized data base. The microcomputer-based system stores and analyses project and sector information in a standard way, but with the flexibility for individual countries to tailor the type of information and the form of reports generated. It would be possible to add any of the Table 1 indicators (or any others) into a CESI-PROFILE data base, enabling agency professionals to record and analyse the results of surveys, and to exchange data with their counterparts in other countries, where appropriate.

Immediate actions

As an immediate follow-up to the Geneva Workshop, the participants agreed to exchange information about their own experiences, using PROWESS as the focal point where appropriate. Shared information will be used to promote participatory evaluation and to seek to have it included as an integral part of the evaluation process in each agency. The UNDP/World Bank Water and Sanitation Programme will adapt its draft guidelines for sector strategy development, to incorporate the core indicators and community-centred monitoring and evaluation. The Programme's Regional Water and Sanitation Groups will promote use of participatory evaluation and help in the dissemination of PROWESS information packages. Collective information is also needed on available training methods and materials. The International Training Network for Water and Sanitation (ITN) will seek to develop local networks and information systems and to extend the experience of the East African Centre (AMREF) both within the region and beyond. This may be



linked to existing African networks identified by the African Development Foundation. AMREF also plans to extend the application of participatory evaluation into other sectors, beginning with the development of an environmental data base.

WHO, in collaboration with UNICEF, will adapt the CESI-PROFILE system to accept and analyse indicators suitable for national monitoring of participatory evaluation data. WHO also plans to collaborate with PROWESS on ways to incorporate participatory evaluation procedures into its work on measuring the health impact of water supply and sanitation and other interventions.

The Swedish International Development Authority (SIDA) actively promotes Women in Development, and a staff seminar on the topic will make the case for participatory evaluation and the adoption of appropriate indicators in formal evaluations. Efforts will also be made to introduce participatory evaluation concepts and the framework of indicators in new programmes. Regular coordination meetings of Nordic donors offer a further opportunity for spreading the concepts within the ESA community. Both Danida and NORAD plan to seek ways of adapting their internal planning tool, the Logical Framework Approach (LogFrame), to ensure that it incorporates user views in the setting of objectives and participatory evaluation in the subsequent monitoring.

Further research

As well as the sharing of past and future experiences, applied research centred in developing country institutions can help with further development of indicators and implementation methods for participatory evaluations. Topics for applied research identified by the Workshop are:

- Testing of the validity/relevance/practicality/utility of community-centred participatory evaluation
- Methods for communicating the results of participatory evaluation to higher levels and making use of the data in project planning and implementation
- Impact analyses on changes in community wellbeing as a result of the new approaches

- Review and evaluation of available indicators for sustainability, effective use and replicability
- An inventory and review of existing literature on participatory evaluation

WASH is responsible for administering a Global Applied Research Network (GARNET) on behalf of the Water Supply and Sanitation Collaborative Council. The Workshop endorsed a proposal to initiate a network for participatory evaluation, with PROWWESS initially acting as a focal point (the long term aim is to establish focal points in developing country research institutions). The object will be to keep all agencies informed about ongoing research and to identify gaps which need to be plugged by new research projects.



ANNEX 1: LIST OF PARTICIPANTS

Mr. Ingvar Ahman
Div of Environmental
Health, WHO, CH-1211
Geneva 27, Switzerland
Tel: (41) 22 791 3551
Fax: (41) 22 791 0746

Mr. Brian Appleton
9 Prospect Road, Prenton,
Birkenhead, L42 8LE,
United Kingdom
Tel: (44) 51-608-7389
Fax: (44) 51-608-6939

Ms. Marieke Boot
IRC, PO Box 93190,
2509 AD The Hague, The
Netherlands
Tel: (31) 70-3314133
Fax: (31) 70-814-034

Mr. Jacques Carrière
CUSO West Africa Desk,
135 Rideau Street,
Ottawa, Ontario, Canada
K1N 9K7
Tel: (613) 563-1242
Fax: (613) 563-8068

Mr. James Chauvin
Senior Programme
Officer, Health Services
Division, IDRC, PO Box
8500, Ottawa, Ontario
K1G 3H9, Canada
Tel: (613) 236-6163
Fax: (613) 238-7230

Mr. Joseph Christmas
Chief of Water &
Environmental Sanitation
UNICEF, 3 UN Plaza,
New York, NY 10017,
USA
Tel: (212) 326-7120
Fax: (212) 326-7438

Ms. Paula Donnelly-
Roark
Director, Research and
Evaluation, African
Development Foundation,
1625 Massachusetts Ave
NW Suite 600, Washing-
ton, DC 20036, USA
Tel: (202) 673-3916
Fax: (202) 673-3810

Ms. Eirah Gorre-Dale
UNDP, Palais des
Nations, CH-1211
Geneva 10, Switzerland
Tel: 798-58-50
Fax: 798-75-24

Ms. Carolyn Hannan-
Andersson
SIDA, S-105 25
Stockholm, Sweden
Fax: (46) 8-32-21-41
From Sept 1 1990
Nypongrand 51, 175 49
Jarfalla, Sweden
Tel: (46) 758 14233

Mr. Frank Hartvelt
Senior Programme
Officer, DGIP/UNDP,
304 East 45th Street, New
York, NY 10017, USA
Tel: (212) 906-5858
Fax: (212) 906-6350

Mr. Klaus Kresse
GTZ - Regional
Coordinator for Latin
America and the
Caribbean, c/o AYA,
CAPRE, Apartado Postal
5120-1000, San Jose,
Costa Rica
Tel: (506) 570-458
Fax: (506) 222-259

Mr. Kristian Laubjerg
DANIDA, Asiatisk
Plads 2, DK 1448
Copenhagen, Denmark
Tel: (45) 33-92-00-00
Fax: (45) 31-54-05-33

Mr. Bryan Locke
UNDP, Palais des
Nations, CH-1211
Geneva 10, Switzerland
Tel: (41) 22 798 5850
Fax: (41) 22 798 7524

Mr. Andrew Macoun
INUWS, The World
Bank, 1818 H Street,
N.W., Washington, D.C.
20433, USA
Tel: (202) 473-5573
Fax: (202) 477-0164

Ms. Siri Melchior-Tellier
Programme Manager,
PROWESS/UNDP,
304 East 45th Street, New
York, NY 10017, USA
Tel: (212) 906-5862
Fax: (212) 906-6350

Ms. Deepa Narayan-
Parker
Sr. Planning &
Evaluation Officer,
PROWESS/UNDP,
304 East 45th Street, New
York, NY 10017, USA
Tel: (212) 906-5852
Fax: (212) 906-6350

Mr. Eladio Prado Castro
CAPRE, c/o GTZ, Apdo
5120-1000, San Jose,
Costa Rica
Tel: 506-224-455
Fax: 506-223-911

Mr. Bo Razak
8208 Coach Street,
Potomac, Maryland
20854, USA
Tel: (301) 299-7872
Fax: (301) 983-3440

Mr. Elfas Rosales
FUNDATEC, ITCR,
Apdo. 159 7050, Cartago,
Costa Rica
Tel: (506) 51-53-33
Fax: (506) 51-53-48

Mr. Gunnar Schultzberg
RWSG, The World Bank,
PO Box 30577, Nairobi,
Kenya
Tel: (254) 2-338868
Fax: (254) 2-338464

Mr. Peter Tschumi
Swiss Development
Corporation, 3003 Bern,
Switzerland
Tel: (41) 31 61 34 13
Fax: (41) 31 61 35 05

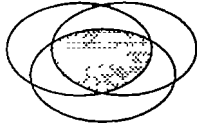
Mr. Clifford Wang
Senior Sanitary Engineer,
NORCONSULT, PO Box
175. N-1360 Nesbru,
Norway
Tel: (47) 2-842050
Fax: (47) 2-982618

Mr. Dennis Warner
CWS/WHO, CH 1211
Geneva 27, Switzerland
Tel: (41) 22-791-3546
Fax: (41) 22-791-0746

Ms. Vigdis Wathne
NORAD, PO Box 8034,
0030 Oslo 1, Norway
Tel: (47) 2-31-44-00
Fax: (47) 2-31-44-01

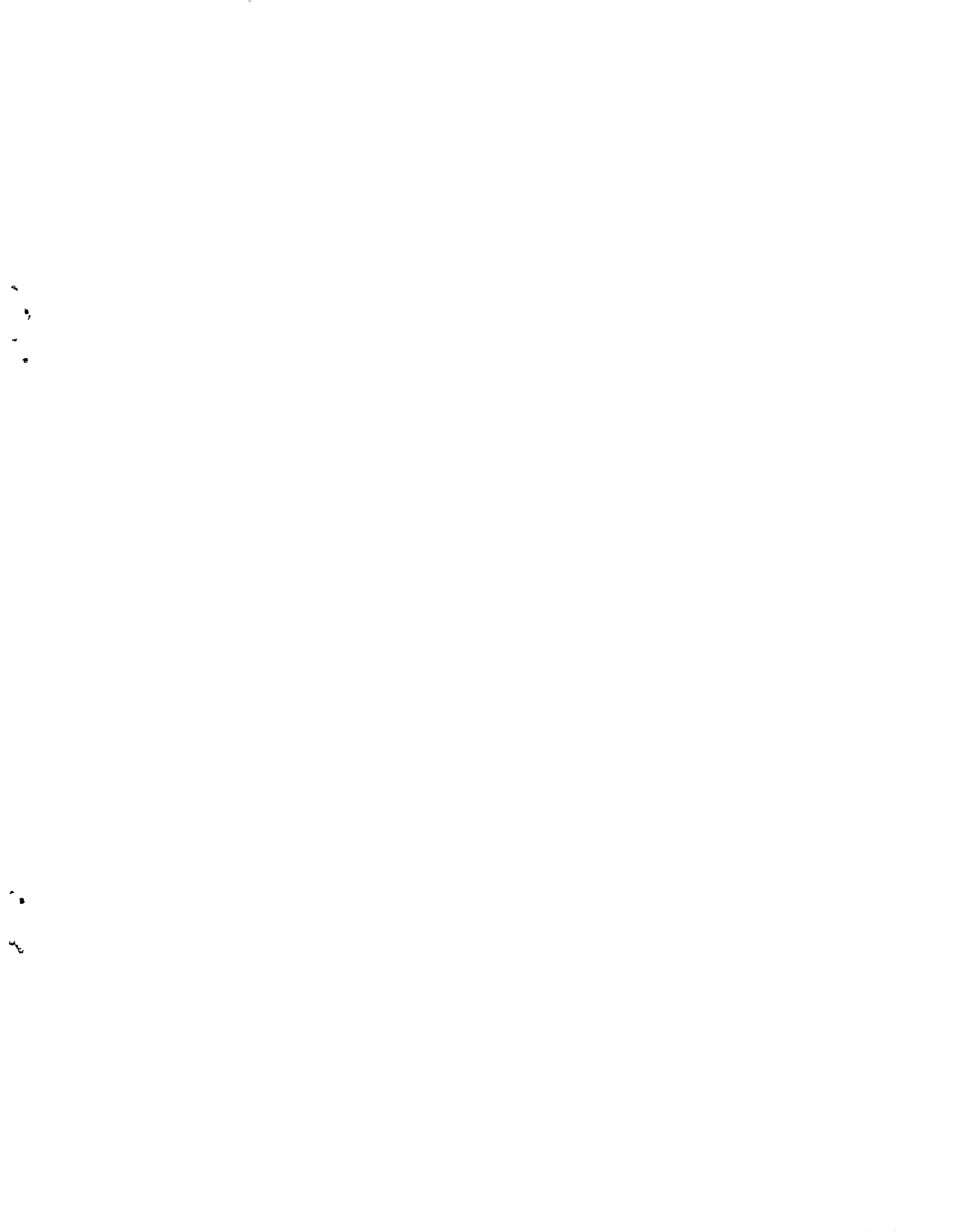
Mr. Melvin Woodhouse
African Medical and
Research Foundation, PO
Box 30125, Nairobi
Tel: 254 2-501301
Fax: 254 2-502984

Ms. Aster Zaoude
Chief, Monitoring and
Evaluation Unit,
UNIFEM, 304 E. 45th
Street, New York, NY
10017, USA
Tel: (212) 906-6450



ANNEX 2: PAPERS PRESENTED AT THE WORKSHOP

| <i>Author</i> | <i>Paper title</i> |
|--------------------------|---|
| Elías Rosales | Some Thoughts about Community Participation: A Rural Area Project Related to Health, Technology and the Community |
| Melvin Woodhouse | The Kibwezi Water Project |
| Carolyn Hannan-Andersson | The Challenge of Measuring Gender Issues in Water and Sanitation |
| Peter Tschumi | Monitoring and Evaluation of a Project's Effectiveness |
| Andrew Macoun | The Development of Water and Sanitation Sector Strategy and Action Plans |
| Dennis Warner | New Roles for Monitoring and Evaluation in Water Supply and Sanitation |
| Aster Zaoude | UNIFEM's Knowledge Bank |
| Clifford Wang | Objectives-Oriented Monitoring and Evaluation |
| Kristian Laubjerg | The Logical Framework Approach |
| Joseph Christmas | Management by Monitoring: The Water and Sanitation Sector |





UNDP–World Bank Water and Sanitation Program