

Programme Division

Guidelines Series

Towards Better Programming

A Sanitation Handbook

In Collaboration with





Water, Environment and Sanitation Technical Guidelines Series - No. 3

Water, Environment and Sanitation Technical Guidelines Series - No. 3

First Edition: May 1997

A Sanitation Handbook copyright © 1997 United Nations Children's Fund 3 UN Plaza, TA-26A New York, N.Y. 10017 e-mail: wesinfo@unicef.org Web site: www.unicef.org

A publication of UNICEF/Programme Division Water, Environment and Sanitation ID No. UNICEF/PD/WES/98-3

This Sanitation Handbook is the third of the Technical Guidelines Series prepared by the Water, Environment and Sanitation Section, Programme Division, UNICEF, in collaboration with USAID's Environmental Health Project (EHP Applied Study No. 5). Titles of all publications in this series are printed on the inside back cover of this Handbook.

For further information please contact: The Chief, Water, Environment and Sanitation Section, Programme Division, UNICEF, 3 UN Plaza, TA 26-A, New York, N.Y. 10017. Tel (212) 824-6669; Fax (212) 824-6480 e-mail: wesinfo@unicef.org

Water, Environment and Sanitation Technical Guidelines Series - No. 3 EHP Applied Study No. 5

Towards Better Programming: A Sanitation Handbook

April 1997

A joint publication of UNICEF's Water, Environment and Sanitation Section, Programme Division and USAID's Environmental Health Project

Environmental Health Project Contract No. HRN-5994-C-00-3036-00, Project No. 936-5994 is sponsored by the Bureau for Global Programs, Field Support and Research Office of Health and Nutrition U.S. Agency for International Development Washington, DC 20523

Preface

UNICEF Programme Division is pleased to present this handbook, *Towards Better Programming: A Sanitation Handbook*, in support of the country programme process. This handbook is the result of collaboration since 1995 among WHO, USAID, and UNICEF. Its design was approved during a joint consultation between WHO, USAID, UNDP, the World Bank, and UNICEF. The first draft was prepared by a team of consultants with technical inputs from the Environmental Health Project (EHP) of USAID and UNICEF WES Section. It was reviewed by UNICEF colleague in the field and then discussed at an inter-regional WES meeting in November 1996 in Nairobi, where the Global UNICEF Sanitation Network was set up. The revised version will now be future field-tested under controlled conditions in Zambia, and possibly in Bolivia or Egypt. All UNICEF field offices are also encouraged to test and comment on the handbook. The final version will be published in 1999 and will incorporate the results of field tests.

There is an urgent need for development planners throughout the world to give sanitation priority attention. The number of families without access to adequate wast disposal in poor urban and rural areas continues to grow in many places, and the programming challenges for UNICEF and other partners are considerable. This handbook is the first in a series being prepared by the Programme Division to support national and local initiatives to fulfill children's rights to a safe environment.

We look forward to receiving your comments and to sustained and effective collaboration with bilateral and multilateral partners in efforts to improve knowledge and the effective implementation of sanitation and hygiene programmes. We wish to express our sincere thanks to all colleagues who, in one way or another, contributed to the development of this sanitation handbook.

otin-

Sadig Rasheed Director, Programme Division UNICEF Headquarters, New York 12 May 1997

Acknowledgements

Many people have contributed to the development of this handbook, from conception through writing, several review phases, editing and production. Individuals involved in the writing, review, editing, and production are Steve Esrey, TV Luong and Gourisankar Ghosh of UNICEF; John Austin and John Borrazzo of USAID; Eddy Perez, Diane Bendahmane, Betsy Reddaway and Darlene Summers of EHP/USAID; Mayling Simpson-Hebert of WHO; Jake Pfohl, Isabel Blackett, Cliff Wang and Scott Loomis as consultants; Massee Bateman and Fred Rosensweig of EHP/USAID, Sandy Cairncross of the London School of Hygiene and Tropical Medicine (LSH&TM) and members of the UNICEF Sanitation Working Group as reviewers.

Over the past two years, during the development process, UNICEF and EHP have benefitted from the ideas, discussions, thoughtful review comments and criticisms of drafts of this document. The refinement of ideas has been a slow, sometimes difficult process, involving many individuals. Yet without the contributions of reviewers too numerous to name, the sanitation handbook would not have been as useful as it now is.

To all, we extend a heartfelt thanks.

October, 1997

Dear Reader,

We would like to make a correction regarding an inadvertent omission in our acknowledgments for the recently distributed "Better Sanitation programmes Handbook".

Initial drafts of the handbook were prepared by a consultant team consisting of Mr. Jake Pfohl, Isabel Blackett, and Clifford Wang. After extensive reviews and comments from a wide range of colleagues, Mr. Jacob Pfohl completed the major revision of the Handbook, and remains its primary author. We thank him for his efforts in this regard.

Sincerely,

Gourisankar Ghosh Chief Water, Environment and Sanitation Section

Contents

1	EXECUTIVE SUMMARY	1
	Using This Handbook for Better Sanitation Programming	
	A Shift in Roles: Using Your Resources Strategically As a Catalyst	
	Catalyzing Programme and Policy Development	
	Sanitation Issues and Options, Questions and Considerations	
	Your Responsibility	8
2	INTRODUCTION TO BETTER SANITATION PROGRAMMES	9
	Using This Handbook	
	The Broader Context: A Global Evaluation of Sanitation Programmes	
	UNICEF and Sanitation Programming	
	Key Design Issues Facing Programmers Today	. 15
3	WORKING AS A CATALYST FOR BETTER PROGRAMMING DESIGN	. 18
	Working Inductively or Deductively?	. 18
	What Is a Catalyst?	. 18
	"Inside-Out" Development	
	The Institutional Community—An Analogy	
	Forming a National Working Group to Guide a Learning, Programming, and Policy Development Process	
	What Drives Your Potential Partners?	
	Getting to a Common Horizon	
	Techniques and Approaches Available to a Catalyst Overall Design Cycle for Programming	
4	ESTABLISHING A BROAD VISION	. 24
	Sketching Out the Broader Picture	
	Introduction to Topical Chapters	. 26
5	IDENTIFYING COMMUNITIES	. 27
	Allocating Resources More Strategically	. 27
	Questions to Bear in Mind for Determining Community Selection Criteria and	
	Shaping a Selection Strategy	
	Options to Consider for Application of Community Selection Criteria	. 30
	What Do We Know, and What Do We Need to Know? Information Checklist for	_
	Application of Community Selection Criteria	. 31

6	COMMUNITY PARTICIPATION	33
	Participation and Behaviour Change	
	Key Issues for Development of Community Participation Strategies	
	Options to Explore for Selection of Approaches	35
	the Choice of Suitable Participatory Approaches	43
7	TECHNOLOGY OPTIONS	45
	Issues around Technologies	
	Questions to Bear in Mind about Technology Options	46
	Approaches for Developing a Strategy Ensuring Technology Options, Consumer Choice, and Private Sector Involvement	47
	What Do We Know, and What Do We Need to Know? Information Checklist for	
	Developing Strategies for Technology Options	50
8	FINANCING	53
		50
	Costs to Consider	
	Questions to Bear in Mind When Determining Financial Strategies	
	Options to Explore for Selecting Approaches	54
	Selecting Financial Approaches	59
9	INSTITUTIONAL ARRANGEMENTS	61
	Institutions: Catching Up to the Programme	
	Questions to Bear in Mind When Determining Institutional Arrangements	
	Options to Consider for Institutional Arrangements	63
	Arrangements?	67
10	BUILDING POLITICAL WILL	71
	Build Top-Level Support	
	Questions to Bear in Mind When Assessing Political Will	
	Considerations and Options to Explore about Building Support	
	the Political Terrain	/4
11	GETTING BACK TO US—AND A FINAL WORD	75
	We Depend on You	75

APPENDICES

- A The Problem of Sanitation and Guiding Principles of Better Sanitation Programmes
- B Sample Participatory Methods
- C Sample Programme-Design Process
- D Sample Resources for Workshops, Meetings, and Other Programme-Design Activities

BOXES

2-1	A Conceptual Model for Water and Environmental Sanitation Programme Development	13
2-2	Excerpt from UNICEF Document E/ICEF/1995/22	14
2-3	Medinipur: An Example of Better Sanitation Principles in Action	16
3-1	Programme Planning Cycle	24
3-2	Typical Outputs of Each Phase of the Programme Planning Cycle	25
4-1	Developing the Broad Sector Picture	28
5-1	Responding to Expressed Demand in Nepal	34
6-1	The Baldia Soakpit Project	39
6-2	Sanitation with Credit Group	40
6-3	School Health Clubs	40
6-4	Working with Informal Leaders	41
6-5	Community Action Planning Intervention	43
6-6	"I'd rather die than use a latrine."	44
6-7	Healthy Homes	45
6-8	Starting a Solid Waste Service	47
7-1	Najafgarh Rural Sanitary Mart	55
7-2	Stimulating the Private Sector to Develop Plastic Parts for Latrines	56
8-1	Loans Where Homes Are Rented	61
8-2	Hindering the Development of Private-Sector Markets	
8-3	Private Latrine Producers	63
9-1	Forming a National NGO Coalition	71
9-2	An Example of a Training Network	72
9-3	Human Resources Development	73
9-4	Selecting Options for Institutional Arrangements: A Field Example	-75
10-1	Examples of Building Political Will	81
Action	Report Form	-88

Acronyms

CBOscommunity-based organisationsEHPEnvironmental Health ProjectHRDhuman resource developmentNGOnongovernmental organisation

ORS	oral rehydration salts
PRA	participatory rural appraisal (a methodology for community action planning)
RMLP	Ramakrishna Mission Lokashiksha Parishad
RSM	rural sanitary mart
SARAR	Self-esteem, Associative strength, Responsibility, Action planning, and Resourcefulness (a methodology for community action planning)
SEUs	socio-economic units
TOR	terms of reference
UNDP	United Nations Development Programme
VIPP	visualization in participatory programmes (a methodology for group interaction and planning)
WES	UNICEF's Water, Environment and Sanitation Section
WHO	World Health Organization
VWSC	village water and sanitation committee
WATSAN	water and sanitation (staff of UNICEF)

1 Executive Summary

- Using This Handbook for Better Sanitation Programming
- □ Sanitation: A Concept, Not a Device
- A Shift in Roles: Using Your Resources Strategically as a Catalyst
- **Catalyzing Programme and Policy Development**
- Sanitation Issues and Options, Questions and Considerations
- □ Your Responsibility

Using This Handbook for Better Sanitation Programming

This handbook has been prepared to help you— working groups of professionals responsible for sanitation programming—prepare *realistic* and *better* sanitation programmes. "Better" will not be perfect, however, because the field requires continual innovation, rigorous study, and steady improvement to meet the challenges of the sanitation sector. As you work through the programme cycle, use this handbook as a guide and reference on major topics of sanitation programming. Assessment, analysis, and action—the "Triple A" methodology—are incorporated into this systematic planning approach. The handbook will help you to explore the major questions, considerations, and options for each of a series of major topical aspects of sanitation programming.

In the past decade, UNICEF has been giving increasing emphasis to sanitation. In her Mid-Decade Goal Review Speech in the General Assembly, for example, UNICEF Executive Director Carol Bellamy mentioned sanitation as one of the agency's four major goals and a field of growing importance in our global field work. In addition, the UNICEF Executive Board has urged the UNICEF secretariat to place greater emphasis on environmental sanitation, hygiene, and behavioural change—and to allocate resources as required (1995). The Executive Board also approved a new water, environment, and sanitation (WES) strategy emphasizing the deployment of participatory approaches; capacity building; community contributions toward recurrent and capital costs of basic service levels; gender-balanced approaches; improved monitoring systems; effective intersectoral linkages; and greater attention to deprived, low-income urban areas.

The sector remains in a learning phase; as such there are no easy answers. To help you learn from the promising work of others, examples of programmes, projects, and activities reflecting better programming principles in action are provided in the handbook; over time, however, your own work will be expanding its content as well. Your WES colleagues and those of partner agencies are here to help you in that process.

Sanitation: A Concept, Not a Device



5 A facilitator engages villagers in community resource mapping as part of a participatory rural assessment in Uttar Pradesh, India (Jake Pfohl).

Increasingly, sector professionals have realized that the definition of sanitation must be broadened. For the purpose of this handbook, the term *sanitation* refers to a process whereby people demand, effect, and sustain a hygienic and healthy environment for themselves by erecting barriers to prevent the transmission of disease agents. Such an approach is needed not only to prevent disease and promote health, but also to lay the foundation for sustainable development. Im proved sanitation and hygiene behaviour involve change, which, to be meaningful, usually takes time—a fact that will affect a programme's planning, implementation, and resource allocation. In the past, hardware components have seized the lion's share of the budget—to the neglect or outright dropping of "software" components (meaning community education and participation, training, hygiene education, and other non-technology aspects). This mistake must be avoided throughout any programming exercise you will undertake. Hygiene behaviour programmes are not solely about improving people's knowledge of hygiene and health, nor is improved sanitation simply about building latrines. Indeed, much more will be required of either.

A Shift in Roles: Using Your Resources Strategically As a Catalyst

Over the years, acting as "providers" has proven to be a poor strategy; instead, we must help to create the right environment and circumstances by which development goals will emerge from within the local context, engaging the many talents of others. To do this in a skillful way requires that we serve as a catalyst, a role that can yield much greater results than if we aim our energies on simple "coverage." Rather, it can help put in place systems for continual improvement—for example, by stimulating linkages between consumer demand and the providers, wholesalers, retailers, and regulators of the trade. To give the approach depth, we must also undertake an educational process to help people make considered choices, mindful of local preferences, safety, environmental issues, cost, and other factors. (See Appendix A for further discussion of past problems in sanitation programming and guiding principles for future efforts, developed by the Collaborative Council's Working Group on Sanitation.)

Catalyzing Programme and Policy Development

It is UNICEF policy that its water and sanitation (WATSAN) staff should focus on being "catalysts" of better programmes and policy, rather than to engage in project implementation for its own sake. Although the programming process is a straightforward cycle, the way you go about developing the programme and appropriate policies is critical. As a catalyst, rather than the owner of the programme, you will find many opportunities to set the stage for larger-scale collaborative action by engaging others in the process as "owners and partners" right from the start. In most cases, a good strategy will be to form a core group of sector professionals at the national level to help guide a learning, programming, and policy development process. Such a group will start with identifying the current state of the sector, noting what is currently going on and what needs to be learned. Next, it will analyze available options, and, based on a deliberate process grounded in field experience and consultation with many levels and partners, ultimately seek to define better sanitation programmes and help evolve national policy.

Activities for such joint programming and policy development will start by building trust and rapport with key counterparts in the "institutional community." Once formed, a core group of sector professionals should expand activities to other levels, including top policy makers, local governments, local nongovernmental organisations (NGOs), and communities. Your core working group can use many devices for collaborative assessment, analysis, and planning. (Some suggestions are provided in Appendix B.) For example, learning from ongoing projects and building such learning into upcoming projects is crucial. There is a wide range of other possible interventions, as well: participatory investigations, documentation of existing experiences, joint learning processes and groups, field-testing of new options, coalition building, field-based workshops, and simply one-on-one dialogue to address major issues—all can be structured to help the programming and policy-development process. One of the first steps your core group will need to take is to characterize the current state of sanitation programming and the major constraints and weaknesses of the sector, and then to evolve a vision of where you want to go in the future. Having first established a sense of priorities, you will find it easier to develop strategies for how to achieve them. (See Appendix C and D for sample programme design process and activities.)

Sanitation Issues and Options, Questions and Considerations

Despite having charted a general course for your programming process, you will encounter many issues, considerations, and options along the way. Chapters 5 through 10 explore different aspects of programming in depth, providing you with major questions, considerations, and possible options for strategies in a number of topical areas: *community identification; community participation; technology options; financing, institutional arrangements; and political will.* Following are brief summaries of a few key issues and options.

Identifying Communities

The enterprise begins with identifying communities, so that all other programming starts with and includes the

communities who will be key players. To strategically identify communities, the programmatic challenge is to develop processes for selection and criteria—rather than to select specific communities, which is usually a project function. The central issue is how to allocate, or reallocate, available resources to eventually achieve the widest possible impact. In certain instances, this may mean starting on a narrow basis, if by so doing strategic gains can be greatest and better sustained in the long term; in other situations it might be more important to tackle a few behaviours over larger populations. Sometimes, you may find that going both wide and deep can be done simultaneously. You'll need to rank criteria for making such strategic choices. Are short-term gains critical, or are you seeking longer-term solutions requiring deeper, intensive efforts? Do you focus on needs or demands as a priority? Do you work with communities that are most likely to succeed, or do you take on tougher cases? What are the best criteria for the particular situation?



6. Bolivian schoolchildren line up for hand washing. Proper hygiene behaviour assures that sanitation technologies will yield a health benefit. *(UNICEF/Witlin)*

Options might include responding to those communities with expressed demand; to communities in areas where there is likely to be adequate software and hardware capacity to support community efforts; to communities from which there can be the most widespread effect; to communities that can be clustered, thus lowering costs; to communities that are poor; and/or communities having few facilities and lacking hygienic behaviours. To choose appropriate options you will have to know the communities you would identify: for example, their population, current water and sanitation situation, the nature of their settlements, gender and cultural factors, and social history. It is crucial that those responsible for programming have frequent and substantive contact with communities they hope to assist.

Community Participation

In the community participation chapter, you will find a review of issues such as who to involve; types of interventions; specific options for education and communication approaches, and their uses; and building related skills capacity to sustain change at personal, household, and environmental levels. We may often underestimate what it takes to bring about sustained change at the community level, whilst at the same time underestimating people's capacity for change if a genuine effort is made. To evoke community participation, we need to yield control over key decisions—and we need ways to engage communities and their members in assessment, planning, action, and monitoring of their own progress. Problems rarely arise mainly out of a lack of "knowledge about hygiene and sanitation"; villagers and peri-urban dwellers have in many cases heard lectures about disease transmission. The issue tends to be whether they feel able and willing to challenge the problem and whether they have the internal resources and capacity to do so—individually and as part of a larger group.

Because of the range of interventions for mobilising communities, choices will need to be made: each carries its own costs and effects. *Isolated provision of technology* is mostly a failed intervention, as it rarely motivates communities or brings about sustained benefits. *Behaviourist interventions* concentrate on a few behaviours, stressing repetition, rewards, and deterrents. *Didatic interventions* are still commonplace; these basically focus on transmitting messages—whether through traditional field worker lectures or by more sophisticated means, such as social marketing. *Community action planning* interventions posit a wider approach, one involving people actively in assessing, analysing, and planning solutions to their own problems and leading to action and self-monitoring using a range of participatory techniques.

Each of these intervention types is appropriate to different programmatic needs and strategies; they can be used singly but also in combination. You will need to know the differences, relative cost-effectiveness, and likely effects of all. In determining strategies for community participation, you will also have to consider who can best carry out these

strategies and what kinds of longer-term managerial and skill training communities will need to sustain physical and behavioural changes. To make these decisions, your core group will need to know and have contact with communities: to gain a clear grasp of their social history, existing hygiene and sanitation situation, current hygiene practices, culture and attitudes, and health conditions. You will also need to know how community members communicate and work together, and how they handle new ideas, challenges, and information in order to build and adapt interventions that use and build upon the community's unique characteristics.

Technology Options

The chapter on technology options explores the factors involved in selecting a range of technical options and discusses ways to establish processes for consumer choice. It is important to strike a balance between technology aspects and other project components: sanitation is not simply latrines, but rather an awareness and capacity for managing waste controls, domestic wastewater, solid waste, and human and animal wastes. No single technology option should be prescribed; for the effort to work, people need to have choices, and options should continue to evolve with the communities' growth over time. For technologies to be appropriate, they should generally evolve out of the local context and build on local innovations. Rather than provisioning, the role at the programme level is to stimulate and build upon such innovation, creating incentives and standards that ensure the chosen technologies are healthful, safe, technically adequate,

environmentally sound, and sustainable. Another key role is to help forge and sustain the linkages between designers, producers, wholesalers, retailers, and consumers—creating an environment in which the private sector can thrive.

Weighing the environmental consequences of technology choice is becoming increasingly important as natural systems are



ne private sector can thrive.7 A child in Zimbabwe poses in the doorway of the
new VIP latrine at her school. (UNICEF/Schytte)

threatened. We need to expand the menu of technology options— for the sake of the market and also to resolve environmental problems and make greater use of organic wastes as a resource. We also need to find ways to localise technical capacities as a way to enhance people's awareness and capacity to make educated choices and to involve community members in component manufacture, assembly, sales, management, and operations and maintenance. To determine the right strategies for technology, you will need to be knowledgeable in several areas: current technical options and their adequacy; cultural and attitude factors; geology and climate; and relevant modes of

interventions. For peri-urban areas, you will have to assess the feasibility of long-term operation; the environmental pollution that exists; the impact of industrial, commercial, and municipal pollution; and population density, age of housing, and condition of other municipal infrastructure.

Financing

The financing chapter focuses on alternative arrangements for arranging programme costs consistent with goals of sustainability and cost-effectiveness, e.g., self-financing strategies. Who is the programme planning to assist? What is their willingness to pay or contribute? What strategies will best respond to community demand, ensure accountability, prioritise the use of local resources, promote greater equity, and not sacrifice long-terms gains for shorter ones? In terms of options, programmers would prioritise financing from within communities, and then where needed, through the use of credit facilities. You may decide to explore options for private-sector financing, and for policies that encourage production and employment in the local market. There may even be possibilities for cross-subsidies, although this option is often difficult to arrange. Sometimes it is possible to demonstrate demand through whole communities, and thus compensate internally; such arrangements often need the help of an NGO or similar group to bring them about. Subsidies and grants are a last resort and should be avoided, as they can be counterproductive except in rare cases. Whatever financing strategy is chosen, it should be consistent. It may be better, for example, to have a less perfect strategy than to confuse communities with multiple approaches by different agencies. To determine financing strategies, you will need a range of information: what current financial policies are; what possibilities exist for slums and funding improvements in these areas; the programme's effectiveness in cost recovery; potential local sources of financing; signs of willingness to pay; nature of the economy (cash or barter); and the existing credit situation. Depending upon the scope of the programme, you will also need some of the following information: income profiles; level of distribution; poverty lines; household income and expenditure patterns; and current prices-including inflation, interest rates, and indicators of affordability.

Institutional Arrangements

Institutional arrangements, a sensitive area, are explored in Chapter 9. As institutions adjust themselves to play more useful roles in support of new approaches to sanitation, the issues of sector allocation of responsibilities arises. What roles will central and local governments, NGOs, the private sector, various donors, and others play? Who will take the lead, and in what institutional framework will sanitation programmes be designed and managed?

In general, those at higher institutional levels need to find ways to stimulate and support local supply and demand systems—not to arrange provisioning or delivery of services themselves. For example, how can they make best use of local NGOs, the private sector, grassroots organisations, and communities themselves rather than relying upon large, centralized, and often ineffective departments? At the same time, how will they become protectors and nurturers of sector development: ensuring standards, environmental protection, human resource development, and careful monitoring? In this sensitive behavioural area, programmers need to ensure that above all they have made clear and adequate provisions for the building and strengthening of local and community-level institutions that are able to make decisions and manage the desired change in their communities. Who will do this and how will it be supported? How can resources and decision making shift to local levels in line with decentralization? There are a range of options; from among them you will need to determine local solutions that are viable and realistic, yet proceed towards change.

There are clear ways to encourage and support institutional efforts while clarifying responsibilities. For example, establishing working and learning groups at national and local levels— as suggested here—is one approach. Forging cooperation from the ground up through experimentation and cross-programme linkages is another. Creating new mechanisms such as funds or trusts—which can support decentralized approaches and extend resources more directly to communities—can empower the talk of "community participation" and link it to real ownership and shifts of control. Coalitions and consortiums of NGOs and similar groups can strengthen advocacy for better policies, channel funds to local

groups, and provide training, materials, and other services. Through peer training, networks comprising all sector professionals of varied disciplines can facilitate training by relying on the strengths of their members. Human resource development (HRD) efforts can address more than just formal training courses; they can also look at underlying institutional weaknesses and incentive structures, and arrange more effective multilevel and field-based training to build a better understanding of the sanitation sector.

Building Political Will

Finally, the chapter on building political will explores ways that joint learning and programming can, over time, lead to policy change. It also examines how to build a foundation of support for the programme. Political will and sound policies need to be built upon a foundation of what communities want—as determined through programming work and study over time. To bring this about, a process starting with your core group and expanding both to local partners and to national policy makers can make an impact. As an effective catalyst, you can help to ensure that policy discussions are driven, not by whim, bias, or favoritism, but by learning on how to solve national sanitation problems. By adding rigor and solid evidence to back up your programming work, you can contribute to establishing better policies. And by including other levels and sectors—such as local communities, NGOs, and local and regional governments—you can build ownership and practice of the new policies at many levels. Your catalytic tools can help in this process, as outlined in Chapter 3. And you can legitimize the learning process through periodic government, NGO, and donor consultations; regional and local discussions; and ultimately, national-level policy meetings. To be effective in evoking political will and policy change, you will need solid evidence from all your programming efforts. You will also need to know about existing efforts of other players, the main human and institutional influences in the sector, the major sector issues and how they are presented, and the underlying values of the local context in which you are working. Finally, you will need to know local resources to support your efforts to be a great communicator.

Your Responsibility

As a programmer, your work begins with building a small core team and defining a step-wise plan as to how you will go about catalyzing a programme strategy (or improving your existing one) with your colleagues and counterparts over the next three to five years. During this process your programming work will need to expand in depth—reaching out to local levels, i.e., communities, and their own organisations; in width— covering a broad range of issues and substance with sufficient rigor and good analysis; and height—involving and bringing about change and support by key high-level policy makers and decision makers and external organisations such as donors or lenders. An Action Report Form which will help you work through the steps of designing a national sanitation programme is provided in Chapter 11. The form will also help those in the various WES offices make appropriate arrangements to backstop your efforts. The authors of this document and WES staff at UNICEF headquarters will use the form as a monitoring tool to see if this handbook and related resources are making a difference in promotion of UNICEF strategies in the field.

2 Introduction to Better Sanitation Programmes

- Using This Handbook
- The Broader Context: A Global Evaluation of Sanitation Programmes
- UNICEF and Sanitation Programming
- L Key Design Issues Facing Programmers Today

Using This Handbook

UNICEF has prepared this handbook to serve as a resource for staff and their partners to use in planning realistic and better quality sanitation programmes. The art of programming, and related policy development, should be seen as a continuous learning process, one which evolves better programmes over time based on careful analysis of living experience and innovation. Programming is not merely a paper exercise but an approach to help a sector evolve with the participation of all those concerned—from local communities, concerned professionals in public, nongovernmental, and private sectors, to national policy makers.

The sanitation programming process presented in this handbook employs participatory methods, objectivesoriented planning techniques, and key principles that reflect positive and negative lessons learned about sanitation. All are premised on participation and inclusion. The methods you will find here focus on programme-level rather than project-level planning, endeavors in which the programme is a broad framework for several projects with similar longterm goals. Programme-level planning provides a framework for integrating sanitation activities with such activities as health, nutrition, and education, which is difficult to do within the scope of individual projects.

It is assumed that readers will have had practical experience with development-related issues, but are seeking better knowledge, methods, and techniques to plan and implement sanitation programmes and projects. The handbook should be particularly useful to—

- UNICEF programme and project officers responsible for UNICEF support for sanitation improvement.
- Planners and implementers of government agencies and NGOs that implement national and local sanitation programmes receiving UNICEF support.
- Supervisors and senior officials in agencies and organisations employing the above categories of officers.

The handbook is designed for ease of use and quick access to material. You will find some technical material and an elaboration of planning processes in the appendices.

This handbook does not present a blue-print approach; that is, it does not represent a simple solution to poor sanitation and bad hygiene practices. It is merely a guide that provides resources for programme planners to use according to their need, specific location, and time. Initially, you will be introduced to basic principles, your role as catalysts, the design process, and a sense of time frame and options with which to operate as catalysts of better programming design. The handbook posits a team approach and the formation of a core working group of sector professionals at national level to help guide the programming process. The core group will, in turn, seek the participation both of high-level policy makers and of local communities, and also of the local governments, NGOs, and private sector that serve them.

The handbook will help you to delve into the substantive "sanitation" questions, options, and choices for designing and following through on a programming process. Pariodically you

following through on a programming process. Periodically you 8. Bangladeshi villagers gather to examine a latrine will find examples to engage and stimulate your thinking, model. Latrines should be designed with local customs helping to inform and invigorate your programming process. and preferences in mind. (*UNICEF/Sean Sprague*) At the end, you will find an Action Report Form, which takes you step by step through the design process.

The methods described in this handbook require commitment, enthusiasm, and nontraditional thinking by stakeholders and actors alike, working together in a process over time. All UNICEF project staff have access to senior colleagues—Water, Environment and Sanitation staff based in New York (NYHQ/WES)—for assistance, in addition to UNDP/World Bank regional staff and the World Health Organization (WHO) country team.

These are some of the basic concepts reflected in this handbook:

- Build trust and rapport, involving people from the start and working with various levels and groups to move through the programming cycle.
- Challenge assumptions. Stay aware of major questions and considerations, so you will develop a strategy that can make a difference.
- Get as much information as possible in the time available.
- Be realistic and systematic. Prepare a programme strategy that focuses on measurable results.

As you work through a programme cycle, use the handbook as a guide and reference to help you—as a catalyst—develop a programme strategy with solid local buy-in and ownership. The handbook incorporates better sanitation programming principles and provides a framework for integrating them into a systematic approach to sanitation. Assessment, analysis, and action—the "Triple A" methodology—are central to this planning approach.

The information-gathering and planning methods described can be used in many different situations. Whether sanitation programme or project goals are modest or ambitious and whether time available for planning is short or long, the basic concepts remain the same. You might consider the process as one resembling more the creation of a sanitation map than the design or manufacture of a product such as a latrine. Ideally the design of a comprehensive sanitation improvement programme involves full integration with other activities in health, nutrition, and education.

The Broader Context: A Global Evaluation of Sanitation Programmes

In part, the groundwork for this handbook was laid by a review, prepared in 1995, of global evaluations of sanitation programmes (LaFond 1995). The key findings of the evaluation are reflected in the content and process espoused by this handbook. Overall, the study found that investment in sanitation has been inadequate and often misdirected, due in part to a lack of perceivable demand and also in part to the fact that most development institutions are not geared to respond to a demand-led approach. To quote the study:

Most decision-makers are not clear about an overall strategy for sanitation programming, have not reached a consensus on the definition of sanitation, and differ on the optimal role for governments, NGOs, communities, the private sector, and donors in programme implementation.

Specific findings of the review further addressed a number of key issues:

- The focus of interventions has often been too narrow, including strategies on behaviour change that have focused primarily on acceptance and use of latrines. To achieve sustained behavioural change, broader capacity-building efforts are needed. Community participation should not be limited to the construction stage, as it often is. Four steps are vital: use existing community organisations rather than creating new ones; improve both the organisational capacity of community groups and their problem solving skills; involve women; and include communities in project design, management, and financing.
- Specific attention also needs to be paid to catalyzing better hygiene and sanitation practices as part of the effort. Success in influencing behaviour change has tended to depend on four factors: a clear sense of purpose; use of

participatory techniques; inclusion of women as promoters and educators; and simultaneous employment of a range of techniques.

- While low-cost technologies have made implementation of sanitation programmes more widespread, there is a need to ensure that technology options reflect consumer preferences and local conditions. Planners need to strike a balance between product sophistication, operation and maintenance, and cost.
- The choice of implementing institution, the division of responsibilities in service delivery, and the coordination of the implementation process are important for programme success. Programmes implemented by NGOs or the private sector with communities, and separately or in collaboration with government, are more likely to succeed than are programmes implemented by government alone.



programmes implemented by government alone.These Thai children, playing in a clogged sewer, areExiting evaluations provide little review of economics and
financing. Without accessible methods for estimatingunaware of the health hazards of the dreadful
environmental conditions in which they live. (UNICEF)

demand, planners have difficulty gathering data to arrive at appropriate costs levels. The use of subsidies, notably, has had mixed reviews. Although subsidies can make expensive technology affordable and speed up implementation, they have the very negative effect of creating dependence on external resources.

- Coordination of sanitation with other programmes has been challenging because water programmes generally outpace sanitation. However, links have been established with health and education sectors by employing health workers to promote hygiene and sanitation education and by building latrines and integrating hygiene education into school curricula.
- Evaluations are themselves deficient, particularly regarding the link between individual project and overall sector

development; the place of sanitation in the national context; methods for measuring demand for sanitation; indicators of facility utilization; financing; identification of beneficiary groups; baseline surveys of hygiene beliefs and practices; and intersectoral linkages.

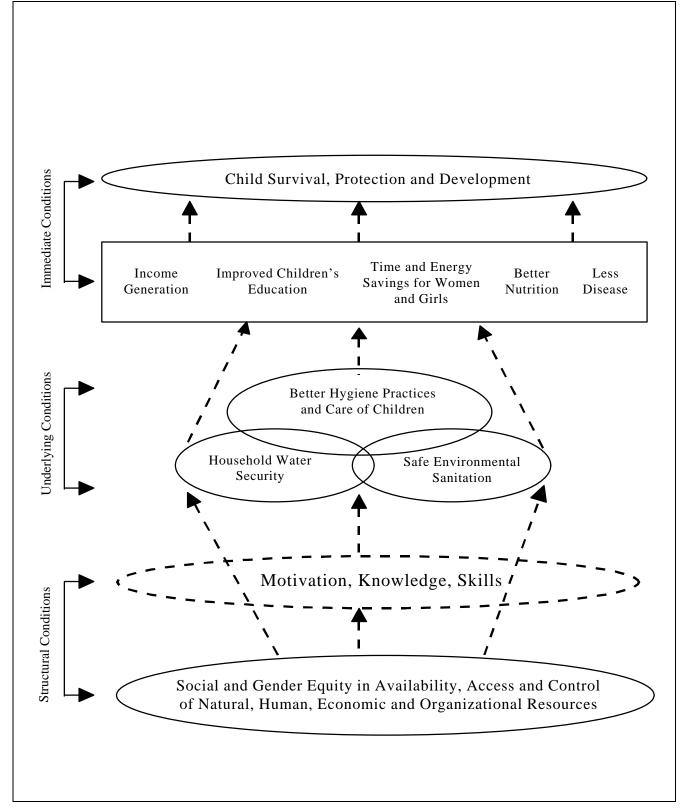
There is no single paradigm of the best ideas for a good sanitation programme. Experience, however, indicates that a combination of certain factors must be present for programmes to be considered successful. They should, for example, improve the health of beneficiary groups; achieve financial, organisational, and political sustainability; maximize the benefits of investment by reaching the greatest number of people; enhance local institutional and community capacity for organisation and management; and protect the environment.

UNICEF and Sanitation Programming

Within UNICEF, sanitation has received increased attention in the decade. With adoption of the WES sector strategy paper (document E/ICEF/ 1995/17) in April 1995, the Executive Board specifically urged UNICEF "to put a greater emphasis on, and allocate resources as required, for environmental sanitation, hygiene and behavioural change."

The conceptual model shown in Box 2-1 highlights the underlying causes of poor sanitation and the benefits of improved sanitation. You can see, for example, how various causes are interrelated and how actions taken must also be interrelated before sanitation practices can improve child survival, protection, and development. The structural conditions relate to natural, human, and economic resources and how these are organised. To influence the underlying conditions, relevant resources must be available and accessible to all, regardless of gender or social class. The resources need to be orchestrated within an empowering environment by promoting self-motivation and capacity building skills, by communicating knowledge, and by aligning social service systems. Box 2-1 shows graphically the interrelationship of water and sanitation in accomplishing these goals.

Improving sanitation is not an easy process. Unfortunately there are too few documented examples of success thus far. The UNICEF Executive Board, however, has highlighted policies for the water and sanitation sector that provide overall guidance (UNICEF 1995). See Box 2-2.



Box 2-1: A Conceptual Model for water and Environmental Sanitation Programme Development

Box 2-2: Excerpt from UNICEF Document E/ICEF/1995/22*

The Executive Board *further encourages* the UNICEF Secretariat, in collaboration with national partners and external support agencies, and selecting pertinent strategies within the framework of country programmes, to continue:

- To promote and advocate public commitment, national policy and accelerated actions for meeting the needs and rights of children and the poor in respect of water supply and environmental sanitation.
- To set, define and review national and local goals, working with government and appropriate partners and pursuing their achievement through effective monitoring systems.
- To promote and strengthen partnerships, formed and strengthened with Governments at all levels as well as with civil society, nongovernmental organisations, the private sector, external support agencies and others, ensuring cooperation and complementarity.
- To support the expansion of basic services, managed by the community, retaining strong commitment and providing catalytic support to the expansion of cost-effective services using appropriate technologies, while taking into account the potential for upgrading services by the communities themselves.
- To support emergency programmes for essential water supply and environmental sanitation needs within the framework of the United Nations system for emergency response.
- To allocate appropriate resources, as envisaged in the medium-term plan (E/ICEF/1994/3), from general resources and supplementary funds for water supply, sanitation and hygiene education, and to improve the capacity of national counterparts to effectively meet the challenge in the sector.
- To promote appropriate standardization of technologies for water supply and sanitation services to minimize the cost of installation, operations and maintenance.

The Executive Board urges UNICEF to put a greater emphasis on, and allocate resources as required for:

Environmental sanitation, hygiene and behavioural change.

- Community management of the "water environment" within the context of the Agenda 21 and primary environmental care (see document E/ICEF/1993/L.2);
- Capacity-building, adopting programme approaches that build capacity at all levels and in all segments of society, including the establishment of community resource centres, to ensure sustainable sector development.
- Community cost-sharing of capital and recurrent costs of basic levels of service, taking into account the willingness and ability to pay, and recovery of full capital and recurrent costs of higher levels of services in order to generate additional resources to extend basic services and ensure their sustainability.
- Gender-balanced approaches to meeting the objective, recognizing women as key players and agents of change, and not solely as primary beneficiaries, in the context of overall efforts to empower women (see document E/ICEF/1994/L.5).
- Participatory approaches to meeting the objectives and promoting the role of the community, supported by other stakeholders, in planning, implementing, managing and monitoring services.
- Research and development on technology and social and economic issues, including the transfer of technology, in order to promote cost-effectiveness, impact, and sustainability.
- Assistance to countries to standardize the definition of coverage and improve monitoring systems by including process and impact indicators.
- Enhanced linkages with health, education, nutrition, environment and other development programmes, exploiting synergies among all sectors that support child survival, protection and development.
- Improvement and strengthening of the capacity of UNICEF water supply and sanitation staff by, inter alia, increasing the proportion of women in the sector and improving staff training, including the transfer of knowledge and skills and orientation and career structure to respond effectively for meeting goals of the sector.
- Appropriate support for promotion of water supply and sanitation services in deprived, low-income urban areas. Executive Board Annual Session, 26 May 1995

Source: *As presented to the UNICEF Executive Board Annual Session in May 1995 (Document E/ICEF/1995/17, issued 13 April 1995) and as adopted by the Executive Board with Decision 1995/22.

Key Design Issues Facing Programmers Today

The UNICEF Executive Board also endorsed the guiding principles and programme strategies developed by the Secretariat, which call for a catalytic approach to translating these policies into action at country level. To accomplish this in each country, we need to resolve key sector issues by bringing them to the surface and tackling them forthrightly through a rigorous learning, programming, and policy development process. Following are several such issues:

Institutions. How do we help governments get themselves increasingly out of service delivery roles and into supportive policy and operational modes—while agreeing on clear allocation of responsibilities? How do we encourage relationships among an array of new institutional partners? How do we help sanitation become more of a local function, so that investments are better sustained? How do we change a situation in which organisations bear responsibility for different aspects of sanitation, and where social and technical aspects are often bifurcated into different ministries? How do we ensure sufficient institutional leadership in this multi sectoral field?

Participation. How do we foster the use of participatory, demand led approaches wherein local residents can effectively take charge of decisions as the basic principle of programming— including key behavioural, technical, procurement, and contracting decisions—and still proceed on a larger scale? How do we ensure they have actual choices regarding technology options and get the information needed to make well-considered choices?



A group of village women complete a community resource map in Uttar Pradesh, India. (*Jake Pfohl*)

Box 2-3: Medinipur: An Example of Better Sanitation Principles in Action

The UNICEF-assisted Integrated Sanitation Project in Medinipur, West Bengal, India, demonstrates many elements of sound programming principles in achieving a successful sanitation grassroots movement:

- The project shifts institutional responsibilities to the local level—successfully forging an action coalition between local NGOs, community-based organisations, and Panchayats (the lowest form of local government, usually covering three villages). Existing local youth groups and their cluster organisations, working together with local panchayats, are galvanized by an effective intermediary NGO, the Ramakrishna Mission Lokashiksha Parishad (RMLP). The youth clubs conduct much of the implementation in coordination with the panchayat, and a subcommittee called the "WATSAN committee" is responsible for community-level implementation. Cluster organisations of the youth clubs, at block level, backstop with logistics and coordinate hardware inputs. They are, in turn, supported by RMLP. The role of the central and state governments and district officials has been to provide financial and technical support and to help adjust appropriate supportive policies. UNICEF has provided technical and financial assistance for the overall effort.
- The project facilitates widespread participation in all project stages supporting a demand led process. The NGO and associated youth groups help local people make considered choices regarding a range of sanitation options, based on what they want and are willing to pay for. A wide range of training, communication, and information methods are used to catalyze informed local decision making and action. Training is provided to cluster and youth leaders, panchayat and WATSAN committees, masons, and in turn other community members—on matters such as community development, construction, and organisational development. Through home visits, motivation camps, and exhibitions supported by materials kits, the community develops hygiene and sanitation awareness. Communication and motivational activities include the use of local media, e.g., wall writings, song squads, posters, videos, and slide shows. Villagers are engaged in choosing technologies, planning activities, working as paid producers and as procurers of materials and services, and also in managing their projects.
- *The project has involved a holistic approach to sanitation.* First, the project focuses on behaviour change through integrated and intensive hygiene and sanitation education. This helps to stimulate demand and is followed-up with provision of real and affordable options, resulting in the construction and use of a wide range of waste-management measures (e.g., low-cost latrines, soakage pits, improved smokeless chulas, garbage pits, bathing platforms, and handpumps) and in the sale of oral rehydration salts (ORS) packets.
- *Financing arrangements focus on local resource mobilisation, without subsidies.* The initial emphasis was on stimulating latent demand, and providing an initial revolving loan fund. After this had served its purpose and demand grew, the fund was phased out. Technologies are now self-financed.
- The project stimulated political will for a policy change and demonstrated benefits to the poor through self-reliance. Given the success of the "no-subsidy" approach in West Bengal, the Government of India agreed to relax guidelines in that state on providing subsidies, instead providing only minimal support in-kind to the neediest cases. Over 78 percent of the beneficiaries were below the poverty line and had successfully paid for most of the programme themselves. All these elements contributed to sustainable, dramatic gains in the last six years, with 127 villages and 3 gram panchayats attaining full latrine coverage, and many others making substantial gains in integrated hygiene and sanitation.

Source: Sanitation, the Medinipur Story, Intensive Sanitation Project, UNICEF-Calcutta, India 1994, and Integrated Sanitation Project, Medinipur, K.S. Ramasubban, UNDP-WB Water and Sanitation Programme, and B.B.Samanta, UNICEF, India.

Also, how do we encourage the use of participatory tools, communications, social media, and other community-

level interventions so that they reflect, reinforce, and prompt people's best efforts at change—without robbing them of ownership of that change? What methods and tools best lend themselves to sustained behaviour change?

Financing. How do we minimize subsidies, mobilize resources for the motivational and non-hardware aspects of sanitation promotion, and create partnership arrangements in financing larger scale facilities such as drainage and treatment facilities? How do we extend innovative credit arrangements, where needed, instead of subsidies?

Low status of the sanitarian. The role of the sanitarian has been increasingly eclipsed by a technological approach to the sector, an approach which ignored social and behavioural elements of the job. How do we associate the job with a sense of responsibility for larger issues of human health, hygiene, and community and environmental welfare? How do we also change the negative image associated with this important work? (This topic is covered in more detail in Appendix A.)

Environment and equity. What are the full implications of the technology options being offered? What impact does each have on the environment? How are these questions handled in terms of equity issues, so that differing standards are not applied to poor and rich? Will only the poor be charged with environmental upkeep?

Overall approach. New approaches to sanitation focus more on stimulating systems of demand and supportive arrangements for producers and consumers than on supply. As part of this new orientation, it will also be critical that consumers and communities be helped to make educated and well-considered choices regarding both waste control and hygiene practices. These choices need to be on criteria such as safety, environmental protection, operation and maintenance, and cost/benefit to the whole community— as well as to families and individuals. As such, expanded use of innovative, participatory strategies is essential. This new orientation provides a broader framework for assessing sanitation programming strategies and deciding upon priority issues such as those described in this section. The key to making such a framework succeed is flexibility in the development and application of sanitation systems—placing a premium on respect for community values, perceptions, and practices, and remaining committed to leaving decision making and technology choice to the most appropriate local level. We need to be especially flexible given the wide variance in social, economic, and cultural conditions around the world.

The foregoing are some of the issues and dimensions of sanitation that have been identified as critical. Box 2-3 offers an example of how these issues were addressed in a successful sanitation project in Medinipur, West Bengal, India. The questions and issues involved will be explored in more depth as you work through Chapter 4, in which the different questions and considerations bring these issues out in the context of your own local programming.

3 Working As a Catalyst for Better Programming Design

- □ Working Inductively or Deductively?
- What Is a Catalyst?
- "Inside-Out" Development
- The Institutional Community—An Analogy
- Forming a National Working Group to Guide a Learning, Programming, and Policy Development Process
- □ What Drives Your Potential Partners?
- Getting to a Common Horizon
- Techniques and Approaches Available to a Catalyst
- Overall Design Cycle for Programming

Working Inductively or Deductively?

In developing your programme, you will need to remain flexible. Bearing in mind the general flow of the programming process, you'll be crafting a specific strategy based upon your specific situation, e.g., your country and local circumstances, personalities involves, plus the resources and constraints and all levels. Some parts of your strategy will be rooted in history: for example, the way people have traditionally dealt with sanitation in-country, "right" or "wrong." Starting with where people are, reviewing more recent initiatives taken—in essence, what has already been going on—is one key. Perhaps there are promising pilots that only need scaling up. Perhaps there is a traditional technology approach upon which you can build. It might not be perfect, but it may meet several criteria for sustainable, environmentally friendly sanitation. Perhaps the social aspects of a particular approach have been good, but the technical approach needs improvement, or vice versa.

In developing a strategy, one needs to be both inductive and deductive: inductive in the sense of being *responsive* to priorities, ideas, and initiatives that are springing or have been springing up among people in your context; deductive, in that such programming ideas are reviewed in such a way, and refined, that they can eventually be backed up by logical discipline and evidence. It has been said that innovation and technology tend to precede science. But science in turn is needed to ensure the soundness of the innovations, and to help us look at the implications of new technologies and practices from a broader and deeper perspective.

What Is a Catalyst?

To be an effective resource with your counterparts, you will need to create the environment and circumstances by which development goals emerge from within, engaging the many talents of others. To do so in a skillful way is called "being a catalyst." This does not mean you will be less keen for results—only that you realize that "doing it for others" is

fraught with shortcomings and provides limited results. It also creates resentment, for it suggests that programmers know the best answers, whereas in reality your team may know only part of the picture. Doing forothers ignores the rich potential of ideas and resources within the local situation, which may offer more solutions to problems than anyone imagines, particularly problems grounded in cultural norms and legitimate wariness of change marketed from the outside. But most of all, it is poor strategy: You will never be able to multiply results without tapping the resources of others and discovering ways of multiplying the desired actions. At the programming level, that is precisely what you will be aiming State and district leaders meet in India to discuss

catalysts and will not engage in project work just for the sake



to do. It is now UNICEF policy that its staff will work as training needs. (UNICEF)

of implementation. (This is clarified in the document, UNICEF Strategies in Water and Environmental Sanitation 1995.) Your work as a catalyst must have programmatic and, ultimately, policy aims in mind; otherwise, it should not be done.

"Inside-Out" Development

Educators and modern management specialists emphasize building the inner conviction of others to help achieve sought accountability "upward." There is a place for such external rules in the change process, but these alone can neither create nor sustain the human resources, insight, and energy needed to really tackle the challenges of sanitation and related needs. A catalyst realizes that she or he must build the conviction of the client/partner: clients/partners must themselves perceive the advantages of new approaches and actions through critical thinking—and energetically apply their own ideas and resources to the problem. This is the essence of the catalytic approach; it expects much higher rewards by tapping what is not immediately apparent, i.e., the inner motivation and creative energy of others. Such an approach is made real through trained skills and techniques, which the catalyst employs to create a supportive environment and orchestrate action on several strategic fronts at once. The spectrum of catalytic action includes individuals. communities, organisations, institutional

networks, senior management levels, and policy makers. (Appendix C and D develop these issues in more detail.)

The Institutional Community-An Analogy

Some of the same participatory principles for catalyzing communities for development apply as well to institutional levels. Building rapport and facilitating joint investigation, analysis, planning, and action are appropriate at many levels. If you need to develop a national strategy, for example, it might be helpful to think of all the institutions involved, at whatever level, as part of a community. Government agencies might be likened to influential members of a A woman in a remote area of China spreads "night community because of their resources or assumed authority. NGOs might be considered less powerful, but resourceful community members-good citizens who advocate changes



soil" on the fields as fertilizer. Use of untreated night soil can create a health hazard. (UNICEF/Sean Sprague)

in their community. Donors could be likened to external persons with re sources that can have an impact on the community. In a typical community, an organiser would work to initiate communication, help needs surface, build group organisation, and engage people in action planning to improve their situation. Similarly, in order to bring about political will and align action among institutions, and to attract their commitment to programme design or strategy, the catalyst would build trust among them, appeal to their own motivations, and then network, organise, and facilitate the often-diverse parties who in concert can make the programme design succeed.

Forming a National Working Group to Guide a Learning, Programming, and Policy Development Process

Broadly speaking, you will need to facilitate a learning, programming, and policy development process among "members" of the *institutional community* to which you belong, as you move through investigation, situational analysis, strategic planning, and policy evolution. The programming cycle may vary in length depending upon the process in the country where you are working. While the programming process implies catalytic activity with potential partners at many levels, from community to district to regional to national, the process will usually start with the formation of a small, manageable working group of sector professionals at national level. These should be people with a strong interest in sanitation, who are capable of expanding their efforts

to gradually include both higher-level policy makers and those at regional, local, and community levels. Your initial programming horizon may be from six months to a year, but it will be an iterative process—programme strategies and policies improving as you work through each programming cycle. This is the Triple A methodology at work: assessment, analysis, and action—with the action being the development of better sanitation programme strategies and policies. *It should be emphasized that many members of the institutional community may not have taken a good, close look at conditions in communities under consideration. Field-based, residential workshops involving plenty of dialogue with communities can build common perceptions of the problem and establish collegial bonds and a personal commitment to improve things.*

What Drives Your Potential Partners?

To facilitate a learning, programming, and policy development process, you first must identify and acquaint yourself with the key institutions and their representatives, and build rapport and trust with them; that may or may not be time consuming in a given situation. Listen to people's priorities and concerns, taking note of how they express these. Identify what motivates *them*. Secondly, you will need to bring institutions together, a task for which no easy formula exists. In some cases it will be easy to organise dialogue; in others, while keeping discussions at the national level open, you may need to first help the less-powerful members of the *institutional community* develop their capacity to participate. For example, you may need to bolster the capacity of NGOs, people's organisations, or the private sector to demonstrate their work, or perhaps carry out pilots that break the mold of traditional programming. Gradually, once you have established true dialogue, you can advance the programming cycle more quickly and with more confidence. Without laying such groundwork, however, situation and programming workshops with limited participation may be meaningless.

Getting to a Common Horizon

Once the various institutions concerned are working together, you can help them to develop a broad vision of the future and of the resources and constraints facing them. You might then deploy groups or subgroups to work through aspects of the programming cycle, combining their talents to identify current successes and failures, pinpoint endemic problems, find ways to investigate and work through them, and other-wise create a synergy that makes the sum of their resources greater than the individual parts.

For example, several members of the institutional community might work on a series of participatory

investigative activities, rapid appraisals, or similar studies to uncover trends in sanitation attitudes or cultural predispositions about those areas. Certain NGOs might help extensionists field-test new technologies or develop participatory environmental assessments with communities. Educational institutions might be engaged to help NGOs and communities compile experiences and data essential to an accurate situational reading. And so on. Through networking and more formal means, the catalyst can create a loop in which information and progress are shared among all key institutional members. At the same time, the catalyst's work with a core group of "lead institutions" can help create the right political climate, attract new resources, and give all institutional partners the ongoing support they need to stay involved.

Given productive relationships, the catalyst would encourage institutional members to develop more formal mechanisms for joint decision making or action over time. This is but one possible scenario drawn from recent experience. Obviously, countless scenarios are possible; the point being that by multiplying institutional action, an effective catalyst can actually save the time necessary for building sustainable results. To accomplish this new role, some of the techniques and resources available for this process are described in the section which follows.

Techniques and Approaches Available to a Catalyst

Building rapport and trust among partners, counterparts. As a first step you may need to work one-on-one to build rapport and trust. Then you can begin to link members of the community and/or institutions at various levels. Developing rapport will often require you to have good listening skills and to deploy a number of techniques and tools as stimuli to evoke self-expression. At the community level, participatory methods feature many creative techniques for this purpose, which can also be used at other institutional levels, to bring the parties together to solve sanitation problems. (See Appendix B: Sample Participatory Methods.)

Forming national-level working groups. Throughout the programming process, you will be working to build political will and create linkages with decision makers at key levels for programming and policy change and validation. To help guide the learning, programming, and policy development process, it is appropriate to form—or actively join in—a national-level working group on sanitation. Later, such groups can help legitimize and formalize the programming process and its outputs. Working groups of this nature often work best if they include adequate representation from NGOs, people's organisations, and the public and private sectors. These groups will have to actively work to include regional, local, and community levels—and base their work on what emerges from the field. See Appendix C: Sample Programme Design Process for descriptions of a series of structured events that have been devised to help national working groups in their tasks.

Building coalitions. Building coalitions of specific groups, such as NGOs, community-based organisations (CBOs), or private sector agencies, is an important option as part of this programming process. Apex or umbrella groups can emerge from such coalitions to strengthen the work of member agencies and build capacity over time. As such, small working coalitions can start up during the programming process itself, dedicated to specific tasks such as studies, field tests, information sharing, participatory investigations, etc. This then helps both to set the stage for these groups' broader involvement in implementation stages and to build partner commitment all along the way.

Engaging in joint, adaptive learning processes. Informal and formalized groups of agency representatives at various levels can meet or share information regularly to keep honing the picture of what is known, what needs to be disseminated, what needs further study or trials, and/or what needs more detailed research. This work immediately strengthens practices and contributes to the larger programming and policy agenda. As such, learning groups can become an institutional vehicle for all the other tools mentioned here, each member taking responsibility for some action.

Building upon successes. In most cases you should be able to build upon experiences and successes that may have worked on a smaller or larger scale. As a catalyst, you will likely find that building on former accomplishments of partners/clients helps not only to build their self-esteem and confidence but also to gain their commitment to accomplish even more and overcome serious constraints.

Making use of action research studies, participatory investigations, and rapid appraisals. Studies of a technical, social, and anthropological nature may be useful to advance the state of the art. Faster, simpler collection

methods, which involve clients and partners themselves, have been found efficient, reliable, and appropriate means to gather information on sanitation. Use of such methods also ensures greater local ownership of the programming process.

Documenting existing experiences. Written, graphic, and audiovisual documentation of existing experience can strengthen the information base and serve as a means to learn from ongoing work. Practitioners can be engaged on the job to produce such documentation and share it among peers. Thus, it can be available for their own analysis as well as to inform programming and policy levels.

Field-testing new options. In some cases, actual field testing may be part of the programming process, particularly when needed to widen or deepen knowledge of key issues such as cultural acceptance of sanitation, relevance of new technologies, or new institutional arrangements.

Collaborating in programme design through workshops. Analysis and planning workshops involving various groups, and possibly the national working group on sanitation, will help to consolidate the work undertaken to support the programming cycle and develop appropriate situational analyses and programme designs. (See Appendix D: Sample Resources for Workshops, Meetings, and Other Programme Design Activities.)

Standing firm, saying no, or walking away. In some situations, where there may be a lack of will for dealing with critical institutional or management problems, it may be more constructive to disengage than to proceed rapidly in a programming process that might only continue patterns of poor or destructive investments. Even a catalyst has to be ready to **stand firm, say no, and walk away** in such cases. One option in this type of situation is to proceed very slowly, engage alternative activities on a small scale, and make greater efforts to clarify the issues and deal with them before proceeding.

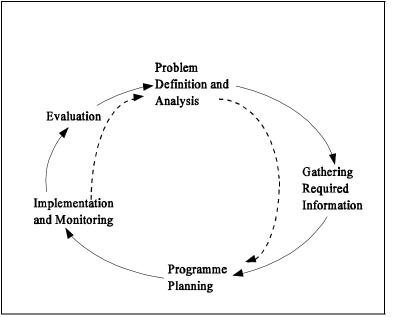
Overall Design Cycle for Programming

Using the kind of methods and devices just described, the national working group—or similar group—will guide and catalyze the process of learning, programming, and policy development. In broad terms, this is what has been referred to previously as the Triple-A approach: assessment, analysis, and action. It can also be related to the Log Frame Approach, a logical planning method used widely in development programmes. You will find more details on the programme design cycle in Appendix C. Broadly speaking, the cycle comprises six stages:

- **Problem Definition:** Where we are now. What we do and don't know.
- Information Gathering: What we need to know to make better decisions.
- Analysis of Issues and Options: Making choices among alternatives.
- *Planning:* Charting a strategy and programme design. Looking at policy options.
- *Implementation and Monitoring:* Putting the strategy in motion.
- *Evaluation, Analysis, and Replanning:* Learning from the experience.

Of course, the cycle (as shown in Box 3-1)—being deliberately nonlinear—is not meant to be implemented mechanically. And it *does naturally lend itself to catalytic action* throughout its stages. Box 3-2 indicates what

Box 3-1: Programme Planning Cycle



might be expected at the end of each phase, but it should be borne in mind that in any such cyclical process, you may move back and forth among stages as new learning emerges.

Phase of Programme Planning Cycle	Expected Outcome/Benefit
Problem definition and analysis	 Greater awareness of current situation among organisations Emerging agreement among stakeholders to work together Shared vision of sanitation An agreed-upon definition of sanitation in national context A conceptual model commonly shared and understood Energies mobilized for programming activities
Information gathering and analysis	 Required information/data collected through various means Analysis of collected information Situation Analysis Report with main conclusions and recommendations Better understanding of constraints/causes and benefits of improving sanitation Revised version of conceptual model
Programme planning	 Agreement on the conceptual model Agreement on major objectives over the next five years Defined and agreed-to five-year programme Monitoring and evaluation planned for and included in the programme plan; an evaluation framework agreed upon Country-level approval of the sanitation programme for onwards submission for approval and funding
Implementation and monitoring (continuous)	 Successfully completed sanitation activities Documented experiences from the programme
Evaluation (beginning and end)	 Results of evaluation Action plan for follow-up and possible expansion Learning for policy development

Box 3-2: Typical Outputs of Each Phase of the Programme Planning Cycle

4 Establishing a Broad Vision

- □ Sketching Out the Broader Picture
- □ Introduction to Topical Chapters

Sketching Out the Broader Picture

In Chapter 3, you looked at various ways you can work as a catalyst and facilitate partners' and clients' progress through the programme cycle. This chapter focuses primarily on the importance of establishing a broad vision for a country's sanitation sector. (Also, see Appendix D.) As you work toward this vision, you will gain an overview of the current situation and identify possible major constraints as well as promising resources.

Programme design can take many forms: nationwide campaigns, local neighbourhood mapping and focus group efforts, policy reviews and reform at the ministerial level, institutional strengthening with locally based NGOs, and so on. As you launch the detailed programming process, you will need to stop from time to time to sketch out the broader picture and keep track of where you are. For a reality check, never neglect to emphasize frequent field visits during the programming process to see if your broad picture reflects the reality on the ground. Retaining a wide perspective helps you deploy energy and resources wisely, and makes you more quickly aware of cross-cutting issues. In defining a broad perspective and future vision, you will need to ask yourself three questions.

- What are the main features of the current situation in terms of the existing strategy: i.e., community selection, behaviours, technology, financing, institutional arrangements, political will, and our overall programme framework?
- Which of these are ongoing problem areas? Why? What are we currently doing about them, and how is it working?
- Where, broadly speaking, do we want to be in the next five years? What are the key constraints and most promising resources regarding each of six strategic components: identifying communities, community participation, technology options, financing, institutional arrangements, and political will?

Next, sketch out in your mind or make notes of your answers to these questions. Perhaps you could write up a brief page like the one in Box 4-1, based on your existing knowledge. Developing this broad perspective will make any collegial discussions more meaningful and help you to avoid getting lost in detail. Of course, your first rendering is only a snapshot. As a catalyst, it will be your job to help others work through these questions and begin transforming that picture into a more promising and achievable vision of reality.

Where We Are Now

In one fictional country scenario, current programming may have an adequate handle on technology options but be weak in strategies for changing hygiene-related behaviours. Perhaps health and hygiene behaviours have received almost no attention at all as part of sanitation programming. There may be a broad consensus on the need for people-centered approaches but lack of clarity on the details of what that would mean in practice. Country institutions are found to be a particularly problematic area; the lead institutions have only technical skills, lacking organisation and expertise in software. In addition, they employ a strongly institutionalized top-down approach. Throughout the system, too, one finds a good deal of mismanagement of public resources. As for NGOs and the private sector, they do well on a small scale but lack public-sector support or encouragement. Financing strategies tend to focus on subsidies, in line with the current institutional approaches. Political will appears minimal, and there is little clear commitment to prioritize sanitation, partly because current projects show little success. Monitoring and evaluation are often an afterthought, and much experience that has been gained is then lost through lack of any mechanism to learn from the past.

Where We Want to Go

Now let's look at an alternative to this vision. Perhaps a strong policy framework can be put in place, with mechanisms to support and encourage a wider range of institutional options for services, including NGOs and the private sector. The definition of sanitation would be broadened, with much more emphasis on people-centered approaches to changing behaviours and building community capacity to manage personal, domestic, and environmental hygiene and sanitation. Government's role would be redefined as one of providing support in policy development, human resource development, and monitoring and evaluation. Its role would also include creating an environment and linkages so that private producers will thrive. Mechanisms would be set in place to help ensure coordination on an intersectoral basis among supportive government agencies. Subsidies would be reduced to the minimum, with strict criteria for their use. Institutions and staff would be thoroughly restructured in line with new policies and institutional arrangements.

Having established a vision and a sense of priorities regarding available resources and the constraints facing you, it will be easier to work through the detailed issues, considerations, and options in the chapters that follow.

Once you have dealt in depth with the material in the upcoming six chapters—which explore the six strategic components—you will want to look at cross-cutting issues to ensure that the strategy you design is clear and coherent. Over the six months or year that you will take to build and launch your strategy, make sure that you and your partners consider how each strategic component links with the others. The order of Chapters 5 through 10 has been chosen to facilitate this, proceeding from the field of focus—community selection—to the broader support issues—step by step.

Hint: As you develop your programme strategy, remember that you are considering broad strategies for improving the sector programme, not detailed decisions about specific projects or interventions! You are selecting options in terms of overall parameters, mechanisms, systems, processes, criteria, collaborative arrangements, etc., while also narrowing the range of options to ones that are appropriate and based on sound programming principles.

In fact, you need to plan for flexibility, for enabling the use of a variety of approaches that help improve the overall sanitation programme. Each community is unique, and your decisions must help create the means by which communities will be able to make decisions and gather the will, interest, and/or resources to create and sustain a healthier environment. Similarly, regarding institutional arrangements involved, there are no absolute answers. In some cases you will need to proceed by trial and error, and/or specify what further study is needed to resolve a need or problem that hinders sanitation efforts in your country.

Introduction to Topical Chapters

The six chapters that follow focus on questions you must ask yourself as a sanitation programmer and on key considerations and options you can examine as you progress through the programme cycle—all information you may need in order to develop specific strategies for your own situation.

To help you make sanitation programming both systematic and tailored to your reality, Chapters 5 through 10 feature six major strategic categories:

- Identifying Communities
- Community Participation
- Technology Options
- Financing
- Institutional Arrangements
- Creating Political Will

Many other important issues, such as capacity building, intersectoral linkages, school sanitation, monitoring and evaluation, etc., are subsumed within the categories above, although you may feel they are of equal or greater importance. Very possibly, you may identify other questions, considerations, and options not covered here; we expect you will, since every situation—and set of relationships—is unique.

Each of the six chapters also provides brief examples drawn from promising experiences. These represent not prescriptions, but directions that offer promise and may have relevance to you.

To help guide your decision making, the next six chapters also contain information to consider as you analyze and choose among strategic options appropriate to your own situation. Nonetheless, it bears repeating that the options described are indicative and not necessarily comprehensive; your own programming process may generate new and useful solutions as it blends in elements of what you read here.

As you build your programme over the next 6 to 12 months, use these chapters as a reference to ensure that you have considered the key issues and options and have also kept in mind the criteria for making sound choices in your programming.



Many of the peri-urban poor live in at-risk conditions, as in this Brazilian community. Such areas often lack both water supply and sanitation. (UNICEF/Hertzer)

5 Identifying Communities

□ Allocating Resources More Strategically

- Questions to Bear in Mind for Determining Community Selection Criteria and Shaping a Selection Strategy
- **Options to Consider for Application of Community Selection Criteria**
- What Do We Know, and What Do We Need to Know? Information Checklist for Application of Community Selection Criteria

This chapter will help you consider strategic issues and options for selecting communities. As part of your programme strategy, you may need to develop the *criteria and processes* by which areas and communities will be chosen for intervention in the short, medium, and longer term. From there, you can move to actual selection/allocation of those areas and communities on a broad basis. Selection of specific communities—often left to the project stage—needs to occur within a clearly thoughtout selection process. At the end of this chapter, you will find an Information Checklist, which you may want to use to determine whether you have all the information you feel is vital to designing a community selection strategy.

Sometimes, community selection decisions are politically motivated and/or made hastily, which can defeat the purpose of developing an equitable, sustainable, demandled approach. On the other hand, a responsible political process can reinforce selection based upon clear need and demand. There are ways to apply criteria to the community selection process that can work well within the local social and political environment and also conform to sound programming principles. Often, local leaders are looking for sensible ways to deal with competing demands and needs, and would welcome help in developing approaches that are more objective and transparent. Options for such community selection criteria and processes are explored in this chapter.

Allocating Resources More Strategically

In general terms of overall emphasis, UNICEF focuses on rural sanitation; we cannot, however, neglect peri-urban health hazards due to lack of sanitation and waste treatment. As a matter of policy, the UNICEF Executive Board, in May 1995, urged the development of pertinent strategies to provide "appropriate support for promotion of water and sanitation services in deprived, low-income urban areas."

Often, the first set of choices facing a national-level programmer is how to allocate or reallocate internal and donor resources on a regional, statewide, province, or district basis. Broadly, such a decision requires a strategy for defining needs and taking stock of existing resources, so that *ultimately* whatever we do can achieve the widest possible impact with limited resources. Thus, ensuring strategic *consistency* in developing and applying criteria—for both broad area *and* specific project community selection—is essential to building a country sanitation programme that will be greater than the sum of its project parts. The *depth* of the selection approach is also a factor here: if your true aim, say, is to change a few specific behaviours, then you would decide to work more widely (and superficially). If, however, you are seeking a process of sanitation development integrated within a holistic community development process—one that

can be leveraged to achieve a "spread effect" by attracting the commitment and resources of others over time—you would narrow and deepen your selection approach.

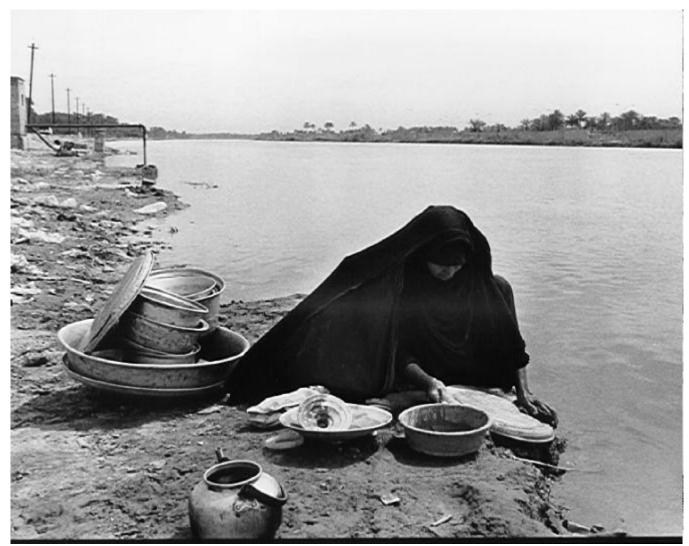
If UNICEF or the larger working group wants to be catalytic, that approach has implications for community identification: for example, communities might be selected that are readily available to influence decision makers. Or, communities might be identified in especially difficult areas to prove the strategy can work anywhere or within the area of a future World Bank project, say, or a similar scaled-up donor- or lender-supported project.

As you start developing or revisiting your criteria, note that many "physical" communities (that is, groups of people living near each other)—especially in peri-urban areas (although this may also be true in many rural areas)—may lack social and cultural backgrounds that enable them to work together easily. For example, communities of people who have migrated from rural areas can be divided by language, religion, and culture. While diversity of this nature does not automatically preempt communal action, it can make it more difficult. Yet, if such communities meet your other main criteria, dealing with diversity and conflict should be viewed as challenges that "come with the territory." Alternatively, in certain diverse target areas you may choose to work with a specific client group— youth groups or women's cooperatives, for example—as an entry point, then later work on building commitment among other local groups. Here again, if the selection criteria are basically sound, there can be any number of ways to develop the communal action a successful, equitable, and sustainable sanitation programme needs to take root. The next section of your handbook revolves around setting in place (or revising) systems for selecting community areas and then making those selections.

Questions to Bear in Mind for Determining Community Selection Criteria and Shaping a Selection Strategy

In order to develop a programme strategy for community selection, you will want to keep certain questions in mind throughout the process:

- What approaches to community selection would better support the principles of equity, participatory decision making, demand responsiveness, environmental protection, and ultimately, greater sustainability?
- Where are the greatest needs, and where are the greatest demands? How are these expressed?
- Where are enough institutional, human, and technical resources in place to meet the need or respond to demand? Where are there supportive politico-institutional conditions? Where in the national sector does one find innovation and points of growth that can be supported?
- Are any areas or communities, due to special factors, particularly self-motivated, organised, and likely to succeed? Are there others where an initial effort would be futile or likely to fail due to factionalism, external factors, or lack of organisation or other special reasons?
- Ultimately, who might lend commitment and resources to extend your own efforts? Government? Political leaders? Communities? Donors? Who is most likely and why?
- Given preliminary answers to these questions, what are the *criteria*, their priority, and selection processes most appropriate to the country context?



A woman washes her pots in the Euphrates River near the city of Babylon, south of Baghdad, Iraq. (UNICEF/Jane Taylor)

In answering these questions, you will need to consider a variety of factors. Here are but a few:

Need Versus Demand

First of all, will you emphasize *need* over *demand*, or perhaps vice versa? The two are logically linked. Need is defined in terms of lack of services—such as fewer latrines, bad drainage, and problems in solid waste control—or lack of personal and domestic hygiene practices and/or projects promoting and assisting with the same: in short, situations posing greater risk to children. Note that need is not necessarily defined in terms of greater incidence of diarrhoeal disease, as other factors may cause this, factors that might be addressed by a range of interventions including treatments such as ORS and other health measures.

Although demand may often be greater in areas with higher levels of need, this does not always hold true. The poor may need sanitation the most, but their wealthier neighbours are more likely to pay for it. This presents a conscious

Box 5-1: Responding to Expressed Demand in Nepal

A pilot project field-testing a trial "Rural Water Supply Fund" in Nepal defined a detailed process for working on a demand basis. Communities were represented by support organisations, mostly NGOs, which submitted proposals on the basis of transparent criteria. First, agreements were awarded to prequalified agencies to complete prefeasibility, which determined whether communities were likely prospects to meet technical, social, need, economic, and willingness-to-pay criteria. Second, those schemes likely to succeed were funded for a six-month "development phase,"which included participatory planning, nonformal education, hygiene and sanitation education, and optional construction of self-help latrines. By the end of this phase, demand was clearly revealed; communities then needed to make capital contributions and collect at least one year's maintenance in advance for the water supply. If all criteria were met, a community submitted a proposal for implementation and post-implementation phases, and received funds to complete schemes, establish revolving funds for improved latrine construction, and undertake extended hygiene and sanitation education. Instead of operating by a "blueprint," the project considered that any organisation meeting the criteria was eligible to apply, and awards were made periodically to the best proposed projects. Thus far, the response to the approach by NGOs and communities has been very strong, and results have been quite cost-effective.

Abstracted from Nepal Synopsis; JAKPAS Project, 1995. Jake Pfohl.

choice to programmers, who may decide to identify communities that are slightly better-off in order to make sanitation a prestige good. If there is a relatively low demand for improved sanitation, as is the situation in many countries with low service levels of sanitation coverage, then need would be a good indicator of *potential* demand, i.e., demand which exists but has yet to surface explicitly. Once the topic is raised with communities, demand may be expressed in various ways: willingness to pay for their own latrines, to engage local resources in community-wide activities such as drainage, or to contribute toward capital and maintenance costs of water supply when water and sanitation services are combined.

Taking a First Look at Available Resources

At this stage, the programmer's challenge is to develop criteria and processes for selection rather than to choose specific communities. The process may also define, in broad terms, where the services must be ranked by priority, particularly when resources are limited. In fact, in many country contexts the available "mix" of institutional, human, and technical resources may play a large role in determining where a programme will begin, if not its intermediate or long-term reach.

Options to Consider for Application of Community Selection Criteria

As a catalyst, you will be working with your colleagues in various ways to obtain and analyze information. First, some of your colleagues might assemble secondary information. Then you, a counterpart, or a colleague might commission a study, if needed, to inventory all existing sanitation efforts and/or canvass broad areas, using rapid assessment techniques, to better understand and identify areas of need. You may also need to hold rounds of meetings to sharpen your criteria for community selection based on need, demand, available resources, and possibilities for getting others to extend your efforts—as well as to obtain buy-in from organisations already involved in sanitation.

As you work through this process, a number of alternative criteria will be useful to consider.

Respond to communities where demand is clearly expressed. Communities can self-select into a project by meeting certain criteria regarding their willingness to contribute, their need as defined by health or sanitary conditions or economic status, their willingness to include all community members, the project's technical feasibility, and other factors.

In some cases, this approach can be utilized on a national basis, or it can be applied within a given area. While a nationwide approach would be ideal, it is often tempered by existing realities such as the difficulties and expense of working with communities spread over a very wide area, or the real pressures to include some communities over others. Instead, you might apply such an approach within one or more specific regions. Box 5-1 explains how a pilot project in Nepal responded to the needs of its communities.

Select schemes likely to have adequate software and hardware support. It may be essential to start where such support is available, i.e., where there are trained facilitators, educators, and various other skilled people available. This support may come from within the communities, from staff of NGOs or government departments, or from other supportive organisations.

Later, other nearby communities requiring trained help to organise themselves, change behaviours, and increase their understanding and use of technologies can receive assistance from institutions and peer communities that have already broken ground.

Select project areas and schemes likely to have spread effect. Similarly, if activities are to serve as starting points within states, provinces, or districts, it will often be a criterion to select sites from where a spread effect can be strategically launched. This "spreadability" may often depend on a supporting institution. If such a group can work as an effective catalyst and is willing to strengthen other institutions in the area, they may serve as an effective "umbrella" and build other local groups.

Achieve optimal clustering of projects to lower costs. Choosing areas of the country that are remote from each other—even choosing communities far apart within a project—carries implications for costs. Clustering can help to reduce training, supervision, technical services, and monitoring costs.

Select "poor" communities/households. (Those defined as "poor" generally have low access to education, employment opportunities, health services, infrastructure, housing, etc.) Choosing such communities may help avoid spending limited resources on serving the better off but could also present other difficulties, such as giving the various interventions low status value. This focus is one that could be an appropriate project within the overall programme at some future date.

Select communities on the basis of need, such as a lack of sanitation facilities and hygienic behaviours, and possibly other factors as well (e.g., economic). Selection on this basis may enable focused programmes to respond to strongly felt needs with appropriate interventions. Such a focus may be quite appropriate for a project within a wider sanitation programme.

What Do We Know, and What Do We Need to Know? Information Checklist for Application of Community Selection Criteria

Before applying selection criteria, you will need to collect information in a variety of areas. Some of the reasons for collecting the information and some of the questions you may wish to ask yourselves are listed in this section.

As mentioned in Chapter 3, there are a number of collaborative approaches to gathering information and working through an analysis to devise appropriate programme strategies. Whatever information-gathering approach you take, once you have the necessary information and have considered the issues and options open to you, you will be able to make educated choices and devise your strategy for community selection.

Population. Demography, definitions, and statistics for urban/peri-urban/rural areas, migration patterns, urbanisation, major religions and ethnic distribution, etc. *Try to get a perspective of the scale of sanitation problems, rural vs. urban needs, trends you perceive for the future, etc.*

Water supply and sanitation situation. Reliability and quantity of water supply as opposed to people's needs and expectations, broad summary of the nature and extent of sanitation in different areas (divided into rural/peri-urban categories). *To what extent is water supply a perceived problem, and to what degree might it influence the demand*

for improved sanitation? Are there areas or groups that have a known expressed need for improved sanitation?

Housing and land. Legal/illegal settlements, land and house tenure patterns in peri-urban/rural areas, housing density, housing situation correlated with income distribution, etc. For peri-urban areas it is important to identify land and housing ownership patterns, and also housing density vs. incomes. These factors alone could have a huge impact on mobilisation, technical, and cost factors.

Gender. Balance, community roles, employment, education levels, decision making, etc. *Are there major imbalances in the gender make-up of some communities (e.g., men away from home on migrant jobs)? Does the project need to prioritise activities toward either group?*

Hints

- Sometimes national data and statistics may not be grouped into categories such as rural and peri-urban, but instead organised by administrative sector such as district or province. Care should be taken in the use of gross statistics, as they often fail to reflect distribution patterns and inequalities.
- Inputs will come from a wide variety of sources. A great deal will already exist within UNICEF's documentation or can be easily obtained by partner agencies from their own sources. Most of the information required will need to be divided between rural and peri-urban/urban areas.
- The information source should be recorded, whether the information comes from a sample survey, house-to-house census, government statistics, observations, or field work results.
- If information is inadequate, out of date, unreliable, or missing, it is important to note this for future research and investigation.
- Do not spend too long investigating any one type of information. If difficulties arise, step back and assess how crucial this information is to programming.
- A well-accepted general statement could be more useful than detailed, complex, or out-of-date statistics.
- The information for community selection will overlap to quite an extent with the information required in relation to behavioural change and institutional options.
- Where new information needs to be collected, care should be taken not to raise expectations in representative communities being surveyed.
- Any additional data collection should use participatory methods and be coordinated with the information required for the other sections—especially that required for behavioural change and technical options.

Social history. Community self-reliance vs. external dependency ("provision"), disruption from wars or natural disasters, factional or religious divisions, government resettlement programmes, etc. *Do some communities have a history of being self-motivated and organised? Do others have difficulties or other priorities due to internal history or external factors, etc.?*

6 Community Participation

- Participation and Behaviour Change
- Key Issues for Development of Community Participation Strategies
- Options to Explore for Selection of Approaches
- What Information Do We Have, and What More Do We Need? Information to Aid the Choice of Suitable Participatory Approaches

This chapter will help you consider issues and options for building community participation into the country sanitation programme. To make community participation a meaningful component of your programme, you will need to design strategies for devolving decision-making power to community members and building their capacity to make needed and sustainable changes in personal, domestic, and environmental hygiene and sanitation. Examples are given throughout this chapter, illustrating diverse experiences in effective participatory approaches.

In the last section of this chapter, you will find a list of questions that you may want to use to determine whether you have all the information vital to designing a behavioural change strategy.

Participation and Behaviour Change

Many of the programme's other components (i.e., finance, technology, etc.) need to be based upon the approaches selected for building community will and decision making power through individuals, families, and communities. Participation and behaviour change are closely linked. "Behaviour," used in a fairly broad sense here, includes those behaviours that a community and its members would engage in to successfully challenge personal, domestic, and environmental constraints on their health. Such constraints would include lack of facilities for safe excreta disposal, poor hygiene behaviours, dangerous sanitary conditions in the community, lack of safe water, or poor drainage. Behaviour would also include the capacities needed to develop and manage a healthier living environment on a sustainable basis. For programmes to succeed, however, other programme levels (e.g., higher-level decision makers) need to participate and change their behaviours. Such changes are discussed in later chapters on institutional arrangements and political will.

We often underestimate what it takes to bring about changes in behaviour, including community members' changing from passive to active roles. Thus, your planning must provide for a serious effort to unleash human ingenuity and people's willpower to work together, plan, act, and sustain changes in their personal lives,

households, and communities. Your planning group will also need to find ways to help communities ensure that, as a whole, their practices have a healthy impact on the larger environment: for example, that they are not solving their own problems but polluting sources of water downstream, that they are not drying up aquifers with increased water consumption, etc.

Your programme strategy for participation and behaviour change may involve a number of smaller strategies—combining a variety of participant groups, approaches, methods, and personnel depending on the needs of your situation and the resources you deploy. There is no one "right" answer; for example, participatory or larger-scale media approaches may be appropriate as individual interventions, but they may also reinforce each other if combined



Modern communication tools are often used in social marketing campaigns. Here a sanitation promotion video is being shown to a group of Malawi workers. (UNICEF/Cindy Andrew)

effectively.

Note: If you believe in real participatory approaches, the programme may stray from original programme priorities and link up with other community priorities. That is why we define programming as a cycle and an evolutionary process. While you may be unable to solve all emerging problems or meet all needs, it may be possible to make appropriate linkages.

Key Issues for Development of Community Participation Strategies

In developing strategies for participation, it would be good to bear in mind some key questions from the outset:

• Who is to be the focus of change efforts at the local or community level, how much do we know about them and

their situation, and what else must we discover? *Note:* You may want to use the checklist in the last section to determine whether or not you already have all the vital information.

- What are the determinants of change? Are adaptations of new technologies, for example, or changes in personal, domestic, and community-level behaviours due to health benefits or rather to convenience, privacy, prestige, or other social factors?
- What are the most suitable cost-effective interventions—and related approaches and methods—for building capacity for sustainable change at the community level?
- What are the types of personnel to be involved, and what will be their roles?
- How can the community participation change strategy ensure that local management capacity exists or is sufficiently strengthened to sustain changes?

Options to Explore for Selection of Approaches

Who to Involve Locally

In choosing appropriate strategies for your situation, there are a number of options to consider.

The first set deals with who to involve at the community level. A general principle here is to be as inclusive as possible, since better hygiene and sanitation depend upon the cooperation of many individuals. Thus, striving to involve the entire community should be your goal. The challenge is how best to reach and involve such different groups given available resources. The following are some methods you can adopt.

Utilize the traditional and informal organisations that exist in many communities. Such groups may be unknown to you until you talk with the community. There may, for example, be labor-sharing, savings, and credit groups; special-occasion committees; youth, mothers', and religious groups; and others. Whether legally registered or not, they can be an important resource and should not be ignored or overlooked. In engaging them, it is crucial to ensure that both genders are involved in decision making. The example in Box 6-1 illustrates both using the traditional social system and introducing new

Box 6-1: The Baldia Soakpit Project

In the peri-urban community of Baldia, near Karachi, Pakistan, planners of the Baldia Soakpit Project decided to work first through the traditional mohalla, or neighborhood committees. Such committees had traditionally served as a guasi ruling body, settling most local matters without involving the police or courts. While their blessing was obtained, women often became involved as motivators in the sanitation activities. After many years of success in sanitation, much trust had been established. But planners knew that most women—being largely illiterate—were unable to use the hygiene education materials. Thus, when women were subsequently involved in running home schools, which were also informal women's education centres, there was widespread support from the community. Here, working initially in partnership with the traditional male organisations was a culturally appropriate strategy to reach the women of Baldia. However, women's subsequent involvement in project planning and implementation not only motivated experiments in improving soakpit designs, but also gave the women confidence to initiate other activities that are still underway.

Source: From Sanitation to Development: The Case of the Baldia Soakpit Project. 1992. Quratul Ain Bakhteari and Madeleen Wegelin-Schuringa.

Box 6-2: Sanitation with Credit Group

The Grameen Bank in Bangladesh is a wellknown provider of credit to some two million poor and landless Bangladeshis, mainly women. The Grameen Bank's significant innovation is to organise people into groups of five, asking each person to guarantee the repayment of a loan to any of the other four members. Peer support of this kind has been very effective, and credit groups have an almost perfect repayment rate. In 1993, more than \$18 million was loaned for tubewells and sanitary latrines. All Grameen Bank members are eligible, although in the case of loans for sanitary latrines, a member normally needs to be a second-time borrower. Even for latrines, borrowers are mainly women.

Source: Abstracted from *WATERfront*, Issue 7. May 1995, Ashok Nigam.

committees, handpump/waterpoint caretakers and mechanics, agricultural and forestry groups, population and health committees already abound, and sometimes their number and demands tax a community's time and resources. Where possible, link up with such groups if they can place a priority on hygiene and sanitation. Linking into existing

roles and leadership opportunities.

Utilize groups and individuals already created by other development projects. Village development committees, savings groups, water user and tapstand

Box 6-3: School Health Clubs

A key aspect of a sanitation programme managed by socio-economic units (SEUs) of Kerala State in India has been the initiation of school health clubs. These clubs, which conduct activities related to water hygiene, environmental hygiene, food hygiene, and home hygiene, aim to inculcate good hygiene practices in young children through information sharing, knowledge, and skill developments. Children are involved in monitoring activities, such as handwashing and latrine cleanliness in their homes and schools, and take part in "sanitation weeks" and competitions. They also engage in community activities, such as making garbage pits in poor households and carrying out other sanitation promotion activities in their neighborhoods.

Source: Community Managed Sanitation Programme in Kerala, India. Danida and DGIS.

credit groups may prove a valuable means to channel credit and subsidies for sanitation—and ensure equity as well as accountability—without creating a separate effort. One such example of success in this sphere is shown in Box 6-2.

Work with schools and nonformal education groups. This enables direct involvement of children—UNICEF's focus. Training, orientation, and other support for teachers can be a long-term input for involving children. Non-formal education groups, particularly those consisting of women, are also valuable when the approach used teaches practical life-skills and allows women to place sanitation in the context of their own terms and priorities. An example of using school health clubs in India is found in Box 6-3.

Work with local leaders and learning group peers. Often, influential partners can reinforce and legitimize change. Peer groups in the community and across communities represent an often-powerful means to stimulate change. Using local facilitators can build an immediate climate of trust, a starting point in development. Be careful, however, that traditional leaders or the elite don't monopolize the process. Leaders and peers selected from the community are likely to be more effective than if appointed from outside, but they may require orientation and support in order to *facilitate* instead of control. In the example in Box 6-4, community activism of a negative sort was harnessed to move a project over a serious roadblock.

Box 6-4: Working with Informal Leaders

In the town of Hodal, Haryana, India, a demonstration project of pour-flush latrines went awry when angry townspeople took sledge hammers to latrine constructions of indignant state engineers and their contractors. The residents had become angry when planners did not consult them and, moreover, ignored local leaders. They were upset as well that they had no say over contractors and project resources, which were loaned in their name. A team of communityparticipation specialists was called in to see if they could turn the situation around. In a revealing community meeting, the chief community organiser asked project officials to keep guiet and let the people speak. After an hour-long tirade of complaints, the residents started coming up with their own versions of how to make the project successful. Subsequently, local facilitators were selected and held over 80 group meetings in the town's eight wards. Devising their own programme, called the "the people's latrine programme of Hodal," the residents filed and accepted 500 loan applications within a few weeks.

Source: Jake Pfohl, Haryana, 1983



Professional field-workers confer with residents to design a community project in Bangkok, Thailand. (UNICEF/Marcus Halevi)

Organise from the ground up to ensure equitable participation. Including and building neighbourhood groups representative of gender, economics, and ethnicity within a community can help ensure that the project is not captured by local elites or any single faction. Forming a viable subgroup can make it easier to ensure wide

representation of interests. Decisions that represent the differing income levels, genders, ethnic or class groups, and factions of the community are more likely to be sustained.

If it becomes necessary to form new groups or organisations, build upon what exists as much as possible. Sometimes it is necessary to create new entities. The more these flow from existing organisational patterns and are assembled by the community itself, the more likely they are to succeed. "Paper-only" committees rarely have any useful function. Getting legal sanction for older or new groups may be empowering, but it may also be meaningless if the legal system doesn't function or if the community registers a group only to fulfill a requirement. Form new groups only as a last resort.

Interventions, Approaches, and Methods to Consider

To be consistent with the demand-led approach, programmers must identify suitable interventions, approaches, and methods that enable people to make educated choices; solve problems; and plan and act to improve their hygiene behaviours and safely dispose of human, solid, and animal wastes. The nature of the decisionmaking and action-taking process may vary by situation. An underlying issue is the type of interaction sought with local participants. Will they be empowered as a community to develop the full range of behaviours needed to better manage their environment in the long term? Will they be required and then equipped to make ongoing decisions, which implies the ability to make considered judgments and take responsibility for action on a number of fronts? Or, at the other extreme, are residents expected to pay fees for facilities and services, such as might be appropriate in urban and/or more prosperous communities?

Or are programme planners simply aiming to change a few specific behaviours without empowering communities or their residents to manage changing circumstances? Such an approach might be appropriate in certain situations or in combination with longer-term approaches. There is no absolute answer as to which type of intervention is right or wrong; it clearly depends upon circumstances.

Associated with these kinds of interventions are a

didactic approaches are social marketing or advertising methods. Although such approaches feature measures for feedback through the use of focus groups, these methods are not very interactive. As an alternative, participatory

approaches have recently emerged that have their roots in human growth strategies. In many cases, combinations of these approaches may be suitable, as they can be structured to reinforce each other. The remainder of this section describes a number of typical interventions and their associated approaches and methods. Many would consider all of them "community participation"; others would not. The issue is whether we define participation as "free labour" of communities, as the generation of "cash contributions," as a "market response," as the "setting of legal agreements," or as "decision making" (Srinivasan, 1992). These definitions of participation need not be mutually exclusive, but unless decision making is included, we are not really shifting control to community levels. Let's examine a number of interventions from this perspective.

Technology provision intervention. The conventional project cycle has been defined in many publications. There is usually a recognizable pattern in which a period of initial investigation leads to a demonstration or experimentation phase. The demonstration phase is a practical test of the feasibility of recommended technical options. It is followed by a consolidation phase, primarily to organise the project's institutional aspects. This leads to a mobilisation or expansion phase wherein most of the sanitation facilities are constructed. While much of this work must be done as part of an overall sanitation programme, the sequencing is based more on a limited definition of sanitation as being the provision of on-site sanitation facilities. Used on its own, this approach has little to do with community Bengal, India. (UNICEF) participation. Programmers had assumed that simply



Village women mechanics repair a TARA pump, West Bengal, India. (UNICEF)

providing technology or improving access to technology (i.e., latrines) would lead to an automatic change in behaviour



Villagers meet to plan a water and sanitation programme in Uttar Pradesh, India. (*Jake Pfohl*)

and that communities would sustain facilities. This has occurred, however, only in cases where that particular technology meets a felt need. Technology provisioning is *not* an intervention recommended to enhance community participation, nor is it one that by itself will promote behavioural change.

Community action planning intervention. One option is to turn the project cycle into a learning, decision-making, and action-planning experience for the community. With this intervention, phases are structured to enable maximum community involvement. Then, after a canvassing of schemes to identify communities, a planning or "development" phase is provided for. During this phase, which may take from several months to a year, communities engage

in a variety of organising and educational activities—building the institutions (WATSAN committees, for example) they need for community action in the long term. They also are helped to make their own assessments, analysis, and designs for their projects. In the design process, clusters of habitations are involved in studying and analyzing their own environmental and social situation in resolving disputes, and in preparing a detailed community action plan that includes

scheme designs, a range of sanitation measures, operation and maintenance, environmental protection measures, and other activities to be undertaken. (An example from Nepal is given in Box 6-5.)

To aid in the process of community action planning, a range of participatory methods are usually employed. The example in Box 6-6 illustrates use of the SARAR approach when dealing with community resistance. Human growth strategies, such as SARAR methods, posit that the right supportive environment and a minimal framework for maximum participation can enable people to transform their behaviours, make decisions, develop plans, and take responsible action to improve their lives and communities. (SARAR is an acronym standing for Self-esteem, Associative strength, Responsibility, Action planning, and Resourcefulness. It is a method widely used in participatory water, hygiene, and sanitation programmes; see Appendix B for details.)

Participatory rural appraisal (PRA) methods, effective tools in generating information for local analysis by community members, also fall within the community action planning approach. Box 6-7 gives an account of the use of PRA techniques in India and Nepal. PRA methods shift control of the investigation process to those who are normally the object of investigation. These people now become the subjects, and they choose the criteria, means, and tools to collect information and make use of it as part of their own planning process. See Appendix B for details. Researchers have found that such rapid methods often provide information needed for decision making much more efficiently than conventional surveys. PRA approaches evolved by simplifying techniques and comparing results from a number of quick methods. Community action planning, which requires active roles by community members, is well served by PRA techniques such as mapping of local problems and resources, wealth ranking, and similar tools.

Another useful method to support community action planning, as well as action planning at higher levels, is visualization in participatory programmes (VIPP). This is a flexible approach for group interaction and planning, developed in Germany, in which participants express their main ideas in large letters or diagrams on multicoloured paper cards of different shapes and sizes and then share

Box 6-5: Community Action Planning Intervention

A community action planning intervention in Nepal combined two human growth approaches. Once communities were selected, planners of the People's Water and Sanitation Programme identified and formed appropriate working groups in the community, which ensured that all ethnicities and castes were involved.

Facilitators began with activities that enabled each community to assess its own situation, (i.e., to establish where it is now). Interactive participatory methods were used in building trust and in establishing with the community a baseline of its needs and resources. Out of this awareness, facilitators then helped project communities analyze and resolve problems related to hygiene and sanitation and identify key problem areas and their solutions. They also brought new information to the process and engaged communities in detailed planning of ways to transform and maintain a healthier environment.

Participatory tools were important resources for each of these interventions, leading up to an action plan tailored to each community's situation. During the process, some immediate actions were started such as setting up a community group to maintain the marketplace and regularly monitor its cleanliness: building of selfhelp latrines; protecting the watershed; and managing solid wastes around residences. Media, including folk media such as local dramas, provided information at a time and place suited to the communities' planning process. Implementation of these action plans included formal training required to reach objectives, whether in continued hygiene and sanitation education or in skill areas such as masonry, carpentry, or functional literacy.

Regular follow-up was also part of the action plan, including community-based monitoring of personal, domestic, and environmental hygiene and sanitation practices over time.

Source: The People's Water and Sanitation Programme, Nepal, 1993/4.

them with the group. Clustered cards are photographed, scanned, or photocopied for each participant as a collective memory. These are used more often in offices than in the village, but adaptions can be used at the community level.

Didactic interventions. This type of intervention is supported by a range of approaches. For example, messagecentred programmers assume most problems to be cognitive (that is, when people understand germ theory and the consequences of poor hygiene and sanitation, they will change their practices). As discussed earlier, this approach does

Box 6-6: "I'd rather die than use a latrine."

As part of an action planning activity, using SARAR methods, we visited women in various groups in their clusters. In one such group, we encountered a group of seven women. First, we gave them poster sets depicting different incidents from the life of local women and their families. Because the pictures had no fixed sequence, they were called "unserialized posters." The group was asked to develop some stories about local life, sequencing several of the posters. As the images drew the women out, they soon began relaying stories in an animated manner—talking of their village and its health problems. They stressed that they already knew all about germ theory and the dangers of not having latrines, and that they were tired of being lectured by health visitors. One woman said, "I don't want a latrine—I'd rather die than use one." Over an hour of heated discussion ensued.

The women also talked about many other matters of concern to their personal and community lives, picking a few particular problems to discuss seriously. Soon the group was trying to analyze why nobody had built a latrine. Using cards illustrating different women's tasks, they timed out their daily chores. The women noted that they spent so much time, for example, just collecting wood and water that they had no time to worry about it. They assessed what might happen if they had a closer water supply. Finally, one of the women said, "Well, we knew about these problems and about germs, but we never felt we could overcome them. Now that we women are working together as a group, perhaps we can." Such meetings continued in all clusters for three more weeks, and women who emerged as most active from the groups became the local health workers. The woman who would "rather die than use a latrine" in the end reportedly became the most active field-worker and motivated hundreds of families in several villages to build and use latrines.

Source: Notes from field experience, Jake Pfohl

not usually affect those who have other reasons to resist changing behaviour (e.g., they doubt the message or its source, fear change, lack the needed resources, give the message a low priority, are simply bound by habit, blame others, or are resigned to traditional roles, habits, and cultural boundaries). Also, people may have reasons other than health for wanting sanitary latrines, such as for privacy or status. Sharing new information is often part of a process of community participation, but passively receiving information from others is a very limited form of participation.

Box 6-7: Healthy Homes

In using the PRA method in India and Nepal, groups of women are identified in each community or neighborhood, on a sample basis. They are asked to describe what they consider to be healthy and unhealthy practices for domestic and environmental practice, and for personal hygiene. Their answers are then noted on a recording form. The teams visit each home as well as public places such as the bazaar, temple grounds, and school yards, evaluating each site against the criteria they have selected as healthy and unhealthy. Then the teams analyze the results; these are also taken down on a simple form, which is later compiled and used to establish a baseline. In practice, women have gained self-esteem by working in groups, and the practice became so popular in some communities that villagers immediately started to improve their surroundings. Villagers also decided to regularly continue the monitoring practice, using "healthy homes" as their own management tool.

Source: Dr. Shirley Buzzard, 1993

Some advocate a "*market approach*," which forms another side of the didactic intervention. It has been suggested that in some situations, especially among urbanites, there is no need for a community-based approach with detailed community action planning, education, or other participatory approaches. Some studies may be needed to establish amounts to be paid, but the thrust of this approach is to market to people a facility for which they pay. Their participation is limited to making regular or one-off payments for a service. In reality, in poorer communities, pure marketing approaches may underestimate what is needed to sustain change in sanitation practices and thereby provide a healthier living environment.

Social marketing, communications, and mass media options are approaches often used. These didactic interventions emphasize transmittal of messages to change consumer behaviour, promote awareness, or transfer knowledge. In social marketing, specific behaviours such as hygienic practices or the use of a particular technology are targeted. However, through focus group testing (or "market research"), the agency also obtains feedback as messages are developed. Social marketing and mass media have the advantages of reaching large numbers of people; they can often reinforce what is done with participatory methods. However, their ability to change behaviour on their own may be limited. Such approaches are best used to raise awareness of and otherwise promote specific behaviours rather than to build consumer capacity to think and make considered judgements and choices, i.e., to actively participate.

Behaviourist methods. Here, the focus is more on changing specific behaviours than on just transmitting messages. Any number of approaches may be used, including participatory techniques with a specific behavioural agenda, repetitions of messages about critical behaviours and the benefits of changing them, and reinforcement of improved behaviour—each of these with the express aim of changing a limited number of specific behaviours. Some practitioners using this intervention stress reliance on external incentives and deterrents, rather than on building internal conviction. Behaviourist interventions may have their place in an overall strategy of community participation but also may have limitations for building sustained problem-solving capacity at the community level.

Hint: A Note on the Costs of Different Interventions--

There are costs and trade-offs associated with participation, both of which need to be considered in prioritizing approaches. Participatory approaches, such as community action planning, may require a greater initial investment in terms of time, field-workers, training, and materials. However, the payoff may come in the form of greater community contributions and sustainability—so that ultimately total costs are less. In one well-documented case in Nepal, such efforts brought in 40 percent of total costs in community contributions. Many of the above approaches require some interaction with communities and carry associated costs. Social marketing and didactic approaches may have a wider reach, especially when transmitted by electronic media such as radio or television. On the other hand, they are likely to have less impact on behaviour change. Cost-effectiveness and replicability are factors in the choice of methods, and approaches differ in that respect.

People to Carry Out the Approaches

We must also consider the *roles and types of field-workers* available on the front lines. Which skills do they already possess, and which skills may they need to learn? Depending on the overall interventions chosen and sequenced for community participation and the approach(es) selected, as well as other factors, there are several options to consider in deciding who to rely upon to carry out the approach(es):

Participatory generalists. Choose field-workers to serve as catalysts rather than doers or suppliers. Such field-workers will work with approaches that help them create an environment and provide a framework and tools by which residents and their communities can make decisions and take control of their own personal and communal situation. Although such field agents do not need extensive sector skills, they do need excellent skills in three areas: communication, helping people make their own decisions, and building local capacity.

Local people or outsiders. Local people already have rapport and, often, the trust of the community. Building trust is often one of the first steps in community development. (An example of local leadership is given in Box 6-8.) But in some cases, outsiders may be needed to provide objectivity or participatory leadership skills if these do not exist, or to meet external reporting requirements. Their roles should be limited, as much as possible, to building local capacity

within a specific time span.

Specialists, in new roles. Instead of providing technical staff such as nurses, engineers, and overseers regularly, these resource people can be used on an asneeded basis at specific project junctures. Also, some talented specialists can be retrained as participatory facilitators and so serve more than one purpose. In most cases, they can function as a resource to many communities; resource people trained from the community can handle the specific field work.

Male and female workers. Where possible, have a balance of male and female workers, especially in cultures where gender roles are highly separated. Experience has shown that, even in some conservative societies, it is possible for either gender to work effectively with groups of the opposite sex, provided they have the proper skills and work within local norms. Also in this context, age and social seniority may command respect—for example, women with children may be more influential than younger unmarried women.

Field-workers. Generally, field-workers should not assume roles and make decisions that can be made by communities themselves. In fact, field-workers should be evaluated, in part, on how self-reliant they can make the groups they serve. Having field-workers cover several communities can be more cost-effective and help to ensure that local people take greater degrees of responsibility; this approach is also more replicable. It should, however, include the setting of standards to select the number of field-workers per community and also factor in the distance and terrain between communities. Projects that place high numbers of external field-workers and specialists may create dependencies, reduce sustainability, and fail to produce results that can be replicated.

Box 6-8: Starting a Solid Waste Service

As a result of NGO training assistance, Pak Citro, a resident of a poor neighborhood in Yogyakarta, Indonesia, persuaded his neighbors to raise money together to build a garbage cart to start the COPRICOL garbage service. He then offered the cart to some of the residents to use in operating a garbage-collection service. Fees collected from the solid waste service which evolved have sustained it for over eight years, and savings have gone toward neighborhood improvements. Since most residents are poor, they recycle certain materials themselves by using or reselling them, but the collectors earn some additional income from recyclables they collect from shops. Timing the primary and secondary collections has gone well, with collectors usually emptying garbage directly into trucks. COPRICOL is working with the government to encourage residents to pay the city sanitation fee, which covers the secondary removal.

Source: Community Involvement in Primary Collection of Solid Waste in Four Indonesian Cities. Yayasan Dian Desa, Yogyakarta, Indonesia, 1993.

Building Local Management Capacity to Sustain Benefits

Local management capacity sufficient to create healthier living conditions requires that a wide range of actions be taken on a sustained basis and combines a fairly wide range of creative problem solving with formal skills. Well-designed training programmes for members of WATSAN committees, local governments, and other local bodies can fill this need. Often, the options selected for this objective consist of short, formal training only in roles, responsibilities, and orientation to the terms of the project. In some larger-scale projects, even that level of effort is neglected.

In many rural and peri-urban scenarios, capacity-building needs may be complex, since communities need time to gain control over their situation and are conditioned by traditional roles, isolation of government agencies, and lack of self-esteem. Participatory action planning methods help to correct this situation and often best precede formal training. Options for building local management capacity are in part covered by interventions such as community action planning, described earlier. More formal options are described in the following paragraphs.

Training in environmental management. An important part of community education is helping people assess their hygiene and sanitation situation as part of a working system that involves them and their surroundings. Many communities can assume a central role in environmental management, one in which they take responsibility for assessing, planning, implementing, and monitoring. For example, community members can identify health concerns and

also some of the possible causes of unsafe water, lack of sanitary latrines, broken sewers, lack of garbage collection, unregulated water vendors, etc. They can then organise themselves to seek solutions, perhaps building their own latrines, setting up their own solid-waste management system, or building links to government agencies to promote creation of laws and regulations for environmental health. (See Box 6-8.)

Informal and formal training in roles and responsibilities. Special training can be designed and delivered that focuses on clarifying local agreements, roles, responsibilities, and timing of project activities. Training should be broad-based to ensure wide understanding of the results, or clearly disseminated to the wider community by those trained.

Training in financial management. Many smaller groups need the basics of financial management, including simple accounting. Training can assist them (and others) with new strategies for cost recovery, community financing, and more sophisticated business planning principles and techniques. Procurement, a very sensitive issue, should reflect the nature of agreements reached with communities; there should be as much transparency and local control as possible.

Training in personnel management. Often, there will be a need for training that supports staff and volunteers; such training can strengthen local organisational capacity to perform well.

What Information Do We Have, and What More Do We Need? Information to Aid the Choice of Suitable Participatory Approaches

Use the checklist below to assess whether or not you have all the information vital to designing a community participation strategy.

Background Data

Population. Demography; urban/peri-urban/rural; rural migration patterns; urbanization; religions; etc.

Important trends. Whether peri-urban development is an old trend or a new, rapidly changing phenomenon; whether cities are growing or stabilizing; whether villages are intact or subject to seasonal migration; etc.

Education. Literacy levels by age and gender. *Will behaviour change strategies be mainly designed for literate or nonliterate people? Or both, and in what proportions?*

Gender. Roles; employment; education; health; decision making. Are women able to meet with each other? Attend educational events? What roles do women play in social decision making? What types of work do they do inside and outside the home? What are the differences in sanitation practices by gender?

Social history. Levels of community self-reliance vs. dependence on externally driven development; disruptions from civil disturbances and natural disasters; factional or religious divisions. *Do communities have a history of communal action and organisation? Have they completed development projects or activities before? Are they encouraged or discouraged from taking initiative? Is the local administration participatory or authoritarian?*

Existing Hygiene and Sanitation Situation

Predominant patterns in existing personal, domestic, and community hygiene practices. Access to and the use of latrines, level of fecal contamination; handwashing practices; analcleansing methods; water access, source selection, handling, and storage; drain clearing and refuse disposal; and rural/urban and ethnic differences in the above. What are the behaviours and their frequency? Which represent the strongest risk factors?

Cultural and attitudinal factors. Beliefs and taboos, and how these are adapted to rural and peri-urban situations; gender needs and differences; need for privacy; private vs. communal responsibilities. Factors relating to fears, doubts (of self, community, outside agencies, or a particular "solution"). Whether members of the community feel any responsibility for solving problems or believe other agencies to be responsible (God, government, the donor). *What are the attitudes and cultural factors that serve as constraints to changing behaviour? What methods can address these noncognitive constraints to improving behaviour? What beliefs, attitudes, or development achievements are possible resources for improving behaviour?*

Knowledge of existing sanitation facilities. Urban/rural, different socio-economicgroups; condition of the facilities; cleanliness; technical adequacy, etc. What are the health and socio-economic implications of the existing facilities? Are they suitable for upgrading? Is there any evidence of change in the use and construction of facilities?

Health. Prevalence of intestinal worms, diarrhea; predominant morbidity and mortality patterns, infant mortality rate; clinical data; regional and urban/rural; type and frequency of diseases, distribution patterns. *What are the main illnesses, and which interventions are the most necessary or effective to remedy them and promote better overall health?*

You have now considered a number of collaborative approaches to gathering this information and working through an analysis to develop appropriate programme strategies. Whatever information-gathering approach you take, once you have this information and can consider the issues and options open to you, you will be able to make educated choices and devise your strategy for improving hygiene and sanitation behaviours.

7 Technology Options

Issues around Technologies

Questions to Bear in Mind about Technology Options

Approaches for Developing a Strategy Ensuring Technology Options, Consumer Choice, and Private Sector Involvement

What Do We Know, and What Do We Need to Know? Information Checklist for Developing Strategies for Technology Options

This chapter will help you explore issues and considerations related to sanitation technologies, the primary purpose of which is safe disposal of human excreta, domestic liquid and solid wastes, and animal wastes.

Issues around Technologies

These are some issues related to waste management technologies:

- Selecting among existing options
- Expanding options
- Establishing processes for engaging consumer selection based on preference
- Willingness and ability to pay
- Relationship of technical choice and the environment
- Promotion of the private-sector role

First and foremost, technology needs to remain in balance with other programme components. Sanitation, by our expanded definition, does not mean simply latrines; instead, it demands a greater hygiene and environmental awareness and capacity among communities to make incremental improvements that promote a healthier living environment. There are also a wide range of waste controls involved: domestic wastewater, solids, human excreta, and animal dung; all these need to be considered in the behavioural and environmental context of which they form a part. Technologies are devices only, which service and are expressions of a community's will and skill in managing its environment and promoting healthy living for its citizens. *If community will is lacking, technologies by themselves are rarely accepted or used well.* Health and hygiene promotion are central aspects of this mix, not afterthoughts, and must be provided in such a way as to build sustained community efforts. Technologies also need to serve the community in its stewardship of resources and protection of the environment.

User Acceptance

That being said, the prime arbiter of technology options is user preference and choice: "what people want and are willing to pay for." No particular set of technologies or technology should be prescribed, although unsafe or environmentally detrimental options should not be promoted. Generally speaking, a suitable range of options is critical to sustaining a sanitation programme, and technology selection should not be stagnant but rather evolve with a community's growth over time. Providing choice also implies establishing enough detail to provide approximate costs to prospective consumers. The development of low-cost technical options has made a demand-led approach more feasible, as choices are now becoming affordable to larger numbers of people. In many cases, however, people may prefer options based not upon lower cost but upon convenience, less odor, or similar factors.

It is sometimes said that "technology precedes science." Certainly, the best technologies often evolve out of the local context, often aided by nongovernmental and informal organisations or through exchanges between them. It was local NGOs, for example, who innovated the prototypes of Mark II pumps and their successor, VLOM pumps, as well as earlier versions of pour-flush latrines (UNICEF 1996). In other cases, donors and technical agencies adapted technologies from elsewhere to fit local circumstances. This has worked most successfully where local organisations or people have been involved in such adaptations.

Encouraging Innovation

Programmers should consider ways to continue to stimulate and build upon local innovation, and bring in new ideas only when useful. The role at the programme level would be to create the right incentives for innovation and standards to ensure that technologies are healthful, environmentally sound, and sustainable. Another role is to help forge and sustain linkages between innovators, producers, wholesalers, retailers, and consumers—creating the right environment and helping build the market for sustained, creative change.

Technologies likely to be accepted by people will not only meet preferences and be affordable but also use the best possible mix of local and external materials and skills, emphasizing the use of local resources first. Such technologies can engage local people in their development, construction, marketing, and use—thus, stimulating other aspects of local development and becoming an integral part of community life. Technologies of this nature are also more likely to be sustainable, in that capital and recurring costs will be appropriate to the local economy. As a key principle, the range of technology options must be affordable.

In summary, a programme needs to promote the means to establish and regularly expand upon a range of appropriate options that are generally affordable, responsive to preference, socially and culturally acceptable, and technically adequate. You may want to prioritize the following criteria according to your own local context:

- Technologies that are known and preferred
- Technologies that are environmentally safe (in the broader perspective, including the safe handling, removal, and disposal of wastes; protecting the situation downstream; ensuring noncontamination of surface, groundwater, and soils; protection of water source)
- Technologies that are financially sustainable (i.e., capital and maintenance costs are both affordable)
- Technologies that use locally available materials for construction and maintenance
- Technologies that can be replicated with few external inputs
- Technologies that can be operated and maintained locally, with few imported parts or highly skilled personnel
- Technologies that people want and are willing to pay for, even the economically weaker population

At the end of this chapter, you will find an information checklist, which you may want to use in determining whether or not you have all the information you feel is vital to designing a strategy regarding technology options.

Questions to Bear in Mind about Technology Options

As we provide a range of technology options to ensure that consumers have choices of their preferences and willingness to pay, the wider issues of environmental safety have to be considered.

- Which existing technologies respond to what people want and are willing to pay for? Which kinds of technology options need to be expanded? How can this best be done? How do we establish a range of technologies that are affordable, socially acceptable, and technically adequate?
- What kind of processes can we establish to ensure people are enabled to make considered choices, based on preferences, affordability, and technical and environmental soundness? How do we help them to consider all the physical and technical requirements involved, e.g., for any needed transportation, and/or disposal and treatment of wastes?
- How do we stimulate use of local resources and also foster linkages between producers, wholesalers, retailers, and consumers leading to sustained and growing use of improved sanitation facilities and practices?
- How do we ensure that use of technologies strikes a balance with other aspects of community life and management, so these technologies form an integral and sustainable part of the fabric of ordinary life? How do we ensure that technologies serve community will for greater control to provide a better quality of life for citizens and children. rather than turning people into passive recipients? How do we build appropriate awareness and skill so that a continuous process of improvement is locally rooted and sustained?
- How do we ensure that local considerations of options take into account local, regional, and national concerns related to use of scarce resources and to growing populations—so as to better steward resources for future generations?

Approaches for Developing a Strategy Ensuring Technology Options, Consumer Choice, and Private Sector Involvement

Processes for Selecting a Range of Feasible Technical Options

A sanitation programme should seek to evaluate and confirm a range of good existing technologies and also to catalyze the development and expansion of new, appropriate technical options that are generally affordable, responsive to preference, socially and culturally acceptable, and safe and otherwise technically adequate. In order to establish a range of options suitable for promoting choice at the consumer level, the programmer should encourage and set guidelines for the project level that consider-

- Background information and existing practices, needs,
- Range of known and available technical options.
- Physical and technical requirements at different levels. Local manufacture of latrine components is part of an In most rural areas, this would be on-site disposal of integrated sanitation project in West Bengal, India. human wastes (excreta, domestic wastewater, (UNICEF) garbage) at household/ community levels. In many peri-urban and urban areas it will also include-



- Transport of wastes (e.g., removal of excreta sludge, domestic wastewater, refuse, stormwater, etc.).
- Disposal/treatment of wastes (e.g., refuse landfilling, disposal, and/or treatment of sewage, sludge, etc.).

- Different technologies for rural and peri-urban environments based on housing and population density.
- Cost of the various options and consumers' willingness to pay for them.

There are varied and either more- or less-elaborate systems for determining technical appropriateness (Franceys et al. 1992, Pickford 1995). In establishing options, key characteristics would include the following:

- Cultural acceptability
- Environmental safety
- Availability of water for flushing
- Affordability
- Housing and population density
- Demand for reuse of the waste
- Land availability
- Pit emptying requirements
- Type and permeability of soil

Environmental safety is a key factor. Soil types are often a critical determinant for alternative types of latrine technologies, especially when considering on-site systems. However, there is a trade-off between safety and cost. Because ideal technologies may be unaffordable, in some cases low-cost technologies that lessen risks but do not completely resolve the problem may need to be considered as the more viable current option. Often, technology-selection processes fail to take into account the possibility of upgrading existing systems; this should be considered carefully when considering options.

It is not unusual to find the poorest people living in areas where construction is difficult and expensive (for example, in low-lying flood plains,

on steep unstable slopes, on rocky ground, and on sand.) Such circumstances can be further complicated if the settlements are illegal or if property is rented from powerful people.

Situations can arise in which the culturally acceptable is technically unfeasible or environmentally unsafe—or, in which the only technically feasible solutions are unaffordable, consumers are unwilling to pay what is required, or the level of subsidies necessary is unavailable.

Box 7-1: Najafgarh Rural Sanitary Mart

In September 1993, Karan Singh, a poor health motivator from the town of Najafgarh, West Delhi, India, turned entrepreneur. Under the supervision of the NGO, Asha Sadan, and with UNICEF financial assistance, Mr. Singh started a rural sanitary mart (RSM). A one-stop shop fully equipped with all the materials needed for a basic low-cost sanitary facility, the RSM in its first eight months helped over 200 families in Najafgarh and adjoining villages build private latrines. UNICEF contributed funds to stock the required materials, while a revolving fund of 600,000 rupees (about US\$19,000) created jointly by UNICEF and Asha Sadan provides interest-free loans to families wanting to construct latrines. The families then repay the loan in monthly installments. The effort is backed by a dedicated group of volunteers who fan out into the countryside each day to introduce the new low-cost sanitation technology and spread awareness of environmental sanitation and personal hygiene. After receiving an order for the construction of a latrine, Mr. Singh takes responsibility for the complete project—from arranging masons to supplying construction materials and sanitary ware. A variety of low-cost latrines are available, ranging in cost from 500 rupees (about US\$117), from which Mr. Singh makes a 2 percent commission. This unique experiment in self-financing sanitation gives lie to traditional wisdom that says people are unwilling to pay for their own latrines.

Source: WATSAN India 2000. UNICEF, 1996.

In almost all countries, selection of technology options should be handled differently for rural and peri-urban communities. In fact, several types of technology may be needed across the country because of cultural, climatic, or geologic differences.

Expanding Technology Options

The programme might undertake to evaluate and expand upon existing technology options: for example, supporting promising researchers and innovators; promoting studies and pilot tests of new technologies in the context of ongoing projects; testing innovations for replication against health, technical, and environmental standards; involving project participants in field-tests; and making technical improvements to locally emerging innovations. This option could also include development of manufacturers' standards and advocating their enforcement so that new technologies can be utilized on a wider scale. Given the new emphasis on environmental soundness, programmers should consider developing new, locally appropriate technologies that dispose of wastes on-site and also consider using various organic waste material for fertilizer.

Improving Consumer Capacity for "Technical" **Decision Making**

Your programme could stimulate the development of participatory methods and educational materials-as well as larger-scale media—that help communities and their citizens (even poor and illiterate members) to consider the detailed differences, costs, health/environmental impacts, and other implications of technology choices and put these into the context of their communities' overall situations. Extension workers could receive training in these new methods and materials as part of the community actionplanning processes. In many cases, no educational materials have been developed to enable people to consider Over 10,000 inhabitants jostle for space and cope with the alternative technical options. Technical and community lack of sanitation in this shantytown only a stone's throw development staff could work with local artists and from Côte d'Ivoire's capaital, Abidjan. (UNICEF/Maggie communicators to produce tools that stimulate greater *Murray-Lee*) technical analysis capacity at the local level.



Fostering Private Sector Linkages

Box 7-2: Stimulating the Private Sector to Develop Plastic Parts for Latrines

UNICEF Bangladesh has stimulated several private entrepreneurs to produce plastic latrine parts, which include the pan and waterseal. Three firms now market these items at Taka 110 (about US\$2.50) around the country. UNICEF provided technical assistance and part of the cost for developing and making the expensive molds for the parts. The companies, on their own initiative, undertook to market the parts with some advice from UNICEF and the Department of Public Health Engineering (DPHE). Reports from the manufacturers indicate that the plastic pan is widely accepted by the people in mostly urban settlements, and outlet sales are rapidly increasing.

Now, experimentation with recycled plastic is taking place, which promises to lower costs significantly while maintaining the profit margin. It is expected that lower prices will thus increase demand in the rural areas as well. Use of recycled plastic is possible if the materials are thick enough to maintain the same strength. UNICEF is now assisting DPHE in developing specifications for the plastic pans and waterseals for wider promotion.

Source: Reflections on the Sanitation and Hygiene Programme in Bangladesh, 1996. T.V. Luong.

One way to foster and support linkages between producers, marketers, and consumers of sanitation products would be to help rural sanitary marts get started (see Box 7-1). Sanitary marts involve small sales centres marketing a range of sanitation goods that are locally manufactured; such enterprises provide an income for their owners and for local people who produce the goods for sale. Other means to support such linkages would be to create demand through social mobilization, support the private sector in developing sanitary facilities and parts, trouble-shoot transportation gaps, and other such measures.

Developing Local Technical Capacities

Training of local people is key to any effort to sustain

new technologies. Indeed, technologies that involve A rural sanitary mart in Uttar Pradesh offers everything community members in component manufacture, needed for sanitation, from materials for latrine assembly, sales, repair, and maintenance are vital to the construction to water jugs and soap. *(UNICEF)* success of a sanitation programme. An example from

Bangladesh is provided in Box 7-2. Efforts are also needed to strengthen the community's institutional capacity to manage technologies: for example, strengthening the analytical and decision-making capacities of WATSAN committees or similar groups, developing local maintenance systems, collecting and managing funds for operation and maintenance (O&M), taking steps to ensure environmental resource protection, considering impacts to other communities downstream, etc.



What Do We Know, and What Do We Need to Know? Information Checklist for Developing Strategies for Technology Options

Before developing strategies, you will need to gather a variety of information, some of it relative to the geographic area (or areas) of focus— whether peri-urban or rural. The information checklist can serve as a useful resource to you in this task. The checklist is divided into two parts: **Part 1** notes information needed for developing technology strategies in both urban and rural areas. *Again, the italics give you some idea of the use of this information and some of the questions you may wish to ask.* **Part 2** of the list, which calls for information giving a broad-brush perspective on the environmental sanitation situation, will probably apply mostly to peri-urban areas.

Part 1: Rural and Urban Areas

Existing sanitation facilities. Urban/rural; different socio-economic groups; condition/effectiveness of the facilities; technical adequacy; etc. *How bad is the sanitation situation? How many people lack adequate facilities? What is the level of user satisfaction with existing facilities? What types of sanitation are popular and liked?* (It may be easier to separate this section into the different physical components you have chosen to consider, e.g., domestic wastewater disposal, refuse disposal, excreta, etc.)

Culture and attitudes. (Much of this will also be covered under behaviour change.) Anal cleansing materials; need for water; squatting or sitting; traditional beliefs and taboos; specific gender needs; privacy needs; household vs. communal facilities; etc. *What are the major cultural considerations that any technical designs should incorporate?*

Geology and climate. Soil types, especially permeability and stability; seasons; rainfall; etc. Are there extensive areas of rock, sand, clay, or black cotton soils that will make construction especially expensive or difficult? Are there areas of very high or very low permeability, or of low-lying land, flooding? Are there drainage problems? What are the physical characteristics of any densely populated areas?

Water supply. Peri-urban/rural; common sources; coverage; types of supply; etc. *Information on water supply, insofar as it affects people's attitudes and aspirations (or nonaspirations) will be needed for improved environmental sanitation.*

"State of the art" with regard to improving hygiene and sanitation practices; lessons learned and "successful" projects in the sector. What has been tried? What has worked? Why? What are the lessons learned in the country?

Part 2: Peri-urban Areas

Long-term operation. Sludge-removal system from latrines (how, who, and adequacy); O&M arrangements; treatment/disposal of septic waste, sewage, domestic wastewater, refuse, etc. *What are the wider sanitation and environmental issues, outside of the household/community? What appear to be the current and future needs?*

Environmental pollution. Major problems, e.g., pollution of drinking water sources and soil; "dead" rivers; etc.

Population density, age of housing, state of other municipal infrastructure.

Earlier in the handbook, you looked at a number of collaborative approaches to gathering information and working through an analysis to devise appropriate programme strategies. Whatever information-gathering approach you take, once you have this information and consider the issues and the options open to you, you will be able to make educated choices in devising your strategy to develop the technology component of your programme. It is critical to remember, however, that communities must be engaged in the decision-making process; you will not be choosing technologies, but creating systems for choice and a feasible range of options for communities to choose among.

Hints

- Be sure you are looking at each of the issues identified by your definition of sanitation.
- Some of these issues overlap with the information required for community selection and behavioural change (e.g., existing practices, water supply, etc.). There would be no need to collect the information twice!
- Don't worry about precise statistics, as most likely there will be many errors involved. Figures to the nearest 5-10 percent are adequate.
- Don't become distracted by large expenditures or high-profile projects providing higher-cost services—just find out how many people are being served and into which socio-economic group they fall.
- Be sure to examine the whole environment, including the transport and final disposal of septic and waste products in the urban context.
- Rural and peri-urban communities may yield very different results. Some issues will be more relevant to one community than to another.
- Anecdotal information is useful, as long as it represents fairly commonly held views or experiences and can be justified/ backed up. Participatory techniques can be used to determine whether particular anecdotes are regarded as being representative or not.
- Remember that not all sanitation programmes will necessarily involve UNICEF and partners implementing technical components. For instance, there are complimentary situations in which UNICEF support consists of providing software inputs to strengthen larger-scale hardware activities.

- **Questions to Bear in Mind When Determining Financing Strategies**
- Options to Explore for Selecting Approaches
- What Do We Know, and What Do We Need to Know? Information Checklist for Selecting Financial Approaches

This chapter will help you consider issues and options related to determining financing strategies for your programme. (A good description of the various uses and problems of different financing schemes appears in *A Guide to the Development of On-Site Sanitation*, by Franceys, Pickford, and Reed [1992]. A recent review of credit mechanisms is found in *Financial Services and Environmental Health*, by Robert C.G. Varley [1995].) Rather than confining yourself to one financing option, you may identify a range of options feasible for various aspects of the programme.

In this chapter, you will look at issues related to determining a range of financing options, using local and external resources, estimating programme costs and budgets, and establishing a rough range for balancing hardware and software costs. Your financing options will be closely linked to the institutional and financial situation of the country and of the sanitation sector, as well as to the potential budgets of the proposed programme. This chapter provides a sampling of various options.

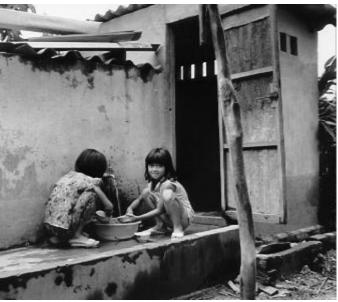
Costs to Consider

There are several main areas that will require financing, although much will depend on how the programme is administered and on the institutional arrangements. Often, however, the programme may need to provide some funding for—

- Administrative framework and programme overheads costs. Staff costs, offices, transport, accounts, computers, and so forth. This could be for NGOs, the communities themselves, another partner, government, or UNICEF itself.
- *Costs of "software" aspects of the programme.* Behavioural change programmes, social marketing, health education materials, training programmes, credit schemes, extension work, etc. Again, there are many different organisations that may play roles in their area.
- *Hardware costs.* Construction materials, subsidies (in exceptional circumstances only), demonstration models, "macro" investments, contractor costs, etc.
- **Costs of operation and maintenance.** O&M is generally assumed to be 100 percent the responsibility of households or communities, depending on the type of intervention.

Not all programmes will require the hardware component, and few should require subsidies—but most projects will require both software and institutional support.

The recent shift of emphasis from supply-led approaches to those that are demand-based means that a better understanding of financial resources and mechanisms at the community and district levels is essential. Many government departments are now rethinking their tariffs and cost-recovery policies, while structural adjustment has reduced many previous social spending programmes. Donors and governments increasingly are focusing on processes for creating demand rather than on providing subsidies. Relying on subsidies for hardware limits the scale and sustainability of the programme to the size and sustainability of the budget. Thus, self-financing, the role (and potential role) of local private sector investment, the affordability of different levels of service, the possibility of local-level credit systems, etc., should be investigated as part of designing a sustainable sanitation programme.



Questions to Bear in Mind Whe Determining Financing Strategies

When When water storage tank and latrine, installed with UNICEF assistance in southern Viet Nam. (UNICEF/ Christian Fregier)

- Who is the programme trying to assist? An appropriate financing strategy will relate directly to household and community selection and the choice of priorities within selected communities. Are communities willing to pay for improvements? What effect will assisting these communities (or subgroups in communities) have with regard to others in the area?
- What are the comparative costs (capital and recurrent) of different technical means of reaching sanitation objectives?
- What strategies are most consistent with sound programming principles? What kind of financing strategy will respond to consumer demand, strengthen partnerships, ensure accountability to the consumer, link micro local communities with needs of macro cities/ states, prioritise use of local material and skills, promote equity and fairness, and resist sacrificing long-term gains for short-term benefits?
- What are the preliminary programme costs and budgets? What resources are available, and how are they best deployed strategically? What is the right balance between the cost of hardware (technology/construction) and software (community development, education and communication inputs, and the like)? In broad terms, do benefits outweigh costs?

Options to Explore for Selecting Approaches

Community Self-Financing

Ideally, appropriate technologies that respond to people's needs and willingness to pay can be selected without requiring any external financing. A truly demand-based programme can then be designed. The following are some indicators as to whether people are likely to be able and willing to pay for their own facilities:

- Ownership of consumer durables having about the same value as sanitation improvements
- Extreme dissatisfaction with current sanitation facilities
- A high rate of private house ownership
- A keen awareness of health problems

Informal discussions and, if needed, formal willingness-to-pay studies can also help to confirm this option. Selffinancing is usually discussed in relation to on-site facilities. Often, even in the same city, high-cost sewer schemes serving the business community and wealthy areas are highly subsidized. Take note of such inequities and, whenever possible, treat the rich like everyone else. An important issue to consider is whether the government has a policy of assisting with private household investment. In many countries, governments are reducing expenditures in this area, and it is important to be aware of such policies.

Rarely are drainage schemes, refuse-collection services, or other waste services wholly consumer financed, unless this is done through the collection of council taxes or rates. However, there is a high potential for community-financed drainage schemes, refuse collection, and sullage disposal—all of which should be explored.

Where there are extensive areas of rented accommodations, you should carefully examine the feasibility of selffinancing. It is unusual, for example, for tenants to invest in a rented property, especially tenants who are poor. Do not assume that landlords will make improvements for tenants, although if they can charge higher rents, they may do so. Higher rents may, in turn, force the poorest to move elsewhere. An example of some of these complications is given in Box 8-1.

An advantage of self-financed schemes is that usually the more wealthy households will take action first, which often gives the improvements a higher status value and encourages others to copy them. Although generally a positive outcome, this sequence may mean that the poorest will not benefit immediately. In other situations, there may be elements of cross-subsidization occurring within the communities.

Box 8-1: Loans Where Homes Are Rented

In Kumasi, Ghana, many loans have been granted to cover shared sets of latrine units, primarily for tenanted households. These loans, which the project made formally to landlords, cover the installation of the latrines. Repayment takes place over two to three years, with obligations mixing formal and informal commitments. Either the tenants should commit initially to the landlord, or the landlord must undertake to repay the loan from rent proceeds. In practice, the collection method has proved cumbersome because of the ad hoc way in which the project defines obligations. A weakness of the system is that it is not transparent to the tenants, who have no access to loan documentation and thus can be overbilled by the landlord. Although a regular repayment schedule exists, responsibility for repayment rests with landlords, who are supposed to hand the money over to the community treasurer. Some landlords retain the funds and wait until all tenants have paid before depositing; others cannot resist the temptation to use the funds as working capital.

Source: Robert Varley. Financial Services and Environmental Health. January 1995.

House-Owner Financing with Credit

A more common scenario is one in which people may be able to afford improvements if credit is made available. Credit schemes should be carefully designed; examples abound of unsustainable credit schemes. Ensuring regular repayment of loans is not easy. Here are some of the most difficult situations in which to administer loans:

- Where inflation has been or still is very high
- Where interest rates are high
- Where it is uncommon to borrow money for capital goods
- Where many ad hoc financial obligations make planned household expenditures very difficult for low-income people

Using traditional ways of saving is another possibility for self-financing that could work well in a motivated community. The much-cited Grameen Bank in Bangladesh has been very successful at this type of credit. Relying on peer pressure

and peer guarantees may apply in many other situations. Another credit option is rotating funds for sanitation. With this approach, credit funds for construction are made available to a percentage of residents and, upon payment, are then reloaned to other community members—thus extending loans to more residents. Here, also, you need to consider how rented accommodation would be affected by such a policy.

Private Sector Financing

The potential of the private sector to assist with environmental sanitation improvements has only recently been explored and developed. Most developing countries are in need of employment generation, and sanitation offers a wide range of possibilities. At the very least, all physical construction, material retailing, and component manufacture should be done through the local private sector. Some markets will quickly jump on the opportunities, but in other types of markets, training and discussion may be required before traders are convinced of the market potential for sanitation goods.

Box 8-2: Hindering the Development of Private-Sector Markets

Having identified a problem—affordability of good sanitary slabs in rural areas—the UNICEF-supported Small Towns Water Supply and Sanitation Project in Uganda assisted the local population by making available subsidised slabs at the government district hospitals. The cement was imported at a lower-than-market rate and the slabs constructed by government workers. This made the slabs more affordable (about 25 percent of the real value), but it prevented private sector development, made supplies reliant on central purchasing of cement, and created little local employment. The production of the slabs was also highly inefficient due to the low wages paid by the government.

Source: Small Towns Water Supply and Sanitation Project, 1994

A similar situation in Lesotho was handled in a different way. Cement was purchased on the local market, and prisoners in the local jail of each town made the slabs. One purpose was to give prisoners a skill they could use after release. This approach was somewhat more sustainable, as it did not rely on subsidies or external purchasing and the prices were more realistic. It still hindered all private sector development, however, as realistic market wages were not paid, and therefore consumers did not pay the real cost of the slabs.

Source: Isabel Blackett, personal experiences

Even if the actual costs are lower, central purchasing of any goods or service (especially imported goods) is often counterproductive in the long run. Two examples of this point are given in Box 8-2. If you want your programme to be sustainable, pay local market rates, develop the local market, and encourage employment generation. If you add the full costs of staff time, transport, and administration to the so-called lower-cost goods, you will find the local market in many cases to even be cheaper. Box 8-3 gives an example of this.

In some cases existing laws, standards, and regulations may pose a hurdle for anyone wishing to operate on much beyond a small, informal basis. An example would be the huge tariffs many countries imposed upon the private sector when importing refuse trucks or septic tank emptiers. In the past, probably only the government imported such equipment tariff-free. Thus, existing tariffs may be a major barrier to any company or individual interested in this type of investment. Such matters may need to be addressed as part of an advocacy programme.

Cross-subsidies

Although arranging cross-subsidies sounds attractive and equitable, in practice there are several difficulties:

In urban areas, the wealthy often pay nothing close to the real rate for the better water and sanitation services they enjoy, as the government often subsidizes these services. The issue would be first to get wealthier residents to pay

for their own services before cross-subsidizing anyone else.

- It can be very difficult to substantially increase the service rates to the influential and powerful, as it is often difficult to collect their fees and bills. But such an obstacle should not negate this option. Just be sure the policy is actually feasible and working before using it to help pay for the services of another income group.
- The viability of such policies often depends on the proportion of rich versus poor. In industrialized nations, where those requiring subsidies may be under 10 percent of the population, such a policy is more viable than in countries where those needing assistance may number 50 percent or more of the population.

Box 8-3: Private Latrine Producers

In Bangladesh, over 2,500 private latrine producers have sprung up. Local entrepreneurs produce and market slabs and rings for latrines, which they sell on the market. Despite government subsidies for latrine parts sold at government village sanitation centres, local residents prefer to purchase latrine parts from private vendors because they are closer to people's homes, and their products are reliable and immediately available. The success of these groups is due mainly to the national social mobilization activity, which helped create demand, and to the work of some local NGOs, who initially helped local businesses establish such production centers. Once an adequate market developed, these centres have sprung up on their own.

Source: T.V. Luong, UNICEF, Bangladesh Experiences, 1995

However, within communities, mechanisms often do exist for moreequitable distribution. This option is one that the communities make themselves, rather than one imposed from outside. Even in communities having many poor people, community selection criteria can be established so that a community as a whole shows demand. This is more likely to be effective in a homogenous community or one that has existed for a long time. NGOs can often facilitate such cross-subsidization mechanisms in a way that government cannot.

Subsidies and Grants

This option should be a *last resort*, as it has numerous pitfalls and can even be counter-productive in the long term unless well planned.

These are some common mistakes made when designing grant and subsidy schemes:

- Sometimes subsidized facilities are built during a pilot phase, assuming that people will copy the models later; usually, however, the converse is true. People are more inclined to wait and see if a subsidy will also come their way.
- The use of subsidies can lead to the use of inappropriately expensive facilities that cannot be maintained.
- Means testing for subsidies often leads to more wealthy and better informed people misrepresenting their situation to take advantage of what is available.
- Requesting a down payment or contribution before the subsidy is available may exclude the poorest.
- Subsidies often create expectations that cannot be fulfilled in surrounding areas and among other income groups.
- Subsidies aimed at helping the poorest sometimes associate a certain technology with poverty and the need for assistance. This can be a mistake, since the technology may also have been appropriate for many people of higher economic status.

If the poorest are to be assisted, however, the use of subsidies may be unavoidable. If this is the case, the scheme could be designed bearing in mind some of the following lessons learned:

- Subsidize only the most basic level of facility, leaving people to make improvements as they can afford them.
- Ensure that the economic ranking of various choices remains the same (for example, if garbage collection by means of a-skip-at-the-end-of-the-street is the cheapest method, don't subsidize a household collection system so that it becomes cheaper for the household). People should choose based on the relative real costs.
- If funds for subsidies are limited, consider subsidizing only the interventions that could have the greatest health



In Bangladesh, sanitation business is booming with small enterprises sprouting up everywhere. (UNICEF)

impact.

- Before designing a subsidy programme, find out through surveys what people are willing to pay. In many cases, their willingness to pay has been much higher than the textbook rates of 1 to 3 percent of household income. People who are highly dissatisfied with their current facilities or want options they really like will pay much more.
- Before embarking upon any subsidy programme, first calculate the full real cost to the programme of assisting the whole target population. Is this affordable, and is it the best way of giving assistance? Can it really be scaled up?
- And finally, never give subsidies as a quick, short-term fix for increasing latrine coverage. This will invariably lead to negative long-term consequences.

Consistency of Programme Strategy

As mentioned in the grants and subsidies section, the effect of any financing strategy will be widespread for both good and bad reasons. For example, promoting community self-reliance and full cost recovery will contribute to reducing people's general expectations of the government. In situations where subsidies are unavoidable, you may feel pressure from others who have provided subsides at a higher rate than you consider necessary.

Try to address these issues by working with other agencies and coordinating a common financing strategy for sanitation improvements. Although this may seem difficult, the benefits will be of long-term duration. Even if not everyone can or will agree to working together, try to ensure that your programme is doing its best to work with others. Even an imperfect financing strategy, if realistic and one that most involved will adhere to, may be of more long-term value than a financing strategy that is "perfect" but will be followed by only a few.

What Do We Know, and What Do We Need to Know? Information Checklist for Selecting Financial Approaches

The following checklist summarises the main areas in which information needs to be collected in order to best understand the local situation and inform your analysis of strategic options.

Current financial policies regarding infrastructure and services. What is the direction of new government policy in related areas? *For example, cost-recovery policies for water, sewerage, and other sanitation measures such as refuse collection or septic-tank emptying? How are slums being treated, and do the same policies apply there?*

Are there slum areas (squatter settlements, barrios, illegal settlements, etc.)? What possibilities exist for funding sanitation improvements in these areas? Who owns the land and houses? *What are the precedents for slum/ squatter upgrading? Is this work effectively carried out by government, NGOs, or local communities?*

Government's effectiveness at implementing cost-recovery policies. How has it been done in this or other sectors? How successfully?

Potential local sources of financing. Is community/household self-financing feasible? How about local banks, credit institutions, and private lenders, etc.?

Indicators of willingness to pay. Are people currently paying for any sanitation services, such as refuse or nightsoil removal, public latrines, or septic tank emptying? Is service for emptying pits or tanks available in periurban areas?

Cash economy vs. traditional structures. To what extent are people dependent on cash incomes vs. self-sufficiency and local production?

Credit: sources, availability, and use; understanding and history of debt repayment; traditional methods of saving. Is there a history of credit use? If so, is it widely used? For what type of expenditure (e.g., emergencies, capital items, school fees, etc.)? In what light are credit providers viewed? How are repayments collected?

The following list gives some of the background information that will be useful to put the proposed programme into the national context.

Income profiles, distribution, poverty lines, GNP, GDP, and the like. *Broad-based studies and government*

statistics.

- **Studies of household income and expenditure patterns.** *Studies indicating expenditure priorities and capacity for saving and capital investments, needed mostly in larger schemes.*
- Prices: Inflation, interest rates, indicators such as cement prices vs. wages, etc. Approximately how long does a labourer, a teacher, or an engineer work to buy one bag of cement? And what does this say about prices and affordability?

A number of collaborative approaches were described earlier to aid the gathering of this information and your working through an analysis to devise appropriate programme strategies. Whatever information-gathering approach you take, once you have this information and consider the issues and options open to you, you will be able to make educated choices and devise your financing strategy.

9 Institutional Arrangements

- □ Institutions: Catching Up to the Programme
- Questions to Bear in Mind When Determining Institutional Arrangements
- Options to Consider for Institutional Arrangements
- What Do We Know, and What Do We Need to Know for Appropriate Institutional Arrangements?

This chapter will help you consider strategic issues and options for determining institutional arrangements that will help you achieve your programme objectives. Typically, your strategy will include arrangements for the following:

- Assessment of the overall institutional framework: any changes needed
- Current arrangements, in detail, for programme formulation, planning, service delivery, HRD, monitoring, and evaluation
- Summary analysis of the current institutional framework
- Recommended changes in the institutional framework at each level: reforms, improvements, changes
- Proposed institutional arrangements and allocation of responsibilities for
 - Programme strategy formulation
 - Service delivery
 - Donor coordination
 - Technical support
 - Capacity building/HRD for the sector
 - Financial arrangements/procurement
 - Monitoring and evaluation

Institutions: Catching Up to the Programme

Although the overall programming framework is shifting from a supply-led to a demand-led, participatory approach, changes in institutional arrangements have been slow to follow since they often imply major shifts in organisational roles, staffing, flow of funds and agency relationships—all sensitive areas. Catalyzing the right institutional arrangements is one of the most critical steps in programme development and often one of the most difficult. It will be important to take risks to catalyze change in this critical programming task.

Allocation of Responsibilities

The key issue here is sector allocation of responsibilities to different institutions. Effective sectors must have a clear sense of the way policies are set, financing is arranged, resources are allocated, investment decisions are made, and

programmes are implemented. In addition, it is critical that responsibility be assigned to monitor sectoral progress so as to identify what is going well and what is not. There are no easy answers, as issues must be resolved through a learning and decision-making process within each country situation. Forming a core group that works to catalyze needed decisions about sector responsibilities is a major objective of the programming and policy development process.

If we are serious about approaches that support and aim to sustain behavioural change at the consumer level, and wish to maximize local skills and establish sanitation as a local function, then institutional arrangements and assignments of responsibility must change accordingly. Roles need to shift and be consistent at all levels. Just as you the programmer must change your role, so too must others at various levels. For example, those at higher levels need to think of ways to stimulate local systems—rather than simply setting up a chain of providers—and also of ways to ensure standards, environmental protection, and human resource development. They will also need to monitor progress in the sector.

There are important issues to resolve at the governmental level. For example, sanitation responsibility usually is assigned as a subset of water supply organisations. While it may or may not be appropriate to develop a separate entity for sanitation, it is certain that in some way sanitation must receive more attention. While assigning the lead agency is important, we must ensure objective monitoring and evaluation. In some contexts, this would be best placed at higher planning levels to avoid obvious conflicts with line agencies who now often control all functions, from sector planning, to implementation, to monitoring and evaluation. To ensure checks and balances, these functions need to be separated.

Generally, sanitation is a local function, and decisions on service delivery need to be taken at the lowest appropriate level. It will need to be decided how governments will shift away from their service-delivery roles and how they will develop capacity to catalyze the efforts of others. NGOs can serve as consultants to communities, and a major effort to help stimulate links between consumers and the private sector will be appropriate in many countries.

These issues of sector allocation of responsibility may need time to be resolved, but it is important to face uncomfortable problems even if these are long-established organisational traditions. You may have to choose among those in government who support change and avoid those who promote the status quo, discern effective NGO partners from poorly performing groups, and determine which private sector groups show promise and which lack integrity. Over the long term, it may in some cases be better to withhold assistance than to reinforce poorly performing institutional arrangements.

Not all institutional issues can be resolved through one programming exercise. However, if genuine progress in hygiene and sanitation programming is to be made, strategies that move the sector toward better arrangements are essential.

Questions to Bear in Mind When Determining Institutional Arrangements

Overall, do current allocations of sector responsibility among institutions support a demand-led process? Are there clear allocations of responsibility for policy setting, programming, human resource development, service delivery, monitoring and evaluation, and other functions? Do these provide adequate checks and balances? Are there provisions for sector leadership? Do current arrangements support the programme's chosen definition of sanitation in your country?

What seem promising ways to shift government's role from provider to facilitator and make best use of NGOs, the private sector, and grassroots organisations in service delivery?

Are there clear and adequate provisions to establish and empower community-level institutions to make decisions and manage their own environmental/domestic sanitation and personal hygiene concerns in their community? Which categories of field-workers can help communities create and sustain such institutions, and in what institutional framework are they best supported?

How do existing and alternative arrangements mesh with any decentralization process that may be going on? How can they help to reinforce making sanitation a local function?

How can the programme get away from contractor arrangements and instead enable communities to make more of their own decisions about who is hired and what is procured for their projects?

How can the fallout from institutional change best be managed? What will happen to existing staff of large,

centralized delivery organisations, e.g., government departments, which may be no longer appropriate? What can be done to plan needed transitions?

Options to Consider for Institutional **Arrangements**

A number of options are available to the national team responsible for forging the sanitation programme. Although those listed are not exhaustive, they do represent practices that have shown promise in past experience.

Establish Working Groups and Dialogues at Various Levels

To build support for sanitation as a development priority These improved latrines were constructed with and to help guide efforts at various levels, working groups or committees can be formed. As discussed earlier, the



community participation and are kept clean by community volunteers in a project near Lima, Peru. (EHP/Robert Varley)

first step would be, in most circumstances, to help create or join in with a national-level working group of professionals, which can serve as a guiding force for the learning, programming, and policy development exercise. Over time, national working groups might include policy-level members of government; sector experts; official agency representatives of a range of ministries/departments related to the sector, NGO and private sector leadership; and staff of other relevant institutions representing groups from local levels. This process should also be extended to other levels. For example, groups of NGOs, local governments, and regions can be formed and work on programming tasks, while at the same time keeping the core working group and senior officials involved. This will ensure wider participation in the decisionmaking process. Often, a lead agency is designated to chair the working group or council.

Designate a Lead Agency

Agencies involved in health, water supply, rural development, local government, and social welfare are among those having an interest in sanitation. Central agencies in finance and planning may also have an important role. It has been commonly accepted that a lead agency should head the sector programme. To ensure accountability, the agency leader or management group directing the effort should be clearly identified and given responsibility and authority. This does not necessarily mean creating a new agency to be responsible for sanitation, but rather clearly assigning lead functions.

Hints:

- Options do exist for novel arrangements that emphasize involving each organisational partner in what it does best. For example, central government's role may, in many circumstances, be best limited to policy support and creating a positive environment for communities, local governments, NGOs, and the private sector in service delivery. In turn, NGOs and the private sector may provide communities the technical support they need, with communities then becoming the primary decision makers and implementers. Defining such roles requires careful analysis.
- It is often inappropriate to separate software and hardware roles between agencies; since the two are so closely related, they are best facilitated together.
- Intersectoral linkages between agencies can be facilitated for horizontal and well as vertical coordination of effort. Education, primary health care, housing, and nutrition programmes need to be closely linked with efforts in sanitation and water supply.
- Larger-scale projects may require new coalitions of effort that bring agencies together in new relationships. Apex bodies, NGO coalitions, networks, and funding mechanisms can be supported or structured to support scaling-up.
- As you go through the examples provided here, compare them with similar arrangements that may exist in your own country. How do they differ? Are there opportunities for changing them, or could some of the options listed here be adapted or ruled out?

Leadership, as defined here, involves becoming a catalyst and having responsibility for functions such as monitoring and evaluation, the latter best separated from service delivery. Such a lead agency may precede or emerge during the programming process and the work of a national core group, which the lead agency would then naturally chair.

Promote Intersectoral Linkages and Integrated Programme Strategies

In larger-scale programmes, cooperation among different technical agencies may be difficult to achieve, especially through interagency arrangements formed on paper. Although national-level agreements reached through national committees are important to achieve, they do not guarantee coordination at the operational level. Efforts at intersectoral linkage often work best when they begin with practical experimentation among practitioners, usually at the consumer level, to see where added value or increased impact can be obtained by joining forces in innovative ways. Promote coordination among agencies by first asking what effect the current situation is having at the consumer level, and then determining what coordination at other levels would improve the situation. Discussions with consumers at the community level can help identify the needed changes. Successful examples of intersectoral linkages include partnerships forged through experimentation, such as linking sanitation to credit programmes for housing or combining sanitation with nonformal education and school health programmes. There are also excellent examples of linking the work of health center extension staff to the efforts of NGOs in water and sanitation and promotion of community health volunteers.

Establish Other Sector Working Networks

Such networks may be fostered by the national working group as part of the learning, programming, and policydevelopment process. Sectoral networks usually comprise practitioners from various types of institutions which focus on improving the quality of work in the sector, stressing learning and research over general coordination. Specifically, networks promote sharing of experience on specific issues, field-testing of new approaches, research and documentation of best practices, and preparation of sector publications and materials specific to a country or region. These networks may be formed with staff from government, NGO, and private sector agencies— people with a long-term focus and interest in the sector. Such a group may often, for example, be effective as a partner in developing a programme and in advocating for the sector. Sometimes, these learning networks can be adjuncts of fund mechanisms or NGO coalitions (see Box 9-1).

Create Fund Mechanisms and/or Trusts

Such mechanisms are increasingly gaining a role in providing a means to decentralise sanitation. Often created as the result of a World Bank or regional bank credit or loan, such fund mechanisms can be set up to respond to demand from communities either on a national basis or within smaller regions of a country. Often called social investment funds, they finance a variety of community-based activities. Such mechanisms establish transparent criteria for the selection of partners and communities, often supporting NGOs, private sector firms, local governments, or communities themselves. Many times, intermediaries are needed to give communities enough facilitative support to carry out their projects. Some donors are establishing trusts or community trusts that play roles similar to those of funds, except that they are privately endowed and may therefore be more flexible than social fund mechanisms.

Foster and Support Coalitions, Consortiums, and Membership Organisations

Coalitions, consortiums, and membership organisations often organise for advocacy, fund management, or programme purposes. Frequently, they develop their own organisational character and provide services to members or to the larger bodies of organisations. NGO coalitions for water and sanitation have been formed in a number of countries, and some have large, decentralized institutional memberships to which they provide technical services. Some coalitions focus on development of training curricula and materials, and some are involved in fund channeling or linkage of members with donors. Strengthening existing coalitions and building new ones where needed are effective ways to multiply results, disseminate ideas, strengthen advocacy, or channel fund resources. Box 9-1 describes an example of an NGO coalition.

Box 9-1 : Forming a National NGO Coalition

In 1982, as part of the Water Decade, UNDP sponsored a series of national consultations of NGOs in the South Asian region. In Bangladesh, the national consultation was one of the first vehicles for NGO-government dialogue on water and sanitation. As a result, the NGO community decided to launch the NGO Forum on Water and Sanitation, which over several years developed as a service agency and apex body with about 500 NGO members throughout the country. The forum provided training, materials, and technical assistance and helped link NGOs to donors, including UNICEF and the government. The NGO Forum continues to play an important role in strengthening the quality and quantity of effort in community water and sanitation. One of its projects involved the development of village sanitation centers or small community enterprises to make and sell latrine components.

Source: NGO Forum for Water/Sanitation, Bangladesh

Undertake Organisational Transformation or Strengthening

Few examples exist of projects that have transformed larger supply-driven institutions into demand-driven ones. More success has been noted in the irrigation sector, but approaches to organisational transformation may be transferable. These efforts require sophisticated management expertise, however, and often involve measures that change the organisation's incentive structure and build new work patterns, rules, and norms. In addition, such efforts may require retrenchment for many staff who are unable to adapt to the new approach. Successful transformations require strong political support and dynamic leadership. The danger is that role changes will be superficial and that most practices will continue as usual. Attempts at such transformations may often be unrealistic given the existing institutional structures, and thus fall *beyond the scope of regular programming efforts*. However, organisation strengthening or transformation should be noted as one option. In some cases, it may be possible to make smaller-scale improvements by specific adjustments, e.g., by assigning community development staff to otherwise technically oriented institutions. However, such patchwork solutions should never be used to cover over institutional weaknesses, or as an excuse to prevent moving service responsibilities to local levels—and to the private and nongovernmental sector.

Form or Strengthen Training Networks

In a number of countries, training networks for water and sanitation have emerged that are active at both national and district levels. These networks are usually characterized by involvement of many disciplines, maintaining a healthy

Box 9-2 : An Example of a Training Network

In the Philippines, with funding from the Dutch Government, a national-level training center was established to strengthen human resource development among sector staff in the Philippines. The Training Network Center, which currently has NGO status, has effectively linked most sector institutions from public works, local government, health, university, NGO, and private sector settings. These participating institutions help carry out the training they are best suited for, e.g., NGOs, in community mobilisation and communications; the department of public works, in engineering aspects; and so on. The network shares materials, strategically seeks to improve sector work, and carries out pilot projects to improve the quality of larger-scale programmes in the country. As such it has become a very effective sector training and resource network.

Source: Training Network Center, The Philippines

balance of government, NGOs, the private sector, and educational groups. Box 9-2 provides an example of such a

training network.

Enhancing Human Resource Development and **Capacity-Building Efforts**

A number of factors affect HRD: weak sector institutions, weak incentive structures, and lack of familiarity with effective approaches to the sector. As might be expected, some constraints are easier to deal with than others. Weak sector institutions may often result from poor allocation of sector responsibilities and/or poor or nonexistent financing for sanitation units—especially for software or for nontechnical staff. *Incentive structures* in turn are related to this; budgets, working conditions, and government salaries are constrained in trying to support staff for supply-driven approaches, and thus often neglect basic support or incentives for facilitating functions. In many cases, incentives also have little to do with accountability to consumers.

Arrangements for training are easier to organise. While training can help build capacity, it does not solve This Indonesian woman is happy with her child's growth underlying constraints (see Box 9-3). Thus, over time, chart. Health and sanitation programmes go hand in your programming and policy-development process will hand. (UNICEF/Sean Sprague)



need to address difficult issues of the institutional context and incentives. However, it may be best to combine the services both of public and of nongovernmental, private institutions rather than to try to "fix" impossibly weak institutions. Often, the solution to such institutional environments may be to assign responsibilities outside rather than to build up even more poorly supported, centralized staff. There are also cases of creating "companies" within

Box 9-3: Human Resources Development

Human resources development includes employment, supervision, continuing education and training, and occupational welfare of the people needed to do a job properly. The HRD process should embrace planning, development of skills and training, and human resources management, with all aspects harmoniously geared toward achievement of specific goals....In a number of surveys, managers involved with water and sanitation programmes have estimated that only 10 to 30 percent of performance difficulties are due to lack of skill or knowledge, either of which can be rectified through training. A dual approach focusing both on the individual and on the system within which the individual works was suggested.

Source: Franceys et al. 1992

governments, which are accountable to consumers, or creating publicly assisted companies. But these options should not be attempted where communities, private companies, and NGOs can do the job themselves. Management support that is facilitative, rather than directive, can also often lead to higher productivity. Team approaches to problem solving, frequent joint analysis of field situations, and open forums with staff can help develop a creative working atmosphere that is often as important as training.

Like all components of the HRD strategy, training efforts need to be consistent with demand-led principles. There is a need to consistently reorient organisations and individuals involved in the sector to approaches that foster consumer decision making and high levels of participation. Rather than continuing in their previous roles as implementers or instructors, agency staff need to be trained in facilitative roles. Training can be multilevel, experiential, and field-based to enable personnel to shape new roles through direct contact and experience and to gain confidence, practical methods, and skills in moving from directive to more facilitative individual and organisational roles. Training events that include staff from various levels, e.g., field workers, supervisors, and project managers, can help expand understanding of issues and common action plans among those who supervise and those who are supervised, thus effectively treating several layers of the working environment efficiently. Integrating both hardware and software personnel in training programmes will help each to better appreciate the other's role and can result in better-integrated projects.

Resolve Gender Issues within Institutions

Gender analysis needs to be done not only at the community level, but also at the various institutional project levels. Gender-sensitivity training and affirmative action in hiring women at higher levels are two examples of what can be done to resolve gender issues. For example, there are still many cases in which women are rarely found as staff in water and sanitation institutions. While NGOs may do better, women are not often found in senior management positions, nor in official planning and policy-setting environments; this is a situation that should change. At the community level, programmes can require that women be involved—and have voting power—in WATSAN and community development committees. Arrangements for encouraging their employment in the sector abound, only one of which is to arrange for working groups of women to be paid for operations and maintenance from community funds. At service organisational levels, such as with NGOs, grant or contract negotiations for staff recruitment can include provisions for recruiting a gender-balanced staff. Similarly, recruitment policies at governmental and policymaking levels can be encouraged. It is also important that any working groups ensure that women are involved from the beginning, especially where UNICEF staff can influence such groups' composition.

The example in Box 9-4 illustrates how institutional responsibilities were divided up or allocated in a project in Uttar Pradesh, India.

What Do We Know, and What Do We Need to Know for Appropriate Institutional Arrangements?

The checklist summarizes the main areas in which information needs to be collected in order to understand the local context and inform your analysis of strategic options. Some of the reasons for collecting the information and some of the questions you may wish to ask yourselves as you review this information appear in italics. The information you need to gather may be best organised in terms of functions: type of institutional arrangements existing for policy formulation, donor coordination, capacity building/HRD, service delivery, technical support, financial arrangements, procurement, and monitoring and evaluation. An assessment of their effectiveness will also need to be included.

Previously, we've looked at a number of collaborative approaches to gathering the information needed and working through an analysis to devise appropriate programme strategies. Whatever information-gathering approach you take, once you have this information and consider the issues and options open to you, you will be able to make educated choices and devise your strategy for institutional arrangements.

General approaches taken by sector institutions. Approaches taken to hygiene and sanitation by each institution in rural, peri-urban, and urban areas; recent changes and innovations in their work; existing institutional arrangements for policy formulation, donor coordination, capacity building/HRD, service delivery, technical support, financial arrangements/procurement, and monitoring and evaluation. Do the various institutions respond or initiate? Does the institution facilitate the implementation of sanitation as a "priority"? Is the attitude one of enforcement, education, or persuasion? Do current arrangements support the definition of sanitation chosen? Are they demandled in orientation?

Box 9-4: Selecting Options for Institutional Arrangements: A Field Example

A credit preparation team working with representatives of the Rural Development Department in the Indian state of Uttar Pradesh was asked to reconsider institutional arrangements for service delivery in two rural project areas. The group gave highest priority to approaches that would establish sanitation as a locally managed function, maximizing use of local management potential, skills, and resources; this, they reasoned, would contribute most to sustainability. Since behavioural change strategies were to be highly participatory, arrangements would have to support skilled field-workers and structures that supported community-based development at all levels. Because women were most affected by the sector, their participation in decision making was deemed vital. Each community was different; thus, priority was given to arrangements that would be flexible and adaptive to local needs. High priority was also given to cost-effectiveness, since external resources were increasingly limited. The group then defined a strategy for institutional arrangements at various levels and for various functions.

Community-Level Arrangements

For both rural areas involved, emphasis rested upon building local village water and sanitation committees (VWSCs) as the primary management unit. While this would likely take more time and require more behavioural changes at the local level, it was agreed that the approach would be more cost-effective in the long run, and that the essence of sanitation in any case was enabling the community to change behaviours and manage a "healthier" environment. Evidence of these conclusions came from a series of reports on public-sector projects and their sustainability as compared with experiences on community-based schemes carried out with NGO support. One problem to be resolved was that for a project to be truly participatory, community members would need to select their own committee rather than have it appointed by the panchayat. And the planning team wanted to allow NGOs to work first with every cluster to build a solid base for the organisation. The state government of Uttar Pradesh thus signed an order making the VWSC a subcommittee of the panchayat, but specified that the people of each village would select their own VWSC and office-bearers. The strategy further encouraged the appointment of women as committee treasurers. In this project VWSCs would not be paper committees, but would be built up over time to control design, procurement, funds, implementation, and management of the project.

Arrangements for Service Delivery

The planning group also had to identify strategies to help people in managing their own affairs. It decided that NGOs had the best track record and credentials for facilitating and educating the community—being good

Decentralization. Level of decentralization practiced in the country; structures for provincial and local government. Are sanitation policies and responsibilities at a national, district, or municipal level? Are there current moves or policies toward decentralization, or the reverse?

Box 9-4 (cont'd.)

organisers and catalysts—and for building local capacity. It was agreed, however, that this was not universally true of all NGOs and that screening would be needed to find the best partners and to build their capacities. For example, some NGOs still operated as providers and needed to receive training as catalysts. Reforming the line agencies of the government was ruled out: the staff were purely technical, had little experience in sanitation, and were focused on traditional hardware delivery.

The group determined that government's role should be to support the NGOs and communities in a more decentralized approach. Government, including local government, would monitor the project to ensure that public resources were used effectively by communities, NGOs, and the private sector. Chief development officers at the district level would help to coordinate efforts and facilitate the work of project partners, but it was decided that government agencies had no clear comparative advantage in service delivery. Establishing responsive, flexible approaches would require a means by which decisions on how services were to be provided would vary with each community's unique character. It was further decided that general criteria (need, social and technical soundness, cost-effectiveness) for approving schemes would be established, and that communities and their supporting NGOs would be able to adapt their scheme designs according to need within the broad framework of transparent criteria. Broad outputs were monitored; how communities achieved them remained flexible.

Institutional Arrangements for Technical and Financial Support

The project planning team agreed that systems for decentralizing resources should be controlled directly by communities, in keeping with Government of India policy. They decided, therefore, on the creation of a "project management unit," which would provide resources to the best projects and agencies that applied, based on transparent criteria. Communities, NGOs, local governments, and any group with skills needed to facilitate community sanitation could apply. Communities would have control over design, implementation, and related procurement and contract decisions. As for technical help, they would receive this from NGOs or hire as needed. Contractors would be accountable to the communities and their helper NGOs. Although this approach was radical, planners believed that it could open up the sector and help to inform the long-term strategic change objectives of the state. Over time, the planning team focused on institutional arrangements for HRD/capacity building, policy development, and monitoring and evaluation. These would be demonstrated as part of a major World Bank-assisted project, and would be part of a learning process to develop a long-term strategic plan for the sector over the life of Bank assistance.

Source: Uttar Pradesh Rural Water and Environmental Sanitation Project, 1996

Local institutions. Nature of local governance at the settlement level—i.e., in villages, rural towns, and periurban areas. *Is it appointed? Is it representative? What informal and formal organisations already exist? At each level, what groups exist or could be formed to best make decisions concerning environmental/domestic sanitation and personal hygiene? Which field workers can best work with these groups, if any, and how would they be supported?*

Government, parastatal, and private organisations. List of existing agencies and organisations active in the sanitation/hygiene sector at the central, district, and local levels—including preliminary assessment of their effectiveness in relation to mandate and action and reputation for "honesty"; summary of hygiene and sanitation activities undertaken; responsiveness to consumer demand and preferences or complaints. How effective and appropriate are the current roles of institutions? Are there problems of effectiveness or system losses? What is the community's level of trust with local authorities or appointed contractors? Would it be the same if the community made more decisions about who is hired to perform which role? If they bought the services directly or built facilities themselves?

NGOs. National, regional, local, or community-based in scope of services; level of organisation and status (e.g., registered at local level and/or to receive external funds); management, technical, programme, and staffing capacities; providers or enablers of local development; development track record (community infrastructure, health,

education, productivity, and credit, etc.); functions (advocacy, development programme, management, welfare services); linkages (with external agencies and other NGOs). Which NGOs can support and facilitate community-based projects where consumers become key decision makers? What other sector roles might they play? What is the best way to engage NGOs, and what capacity building will they need?

Existing coordination mechanisms and/or partnership arrangements. National, state/province, district, and local levels. *Is there a coordination or policy-setting body? Are there apex bodies that channel technical assistance, services, and resources to local NGOs and community-based organisations? Have local organisations established working partnerships with government or other bodies?*

Other donors and lenders/credit organisations. Activities and plans of other donors in the sector and their relations with local institutions. Who funds whom and what? Do any donors emphasize sanitation, or are any about to embark upon new initiatives? Who has funded sewerage development and treatment, etc.? Is there interest and willingness to consider co-financing or joint programmes with UNICEF?

Private sector. History and present position of the private sector in service and infrastructure delivery; types and frequency of private service providers and volume of services provided through the private and informal sector; extent and capabilities of the private sector in local manufacture. *Is water vended? Is nightsoil or refuse collected? Are latrines built by specialists or waste products recycled?*

Human resource development. Range of HRD efforts underway and planned; existing attempts to network HRD services in the country and their successes. *What are the lead agencies in HRD and their assets/ constraints? Do the institutions provide HRD services congruent to the demand-led approach? Is appropriate technology taught at technical colleges? Are there needed changes in the educational system?*

Legal framework. (As it refers to sanitation and public health—often expressed as the Public Health Act.) National, municipal, and local laws; existence and potential for bylaws and enforcement mechanisms; etc. *Are building codes appropriate and helpful, and do they cover sanitation matters? What is the similar framework, if any, in place for environmental protection?*



Residents play a game that instills skills for managing their own water and sanitation project in Uttar Pradesh, India. (*Jake Pfohl*)

10 Building Political Will

- Build Top-Level Support
- Questions to Bear in Mind When Assessing Political Will
- Considerations and Options to Explore about Building Support
- What Do We Know, and What Do We Need to Know? Information to Gather about the Political Terrain

This chapter will help you explore issues, considerations, and options for devising strategies for building political will, a critical aspect of most sanitation programmes. Building political will comprises three major strategies:

- Stakeholder analysis
- Effective policy discussions
- Communications

Build Top-Level Support

Stakeholder analysis involves identifying the types of audiences/groups to be involved and determining how to approach them. Effective policy discussions can help legitimize the process of learning, programming, and policy development—not only establishing sanitation as a priority but, more importantly, also helping stakeholders put into place the specific programme strategies and policies that move the sector forward. Effective communications help extend participation in new programme directions/policies by a wider range of stakeholders, from community to local government, NGO to line agency and central government, and ultimately, to policymakers and national leadership.

Designing a strategy to build political will requires a detailed understanding of the issues, current situation, constraints, and promising strategies. Be prepared! When you have clarified most other aspects of your sanitation programme strategy, you will already have generated a body of knowledge that makes good advocacy at the policy level possible. Be ready to explain how sanitation compares with other national priorities.

The very process you undertake to develop your sanitation strategy can help build awareness among key practitioners and policy-makers. Your core working group, for example, can leverage your programming work as a starting point for effective policy discussions. Building political will is central to the role of a catalyst. But you must also be sure it is oriented in the right direction, based upon rigorous analysis. *Caution:* A motivated leader's blind enthusiasm to spend money might have unwanted results, e.g., a huge subsidy programme that could dampen local ownership and initiative and hurt efforts in the long run.

Your core working group can help create conditions in which decision makers prioritise and define effective sanitation policies *themselves*, rather than starting with a confrontational attitude. This is the core concept of this handbook: working as a catalyst to bring about effective programming and policy change that supports it. The programming process described in this handbook, which starts with learning and analysis and moves toward defining

specific strategies, is a major strategic vehicle and basis for launching meaningful policy discussions.

Questions to Bear in When Mind Assessing Political Will

What are the consumer preferences (clarified through programming work and study) upon which to base a process of developing political will?

Who are the groups, at various levels, that **must be involved** to build political will and a supportive policy environment? What are their interests, perspectives, and vision of the sector? What are various ways they can Residents of Comilla, Bangladesh, celebrate National be reached and involved?



Sanitation Week 1994. (UNICEF)

What are the best strategies for dealing with resistance to more effective policies? How can resistance become transformed into a force to further a strategy?

How can we use gains in political will to support the programming process and strengthen both national sanitation policy and the priority given to sanitation?

Considerations and Options to Explore about Building Support

You and your working group can foster a positive policy environment: in fact, this is a key advocacy objective. Let's look at ways to extend the learning, programming, and policy development process from your national core group to both functional local levels and national decision makers.

Identify High-Level Allies

On a one-on-one basis, identify those in official positions who can cut through red tape, overcome constraints, and provide a strong impetus to sanitation programmes. As you build relationships, try to promote critical thinking and awareness of the issues-enough critical mass over time to tackle difficult institutional problems. Promote ongoing activities for learning to overcome more difficult constraints. As lessons are learned, involve decision makers in effective policy discussions. (See Box 10-1 for examples of high-level support of national sanitation efforts in Indonesia, Egypt, and Bangladesh.)

Hold Effective National-Level Meetings to Legitimize Programming Work and to Hold Policy Discussions

To confirm programme designs, carry on policy discussions, resolve difficult policy issues, and give greater priority to sanitation; organise special meetings on the topic. (See Appendix D for meeting resources.) Use the information generated by the core working group, and other groups at various levels of the programming process, as a basis for analysis and decision making at these meetings. Structured well, such events can center around specific issues that have been analyzed with some rigor: current health problems attributable to a lack of sanitation; impact of the lack of sanitation in peri-urban areas as opposed to rural areas; focus of investment strategies; levels of investment needed in the sector; nature of institutional arrangements; social consequences of sanitation conditions; and so on- indeed, most of the topical issues covered in the preceeding chapters.

Use Training Events that Include Staff of Various Authority Levels and Agencies

Involve the key agencies in joint training, making sure that the various levels of staff are included whenever possible. Field-based, participatory training approaches are often effective ways to bring agencies and different levels of professionals together on sector issues and approaches. Such events can include a field component and can be videotaped to reach a wider audience, including senior policymakers.

Link Sanitation to Existing Public Health Priorities and to Positive Behavioural Patterns and Religious Beliefs Identify health problems that are already recognized as national crises, and show their relationship to sanitation.

Box 10-1: Examples of Building Political Will

Indonesia, the Clean Friday Movement

With the president of Indonesia taking the lead and inaugurating the movement, UNICEF Indonesia involved the Indonesian Council of Islamic leaders (MUI) in launching a campaign in 1994 called the "Clean Friday and Latrine Promotion Movement." MUI prepared a booklet entitled, "Water, Sanitation, and Islam," a compilation of specific Islamic teachings related to WES. These booklets were distributed to Ulemas (Islamic leaders) at the district level throughout the country and have been used in preparing Friday sermons encouraging hygienic behaviour. The movement focuses on latrine construction and use, proper storage and handling of drinking water, proper handwashing practices, and proper garbage disposal. Although the campaign covers the whole country, it focuses particularly on five major provinces. In some districts like West Lombok, latrine construction increased 25-fold, with certain villages reaching 100 percent coverage. Source: Y.D. Mathur. UNICEF WES Chief, Indonesia

Egypt, Building Political Will

In Egypt, the WES office has given sanitation a strategic focus. After analyzing major barriers to developing a good sanitation programme, UNICEF Egypt and its partners devised a strategy that encompassed determining suitable technical options, defining a suitable policy and responsibilities, mobilizing resources, and carrying out a strategic advocacy campaign and a hygiene campaign. The strategic advocacy campaign is being designed to position sanitation as a national priority. The campaign will reinforce positive behavioural patterns and religious beliefs and associate itself with other more politically acceptable problems. For example, it may be called the "Campaign to Eradicate Schistosomiasis through Sanitation and Hygiene." Schistosomiasis occurs mainly in low-income rural areas, which are a target for UNICEF intervention. By associating sanitation with what is an acknowledged major public health problem in the country, more political acceptance will be obtained.

Source: Vanessa Tobin, UNICEF Cairo. Abstracted from WATERfront, Issue 7, May 1995

Bangladesh, National Social Mobilisation

National Sanitation Week was first launched in 1994 as part of a national effort for social mobilisation. The prime minister inaugurated this first national activity, whose targeted mid-decade goal was 35 percent coverage. When that goal was attained even before 1994 ended, a target of 50 percent was set for 1995. By the end of 1995, 48 percent coverage had been obtained, nearly reaching the goal. Thus, national activity was carried out with the full involvement of central and local government agencies as well as NGOs and the private sector. The effort has continued, with new targets planned for 1996 and beyond.

Source: UNICEF Annual Report. Bangladesh, 1995

Work within the cultural framework to find appropriate ways to speak of the unspoken. Box 10-1 gives an example of combining political backing with the voice of respected religious leaders.

Utilize Community Media

Engage local communities in designing and producing video and radio programmes as feedback. Use local television for broadcast where this is feasible. In meetings with the agencies concerned, use video feedback to stimulate a focus on specific sanitation problem areas. Local newpapers, wall posters, and special leaflets can also be prepared by the community.

Design, Prepare, and Conduct Consultations among NGOs, Government, and the Private Sector

Events can be structured that include presentations of experience by NGOs and both private and public sectors. In this way, government can better see NGOs and the private sector as national resources, based on the work they are doing, and NGOs can affect government's planning.

Use the Results of Pilots and Demonstration Projects to Advocate New Approaches

Ensure that pilots are testing or proving alternative strategies and are bringing something new to the sector. Structure them so that results can be multiplied and affect the sector programme overall and use their results for advocacy work.

What Do We Know, and What Do We Need to Know? Information to Gather about the Political Terrain

The information checklist summarizes the main areas in which information needs to be collected in order to understand the local context and successfully build support for your sanitation programme.

Earlier in the handbook, you examined various collaborative approaches to gathering information and working through an analysis to devise appropriate programme strategies. Whatever information-gathering approach (or approaches) you choose, once you gain the information called for in your checklist and consider the issues and options open to you, you will be able to make educated choices and devise your strategy for building political will.

Existing advocacy efforts. Current efforts being undertaken to build political will from policy to local levels; nature and content of efforts and rationale behind them. *Are efforts adequate, correctly aimed, and based upon a good analysis of issues? Should these efforts be strengthened? Are other organisations welcome to participate?*

Main human and institutional influences. Major institutions and influential players in the sector and within organisations that influence the sector, including donors, advisors, practitioners, officials, political and religious figures, media, etc.; varying positions of the central line agencies, planning and finance ministries, parastatals, local government, and their equivalents; influential NGOs and NGO networks, private sector organisations; recognized community leaders. *Which are major resources and why? Which are constraints in building political will and why? What are the likely roles each would play in an advocacy campaign?*

Major sector issues and how they are represented. Summaries of data regarding major sector issues. (Information on positions taken by various players and their rationale should be documented, including ways in which major players present their positions.) *What are the major trends? What are the key constraints and resources for sector change and improvement? What positions are most likely to advance the sector, and is the working group willing to promote them?*

Underlying values. Cultural ground rules, norms, practices, and attitudes that cannot be ignored in building political will. Which are resources, and which are constraints? How will they be addressed in the design of an advocacy effort?

Communication channels. From mass media (newspapers, film, radio) to interpersonal and group methods: nature of each channel and degree to which it exists in country and is accessible; relative costs; comparative extent and quality of outreach. *Who needs to be reached to promote political will? Which of the media available are appropriate to reach them?*

11 Getting Back to Us—and A Final Word

The authors hope that you will find the following true!

Use of this handbook will-

- □ Make your job easier.
- Lead to more successful and sustainable sanitation programmes.
- Given through stakeholder involvement.
- □ Help advocate and gain support for sanitation.
- □ Enable you to help achieve World Summit for Children Goals and fulfill the Rights of the Child.
- Allow you to be more efficient in programme design and implementation.
- Provide a working framework that you can adapt to particular conditions and settings.
- Increase your understanding or commitment to current development principles: participation, empowerment, and transparency.
- Help you understand the WES conceptual framework and develop a similar one in country to guide sanitation planning decisions.

We depend on you. You can add an important milestone for improving sanitation.

This handbook is designed to serve as a tool to help improve the standing of sanitation and thereby lead to a safer environment for all. The challenge to those preparing sanitation programmes is to be innovative and results-oriented, so that the energy and commitment developed during the planning process will produce better sanitation programmes in the immediate future.

On the following two pages, please find an Action Report Form. As mentioned in Chapter 1 of this handbook, the form is provided to help you devise your own self-monitoring of progress as a "catalyst" of better sanitation programmes, and the form can also enable us to monitor your progress and provide you with the support you may need.

Please complete the form with your colleagues and mail it back to the WES unit at the address provided at the end of this chapter. If you need further clarification or assistance in order to complete the form, please let us know.

Now that you've planned how you are going to be catalyst of better sanitation programming, we wish you-Good luck!

We hope that, in working through the handbook, you have gained some helpful methods and insights to stimulate good sanitation programming. As you try the tools and techniques presented here, and as you improve upon them and develop your own, please share your experiences in story form for publication in *WATERfront* and for use at UNICEF knowledge centres. Your feedback and suggestions will help make the next version even better.



Health-enhancing behaviours should always be linked to sanitation as they are in this rural water and sanitation project inUttar Pradesh, India. (*Jake Pfohl*)

Please send the Action Report Form, your comments, feedback, and other suggestions to:

The Chief Water, Environment and Sanitation (WES) Section UNICEF 3 United Nations Plaza, TA-26A New York, New York 10017 U.S.A.

Action Report Form

1.	Forming a National-Level Working Group. Describe how you will develop or strengthen an existing national working group of sector professionals who can catalyze the learning, programming, and policy-development process. List who will be involved from the public, private, and nongovernmental sectors. Describe how the group will expand its work to both local levels and senior policymaker levels.
2.	First Steps: Charting a Broad Programming Strategy. How will the working group develop a broad perspective on the current situation of sanitation programming? How will its members determine a broad vision of where they want to go in the next three to five years, and an overall sense of the programming constraints and resources for getting there? Describe.
3.	Developing Specific Programme Strategies. Working as a catalyst, what types of interventions will your group take in order to develop specific programme strategies? Describe what you will need to do—and what steps you will have to take—to build strategies for each of the following seven categories, using methods such as meetings; field tests, building learnings into ongoing projects; action research; reviews of secondary information; pilot demonstrations; joint training and planning workshops; participatory rapid appraisals; field-based training and field-testing; documentation efforts; network development; organising consultations; holding policy discussions; etc. How will you link these into a coherent strategy?

Action Report Form

(S	(Specific Strategy Development, cont'd.)			
	3.1	Identifying Communities		
	3.2	Community Participation		
	3.3	Technology Options		
	3.4	Financing		
	3.5	Institutional Arrangements		
	3.6	Political Will		
	3.7	Pulling the Overall Programme Strategy Together		
4.	developm	Resources. What level of effort will this learning, programming, and policy- ent process require, and what resources will you need to accomplish the task? From resources? The country programme? Headquarters technical assistance? Describe		

Bibliography

Community Participation, Behaviour Change

- Deutsche Gesellschaft fuer Technische Zusammenarbeit (GTZ). 1988. ZOPP (An introduction to the method.) GTZ: Franfurt am Main.
- NGO Forum for Drinking Water and Sanitation. 1996. *Social mobilisation for sanitation projects*. (Annual Report, 1995-1996.) Dhaka, Bangladesh.
- PACT. 1992. Options for educators: A monograph for decision-makers on alternative participatory strategies. PACT Publications.
- Simpson-Hebert, M., R. Sawyer, and L. Clarke. 1996. The PHAST Initiative. *Participatory hygiene and sanitation transformation: A new approach to working with communities.* Geneva: WHO.
- Srinivasan, L. 1992. Tools for community participation. UNDP/PROWWESS.
- van Wijk, C., and T. Murre. n.d. *Motivating better hygiene behaviour: Importance of public health mechanisms for change.* Revised by Steven Esrey. UNICEF.
- Yacoob, M., B. Braddy, and L. Edwards. 1992. *Rethinking sanitation: Adding behavioral change to the project mix.* WASH Technical Report no. 72. Arlington, Va.: Water and Sanitation for Health Project.

General Sanitation and Technologies

- Chan, M.S., G.F. Medley, D. Jamison, and D.A.P. Bundy. 1994. The evaluation of potential global morbidity attributable to intestinal nematode infections. *Parasitology* 109:373-387.
- Esrey, S. A., J. B. Potash, L. Roberts, and C. Shiff. 1990. Health benefits from improvements in water supply and sanitation: Survey and analysis of the literature on selected diseases. WASH Technical Report no. 66. Arlington, Va.: Water and Sanitation for Health Project.
- Franceys, R., J. Pickford, and R. Reed. 1992. A guide to the development of on-site sanitation. Geneva: World Health Organization.
- Gavin, J., T. Hockley, and S. Joyce. 1993. *Community sanitation improvement and latrine construction program: A training guide*. WASH Technical Report no. 83. Arlington, Va.: Water and Sanitation for Health Project.
- Hogrewe, W., S.D. Joyce, and E.A. Perez. 1993. *The unique challenges of improving peri-urban sanitation*. WASH Technical Report no. 86. Arlington, Va.: Water and Sanitation for Health Project.
- Luong, T.V. 1996. Reflections on the sanitation and hygiene programme in Bangladesh. UNICEF.
- Obeng, L., and A.R. Locussol. 1992. *Sanitation planning: A challenge for the 90s*. Presentation to the Union of African Water Suppliers Congress. Cotonou, Benin. Regional Water and Sanitation Group—West Africa, UNDP-WB Water and Sanitation Programme, Infrastructure Division, Technical Department, Africa Region, The World

Bank.

- Pickford, J. 1995. Low-cost sanitation: A survey of practical experience. London: Intermediate Technology Publications.
- Solo, T. M., E. A. Perez, and S. Joyce. 1993. *Constraints in providing water and sanitation services to the urban poor*. WASH Technical Report no. 85. Arlington, Va.: Water and Sanitation for Health Project.
- Warren, K.S., D.A.P. Bundy, R.M. Anderson, A.R. David, D.A. Henderson, D.T. Jamison, N. Prescott, and A. Senft. 1993. Helminth infection. In *Disease control priorities in developing countries*. Jamison, D.T., W.H. Mosely, A.R. Meashem, and J.L. Bobadilla, eds. Oxford: Oxford Medical Publications.

Monitoring and Evaluation

- LaFond, A. 1995. *A review of sanitation program evaluations in developing countries*. EHP Activity Report no. 5. Arlington, Va.: Environmental Health Project and UNICEF.
- Narayan, D. n.d. *Participatory evaluation: Tools for managing change in water*. Technical Paper no. 207. World Bank.
- Roark, Philip. 1990. *Evaluation guidelines for community-based water and sanitation projects*. WASH Technical Report no. 64. Arlington, Va.: Water and Sanitation for Health Project.
- SIDA. 1995. Hintbook to the user of Logical Framework Analysis. Stockholm: SIDA.
- WASH Project. 1993. Lessons learned in water, sanitation, and health. Updated edition. Arlington, Va.: Water and Sanitation for Health Project.

Finance

Varley, R.C.G. 1995. *Financial services and environmental health: Household credit for water and sanitation*. EHP Applied Study no. 2. Arlington, Va.: Environmental Health Project.

Project Related

- UNICEF. 1994. Sanitation: the Medinipur story, Intensive sanitation project. West Bengal, India: Intensive Sanitation Project. UNICEF, Calcutta.
- IRC. 1996. *The community-managed sanitation programme in Kerala: Learning from experience*. IRC, Danida, SEU Foundation, Kerala.
- Pfohl, J.E. 1995. A synopsis of the Nepal RWSS project, JAKPAS. UNDP-WB Water and Sanitation Programme.

UNICEF. n.d. Sanitation: The Medinipur story. West Bengal, India: Intensive Sanitation Project. UNICEF, Calcutta.

NGOs and Private Sector

- Kunguru, K., and M. Mwiraria. 1991. *NGO support to informal settlements: A case study of Kibera, Nairobi*. Case Study Series #1-11/1991. UNDP-WB Water and Sanitation Programme.
- World Health Organization. 1996. *Report on the impact of social mobilization for sanitation on the private producers*. WHO in collaboration with DPHE, UNICEF, and SDC.

UNICEF Documents

UNICEF. 1995. UNICEF strategies in water and environmental sanitation. (Document E/ICEF/1995/17 13 April 1995)

UNICEF. 1996. WATSAN India 2000. India: UNICEF.

UNICEF. n.d. Book D. UNICEF policy and procedure manual.

Workshops

- Gormley, W., and F. Rosensweig. 1985. *A facilitator guide for conducting a team planning meeting*. WASH Technical Report no. 32. Arlington, Va.: Water and Sanitation for Health Project.
- Sanitation: The missing link to sustainable development. Report from the Eastern and Southern African Region Workshop on Sanitation. Harare/Mazvikadei, 25-30 October 1994.
- Planning for health and socio-economic benefits from water and environmental sanitation programmes. A Workshop Summary, WES Section, Evaluation and Research Office, UNICEF, New York. 21-22 April 1993.

Appendix A

The Problem of Sanitation and Guiding Principles of Better Sanitation Programmes

(From the Water Supply and Sanitation Collaborative Council's Working Group on the Promotion of Sanitation, 1995)

The Burden of Poor Sanitation

Every year, 2.5 million children die from diarrhoea that could have been prevented by good sanitation; millions more suffer the nutritional, educational and economic loss of diarrhoeal disease which sanitation can prevent. Poor sanitation has led to the infestation of over two billion people (Warren et al. 1993, Chan et al. 1994), largely children, with a variety of worm infections, and has caused corresponding cost-related problems in health and energy. Human excreta are also responsible for the transmission of schistosomiasis, cholera, typhoid, and many other infectious diseases affecting hundreds of millions. Heavy investments have been made in water supply since 1980, but the resulting health benefits have been severely limited by the poor progress in sanitation. Besides this toll of sickness and disease, lack of sanitation is a major environmental threat to water resource systems and a fundamental denial of human dignity.

Characteristics of the Problem

Like all complex problems, poor sanitation can be analysed on many interrelated levels. At its first meeting, the Collaborative Council Working Group on Sanitation Promotion started a process of identifying problems, barriers, and themes that appeared to operate on three levels.

Level 1, The basic problem: Sanitation isn't happening

Despite years of rhetoric, good intentions, and hard work, we are in fact making little or no progress; at current rates of "sanitation provision", the number of people without sanitation will not change in the next 40 years—a staggering two billion people. This is astonishing, given the human capacity to solve problems, the fundamental nature of this basic need, and the enormous suffering caused by our failure to meet it. Yet those of us working in sanitation are agreed that, with some notable exceptions, we are either losing ground or barely holding the line.

Level 2, Barriers to progress: Why sanitation doesn't happen

Given the magnitude and importance of the problem, why is there so little progress? The Working Group found the barriers to progress were varied and complex, but could generally be grouped into nine linked and overlapping categories.

Lack of political will: There is little political incentive for government to deal with a difficult subject; politicians rarely lose their jobs because of poor sanitation, particularly as the people most in need have the least power. Political commitment is needed to create an environment in which demand for sanitation can grow, which in

turn can strengthen political will. The issue of political will is thus both a cause and effect of other problems, and a key to successful sanitation promotion.

Low prestige and recognition: Low-cost sanitation facilities and hygiene promotion campaigns have never been prestigious; politicians and movie stars don't demonstrate latrines. Among professionals, the best and the brightest avoid low-cost sanitation as a low-status, low-paying career, particularly as it is more difficult and demanding than the high-status, high-tech engineering or medical fields. Among consumers, lowcost sanitation has no prestige in comparison with "conventional" water-borne sanitation that the industrialized world and the economic elite of developing countries use.

Poor policy at all levels: Agencies responsible for creating a supportive environment for sanitation generally have ineffective and counterproductive policies at all levels. These include too much attention to water supply at the expense of sanitation, a focus on short-run outputs (hardware) rather than long-term behaviour change, and subsidies that favour middle- and high-income communities. More fundamentally, there is often no philosophical approach to the problem upon which sound policy can be based.

Poor institutional framework: Many players are affected by sanitation, and many more could be involved in its promotion. The institutional frameworks in place fragment responsibilities among government agencies, neglect the needs of the most vulnerable, and ignore the powerful role that nongovernmental organisations and the private sector can play. It is clear that governments by themselves have failed to promote sanitation and that existing institutional frameworks need to change.

Inadequate and poorly used resources: Sanitation does not attract a fraction of the resources needed to do the job. It is at least as important for health as water supply and is a far more demanding problem, yet sanitation receives far fewer resources. Increasing resources are required just to maintain the *status quo*, as urbanization and population growth make the hazards of poor sanitation more acute. Where resources are available, far too much goes into hardware and not enough into mobilisation and hygiene promotion.

Inappropriate approaches: Even where sanitation promotion is attempted, the approach taken is often wrong. Attempts are made to find simple universal solutions that fail because the diversity of needs and contexts is ignored. Urban needs often differ from rural needs, the technology options offered are limited and inappropriate, and critical issues of behaviour are ignored or handled badly. The short term is generally favoured over the long term, and we fail to learn from collective experience.

Sanitation also fails by being defined and applied too broadly or too narrowly within a specific environment. In some cases, for example, the scope of environmental protection and pollution control becomes so broad that the focus on basic household excreta management is lost. In other cases, a narrow focus on pit latrine installation, which ignores local drainage needs, could exacerbate disease transmission during floods. Short-term disaster relief fails to develop long-term sustainable sanitation because the approach doesn't include the transition as a goal. Current approaches also stifle innovation and undermine confidence; we're so afraid of even more failure in this difficult field that we don't take the risks required for success.

Neglect of consumer preferences: Too often, we try to sell what people don't want and/or can't afford. Low-cost technologies are often seen by consumers as low-status technologies, while many appropriate technologies are far beyond the economic reach

of those most in need. Promoters try to sell sanitation facilities on health benefits, where people really want the privacy, comfort, and status that sanitation can offer. Much hygiene promotion is based on messages that ignore existing knowledge, belief, and experience. Very simply, most of us promoting sanitation simply don't listen to what people want or believe.

Ineffective promotion and low public awareness: Because people don't want to talk or think about faeces, selling the idea of sanitation is difficult. Yet the engineers and doctors frequently responsible for selling sanitation are often unaware of effective promotional techniques and continue with top-down approaches that alienate "target populations" by denying their voice, desires, and involvement in the process. Those in charge are not trained to promote sanitation. Adoption of social marketing and participatory approaches to sanitation is promising, but this is still in its infancy; we have much to learn.

Women and children last: Women are potential agents of change in hygiene education, and children are the most vulnerable victims, but men usually make the decisions about whether to tackle the problem, and how. Many sanitation programmes ignore the disposal of children's faeces, even though they are a major reservoir of disease pathogens. Women often need privacy and security in sanitation more than men, yet they are unable to express those needs effectively in many societies. Those with the most at stake thus have the weakest voice.

Level 3, Cross-cutting themes: Demand and taboo

Little effective demand: If enough people wanted the available sanitation improvements badly enough, many of the above problems would resolve themselves. These problems are frequently expressed as constraints upon supply. We also need to think about factors that limit economic or political demand. Some people may want sanitation very badly, but they are powerless to express themselves in financial or political terms; some may want sanitation facilities, but not at the available price; and others may not want the available "improvements" at any price. Where sanitation is poor we need to understand why the effective demand is low to determine whether it is most amenable to political, financial, technical, or informational change.

Cultural taboos and beliefs: In most cultures, excreta are taboo, and viewed as a disgusting and/or dangerous nuisance not to be discussed openly or seriously. Nobody wants to be associated with excreta; even those who actually reduce its offensive characteristics for others are stigmatized by association. Problems can't be solved if people don't want to talk about them, and don't want to be associated with their solution. In many contexts, ancient or

Box A-1: The Guiding Principles of Better Sanitation Programmes

- From an epidemiological point of view, sanitation is the first barrier to many faecally transmitted diseases, and its effectiveness improves when integrated with improved water supply and behaviour change. However, improvement in hygiene behaviours alone can result in disease reduction and can serve as a valid programme objective.
- Sanitation comprises both behaviours and facilities, which should be promoted together to maximize health and socioeconomic benefits.
- From an implementation point of view, sanitation should be treated as a priority issue in its own right and not simply as an add-on to more attractive water supply programmes. Sanitation requires its own resources and its own time frame to achieve optimal results.
- For sanitation programmes to be effective, political will at all levels is necessary. Communities are more motivated to change when they know political will exists.
- Communities are biocultural systems. A sanitary environment is a successful interaction of the key parts of that system: the waste; the natural environment with its unique physical, chemical, and biological processes; local cultural beliefs and practices; a sanitation technology; and the management practices applied to the technology.
- Sanitation programmes should be based upon generating demand, with all of its implications for education and participation, rather than on provision of free or subsidized infrastructure. Government should be responsible for the protection of public health. Government sanitation policy should be one of creating demand for services; facilitating and enhancing partnership among the private sector, NGOs, (community)-based organizations, and local authorities; and removing obstacles in the paths of each of these and of households in the achievement of improved sanitation.
- Sanitation programmes should equally address the needs, preferences, and behaviours of children, women, and men. Programmes should take a gender-sensitive approach but, learning from the mistakes of other sectors, should guard against directing messages only to women or placing the burden of improved sanitation primarily upon women.
- Sanitation programmes should be approached incrementally, based on local beliefs and practices and working toward small lasting improvements that are sustainable at each step, rather than the wholesale introduction of new systems.
- User ownership of sanitation decisions is vital to sustainability. Empowerment is often a necessary step toward achieving a sense of ownership and responsibility for sanitation improvements.
- Good methods of public health education and participation, especially social marketing, social mobilization, and promotion through schools and children, exist to promote and sustain sanitation improvements.
- Sanitation services should be prioritized for high-risk, under-served groups in countries where universal coverage seems unlikely in the foreseeable future. Hygiene promotion should be targeted to all.
- Latrines are consumer products; their design and promotion should follow good marketing principles—including a range of options and designs attractive to consumers and therefore based upon consumer preferences, affordability, and suitability for local environmental conditions. Basic marketing research and participation in design will likely be necessary to good programmes. Market forces are best understood by the private sector.
- As in all other public health programmes aimed at preventing disease, the promotion of sanitation should be a continuous activity. This continuous promotion is necessary to sustain past achievements and to ensure that future generations do not become complacent as diseases decrease.

modern technical taboos can block the safe reuse of human waste as a resource. The excreta taboo lies behind many of the barriers to progress.

What Is to Be Done?

The above is not a complete description of the Working Group's initial analysis of the problem of sanitation, but reflects most of the issues raised and indicates their complexity. Although the problems above are grouped into differing categories and levels, they obviously interact to varying degrees in different contexts.

In some cases **solutions exist but are not widely enough known**; in others **further work is required to develop fresh approaches**; in still others **further work is required just to define the problem** more clearly. The Working Group is not in a position to address all such barriers in a comprehensive fashion, but it can and must **identify principles, set priorities, develop strategies, and work toward solutions** of the sanitation problem.

The Working Group developed the guiding principles in Box A-1 which can serve as starting points.

References

- Warren, K.S.; D.A.P. Bundy; R.M. Anderson; A.R. David; D.A. Henderson, J.T. Jamison; N. Prescott; and A. Senft. 1993. Helminth infection. In *Disease Control Priorities in Developing Countries*. Jamison, D.T.; W. H. Mosely; A.R. Meashem; and J.L. Bobadilla, eds. Oxford: Oxford Medical Publications.
- Chan, M.S.; G.F. Medley; D. Jamison; and D.A.P. Bundy. 1994. The evaluation of potential global morbidity attributable to intestinal nematode infections. *Parasitology* 109: 373-387.

Appendix B Sample Participatory Methods

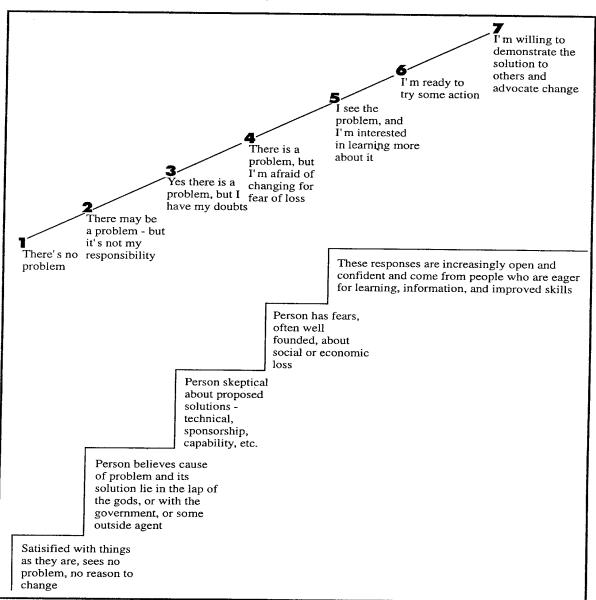
In this annex you will find brief descriptions of three participatory methods: SARAR (self-esteem, associative strength, responsibility, action planning, and resourcefulness); PRA (parti-cipatory rapid appraisal); and VIPP (visualization in participatory programmes). Should you wish to find detailed presentations of these methods, see the resources listed in the bibliography following the main body of the handbook.

SARAR

SARAR is a highly interactive means of strengthening individuals and groups as their own major resource for change in both decision making and planning. The SARAR methodology has been widely used in participatory water, hygiene, and sanitation programmes. A comprehen-sive system tested globally over the past 12 years in water and sanitation, SARAR is a human-growth-oriented methodology rich in techniques and visual tools that evoke decision making and creative planning at various programme levels. SARAR helps to ensure that facilitators serve as catalysts of change and that local people become involved in investigating, analyzing, resolving problems, making choices, and planning and monitoring their own activities. The SARAR methodology can also strengthen policy, planning, and implementation support levels of a programme.

There is strong evidence of SARAR's effectiveness as a development resource and of the potency of its workshops to reorient personnel to people-centered approaches and provide them with a wide range of nondirective techniques and tools for use in work with communities. The SARAR resistance-to-change continuum (see Box B-1) describes varying levels of response to change, especially negative responses. It is a tool to use in discussing why it is important to reach those who resist change. The SARAR continuum is one among a series of exercises used to help practitioners understand that message-oriented approaches may not always be effective— especially with those who have other reasons for avoiding change or who lack the will to participate in decision making. Thus, alternative methods such as SARAR are important to help people deal with negative attitudes, concerns, and beliefs they may be harboring. These meth-ods evoke and help participants tap their inner capacities to deal with personal constraints and the local realities. In a sensitive area like sanitation, where demand is low, methods that involve community members to such a degree are of particular value.

SARAR has defined a series of techniques and tools for action planning in small groups, which can be used with literate and non-literate people:



Box B-1: SARAR Resistance to Change Continuum

Creative Investigative Tools

- *Flexiflans:* Users manipulate small movable figures and objects from daily life to evoke stories, beliefs, concerns, or any aspect of their daily lives.
- **Unserialized posters:** Participants choose from a larger set of poster illustrations to create a story sequence of their choosing.
- **Pocket charts:** Participants trace specific practices or beliefs, such as which people defecate in which places.

• *Creative mapping:* Participants freely define maps of their communities—choosing the contents by themselves.

Analytical Tools

- **Open-ended stories:** These stories, portrayed dramatically or with pictorial support, prompt analysis for resolution of problems.
- Three-pile sorting: Cards showing different types of practices are sorted accordingly, e.g., as to whether they are good, bad, or indefinite—or alternatively, as to whether portrayed problems are responsibilities of communities or of communities and government jointly, or of government alone.
- *Force-field analysis:* Simple devices help people analyze resources and constraints in achieving objectives.
- **Comparisons:** Visuals help users assess the advantages of alternative technologies or practices, such as their costs, durability, ease of maintenance, availability of local materials, or other factors.

Planning Tools

- Story with a gap: This method also uses depictions of before-and-after situations. Partici-pants sequence cards depicting a wide range of steps (solid waste management, water, latrines, soak pits, drainage, etc.) that proceed toward the objective. These steps can then be analyzed in terms of detailed planning and costing of community projects.
- **Three-dimensional plans or maps:** Different innovations can be built in model form showing proposed changes.
- **Specific technology construction steps:** Users sequence construction steps of a proposed activity—for example, building a pit latrine from local materials.

Informative Tools

 Sanitation, health, and action-planning games: Tools enabling participants to learn new information enjoyably as a resource to their planning—rather than through lecture.

These SARAR tools are often used in conjunction with motivational exercises, such as structured exercises, to help build group strength and unity and to help groups build capacity to solve their own problems.

Participatory Rural Appraisal (PRA)

Researchers have found that rapid appraisal methods often provide information needed for de-cision making much more efficiently than conventional surveys. By simplifying techniques and comparing results from a number of quick methods, the PRA method (a procedure for collabora-tive investigation and decision making) evolved from earlier rapid rural appraisal techniques. PRA shifts control of the investigation process to those who are normally the object of investiga-tion. These people now become the subjects, and they choose the criteria, means, and tools to collect information and make use of it as part of their own development process. PRA methods and tools have recently emerged as an important resource to better link communities and out-siders, and to help put tools into the hands of communities to better assess and subsequently plan solutions to their local problems. In PRA, the emphasis has been on the earlier (investiga-tion) stages of planning; this is one difference from SARAR, which is more of a community development method than an investigation procedure.

PRA is a learning-by-doing activity and must be transparent. Usually, activities are held in the context of a series of open meetings. The following are some sample PRA methods:

- **Direct observation:** First-hand recognition of what is happening.
- **Transects:** Systematic walks taken with key informants to learn aspects of the local sanitation situation, and to gain an overview of local natural resources and environmental or other conditions.
- *Semi-structured interviews:* Use of a flexible interview guide to explore issues and generate discussions that may lead to the use of other techniques.
- **Social and wealth mapping:** Locates and records household distribution and circumstances and superficial social features of the area.
- **Resource mapping:** Indicates natural resources in the area that can be used for potential sanitation activities.
- **Venn diagrams:** (Institutional maps) explore the relative importance of services and institutions in a community.
- **Decision trees:** Help to identify a range of options available to community sanitation planners.
- Seasonal analysis calendars: Establish how seasons are defined, and can be used to
 indicate the distribution of activities and trends over the year and across longer
 time periods.
- **Ranking:** Wealth ranking, preference ranking, etc., enabling participants to determine different wealth strata or define priorities respectively.

Although the techniques above are not exhaustive, they do provide examples of methods that can be used. A typical PRA involves a team of people working for several weeks or months (according to the scope and study area) on workshop discussions, fieldwork and analytical discussions. Techniques are combined freely in support of the specific topic under discussion.

Visualization in Participatory Programmes (VIPP)

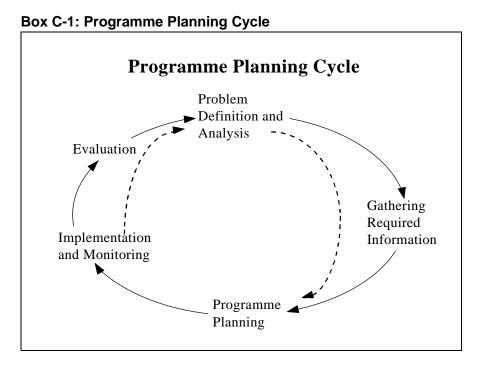
VIPP is a flexible method for group interaction and planning that was developed in Germany. With this method, participants express their main ideas in large letters or diagrams on multi-coloured paper cards of different shapes and sizes; these cards they then share with the group. The cards are consequently grouped, sequenced, and moved about to help shape specific plans. Their flexibility also helps to show the relationships between different layers of activity. The final clusters of cards are photographed, scanned, or photocopied for each participant as a collective memory.

Appendix C Sample Programme-Design Process

Programme-Design Process

The programme-design process is based upon an entire cycle of procedures. Presented briefly in Chapter 3, the topic is explore in more depth in this appendix. It is the task of the national working group. This, or a similar group, guides and catalyzes the process described in the handbook as a learning, programming, and policy-development process—or, in broad terms, the Triple-A approach: assessment, analysis, and action. (See Box C-1.) It can also be related to the Log Frame Approach, a logical planning method used widely in development programmes. Broadly speaking, the stages consist of—

- **Problem definition:** Where we are now. What we know, and what we don't know.
- *Gathering information:* What we need to know to make better decisions.
- Programme planning, including analysis of issues and options: Making choices among alternatives and charting out a strategy and programme design, policy options.
- Implementation and monitoring
- Evaluation, analysis, and replanning



Of course, the cycle—being deliberately nonlinear—is not meant to be implemented mechanically. And it **does naturally lend itself to catalytic action** throughout its phases. Box C-2 indicates what might be expected at the end of each phase, but it should be kept in mind that in any such cyclical process, you may move back and forth among stages as new learning emerges.

Activity	Expected Outcome/Benefit
Problem definition and analysis	 Greater awareness of current situation among organizations Emerging agreement among stakeholders to work together Shared vision of sanitation An agreed-upon definition of sanitation in national context A conceptual model commonly shared and understood Energies mobilized for programming activities
Learning, information gathering, and analysis	 Required information/data collected through various means Analysis of collected information Situation analysis report with main conclusions and recommendations Better understanding of constraints/causes and benefits of improving sanitation Revised version of conceptual model
Programme planning, including analysis of options	 Agreement on the conceptual model Agreement on the major objectives over the next five years Defined and agreed-to five-year programme Monitoring and evaluation planned for and included in the programme plan; an evaluation framework agreed upon Country-level approval of the sanitation programme for onwards submission for approval and funding
Implementation and monitoring (continuous)	 Successfully completed sanitation activities Documented experiences from the programme
Evaluation (beginning and end)	 Results of evaluation Action plan for follow-up and possible expansion Learning for policy development

Box C-2: Typical Outputs Expected after Completion of Each Phase

This appendix describes a range of techniques that can be used to catalyze results for each of these major stages or aspects of programming. The results of your catalytic efforts—e.g., to build contacts, form working groups at various levels to learn and investigate solutions, carry out studies and rapid investigations, field-test options, document experience, etc.—should be codified and formalized at appropriate intervals to help reach the expected outputs. Periodically documenting programme evolution in the form of situation reports, programme designs, monitoring and evaluation strategies, workplans, etc., generates the major tools which help guide the broader efforts of all stakeholders. This work may take place in the form of meetings, fora, workshops, consultations, or other events hosted by the guiding force of the process, i.e., the national working group. *It should be stressed that this is seen as a bottom-up process, evolving over time, with a solid basis in learning and practical experience—and not just a formal series of top-down events promulgating policy without rigor or basis.* Following are outlines of the outputs of each stage, and some description of ways they may be reached.

1. Broad Problem Definition and Analysis Phases

Expected Outputs

- A unified vision, at the country level, of where stakeholders want to be in the future.
- Agreement on the definition of sanitation.
- Comprehensive understanding of the problems currently affecting sanitation (constraints to reaching the vision).
- Agreement on principles and a framework for filling information gaps in the current understanding of the sanitation problem.
- Identification of a strategy of next steps for the learning, programming, and policy-development process to include—
 - Creating a plan for collecting needed information and documenting existing experience.
 - Extending the learning, programming. and policy-development process by forming any needed working groups at local and regional levels; this would include planning ways to forge solid contacts and involvement with communities concerned throughout the process.
 - Designing strategies for any pilots or field tests needed to inform programming.
 - Deciding whether and how to build coalitions or partnerships with NGOs during the process.
 - Finding ways to share learning and information among agencies as the process continues.
 - Defining outlines of the outputs and steps that will emerge, with a timeline, to codify and formalize the process.
- Development of a broad vision statement on how problems might be addressed.

Steps

- Hold a meeting or workshop among key stakeholders to develop the broad parameters of the programming process.
- Detail steps to be taken for the learning, programming, and policy-development process you are to undertake, and suggested catalytic activities.
- Prepare a broad vision statement and distribute it, based on the work of the stakeholders.

It is most likely that this work will be undertaken in the form of a workshop or meeting. (See Appendix D for a series of exercises specifically designed to aid in that purpose.) It will also be important for the national working group to decide who will be responsible for accomplishing the strategies and next steps just outlined; who will analyze information, documentation, and ongoing results of field tests, etc.; and who will prepare reports on the learning, programming, and policy-development process as it evolves. Usually, a multidisciplinary learning group can be created to carry out the strategies and continue over time to build the programme.

2. Learning and Information-Gathering Phase

Expected Outputs

- Workplan for information/data collection and assessment.
- Workplan for documentation of ongoing work in sanitation.
- Specifications of possible field-testing.
- Required information/data collected.
- Analysis of collected data.
- Situation analysis report with main conclusions and recommendations.
- Better understanding of constraints/causes and benefits of improving sanitation.

Steps

- Operationalize the strategies developed in the problem-analysis stage.
- Collect and process new information, learning, and data.
- Prepare situation analysis report.

You will find a few examples of information gathering in different settings and conditions in Box C-3. Although these examples are by no means exhaustive, they do give a sense of the widely diverse parameters for gathering data.

An important aspect of any programme is evaluation. Although at the second phase evaluation details cannot yet be worked out, certain issues related to evaluation need to be considered now, particularly baseline data. If baseline data cannot be gathered during this phase, arrangements should be made to collect it at programme start-up. If some of the baseline data for a programme *can* be collected now, several key questions should be asked. (These are questions relevant for collecting any data.)

- Who: For whom is that data to be collected? Who is responsible for the data collection?
- Why: What is the use of the data to be collected? Who can/will use the results?
- **How:** What methods will be used to gather data?

A realistic, effective, and sustainable sanitation programme must be founded on valid, relevant information. Gathering and processing the right information and data are critical, the heart of this phase, and the basis for conclusions and recommendations for action. The situation analysis report prepared during this phase is important input into the next phase of work.

Remember that learning can take place through a range of means, not just formal baseline studies. The information-gathering tasks will also need to include review of existing experience, documentation of ongoing projects, and results of pilots and field tests and of specific investigations such as RRA or PRA studies originated as part of the effort.

Box C-3: A Number of Possible Planning Scenarios

Information gathering and planning methods described in this handbook can be used in many different situations. The basic concepts are straightforward—involve people from the start; get as much essential information as possible in the time available; select a realistic strategy; and prepare a plan that focuses on measurable results, with monitoring and evaluation gauges set from the start.

Whether sanitation programme/project goals are modest or ambitious, whether time available for planning is short or long, the basic concepts remain the same. There are, in fact, many possible scenarios in which the concepts and methods proposed in this handbook can apply. Here are five:

- Ideal country programming situation. All essential background and baseline information will be gathered as part of the planning process for a five-year country programme. There is sufficient time and political commitment to carry out a complete situation analysis. In this case, it would be possible to design a comprehensive, integrated sanitation-improvement programme.
- Less-than-ideal country programming situation. All essential background and baseline information has not yet been gathered. Even though too little time remains to gather all of it, in the next few months the working group must produce a realistic plan to prepare a country programme. The best course of action might be to lay a solid foundation for the ideal planning situation the next time around. Such a plan might include targeted advocacy directed at policymakers and community workers, filling in missing gaps in required information, constructing baseline studies and financial/technical investigations, and carrying out a pilot project.
- Complementary situation. The best and most valuable contribution might be to help ensure overall success of an existing sanitation programme by filling in the remaining gaps. Imagine that country ABC has received a large grant from another donor to finance sanitation facilities in peri-urban areas, but lacks the resources for important support activities that help ensure long-term sustainability (for example, mobilisation, hygiene education, self-financing arrangements, and systems for ongoing operation and maintenance). With UNICEF funding, these could be carried out before and in conjunction with existing activities funded by others.
- A specific project. Support will be geographically targeted for more-limited sanitation improvement activities. Examples might be area-wide or district projects, pilot or demonstration projects, or institutional-support projects.
- Disaster or emergency situation. The immediate provision of supplies and equipment and/or construction of emergency sanitary facilities are required to prevent outbreak of disease. Though time is of the essence, emergency interventions should be well thought out and planned. Even if only a few hours for planning are available, key people must be consulted wherever possible, and critical information on which to base intelligent decisions should be gathered. Short-cutting because of the pressure to save lives but allowing obvious gaps in logic and thinking under the rationale of "no-time" is inexcusable, especially when human lives are at stake.

Working through the following six tasks can make the action plan more focused and the learning/information-gathering phase successful:

- Specify working definitions (common terms defined to promote general understanding)
- Establish the boundaries of work (limit information relevant to the general scope of the programme)
- Distinguish between essential and nonessential information
- Prioritize the essential information to be gathered and processed
- Specify how new information would be gathered and processed
- Plan the work

Completing these tasks will help to avoid misunderstandings, information gaps, and inefficient use of resources later on in the information-gathering phase. It is important that everybody involved in information gathering head in the same direction and operate with the same definitions and within the same boundaries.

Of the above, collecting too much nonessential information is a typical pitfall. Collecting noncritical data, which is rarely used, often results in a waste of time, manpower, and funds. There is nice-to-know information and need-to-know information; focus collection efforts only on the latter.

In the Chapters 5 through 10 of the handbook, lists of typical information and questions for learning related to six broad categories:

- **Community selection**—information about areas to target
- **Community participation**—current approaches to involving communities, how these are working; nature of communities, history
- Technology options —types, suitability, and community satisfaction with existing facilities
- **Financing**—financial resources and mechanisms at the community and district levels
- Institutional arrangements—policy formulation, donor coordination, capacity building, service delivery, technical support, financial arrangements, procurement, and monitoring and evaluation
- Political will—national plans, policy discussions, advocacy efforts, and communication channels

To overcome sanitation problems, any programme will need information from these, or more, categories. Consider these six as a minimum needed to examine causes of problems and develop solutions.

Your problem-definition phase resulted in a vision and some assessment of major constraints or problems for reaching that vision. You should also have pinpointed those issues or focus questions that remain to be answered, or areas with the greatest need to investigate. These should receive the lead priority when defining learning questions and information gathering strategies. The learning group can use a chart like that shown in Box C-4 to determine which information is most essential to resolve programming issues.

Box C-4: Data Categories and Methods of Gathering Information

Category	Issues	Methods
Community	 Basic population statistics Gender roles Expressed demand for clean environment Social history 	 PRA studies of pre-feasibility Willingness-to-contribute studies Review of relevant published and unpublished data Surveys
Participation and behaviour	 Beliefs, practices, and cultural taboos Health and nutrition knowledge Approaches to behaviour change and success 	 Desk reviews Interviews PRA studies Old KAP studies
Technology	 Inventory of technologies used previously Indication of unit costs Acceptance, feasibility, affordability, use 	 Desk review Review of ongoing projects Project valuation reports Surveys Interviews
Etc.		

Based on prioritizing such as this, your group will then define a detailed strategy and plan for learning. This may include any variety of learning activities: documentation, secondary desk reviews, PRAs, field tests and documentation of results, etc. These may take place over time and inform analyses of different kinds as the programme and policy-development process expands.

After data is collected and analyzed, you will need to prepare a situation analysis report. This report synthesizes everything done—information collected, data collected, and the analysis of these. It is the key input required for the next phase, which is programme planning. The situation analysis report may include a description of sanitation development over the last 10 years; a survey of existing sector institutions; a review of existing policies and legal frameworks; and an analysis of the country's development policies and practices, particularly concerning gender, agent of change, and beneficiaries. A sample format for a situation analysis report appears in Box C-5.

Box C-5: Sample Format for Situation Analysis Report

Section	Purpose
Executive Summary	Brief summary of key points from the entire document. <i>Note</i> : the executive summary should be kept brief.

Table of Contents	Overview of report contents and where main items can be found.
Introduction	Necessary background and introductory information. <i>Note</i> : a list of acronyms and abbreviations is always useful, presented either at the very beginning of the report or as an attachment.
Objectives	Main purpose of conducting the work the document details.
Overview	Approaches and methodologies used in carrying out the work.
Findings	The facts, usually tabulated or in graphs, in summarized and analyzed form. <i>Note</i> : Findings are facts; they are different from conclusions.
Conclusions	Conclusions drawn from analysis of the facts. <i>Note</i> : conclusions are different from recommendations.
Recommendations	Recommendations for action.
Annexes and Attachments	More-detailed/lengthy information; typically includes list of working team members, persons interviewed, raw data, and themes requiring further elaboration.

3. Programme-Planning Stage, Including Analysis of Options

Expected Outputs

- A second workshop on sanitation completed, with the principal outputs being selection criteria and a planned country programme for sanitation.
- Country-level approval of the sanitation programme for onwards submission for approval and funding.
- Implementation, monitoring, and evaluation plan.

Steps

- Conduct programme-planning workshop .
- Prepare programme document.
- Approve the programme document.

In this phase a number of important steps are taken:

- Programme alternatives are identified.
- Criteria for assessing alternatives are developed.
- Alternatives are assessed and the best ones selected (representing the basic programme strategy).
- Selected strategy is operationalized as a multiyear programme containing objectives, results, activities, indicators, and key assumptions for success.

It is vital to develop a solid programme plan, for such a plan provides both the foundation for good implementation and the basis for monitoring and evaluation. A good plan establishes what is to be done and clarifies all roles and responsibilities. One way to define objectives is to start from the problem tree developed in the first workshop. (Please refer to Appendix D.) In most cases, the objectives can be arrived at by rewording the problems (causes) at each level into positive statements. The cause-effect relations of the problem tree can be rephrased into logical means-ends relationships to form a conceptual model. It should be emphasised that the programme plan developed in this phase is not cast in concrete. It can be revised as needed within the framework and cooperating agreements that are in force.

In addition to the material provided in this appendix, other issues may have to be considered such as training needs, ways to open up the process while focusing on specific problem areas, how much attention to give to meaningful changes in behaviour, and how to proceed if supplementary funding does not become available. During this phase, there are some pitfalls to guard against. Please take particular note of Box C-6, which lays out four strong pieces of advice to bear in mind during this phase.

Box C-6: Watch out! Watch out!

A serious hazard at this phase is coming up with a vague and unrealistic plan. If your group is to avoid this pitfall, you will need to bear in mind four general rules for development planning.

- Think strategically: Where and how can we do the most and have the greatest impact with available resources?
- Set reachable goals: Reachable goals bear a clear relationship to available and projected human and financial resources and time realities. An unreachable goal, such as "universal coverage with sanitary latrines by 1999" may be only a pipedream. A more achievable goal might be to reach 10 percent of the rural communities with integrated sanitation service per year.
- Be concrete and specific: Phrases such as "improved quality of life," "empowered communities," and "improved access to hygiene education" are vague. What do these statements really mean? How are the terms "improved," "quality," "empowered," "access," and "hygiene education" defined or measured?
- Consider risks: Remember that potential risks can and do affect programme implementation. (Here are some examples: Because few vehicles are in running order, the district commissioner often "borrows" project vehicles for other purposes, which means that project staff and community workers cannot get out into the field. Once mechanics are trained, they often leave the project in search of more-lucrative jobs elsewhere. Fuel must be transported from outside the area. In this culture, women are not expected to voice their opinions in public meetings.) The point is that, knowing already that such things happen, it makes sense to address them now rather than wait to be surprised when these problems are constraining progress later on.

Do not be afraid to be strategic and realistic. Do not be afraid to say what you are actually going to do and to commit yourselves to achieving something within a specific time period.

In developing the program plan, three important documents should be considered:

- The main text of this handbook, which organizes information about selecting alternatives and options under six categories—community selection, community participation, technology, financing, institutional arrangements, and political will.
- The situation analysis report, plus any other particularly relevant background papers that emerge from the information gathering and learning process.
- The report from the first stage—problem definition and analysis—which contains useful background information.

Note that the planning framework produced at the problem definition and analysis stage is readily transferable into standard planning and programme formats that UNICEF, governments, and other donors and organizations can use. Be aware that donor agencies increasingly use results-oriented planning formats, an important fact in that water and sanitation sector programmes rely heavily on supplementary funds. Understanding the donor's policy and speaking the donor's language help facilitate the fundraising process.

Making a complete picture of sanitation available for preparing the programme plan (conceptual model, situation analysis report) does not imply that any one agency, institution, or interest group has to do it all. Rather, it ensures that no important component of the problem is neglected, and that each active participant knows how his/her efforts will fit into the bigger picture (conceptual model). All stakeholders should be able to envision a general background map as a context for their own specialties and be able to integrate their wider vision into the picture.

Preparing the Programme Plan

The programme plan may be prepared as a result of a workshop or series of meetings, or may be delegated to a committee that prepares a draft for review by the national working group. The idea would be to choose an approach that will produce the highest quality while ensuring ownership and wide buy-in by those who are supposed to implement the programme.

If preparing the plan in a workshop, modules can be developed to facilitate preparation of the plan. Whoever prepares the modules or group work would have to design these to accomplish several tasks:

- Build a working atmosphere among members of the programme preparation group.
- Review past agreements and agree on the key results sought and the conceptual model.
- Review and agree upon lessons emerging from information gathering, field-testing, and other activities, as part of a review of the situation analysis.
- Agree upon terminology for use in programme planning (see Box C- 7).
- Identify and agree upon criteria for selecting different programme components.
- Determine programme objectives.
- Determine programme results.

 Develop lower-level planning needed to achieve results. (This includes identification of activities, inputs, external factors, and indicators for each of the objectives and associated results.)

Elements of a step-wise process leading to a programme plan are discussed below.

Terms

To help eliminate confusion in working with your partners, it is important to agree on the definition and hierarchy of terms. The terms in Box C-7 are commonly used by donors.

Word	Concept/Definition	Synonyms
Long-term objective	The goal you are striving for in the long term, say 10-15 years from today; successful completion of the programme will <i>partially</i> , but not fully, contribute to eventual achievement of this long-term goal. Long-term justification for the programme; the ultimate reason why you are carrying out the programme.	 Development objective Long-term goal Overall goal Overall objective
Short-term objective	The goal you are striving for in the short-term, say 5-6 years from today, <i>after</i> the five-year programme. Successful completion of the programme, when all relevant results have been reached, will <i>partially</i> , but not fully, contribute to eventual achievement of this short-term goal. Reason, or short-term justification, for the programme.	 Immediate objective Short-term goal Programme objective Programme purpose
Result	A specific and desired output to be achieved as a direct consequence of successfully implementing the programme; by the end of the programme, this will be completed and/or in place. End product after having used resources (inputs) to do something (activity). The "what" the programme <i>guarantees</i> by its completion, assuming a favourable programme environment (see external factor). A result can be physical (a latrine) or a change in state of mind (increased awareness and change in behaviour). In either case, it is measurable using either direct or proxy indicators (see indicator).	 Output Outcome Product Achievement
Activity	Doing something using resources (inputs) to produce an output. Physical act of doing, leading to an end result. The "how" you produce outputs.	
Input	Any resources (time, money, people, equipment, etc.) required to carry out an activity to produce an output. The "what-it-will-cost" element of the programme.	Resources
External factor	A factor beyond the control of the programme that can negatively affect it. A potential risk to successful implementation. The "what must happen or not go wrong" in the programme environment if the programme is to succeed.	Key assumptionRisk

Box C-7: Keeping Terminology and Concepts Straight

Word	Concept/Definition	Synonyms
Indicator	A performance standard that tells if things are going right and being done as they should. Basis for assessment. The "how do we measure success" element of the programme.	
Source of verification	Where you will get indicator information from, such as health clinic records, baseline surveys, and interviews.	Means of verification
Programme (as a noun) ¹	A group of related projects having similar objectives. Within the context of the larger programme, you will often find the immediate objective of a project is a specified result of the programme, thus demonstrating the clear linkage between the whole and the part.	
Plan (as a noun) ²	Basically, a determination of what will be done by whom, when, and at what cost. Best when done in consultation with others if they are involved, affected, or expected to contribute something. Best also when put down on paper and distributed to all stakeholders.	

¹ Used as a verb, programming is the act of allocating/reallocating resources within a budgetary framework.

² Used as a verb, planning is the act of determining what will be done by whom, when, and at what cost.

Identifying and Choosing Criteria

The criteria for selecting different programme components will need to be consistent with government policy. Identifying which criteria will be used to evaluate and choose between the various programme possibilities and approaches is a crucial step, as it establishes the priorities of the country and implementing organizations, given their limited resources. Often, a country will already have established policy guidelines that can be used as a foundation for criteria development. In other cases, this workshop can be used to either generate or modify existing policies. Whichever is the situation, the policies—once established—orient the criteria selection. The development of criteria has two elements: selection and weighting.

Selection. Using small groups and plenary reports and discussions, agree upon the criteria to be used in assessing the "attractiveness" of possible alternatives. These criteria should reflect at least the following four major areas of concern:

- Benefits and impacts for priority target groups and other potential target groups
- Total cost
- Sustainability
- Probability of success (to fully achieve stated objectives)

Some typical selection criteria that could be used to assess alternatives are presented in Box C-8.

Box C-8: Typical Selection Criteria

Criteria	Typical Issues
Behaviour	Change potential; potential impacts in short and long term; likelihood for success
Community	Gender; community/individual demand; community organization potential; socio-cultural-religious factors/patterns; housing/density patterns
Technology	Appropriateness; locally known technology; total cost; training requirements; ongoing maintenance requirements; replicability elsewhere; private-sector involvement
Financing	Affordability; willingness to pay; financial sustainability; total cost; cost- effectiveness; economic return; foreign-exchange components; financial costs
Institutional	Existing institutions and local organizations; capacity; capability; policies; roles and responsibilities; local management potential; technical-assistance inputs; human resources development
Political will	National policies (or their absence); reorganization of government; decentralization; potential for changing political will
Environmental	Pollution potential; pollution control; environmental preservation; reduced demand for limited resources
Linkages (positive factors)	Other resources/organizations that can be tapped; similar successful projects; coordination of efforts
Potential constraints (negative factors)	Lack of political will; anticipated resistance from key groups; cultural barriers; low priority/no budget; no regulation or enforcement possibilities; lack of coordination in sector

In selecting the criteria to be used, it will be important to agree upon their meanings. This helps ensure that the different alternatives can be assessed consistently and objectively. The number of criteria will need to be limited, as the greater the number, the more complex the assessment of alternatives becomes. If possible, try to limit the number to seven or so.

Weighting. Once the important criteria have been identified, the next task is to prioritize them. For example, when assessing and choosing between different alternatives, how important are cost aspects? Potential for success? Sustainability aspects? Impact potentials?

Assessment can be done in a number of ways—by using points, point scales (i.e., a scale of 1 to 10), high/medium/low ratings, or extensive/limited ratings. Use rating systems that allow comparisons between different alternatives and make it possible to conclude that one alternative is better than another. A matrix can be a useful tool for carrying out this exercise, listing alternatives on the horizontal axis and criteria on the vertical axis.

Determining Programme Objectives

Another step is to develop and agree upon programme objectives based on the conceptual model that supports the vision the national working group established at earlier stages.

There are three major conceptual sources of programme objectives: vision statement, conceptual model, and agreements on the criteria. Therefore, the content of this activity will need to be linked directly to each of those sources. A possible sequence of activities might include an initial review of the vision statement with an accompanying verification of any explicit long-term objectives. The next step would be to generate a list of potential objectives based on the conceptual model. In this step, the stakeholders start from the conceptual model and turn the problems into challenges. Although objectives are often expressed as a shift or desired change in direction (such as "better education"), it is helpful to identify the objectives with five elements in mind:

- Population (including gender, age, socioeconomic group)
- Quantity (how much—10 percent of rural communities with integrated sanitation services per year, for example)
- Quality (how well it should be done)
- Time (when it should be accomplished, duration)
- Location (where it should take place—national, districts, schools)

Results can also be expressed with these elements in mind. (See Determination of Programme Results, which follows.) Precise expressions allow indicators to be developed more easily.

The final step is to filter the objectives through the criteria and arrive at a selection of programme objectives. The key to these steps is to spend enough time wording the objectives in a way that everyone understands and can accept.

Determination of Programme Results

The next step is to develop expected programme results for each of the stated objectives. Once the objectives have been determined, you will need to get increasingly specific and detailed. Break each objective into planned results that are stated in specific terms that can be quantified or observed. Again, the conceptual model can be used as a starting point, with each problem reworded into a result. Box C-9 shows how this may be done.

Box C-9 : Programme Results

Problem	reworded	Result		
Lack of handwashing		Schoolchildren wash their hands with soap or ash after defecation and before eating.		
Lack of awareness and demand for sanitation		Communities request assistance for sanitation improvement.		
Lack of political will		A national sanitation policy is in place.		

At this point in the planning process, it is important to have individuals who are responsible for policy involved in the discussions. With their approval of the planned results, the detailed planning can go forward in their absence. If national policy spokespersons are not already part of the workshop group, they need to be brought in to the discussion.

The next step is to develop the results corresponding to their given objectives. Then they need to be reviewed, keeping in mind the following questions:

- Are all results necessary for achieving the objectives?
- Are the results feasible within the time frame specified?
- Are the results precisely defined and verifiable?

The following are some typical examples of results that will be accomplished by the end of the programme. Keep in mind that they are only illustrative and do not apply to every programme. Note, too, that these examples provide specific results. Each statement can be verified by measurement or observation. The development of indicators will require greater specificity.

- Schoolchildren wash their hands with soap or ash after defecation and before eating.
- Communities request assistance for sanitation improvement.
- Revolving funds for latrine construction have been established and are in use.
- Community health workers carry out rapid sanitation appraisals in communities.
- Child-to-child learning about hygiene behaviour is taking place.
- A national sanitation policy is in place.
- A pilot sanitation project on use of a soakage pit and composting has been carried out and evaluated in one district.
- Hygiene behaviours such as disposal of a young child's faeces in a latrine are monitored on a regular basis.
- A sanitation sector baseline survey has been completed.
- Schools have incorporated sanitation and hygiene education into the curricula.
- Politicians and government officials actively promote the importance of sanitation in public appearances.
- Programme experiences have been documented and shared with others.

Lower-Level Programme Planning

The next step is to develop the lower-level programme planning necessary to achieve desired results. This is not detailed-level planning, but rather an overview of what must be done to produce the results. This module includes the identification of activities, inputs, external factors, and indicators for each of the objectives and associated results.

Identify the activities required to ensure the results needed to meet the objective; inputs needed for the activities; external factors that might affect (positively or negatively) the results; and associated success indicators for the activities.

The following paragraphs illustrate the expected outputs:

Activities: Main activities that need to be carried out to achieve a given result can be identified by a numbering system that links them to the specific result. Box C-10 illustrates this.

Box C-10: Results and Activities

Result No.	Main Activities		
1	1.1, 1.2, etc.		
2	2.1, 2.2, etc.		
 90% of schoolchildren, grades 1-6, wash their hands with soap or ash after defecation and before eating. 	 3.1 Mobilise schools, Ministry of Education, Ministry of Health officials, teachers, parents. 3.2 Organize teachers to mobilise a hand-washing and sanitary latrine use campaign/health education team. 3.3 Develop suitable sanitation and hygiene education materials in the local language 3.4 Procure soap. 3.5 Establish demonstration time for effective handwashing. 3.6 Reinforce messages, and follow up with teachers. 		
4	4.1, 4.2, etc.		
5	5.1, 5.2, etc.		

Note: Each of the main activities will also have a number of subactivities connected to it. These will be specified in the more detailed annual work plan that will be prepared later.

Once activities have been described, these are some key questions to consider:

- Are all activities needed to produce desired results included?
- Do all activities directly contribute to results?
- Are activities expressed as actions to do rather than results to achieve?
- Is the time set for each activity realistic?
- Are activities defined precisely? Are they verifiable?

Inputs: Identify what will be required to carry out the main activities. For a typical programme, in which UNICEF is the main player, the following inputs might be needed:

- Human resources—UNICEF officers and staff, counterpart coordinators, staff from the Ministries of Health, Social Welfare, and Education at national/regional/district/community levels, and community members
- *Financial resources*—UNICEF funds, counterpart funds, and consumer contributions
- *Physical structures*—Offices (existing or to be allocated by government)
- *Equipment, materials, and supplies* (existing; if to be purchased, include financial resources)

Here are some key questions to consider regarding inputs:

- Are they directly related to the specified activities and results?
- Are they necessary and sufficient for undertaking the planned activities?
- Are they precisely defined and verifiable?
- Are the resources appropriate?
- Are the sources of each input specified?

External Factors: These are conditions or events outside the direct control of the programme, but which nonetheless affect its chances for success. The term "external factors" often implies problems and delays, in effect creating risks to the programme. As such, they can break the link between the boxes from one level to another in the conceptual model. When any link is broken, the chances of achieving the results are drastically diminished. If external factors are pivotal to program success, they should be monitored carefully. Many, but not all, are foreseeable and can, therefore, be planned for.

There are three levels of external factors: those affecting programme start-up, those affecting programme implementation, and those affecting programme impact. Box C-11 provides samples of external factors, stated in positive terms, affecting each of the three levels of programme planning.

External Factors Affecting Start-up (What	Possible Solution (What can be done to help make
must also happen?)	sure it happens?)
Government staff seconded on time as agreed	Monitor situation, and discuss programme with government on regular basis.
Decentralization proceeding smoothly at district level.	Monitor situation, and discuss programme with government often.
Prerequisite socioeconomic studies completed	Start early, if possible; monitor progress; and/or
by September.	constantly impress upon consultants the need for the study to be finished on time.
Tripartite agreement of cooperation signed on time.	Facilitate process wherever possible.
Donor funds available for use 1 July.	(For UNICEF representative) Warn Headquarters that donor commitment is on the way; informally monitor progress on donor's side; request HQ to expedite PBA issuance, etc.
External Factors Affecting Implementation	Possible Solution (What can be done to help make
(What must also happen?)	sure it happens?)
Equipment procured from abroad arrives on time.	Order early; monitor status of procurement.
UNICEF funds earmarked for districts are	In cooperation with various ministry department finance
disbursed without delay.	officers, streamline interministerial and national/
	province/district disbursement and reporting routines.
Cash advance accounts liquidated within six	In cooperation with ministry department finance officers,
months (otherwise, the ministry department will be cut off from further funds).	streamline disbursement and reporting routines.
Community leadership is wholeheartedly	Include promotion activities for community leaders,
behind project.	allocating time and resources for them. Make further activities in community conditional on formation of village Water and Sanitation (WES) committee.
All levels of local government administrators	Schedule meetings and more time for communications
and politicians truly support peoples'	with local government administrators and politicians to
empowerment.	convince them of long-term benefits of the programme
•	and how programme success serves their interests.
Programme beneficiaries prioritize need for	Intensify and allow more time for community organization
sanitation improvements.	and promotional work. Set conditions for assistance.
Craftsmen, once trained, do not leave area in	Train additional personnel, assuming that a certain
search of better renumeration elsewhere.	percentage will leave for other jobs.
External Factors Affecting Programme Impact (What must also happen?)	Possible Solution (What can be done to help make sure it happens?)
Villagers can pay for ongoing maintenance	Adopt simpler, affordable technology; make sure village
services.	maintenance funds are established.
Projects being carried out by other sectors,	Monitor progress of these other projects; have regular
which must link up with the programme's	joint intersectoral and/or interagency briefing sessions.
results to meet higher-level goals, also are	,
successfully completed.	
Population growth in area	Monitor situation.
Government continues or increases its financial	Promote the programme; involve top officials in annual
support for sanitation.	reviews, briefing meetings, inspection tours, and so forth.

When developing a list of potential external factors, several questions should be considered. Hopefully, they can all be answered in the affirmative.

- Are external factors expressed as a positive, desirable condition?
- Are external factors linked to the correct programme level? (results, activities, inputs)
- Are unimportant external factors omitted?
- Are the external factors defined precisely? Are they verifiable?

Indicators: Indicators are an important management tool to assess whether objectives, results, and activities can or have been achieved. In the context of country programme planning, it is useful to distinguish between three types of indicators:

- **Objective indicators**, which relate to long- and short-term programme objectives and assess the impact after the programme's completion.
- Results indicators, which, in objectives-oriented planning methodology, are performance standards (quality and quantity) against which satisfactory achievement of results can be confirmed.
- Activity indicators, which are tools for monitoring progress of activities and utilization of resources as planned.

Because indicators are used for making judgements, it is important to agree upon them at the beginning. Without them, judgements can only be subjective. In the absence of measurable indicators, one observer might conclude that there has been good progress, while another might conclude just the opposite. If there were no common understanding for making a judgement, it would be difficult to determine whose view is correct.

Good indicators have several important characteristics:

- They reflect the essence of what is important to measure.
- They are programme dependent—for example, independent of interventions and happenings going on outside the programme.
- They are objective; they reflect fact, not opinion.
- They are clearly and precisely worded and easily understood by all.
- They are objectively verifiable, which means that different people working independently using the same techniques will come up with the same measurement.
- They can be verified using data that are relatively accessible.

In choosing indicators, the general tendency is to select too many. Another frequent pitfall is selecting indicators that are not strongly tied to the programme activities and do not reflect the essence of what is important to measure. Distinguishing between nice-to-know information and need-to-know information becomes the key. The latter is essential in order to conclude whether what is occurring is a direct result of the programme and if corrective actions are necessary.

In addition to the indicators themselves, their sources of verification need to be specified—how and where the information will be obtained (health clinics, schools, reports by community workers, interviews, random checks of accounts books, direct observation, surveys). Box C-12 gives an example of how to formulate good indicator statements.

Box C-12: Formulating Good Indicator Statements

How an indicator is formulated is important. Suppose one of the results specified for your hygiene education programme is "improved personal hygiene among schoolchildren" in a pilot project in Umbia district. How will you know that "improved hygiene" has been achieved by the end of the pilot project?

First, all those involved must define what "improved hygiene" means to them. Suppose, after discussion, they agree that they can proclaim success if, as a result of school-based interventions, schoolchildren wash their hands with soap or ash after defecation and before eating. This is something that can be measured. If it is happening, it also indirectly confirms that teacher mobilization and training; development of hygiene education materials, lessons, and demonstrations; and provision of latrines and water supply have successfully occurred along the way.

The indicator statement, then, should contain the following pertinent information that will allow the results to be measured objectively:

- The essence of what is important to measure
 - washing hands with soap or ash after using the latrine and before eating
 - households building and using sanitary latrines
- The population group—schoolchildren
- The quantity—90 percent
- The time frame—by the end of the pilot project (two years)
- The location—Umbia district

This information, when combined, provides a clear indicator statement that captures the essence of the desired result: "By January 1998, 90 percent of schoolchildren in Umbia district wash their hands with soap or ash after defecation and before eating and 20 percent of households build and use sanitary latrines."

If three health assistants visited schools in Umbia District in January 1998 for one day as silent observers, working independently and using the above indicator statement for measurement purposes, do you think they would come up with identical findings? This is the true test of whether the statement is good enough.

Some typical examples of indicators, with possible sources of verification, are presented in Boxes C-13 and C-14.

Box C-13: Example of Result Indicators

Result Indicator	Source of Verification
By 1998, 90 percent of schoolchildren in Umbia district wash their hands with soap or ash after defecation and before eating.	Teachers' reports and direct observation.
National sanitation policy adopted by 1997.	Policy approved and gazetted.
By 1998, revolving funds established and in use per accepted procedures in 10 districts.	 Bank accounts, Ioan application forms, payback records, and interviews with borrowers and Ioan officers. Monthly progress report

Box C-14: Example of Activity Indicators

Activity Indicator	Source of Verification
By end of 1997, sanitation and hygiene-information materials developed, tested, printed, and distributed to all community, social, and health workers.	Monthly progress reports and, once distributed, spot checks that materials are in the hands of community, social, and health workers.
National workshop for policymakers to create sanitation awareness held 14-16 June 1996.	Workshop report.

As the indicators are being developed, there are several questions to consider:

- Are indicators specific in terms of quantity, quality, time, location, and target group?
- Are indicators verifiable?
- Are indicators measuring progress toward results and objectives?
- Are the collection, analysis, and uses of indicators assigned the necessary resources?

Development of Implementation, Monitoring, and Evaluation Guidance

The next step is to develop an implementation plan that would include guidance on the development of annual work plans, delineation of how monitoring will take place, and guidance on the development of an evaluation strategy and plan. Consequently, there should be agreement on the major elements of the annual plan; key indicators to be monitored, when they should be monitored, and how they will be reported; and the purpose and scope of the evaluation.

Report to Policymakers, and Identify Next Steps

After developing the programme plan, the next step is to report to the policymakers. The overall concept would be to have a presentation, where a summary of the detailed planning would be provided. Senior officials could then ask clarifying questions and make any modifications deemed necessary. Then would probably come a final presentation and agreement on the immediate next steps to complete the programme-planning documentation and begin implementation activities.

Now that the conceptual work for the programme plan has been done, what remains is for selected individuals or groups to carry out follow-up activities. Such follow-up activities may include preparing final programme documents in accordance with specific organizational formats. (UNICEF has a certain format for programme proposals, as do government agencies, other donors, and NGOs.) Information should be tailored or formatted to the presentation requirements of each particular organization so that it can be moved along in the approval or action process. Once programme documents have been prepared, for example in UNICEF and government formats, they must be assessed or approved by the officers responsible for overall content, completeness, realism, and potential for sustainability. Basically, this step is a quality-control check by high-ranking officials responsible for submitting the final version of the proposed programme to top-level government officials, UNICEF's Executive Board, and top managers of other involved organizations.

A process of assessment and approval normally takes place in any new programme cycle/proposal situation. Procedures normally followed will apply here as well. Assessors/approvers of proposed sanitation programmes will be concerned with the following questions:

- Definition of sanitation. Is the definition broad or narrow? Is it appropriate within the context of the proposed programme?
- Understandability. Is it perfectly clear what the programme entails? Is it logical? Is it complete? Does it make sense?
- **Realism.** How likely is it that all specified programme results can be achieved within the given time frame, assuming currently available and proposed resources?
- **Relevance.** Once programme results are achieved, how well will they improve the existing sanitation situation?
- Organization's interests. Does the proposed programme fully comply with your agency's (for example, UNICEF's) general mandate and overall operational and budgetary frameworks?
- **Risk.** Looking at the external factors identified for the programme, are there any additional factors concerning policy, interagency linkages, participation, logistics, or financing that need to be considered? Can risk to the programme be further reduced?
- **Sustainability.** Once the programme ceases at the end of its proposed period, what is likely to happen in the programme area? How will benefits be sustained without outside assistance?
- *Time and timing.* Has sufficient time been allowed for real and meaningful positive change of behaviour? Are components phased in a sequence that builds on experience?
- **Documentation and continuous learning.** How does the programme provide for monitoring, review, documentation, and continuous learning?

One Last Note on Programme Planning

It is becoming increasingly common to include an audit of the environment as part of programme evaluation. Even though environmental sanitation is designed to protect or rehabilitate the environment, it will be necessary to address environmental impact. Box C-15 lists questions related to environmental impact that the team designing the

terms of reference might consider. This list can also be shown to the evaluator(s) once it has been drawn up in country.

Box C-15: Questions for a Quick Environmental Review

Identification of Potential Impact

Is implementation of the planned project likely to

- Contaminate water sources?
- Aggravate soil erosion?
- Result in decrease of tree/vegetation coverage?
- Alter any natural habitats?
- Result in promoting use of fossil fuels?
- Acelerate depletion of natural resources?
- Affect any indigenous heritage?

Mitigation of Negative Impact

(If the answer to any of the above questions is "Yes," the following questions need to be carefully considered.)

- What are the particular activities of the planned project that will likely cause the concerns indentified above?
- Can these particular activities be modified to eliminate the envisaged negative impact?
- Can these particular activities be substituted by more environmentally friendly ones to eliminate the envisaged negative impact?
- Can these particular activities be canceled to eliminate the envisaged negative impact?
- If the answer to the question above is "No," what measures can be included in the project to lessen or offset the envisaged negative impact?*

* If you reach the last question, then a standard Environmental Impact Assessment (EIA) is justified.

Good planning points you in the correct direction, with a detailed road map laid out before the journey. Programme plans, however, cannot be cast in concrete. It is difficult to plan for several years into the future, and it entails risk. Common experience in development is that implementation always takes more time than initially planned. Circumstances change, priorities change, and external factors change: thus, the need to review progress and make adjustments accordingly. Usually, these adjustments will relate to inputs and activities because your results and objectives remain valid end points in your journey.

4. Implementation and Monitoring

Expected Outputs

- A successfully completed country programme for sanitation.
- Documented experiences from the programme (monitoring).
- Mid-point workshop or annual workshops/retreats.

Steps

- Prepare annual work plans.
- Monitor and report what is happening.
- Assess what is happening, and take action if required.
- Carry out regular reviews.
- Revise the programme as necessary.
- Evaluate, document, learn, and pass on the information.

This section relates to getting the job done efficiently and effectively, while learning and improving along the way. The programme implementers' performance will be judged on efficiency and effectiveness—key elements for donors to look at when they assess whether their investment in the programme was worthwhile and whether further investments are warranted. Stakeholders and beneficiaries will expect promised benefits as a result of efficient and effective programmes.

Lack of monitoring by programme or project managers and lack of reporting by field workers are major constraints to successful implementation. This section will focus on the development of a workable mechanism to monitor and improve programme efficiency and effectiveness.

As noted in the previous section, it is important for everyone to have the same understanding of the terms and concepts used. The following definitions are used in this document:

- **Efficiency** links programme inputs and results, assessing how economically inputs have been converted into results. A natural follow-on question is, "Could the same results have been achieved in a better way?"
- Effectiveness links results and short-term objectives and assesses how the programme directly contributed to achievement of desired short-term objectives.
- *Impact* is a change or effect on a targeted group—either positive or negative, planned or unforeseen—that results from the programme.

Having a good plan is an essential ingredient to good implementation. Besides being a key to good implementation, a well-thought-out plan helps ensure programme relevance and programme sustainability:

- **Relevance** relates to how well programme results and objectives meet originally identified needs and concerns of programme participants.
- **Sustainability** is the test of whether an appropriate level of benefits can continue to be delivered for an extended period of time after major financial, managerial, and technical assistance from external sources are terminated.

Checkpoint: If the programme's relevance and sustainability are not clearly apparent at this point, go back to the programme plan. The plan is not good enough!

Implicit in good programme implementation is a willingness to critically monitor and review proceedings and take action where necessary. Stepping back from time to time to ask questions and ensure that you are learning from successes and mistakes is also good management practice.

Good programme management is the efficient and effective utilization of (limited) human, financial, and material resources to achieve intended results for intended target groups, thus directly contributing to a higher purpose. Good programme management should be at the forefront of activity during implementation. In this context, annual planning, regular monitoring and reporting, assessment, annual and mid-term reviews, and programme revision, if appropriate, are important management tools.

Prepare Annual Work Plans

At the beginning of each year, prepare an annual work plan using the programme plan as developed. The annual work plan spells out in greater detail what will be done in the coming year to achieve the results specified in the programme plan.

Preparing the annual work plan should be a participatory exercise, involving those who are responsible and accountable for implementation. Depending on the number of people and complexity of the task, it may be useful to set aside two or three days to develop the annual plan in a workshop setting; it is also helpful to bring in a professional facilitator. All key programme personnel will then have an opportunity to see how their activities link up with, and complement, those of others. Planning together also makes it much easier to spot potential conflicts, overlaps, gaps, and problems. Visualization techniques are very helpful, especially when scheduling the year's major events such as workshops, training, and reviews. Use flip charts, brightly coloured marking pens, and masking tape to display materials for group discussions. It is important to keep these materials displayed on walls during planning sessions or other group deliberations, so that common definitions and agreements are reinforced.

If this is the first year of implementation, phase the main activities of each result specified in the programme plan over the life of the programme. If this is a subsequent year of implementation, for each still-uncompleted result of the programme plan, phase its remaining main activities over the life of the programme, making any necessary adjustments in timing to account for previous years' activities being completed ahead of or behind schedule.

Once main activities have been phased, identify required subactivities under each main activity. Then specify indicators, establish timing, assign responsibility, provide a budget, and make additional comments as appropriate. An example of the detailed levels of annual planning is shown in Box C-16.

Monitor and Report on What Is Happening

Monitoring means overseeing the implementation of an activity to determine whether input, deliveries, work schedules, other required actions, and targeted results are proceeding according to plan, so that timely actions can be taken to correct any deficiencies. Monitoring is also useful for the systematic checking on a condition or set of conditions, such as following the sanitation situation of women and children.

The following are the objectives of monitoring within UNICEF:

- To improve management of programmes, projects, and supporting activities and to ensure optimum use of funds and other resources
- To learn from experience so as to improve the relevance, methods, and outcomes of cooperative programmes
- To strengthen the capacity of cooperating government agencies, NGOs, and local communities to monitor and evaluate
- To meet requirements of donors for seeing whether their resources are being used effectively, efficiently, and for agreed-upon objectives
- To provide information to enhance advocacy for policies, programmes, and resources that improve the condition of women and children

Progress monitoring and reporting on programme activities are carried out by those responsible for timely and cost-effective programme implementation. The basis for monitoring and reporting is the annual work plan prepared in the previous step, which includes indicators, sources of information, and budgets for main activities and subactivities.

Make sure the specified indicators yield the essential information needed to determine whether things are going as they should. But keep this in mind, too: in terms of monitoring information, reporting formats, and reporting frequency, try not to overburden programme implementers with unnecessary data collection and reporting. Distinguish between nice-to-know and need-to-know information.

A good monitoring and reporting system, useful for implementers and managers alike, gives key information in a timely fashion. It is not measured by volume or weight; to the contrary, implementers and managers normally do not need, nor do they even have the capacity to process, reams of information. What they do need is essential, relevant, timely information indicating either that things are going well or that something is wrong and it's time to take a closer look. Some suggestions for drawing up documentation and information dissemination plans are given in Box C-17.

Box C-16: Preparing the Annual Work Plan

What Has to Be Done: Result no. 1: Baseline surveys in communities carried out.

Main Activity 1.1:

Main Activity 1.2: Carry out socioeconomic surveys.

Subactivity 1.2.1: Prepare terms of reference.

Subactivity 1.2.2: Engage consultants.

Subactivity 1.2.3: Consultants carry out study, including preparation of draft report.

Subactivity 1.2.4: Complete review and comments phase.

Subactivity 1.2.5: Consultants finalize and submit final report.

Main Activity 1.3:

Details: (Complete the following form.) Result no. 1: Baseline surveys in communities carried out

Main Activity/ Subactivity No.	Description	Indicator	Source of Verification	Timing	Resources Required	Responsible Party	Comments/ Remarks
1.1							
1.1.1							
1.1.2							
1.2	Socioeconomic survey						
1.2.1	Prepare TOR.						
1.2.2	Engage consultants.						
1.2.3	Conduct study.						
1.2.4	Review/ comment.						
1.2.5	Finalize/ submit.						
1.3							

Tip for programme management team members: Hang the completed annual work plan on your wall, where you can keep track of what is going on and whether the right things are happening at the right time. The annual work plan will enable you to do the primary job for which you are responsible, that of managing the programme. If the work plan is on the wall, you and everyone that walks into your office will constantly see and refer to it, which is the way it should be. The plan focuses attention and provides an easy entry point into discussion about programme progress; this is necessary for good, effective management. For each office where there is no visible plan, ask yourself, "How good a handle does this manager have on what is happening in his/her programme?"

Box C-17: Build Documentation and Information Dissemination into the Programme Plan from the Start

Given the importance of learning from experience, it is a good idea to build documentation and dissemination of experiences into the programme plan. You can do this in a number of ways:

- Establish as a priority area, "improving future sanitation efforts for a safe environment, based on experiences from the programme."
- Establish as one of the programme's short-term objectives, "more-effective sanitation (global/national) programmes in the future."
- Establish as one of the programme's results, "word of programme's sanitation experiences shared with others."
- Identify the main activities associated with the above; for example, document experiences—including any subactivities such as selecting experiences, processes, and approaches to be documented; preparing papers and reports; and reproduction/printing; and disseminate information, including any subactivities such as preparing reports for workshops and reviews; submitting articles to international newsletters for publication; and sponsoring exchange visits.
- Identify required inputs (personnel) and finance.
- Identify related external factors, if any.
- Identify related indicators and sources of verification.
- Prepare detailed estimates of required inputs.

Assess What Is Happening, and Take Action if Required

Monitoring and reporting on progress are the means. Gathering and analyzing information are the methods. Improving the programme is the end. Without analysis, plus the willingness to act if required, there is really no point to monitoring and reporting. Make sure, then, that sufficient time is allocated for proper assessment of progress. Be sure to take action if additional information is required or corrective measures are warranted.

In addition to monitoring progress, on which the discussion has centred so far, assessment must also be done in connection with approaches and processes. When human behaviour is involved, *how* you get some place is often equally as important as getting there. For sanitation programmes to be successful, they must create user demand, invoke commitment at all levels, and induce positive behaviour adoption or change. Getting there will be accomplished only through people-centred approaches that presume ability, capability, responsibility, and dignity on both sides.

Part of the reason so few sanitation success stories exist is that we have not yet found the right people-centred approaches. This, then, becomes the challenge for all of us—to develop and promote the right approaches and processes, which again, requires monitoring, reporting, assessment, and action. Is the approach or process working? Can it be improved? If so, how?

Carry Out Regular Reviews

In reality, reviews are more formal than are assessments, being broader in scope and scheduled well in advance; involving outsiders and higher-level officials in stakeholder organisations; and requiring preparation beforehand, organisation during the review itself, and documentation of review findings and conclusions afterward.

Annual reviews are particularly useful management and checking mechanisms, as they provide opportunity for regular, more-objective looks at programme progress in relation to established plans. By using the annual work plan and having the programme plan and progress reports prepared or underway, it becomes quite straightforward to systematically review programme progress while noting the positive and negative experiences that have occurred during the year.

The annual review should be a joint exercise, with representatives from all implementing and supporting organisations, plus donors, invited to attend. For example, the joint annual UNICEF-government review for a UNICEF-assisted programme might typically take place in October or November and include programme implementers, higher-level officials from the key implementing ministries, UNICEF officials, and donor representatives.

The annual review can continue the participatory style of meeting described in Appendix D. Using a professional facilitator, the annual review can be an opportunity for all key stakeholders to be updated on programme progress, to revalidate the vision, and to resolve issues that may have emerged over the previous year. As with the first two workshops, it would be wise to have the facilitator arrive several days before the annual review workshop to talk to the key players, develop a tailored agenda, and make final preparations for the workshop. Depending upon the number of stakeholders involved and the complexity of the programme, annual review (or midprogramme) workshops usually last from one to three days.

Though the format for an annual review can vary from programme to programme or country to country, the following points need to be taken up in any review:

- Milestone achievements during the year
- Progress made in relation to the annual plan, plus cumulative progress to date
- Training (who has received what training)
- Materials produced and distributed; other programme "products"
- Discrepancies between planned and actual achievements
- Budgets, including planned and actual expenditures
- Difficulties encountered; problems and constraints
- Action taken to mitigate problems and constraints
- Successes
- Steps taken to build upon successes
- Any other relevant information, including sustainability aspects
- Items requiring joint decisions
- Action plan for the coming year

Information on all points, except for the last one (action plan), should be prepared by programme implementers beforehand and distributed to review participants before or at the meeting. Exactly how the information should be distributed and when can partially be determined by the facilitator as he/she is developing the workshop agenda. Depending on how many "outsiders" are attending, the annual review might also include a field visit if appropriate.

The action plan is important, as is the final review meeting report. Both are required for follow-up. Both also become important documents that external evaluators and others will use for mid-term reviews and post-programme evaluations.

Revise the Programme if Necessary

No matter how good a programme plan might be in the beginning, unexpected events or external factors can affect the programme or the environment in which the programme exists. When this happens, adjustments will be necessary.

It must be emphasized again that the programme plan is not cast in concrete; any plan is useful only for as long as it is do-able. If it needs to be revised because of changing conditions, then by all means revise it.

A programme revision, however, is a formal act, and not one to be taken lightly. It should involve all programme stakeholders, including donors. All parties involved in the programme should be informed of the reasons and the need for readjustment. Donors should be advised that they will receive from programme authorities a formal request to replan activities and reprogramme funds. (If the programme is being supported by UNICEF with supplementary funds, the UNICEF Programme Funding Office will formally notify the donors, the Country Representative having done so informally.)

While it is perfectly legitimate to revise a programme plan when factors outside the control of the programme cause problems and delays during implementation, it is not acceptable to quietly revise a programme to protect people who are doing a poor job of implementing what is a good, realistic plan or to cover up political interference that could turn the plan into one that is overly ambitious. (For example, "On his tour yesterday, the President promised that all schools in his home district will be given water supply and latrines in the next three months. Even though we did not plan to work in his home district, it's near a pilot project area. We must help him.")

In such cases, the persons and parties responsible for the poor implementation or unnecessary interference must accept the responsibility and consequences of their actions or lack of action. The programme plan should not be changed until after a formal external review has taken place to enable the findings of poor performance or interference to first be documented for the record. This is a point that all funders of the programme should insist upon.

A Final Check

You should periodically ask yourselves the following questions:

- Are we implementing effectively and efficiently?
- Are we doing the best we can?
- Can we do better? How?

5. Evaluation

Expected Outputs

- Decision of whether or not to evaluate.
- Evaluation plan.
- Results of the evaluation.
- Action plan for follow-up.

Steps

- Decide whether or not to evaluate.
- Prepare terms of reference.
- Identify evaluator(s).
- Implement the evaluation.
- Disseminate the evaluation report.
- Provide feedback and action plan on the evaluation report.

An evaluation is a systematic assessment of projects, programmes, strategies, or methods and their results and effects. An evaluation determines if objectives have been achieved, what the results and effects of the activities were, which constraints and problems have occurred, and whether the efforts have been worth the resources.

Evaluation is implemented in a systematic and methodical fashion, based on scientific merit, expertise, and common sense. Several reasons exist for conducting an evaluation, but in general they are conducted to make informed decisions. Although these decisions may vary, they can include the following:

- Should we continue the programme?
- Should we redesign the programme to include or exclude certain activities?
- Should we expand the programme to other locations?
- Should we terminate the programme?
- Should we try to understand cause-effect relationships?

The conceptual model, developed earlier, is not an evaluation, as such, it can be used in structuring the design of an evaluation. The conceptual model facilitates the formulation of clear and measurable objectives and results. Once the objectives and results are clearly formulated, it is much easier to design an evaluation to measure them.

What Is Evaluation?

According to the dictionary evaluation means "to establish or assess the value or result by careful appraisal and study." The Expert Group on Aid Evaluation, formed by the Development Assistance Committee of the Organizatoin for Economic Cooperation and Development (OECD), representing the evaluation expertise of 20 bilateral and multilateral development agencies, adopted the following definition:

An evaluation is an assessment, as systematic and as objective as possible, of an ongoing or completed project, programme, or policy, its design, implementation, and results. The aim is to determine the relevance and fulfillment of objectives, development of efficiency, effectiveness, impact, and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision-making process of both recipients and donors.

This position establishes certain criteria for conducting an evaluation:

- Review programmes that have been implemented for a period of time.
- Aim at measurement of results and effects against stated objectives.
- Analyze causes and effects as well as implementing processes and work organization.
- Be systematic in data collection and methods.
- Be as objective as possible, with external expertise unconnected to the programme.
- Use the evaluation for decision-making and planning purposes.
- Use the evaluation for acquisition of knowledge in specific areas.

The distinction between monitoring and conducting an evaluation should be understood (see Box C-18). While monitoring is an activity that is ongoing and directed at the current programme's efficiency, evaluation looks at future programmes by evaluating past activities.

The timing of an evaluation can also vary. The midterm review is an evaluation undertaken during the programme, while a post-programme evaluation occurs after implementation.

Box C-18: Complement between Monitoring and Conducting an Evaluation

ltem	Monitoring	Evaluation		
Frequency Periodic, regular		Episodic		
Main action	Oversight	Assessment		
Basic purpose	Improve efficiency of work plan	Improve effectiveness and impact of future programming		
Focus	Inputs, results, work plans	Effectiveness, relevance, impact, cost-effectiveness		
Information sources	Sentinel systems, field observations, progress reports,	Sentinel systems, field observations, progress reports, rapid assessment surveys		
Undertaken by	Programme managers, commun	ity External evaluators, programme		
	workers, beneficiaries, supervisors, funders	managers, supervisors		
Reporting to	Programme managers, community	Programme managers, funders		
	workers, beneficiaries, supervisors, funders	supervisors, policymakers, beneficiaries		

Step-by-Step Approach

The different phases of the evaluation process are described below, in order of implementation. The various steps are as follows:

- Decide whether or not to evaluate.
- Design the terms of reference.
- Choose the evaluators.
- Implement the evaluation.
- Report on the evaluation.
- Provide feedback.

Decision to Evaluate

The first step in any evaluation is, of course, to decide whether to evaluate. An evaluation may be mandated as part of the funding, or the decision may be made partway through or at the end of programme activities. The best time to consider evaluation, however, is during the planning stage. Evaluations are not to be taken lightly, as they require a considerable amount of work and resources. Box C-19

discusses some of the strengths and pitfalls that organizations often meet in evaluation planning.

Box C-19: Do We Create Our Own Failures by Not Setting Judgement Criteria (Indicators) Beforehand?

If a programme was designed 10 years ago, it is unlikely that planners or initial implementers were particularly aware of gender issues. Today, however, any gender-sensitive person preparing a TOR to evaluate a programme, assuming no indicators currently exist, would include gender aspects. Not surprisingly, a programme that does not consider gender issues would be judged negatively. The same may be true for other concepts that have been emphasized recently, such as demand-driven approaches, participatory techniques, cost recovery, capacity building, and sustainability.

When it comes to formulating indicators, planners are invariably lazy. Yet if they fail to specify indicators, post-programme evaluators and others will have no choice but to establish their own, which naturally will reflect their own biases.

A good plan is one that includes specified impact indicators to be used for post-programme evaluations. Such a plan precludes what has become all-too-common practice, that of allowing evaluators and others the freedom to define how they will evaluate the success or failure of a programme. Evaluators should not judge a programme based upon their own subjective values. Rather, they should concentrate on assessing success or failure in relation to how well implementers achieved what they originally set out to do, given the resources available to them within the context that applied at the time.

The decision to evaluate should be undertaken by the stakeholders, who are most likely members of the country's working group on sanitation, or represented by this group. This group should consider the following issues prior to the development of a terms of reference (TOR):

- Aim of the evaluation
- Audience
- Who will conduct it
- Scope and focus
- Background and competence needed by the evaluators
- Time schedule for implementation
- Estimated costs and sources of financing

Often, there is a false impression that an evaluation is conducted for funders, who will use it to decide whether or not to continue funding the programme; this, however, is rarely the case. When choosing who will do the evaluation, it is important to consider objectivity in addition to technical expertise and resources needed.

In deciding whether or not to evaluate, these are a few key questions to consider:

- Have the inputs or activities been sufficient to produce the desired objectives?
- Were the inputs or activities appropriate to produce a change in the objectives?
- Were external factors considered and monitored during implementation?

A number of methods are available to help answer the above questions:

- Data collection on participants only
- Ad hoc surveys
- Use of control groups
- Randomized studies
- Double-blind designs

In addition to a range of metholodogies, the data used can be quantitative or qualitative in nature, which means an expert will have to collect and analyze them. Box C-20 gives a list of items to consider in moving ahead on an evaluation.

Box C-20: Manager's Checklist: Programme Evaluation

Planning

- Discuss the purpose of an evaluation with stakeholders.
- Decide on evaluation themes.
- Select evaluation methods, based on objectives, results, and design.
- Prepare terms of reference.
- Select team members.
- Identify existing materials for team.

Implementation

- Provide orientation to team members.
- Supervise and provide ongoing support.
- Attend meetings for preliminary discussion of findings and recommendations.
- Review draft report, and give comments to evaluation team.
- Schedule debriefing session with evaluation team and sponsors.

Follow-up

- Send copies of report to key parties.
- Meet with project managers to discuss implementation.
- Meet with others to discuss implementation and follow-up.
- Use results in future programme planning.

Designing the Terms of Reference (TOR)

Once a decision has been made to implement an evaluation, the next step is to design the TOR. This instrument determines whether the evaluation will be of value or not: it must be unambiguous and well thought out, and all relevant stakeholders must agree upon its contents. Because the process of developing a TOR is iterative, enough time must be allocated to developing it.

Choice of Evaluators

Who will carry out the evaluation? While this question is often answered prior to development of the TOR, it must be emphasized that the requisite qualifications of the evaluator(s) cannot be made until after the TOR has been established. Certain characteristics are necessary for an evaluator: professional knowledge, analytical ability, language skills, and experience. In addition, other qualities are usually needed: communication skills (written and verbal), ability to work well as a team

member, professionalism, and personal integrity. Finally, the evaluator must be independent of implementing organizations for the activity under evaluation and organizations with authority over the programme (donor, government, and other authorities).

There are several advantages in employing external evaluators:

- They are independent of activities to be evaluated.
- They often have more specific professional knowledge and experience than those involved in the activities.
- Their independence (noninvolvement in programme planning or execution) lends credence to the findings.
- They can often contribute fresh and innovative ideas.
- They can offer new perspectives on a programme because they are not mired in existing structure and activities.
- They are neutral in relations between management and staff.

The views of external evaluators are especially important when decisions relate to continuation or termination of a programme or involve conflicts.

Most evaluation teams invoice two to five people; the following areas of expertise should be included in the team make-up: professional knowledge of development issues; sanitation; the country context; and related areas of concern (environment, health, behaviour change, health education, community training, and so forth).

Team Planning Meeting

Once the evaluation team has been hired, a team planning meeting should be held. (A guide to conducting a team planning meeting, listed in the bibliography, is available from the Environmental Health Project.) Such a meeting is essential if the team members are working together for the first time, but it is highly desirable in any other case. Many organizations now recognize the value of these meetings. Investing the time and energy at the start of an evaluation will pay off in clearer direction, better team work, and more efficient use of resources.

The team planning meeting is usually a two-day event, bringing together the sponsors of the evaluation, a facilitator, and the evaluation team. The meeting can be held two or three weeks before the evaluation, or immediately before. It provides an opportunity for review of programme objectives and any other materials essential for background. It also helps to clarify for the team members what the client is looking for, likely data sources, human resources available to assist in the evaluation, and conditions the team will encounter during its work. During the meeting, the team is asked to develop a plan to sequence its work; the meeting also provides a chance for team members to get acquainted and learn about each others' experience and special skill areas. An evaluation team usually brings together people with differing specialty areas. To make best use of these variations, the work of the evaluation team is often divided up, with particular portions assigned to individual members. Within the evaluation team, one member should be designated team leader, with responsibility for monitoring the work of individual members and drawing together the findings and recommendations into a coherent whole.

Reporting

After the evaluation team submits a draft report, the working group on sanitation will review, comment, and distribute it. Any review of the evaluation report should consider the following issues:

- Does the report's form and content correspond to the requirements stated in the TOR?
- Have all the important issues been dealt with satisfactorily?
- Are the conclusions logical and supported by findings and data presented in the evaluation?
- Is the analysis well performed, and do the results have credibility?
- Are the methodology and constraints of the evaluation described clearly?
- Are the results presented in a clear and unambiguous fashion?
- Are the layout and language of the report (i.e., editing and production) satisfactory?

It would be useful to have the evaluator(s) make a presentation to the working group on sanitation, as the discussion that usually follows such a presentation could explore conclusions and recommendations more thoroughly.

If the evaluation is a mid-programme review (rather than post-programme), it could lead to revision or "mid-course correction." If this is the case, it will be useful to schedule a meeting shortly thereafter to decide how to move forward, given the evaluation's conclusions and recommendations. This meeting should be followed up with another (possibly six months later) to check that measures have been acted upon.

Feedback: Document, Learn, and Pass On the Information

Although this step is self-explanatory and common to all evaluation efforts, it is especially important for sanitation programmes because there are too few sanitation success stories. It is unfortunate but true that much time, resources, and energy are devoted to evaluations, while the dissemination and feedback are often treated lightly. The *impact* of the evaluation is what is important, not the results, conclusions, and recommendations themselves. Thus, feedback is an important part not only for the evaluation, but for the programming process itself.

The final step in the evaluation is to decide who will be responsible for dissemination (and collection of feedback) of the report. Most likely, the group that determined the TOR and oversaw the evaluation process would be responsible (the working group on sanitation). This group should consider five issues:

- Is the report available to the correct people? (Is it well thought out and made available at a time when the information is in demand?)
- Is the report easy to read, clearly written, and well edited (not too long, executive summary, suitable language, legible print, appropriate graphs)?
- Is there an opportunity for discussion with all interested parties (organize a seminar or workshop)?
- Have decisions been made and a plan of action developed?

The documentation of programme experiences, results, and impacts, and the dissemination of information, reports, and case studies should be given priority for the next generation of sanitation programmes. This will help others to learn and

improve their efforts. To occur successfully, however, documentation and dissemination must be planned and budgeted.

Appendix D Sample Resources for Workshops, Meetings and Other Programme-Design Activities

This appendix provides a number of modules, each with activities that a facilitator might choose from for programming meetings, workshops, and other related activities. This is not an exhaustive list of potential activities and exercises; an experienced facilitator may want to create his/her own design based on an in-country needs assessment. These are simply suggested options. Some of these activities, however, require a level of leadership experience usually found only in individuals whose profession is workshop or conference facilitation. The modules are not currently in a format that a novice facilitator would be able to handle easily. Also, selecting one activity may very well determine which of the subsequent activities or exercises would most logically make sense. It is important to look at the linkages between the various activities as part of the selection process.

MODULE 1 — Introductory Activity/Icebreaker

Activity: Introduction of Participants and Icebreaker

Time required: A good activity for larger groups (15-50), this can be done in about 30-40 minutes.

Purpose: To open the session by giving participants a chance to get to know one another a little better, and to set a participatory tone and get people thinking about the workshop topic.

Instructions: Post several short statements about sanitation around the room on flip charts that are initially covered. (Often, official publications are a good source of quotes or statements.) The statements should be different enough to offer participants choices about how they view or understand the concept of sanitation and how they view the benefits of improved sanitation. Depending upon the size of the group, you may have up to six different statements posted about the room. Introduce these by saying that people often have differing views of sanitation and that none of the views are necessarily better or worse—just different. Unveil the charts one by one, reading each in turn. Ask participants to stand next to the statement that most attracts them. (*Note: Let them decide what is meant by "attraction."*) The facilitator might put an arbitrary ceiling on the number of people clustered around any one statement—simply to keep the participants spread out.

Once the groups have formed, have the participants reintroduce themselves and discuss why they chose that statement. Tell them to be prepared to share the highlights of their discussion with the rest of the group. After a few minutes, have each group share its discussion briefly. At the end of the reports, summarize the comments by saying that this begins to give the group a flavor of the perspectives of

all of the participants here; that there are some commonalities and some diversity of views; and that we want to build upon all of these during this workshop.

Options: Add another round with additional flip charts and statements; for example, a second round might identify a series of potential sanitation interventions. Ask participants to stand next to the intervention they believe would be most useful for their country for the next several years. This further elaborates and begins to illuminate perspectives and assumptions that participants have about sanitation and sanitation programmes.

MODULE 2 — Creating a Definition of Sanitation

Activity: Define Sanitation

Time required: Approximately 90-120 minutes.

Purpose: To develop a common definition of sanitation that everyone understands and agrees upon.

Introductory Remarks: This exercise provides the foundation for the remaining exercises. To work effectively for improved sanitation, we must have a clear idea of what we mean by the term, "sanitation." The definition is critical to deciding on the people to involve, priorities to establish, educational messages to develop, and resources to commit to the project.

This exercise relates to the underlying conditions of the conceptual model. It is essentially the problem that we need to identify.

Instructions: This can be done in plenary if the group is small enough (10-15 people). Have participants each write on cards two key words—one to a card—to define sanitation. Once they have done so, have them place their cards on the wall one by one. Then ask participants to cluster the cards into similar groupings. They should make their own decision as to do the clustering. If they have difficulty grouping the cards, err on the side of more, rather than fewer, clusters at the start. Use these clusters to gradually develop a definition of sanitation. Once a concise (and unanimous) definition is arrived at, write it clearly on a flip chart and place it in a visible place for the remainder of the workshop. This definition will be referred to continually throughout the exercises.

Instructions to participants: Take two cards. On each card, write one word that expresses your idea of sanitation; do not repeat the same word, however. When you've all written down your ideas of sanitation, place your cards on the wall, one by one. Try to cluster together cards that express similar ideas. Once this is finished, we will review each clustering as a group and reposition the cards if necessary. For each cluster that is expressed with negative words, we are going to try to word it positively. Then we will regroup the cards into two to three clusters. The objective is to minimize the clusters so we can get a clear, concise, positive definition of sanitation.

You have ___ minutes for this exercise. Please return to plenary at ____, ready to make your presentation.

Optional Activity/Sequence: Deriving a Definition of Sanitation from the Vision

Purpose: To develop a common definition of sanitation with which participants feel comfortable. The facilitator has the option of shifting the sequence of Modules 2 and 3. If you want to create a vision of sanitation prior to developing a definition, then do this activity after completing Module 3.

Instructions: After developing the elements of a common vision, divide participants into small groups. Give each group the task of writing a definition based on the vision elements created earlier and on the previous discussion during the vision activity. Have them put their individual definitions on flip charts. Give them 30 minutes to do this.

Put all the definitions in the front of the room. Do a "gallery" walk, in which participants take time to read each definition. Note where they have questions, and look for common themes. Process by making sure that everyone is clear about what is trying to be said; then look for common themes. Either create the definition on a new chart or modify an existing definition, based on the group's input.

MODULE 3 — Visioning the Future

Activity: Creating a Common Vision

Time required: Two to four hours.

Purpose: To have participants create a common vision (or at least the elements of such a vision) of what they would like to see in their country five to ten years from now.

Instructions: Frame this activity by telling participants to get comfortable; this is best done by having them close their eyes while soft music plays in the background. Tell them to think ahead a certain number of years, to imagine they have been transported through time to the future. Say to them, "You are able to move around in what you see are significant improvements in sanitation in all parts of the country—rural, periurban, and urban areas. Look closely at what you see. What are the people doing—the women, the children, the men? How are they acting? What are they saying? What kinds of technology do you see? Take a few moments, and let the images materialize." Let the participants take some quiet time to create their own individual future images. Then, have them each write down what they saw.

After each person has recorded his/her images on paper, divide participants into groups of four to eight people. The group's task is to have each participant share his/her images and then as a group to create a *picture* of that future without using words. Have them draw that picture on a flip chart and be prepared to share it with the larger group. (This should take about 45 minutes.)

Have each group display its picture. Let the other groups describe what they see, while the group to which the picture belongs keeps silent. Then, the owning

group reveals what it has drawn. The facilitator should capture key words and phrases on an accompanying flip chart. Upon completion of the group's description, post the flip chart with captured words and phrases next to the picture. Continue until all of the groups are finished.

Review all of the pictures, look for common themes, and explore key differences. Try to create the elements of that common vision on a separate flip chart or, if one of the pictures really has captured the essence of the common vision, build upon it. If necessary, ask a smaller group (three to four people), drawn from the various groups, to take some separate time to put into words a draft common vision and to present it to the plenary within the next couple of hours.

Options: Instead of drawing a picture, have each group create a future newspaper article that describes this preferred sanitation situation. It should include a headline, key bullets for the article, and at least one picture. Process the discussion the same way as above.

Optional Activity: The Sanitation Ladder

(This activity can be done prior to the visioning activity, and can help orient participants to a common frame of reference to the current sanitation situation in the country.)

Purpose: To recognize the range of hygiene behaviours and technical options representing sanitation improvement. Then, to assess where we are today and where we can realistically hope to be in five years.

To be prepared beforehand by an artist: Prepare a set of approximately 20 A4-sized drawings depicting various sanitation behaviours and technical options that apply incountry. For example, drawings of various behaviours might include a man defecating in the open, a girl washing her hands after having just visited an improved latrine, and food being covered for protection against flies. Drawings of various technical options might include an unimproved pit latrine, a community latrine, and a water closet. The drawings should include situations that apply in urban and peri-urban areas as well as in rural areas.

Reproduce enough sets of the drawings so that each group can have its own to work with. The drawings in each set should be mixed so the drawings appear in random order.

Introductory remarks: Too often we generalize and set objectives that are unrealistic and unreachable, such as the following: "By 1999, we expect to have improved health for all and universal coverage of sanitary latrines or better." It is far better that we put our feet on the ground, be honest, and specify achievable targets and realistic improvements when we plan our next sanitation programme.

Instructions to participants: You are being given a set of 20 drawings that depict various hygiene behaviours and technical options related to sanitation. In your group, arrange the drawings in order, from worst to best sanitation situations.

On average, which drawings most accurately describe the present-day situation found in urban areas, peri-urban areas, and rural areas?

You have ___ minutes for this exercise. Please return to plenary at ____, ready to make your presentation.

Optional task: For each of the above three areas, decide where you could be five years from now, on average, if a modest sanitation-improvement programme were successfully implemented. Be realistic, not overly optimistic, in your ambitions. (This activity can help bridge to a visioning exercise, but is not necessary if time is limited.)

MODULE 4 — Identifying the Root Causes of the Sanitation Problem and Thus the Constraints to Achieving the Vision

Activity: Creating a Problem Tree and Conceptual Model for Sanitation

Note: Because of the complexity of this exercise, an example of the development of a problem tree, from a 1996 UNICEF planning workshop in El Salvador, is provided at the end of this appendix.

Time required: Minimum of four hours. More likely six to eight hours or more, depending on the level of detail required.

Purpose: To develop a problem tree that outlines the root causes of sanitation problems and the subsequent benefits of addressing those causes. The problem tree will be used to create an initial conceptual model to improve sanitation conditions.

Introductory remarks: To develop objectives in sanitation, it is important to know not only the causes of poor sanitation but also the results or benefits of improving sanitation. To identify the next steps prior to planning a programme, it is important to understand the links between the causes of poor sanitation conditions and ways to rectify them. Drawing a problem tree has proven helpful in identifying core problems, their causes, and their effects. From it, a conceptual model can be developed. The model will be useful in initial planning as well as for keeping a programme on track. During the course of the programme, the conceptual model that is developed should be reviewed and updated continually.

Instructions: Based on the common definition of sanitation developed earlier, have the group brainstorm all of the problem areas that contribute to poor sanitation (for example, excreta disposal, solid-waste disposal, liquid waste, poor hygiene). Or have these areas already laid out, and simply let the group react to them and make any modifications necessary. Then, take as an example one of the areas, such as inadequate excreta disposal, and describe some of the factors or causes that contribute to that problem area. Explain that you would like the group to take some time to create a conceptual model to address each of the identified problem areas.

Divide the group into the number of problem areas (perhaps four), and ask each to elaborate on flip charts the contributing causes to their specific problem area. At least three levels of causes should be developed. Causes and effects are further developed as described so that multilevel causal links and branches are created.

Have each group start with the problem area written at the top of a flip chart. Using yellow post-its or cards to identify each cause, post them immediately under the corresponding problem. Each cause in turn will have corresponding antecedent causes. Group members should continue discussing and posting the cards until they feel they have described the immediate, secondary, and tertiary causes of their problem area. If possible, have them add indicators to describe the problem exactly. Their problem tree should look something like Boxes D-2 and D-3, further on in this appendix. Give the groups one to two hours for this activity.

As the groups finish, ask them to use the same process for identifying the resulting effects of poor sanitation conditions. This process of building a problem tree will lay the groundwork for addressing the problem(s) and root causes.

The statements of problems, causes, and effects can all be examined for potential action to improve sanitation, reduce or alleviate damaging results of unhealthy conditions, and make genuine, measurable, and sustainable steps forward. Following the creation of a problem tree, the group creates a conceptual model for future action, putting causes and problems into positive statements—as targets or goals for improvements. This conceptual model will be used to guide program planning and design.

Give each group sufficient time to complete both the causes and effects of their problem areas. This initial activity can take several hours to complete. After the groups have reached a completion point (probably somewhere between three to four hours after starting), ask each group to post its chart along a wall. Have the entire group do a quick gallery walk, noting questions and concerns. Follow this with a brief presentation of each group on the highlights of its chart, followed by responses to questions and concerns. Make appropriate modifications as suggested by the group. (Alternatively, have each group go back to consider the comments of the entire plenary and make the appropriate modifications.) Continue until all groups have completed the process. The participants can stop when they are convinced that the essential information is included. Once the conceptual model is completed, have the participants discuss the linkages among the different problem areas.

Option: Do a couple of rounds of this, with each round focusing on another level of causal relationships identified, so that the model achieves an increasing level of detail.

Note: At the conclusion of this module, it will be necessary for a smaller group to spend time "cleaning up" the groups' work to reconcile overlaps, gaps, and inconsistencies.

MODULE 5 — Beginning to Think about Programme Development: What Are Our Guiding Principles, and What Additional Information Do We Need?

Activity A: Sanitation Principles

Time required: Suggested time is about 30-60 minutes.

Purpose: To establish guiding principles for the new sanitation programme.

Instructions: Photocopy Appendix A, The Problem of Sanitation and Guiding Principles of Better Sanitation Programmes, making sufficient copies for all

participants. Have the participants develop a list of principles for the new programme. These should relate directly to the important areas identified in their newly designed conceptual model.

Introductory remarks: To plan and implement any development programme, it is essential to have clear guiding principles that shape the overall programmatic framework.

Instructions to participants: The handout you are receiving (Appendix A) suggests a number of features and principles for sanitation improvement. Use it as a starting point to develop a set of appropriate in-country principles that can guide sanitation improvement efforts over the next five to seven years. (Set a time frame appropriate to the specific country's situation.) It may be helpful to group the principles by design, implementation, and evaluation of a programme, particularly if many principles are listed.

On a flip chart write down the key principles that should guide the programme. The objective is not to create an exhaustive list. If many principles are listed, try to rank them in importance, according to must do, try to do, nice if we can do.

You have ____ minutes for this exercise. Please return to plenary at __:__, ready to make your presentation.

Output: A flip chart with a key set of principles for designing, implementing, and evaluating a programme.

Activity B: Identifying the Information Gaps

Time required: 30-90 minutes.

Purpose: To identify and clarify what information is needed to develop draft programme recommendations.

Instructions: Based on the conceptual model developed and the principles identified, it is important to know where to target data collection and analysis. Either in small groups or in plenary (plenary might work well, particularly if the overall group is small and there is a need for a change of pace), ask participants to identify areas where additional information is needed, to suggest specific pieces of information to gather, and to provide any advice on how to gather the information. If you've broken them into small groups, have them work separately and report back.

MODULE 6 — Action Planning

Activity: Plan of Action

Time required: 60-90 minutes.

Purpose: To answer the question of "What now?"

Instructions: This is a three-part exercise that should be done in plenary, if at all possible. If that is not possible, then smaller groups can begin working on different elements of the plan. After group work, however, all parts of the plan must be assembled and discussed in plenary so that the final version adopted by workshop participants is complete, collective, and backed by all. The plan of action may include elements of immediate advocacy as well as programme preparation.

Assuming that this workshop is being held as a first step in preparing a new sanitation programme for support by UNICEF (and other donors and partners), read Appendix C on information gathering. It will help you identify and structure all main tasks related to data collection and assessment.

Introductory remarks: This workshop has been held within an overall context of creating awareness, promoting sanitation, and issuing a call to action. Assuming that the next step is to do something, then it is important before everyone leaves the workshop to make a plan of action that clearly specifies what will be done, by whom, and by when.

Instructions to participants: This exercise is divided into discrete segments.

In **Part A**, decide which general issues or areas of the programme (referring back to the problem tree and conceptual model) need additional information or elaboration. Focus on the areas of the problem tree you think the programme should concentrate on.

In **Part B**, decide what needs to be done. State these as tasks to be completed.

In **Part C**, identify who is responsible for each task identified in Part B, and establish deadlines for completion of the tasks.

(If the discussions for this module are conducted in small groups, note any points in Parts B and C that must be resolved in plenary to clarify roles or responsibilities related to the plan of action.)

In plenary, clarify any points arising from Parts A, B, or C. Work out any remaining practical details concerning coordination, linkages, required resources, reporting, follow-up meetings, and so forth. Be sure that no confusion remains and that everyone agrees to the plan.

You have ____minutes for this exercise. (If small groups are used, tell participants to return to plenary at ____;___, ready to make their presentation.)

Output: A list of tasks to complete, who is responsible for completion of each task, and deadlines for task completion.

MODULE 7 — Closure

Activity: A "Check-in" with Participants

Time required: 15-90 minutes.

Purpose: To allow participants to share briefly their feelings about the workshop. Assuming the workshop has gone well, this activity can serve to accentuate that positive tone and help propel the group into the next phases.

Instructions: Ask everyone, in turn, to express how he/she is feeling at that moment in a word or phrase. Make sure that the last person speaking is the most senior person there, or the host; that individual will have the right to elaborate more fully on his/her impressions and feelings. (*Note:* Many of the participants will need to say more than one word or phrase, and that is okay, as long as it isn't a speech.) This activity works best for groups of less than 25.

Options: Give participants more leeway to say whatever they want. Simply state that it needs to be brief. Although this way will take more time, it can often be more powerful in its impact.

Example for MODULE 4: Developing a Problem Tree: El Salvador

Conceptual Model

A conceptual model is a means of organizing information. (An example of such a model appears in Box 2-1 of Chapter 2, Introduction to Better Sanitation Programmes.) More specifically, a conceptual model is a way to weave—or interlock—concepts that when combined in a dynamic fashion permit elaboration of a well-designed, objective, results-oriented programme.

The conceptual model also facilitates dialogue among stakeholders, an important element in sanitation programming. In fact, the conceptual model method *requires* a dialogue among stakeholders. In a dialogue, opinions and ideas are exchanged without regard to the promotion of any one idea over another. A discussion, on the other hand, is an attempt to present an idea in detail for consideration. Thus, a dialogue is a process of understanding, whereas a discussion often becomes a process of supporting a particular idea or position. It is important to remember that, in the development of a conceptual model, a dialogue should take place.

For the purposes of this handbook, the conceptual model is a way to link the causes and effects of a problem in a logically organized conceptual framework. Primarily, the conceptual model is a programme planning tool. It is ethically and technically neutral, provided the tool is not used to privilege objectives. Although oriented toward objectives, by focusing on a problem, the model does not describe the specific activities that should be undertaken to achieve these objectives. Once a conceptual model has been developed, it can be used in a number of ways:

- To communicate the importance of sanitation
- To articulate the major focus of the sector
- To contribute to management decisions and resource allocation
- To check at the start of a programme that no assumptions have been overlooked
- To check at the start of a programme that all necessary linkages have been identified
- To help define programme goals, objectives, results, activities, and inputs
- To set out the internal assumptions of causative means-end linkages among inputs, activities, results, objectives, and goals
- To set out the external factors (assumptions) that may influence the cause-effect linkages of a program
- To identify the important information gaps to fill
- To analyse and report results of programme activities
- To help identify and establish appropriate indicators that will permit measurement or verification of the desired inputs, activities, results, objectives, and goals

Box D-1, which follows, elaborates on the importance of thoroughly considering a problem before delving into a list of causes and effects.

Box D-1: Thinking About a Problem

To some, it may seem unnecessary to devote so much time to thinking about a problem. One would assume that in most cases a problem is fairly obvious. However, experience has shown that it is not always that easy.

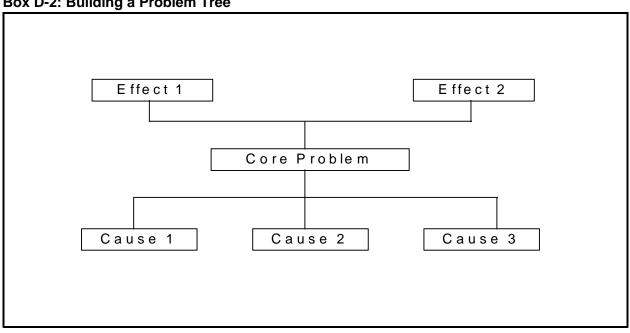
First of all, the parties involved in the project may have quite different perceptions of the problem. A major purpose of the problem-identification phase is to bring out such differences. Embarking on a project before the parties have jointly identified the problem they want to solve will inevitably create difficulties once the project is underway.

Second, it is vital to understand what causes (or caused) the problem, since the objective of the project is to eliminate these causes. If it does not, the problem will remain after the project has been completed, and nothing will have been achieved.

You may find the causes to be so abundant, and of such magnitude, that it is beyond the scope of the programme to solve the problem. The programme idea should then be abandoned. — Source: SIDA, 1995

The steps leading to development of a conceptual model in El Salvador are explained throughout this appendix. The El Salvador example was based on the modules in the Problem Definition and Analysis workshop. The steps shown below illustrate the principle of developing a problem tree, followed by the El Salvador example based on this principle.

A problem tree has three basic components: a core problem, its causes, and its effects. Box D-2 arranges these components in a logical order. Usually, there are several causes for any given problem and several effects of the problem. Please note that addressing one particular cause will not necessarily solve the core problem.



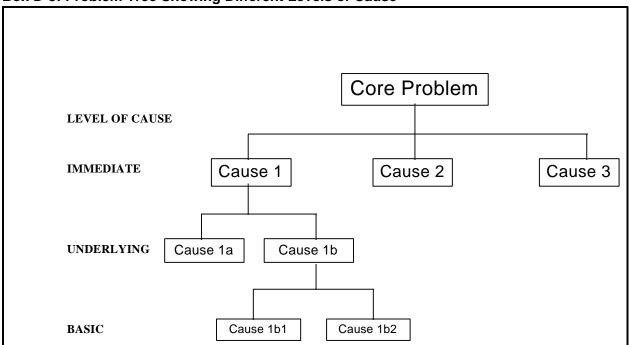
Box D-2: Building a Problem Tree

Step 1: Problem Definition

The first step in creating the problem tree is to define the problem. This exercise is done in module 4. Usually problems are stated in a negative way (inadequate and insufficient sanitation, for example). This becomes the core problem. It is important to note that the core problem does not automatically translate into the programme objective. Once agreement has been reached on the core problem, it is possible to proceed to the identification of causes (constraints) of the problem and the effects (adverse consequences) of the problem. In El Salvador, the core problem statement was synthesized to state: inadequate and insufficient sanitation.

Step 2: Identification of Causes

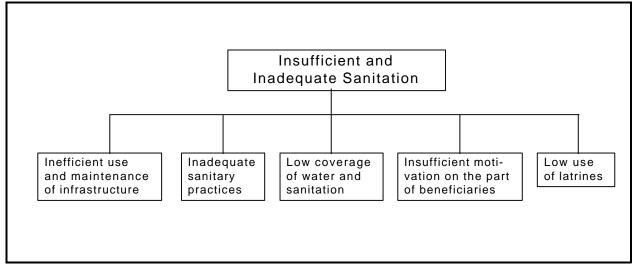
Once the problem has been identified and agreed upon, it is possible to identify its causes. A brainstorming process will identify a number of these, which will then need to be arranged in a logical fashion, with the immediate causes of the problem shown as the first level. Additional causes, underlying and basic, will be ordered below the immediate causes as shown in Box D-3.



Box D-3: Problem Tree Showing Different Levels of Cause

The El Salvador programme identified five immediate causes of inadequate and insufficient sanitation, as shown in Box D-4: inefficient use and maintenance of infrastructure, inadequate sanitary practices, low coverage of water and sanitation, insufficient motivation on the part of beneficiaries, and low use of latrines. These immediate causes are not prioritized.



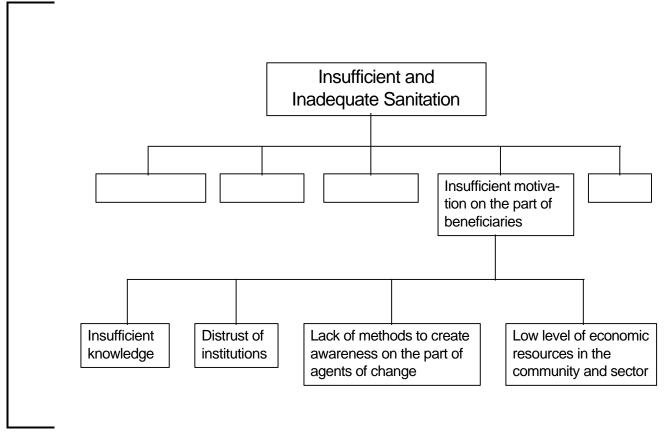


Because there are several immediate causes, fixing only one cause will leave the problem largely unchanged. The other causes will continue to exist as a constraint to overcoming the core problem. For example, increasing coverage will probably not effect the problem, "insufficient and inadequate sanitation," due to continued low use, lack of motivation, and poor sanitary practices.

Several underlying causes also exist. In other words, each immediate cause likely has additional causes, referred to as underlying causes. If the underlying causes are not addressed, then the immediate cause will persist, and the programme objectives will remain, for the most part, unattainable. We will use the immediate cause of lack of motivation as an example. In the El Salvador programme, four underlying causes of lack of motivation were identified, as shown in Box D-5: insufficient knowledge, distrust of institutions, lack of methods to create awareness on the part of the change agents, and low level of economic resources in the community and sector.

The process can continue until all the necessary causes that link with the core problem have been correctly identified and the assumptions of these causes verified. Although the majority of causes will probably be identified, the correct ordering of these causes may not be completed in a two-day workshop. That may require additional work to decide the logical sequence of causes; this step can be undertaken during the information-gathering phase of programme development.

Linking causes to the core problem can become quite complicated, so it is important to identify at least the major causes at each level. A well-defined problem tree shows that the core problem has many causes, which no single institution or agency is capable of solving. Thus, a well-developed conceptual model shows the need for partnerships and collaboration.

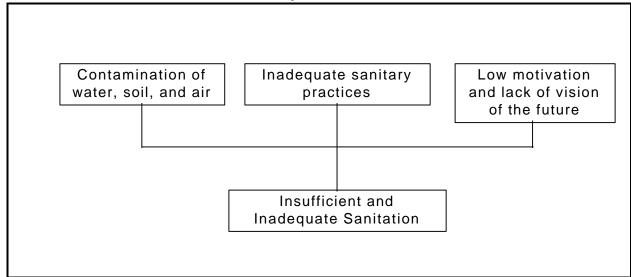


Box D-5: Causes of Insufficient Motivation on the Part of Beneficiaries: El Salvador

Step 3: Identification of Effects

The core problem will have immediate as well as secondary and tertiary effects. To identify them, use a process similar to that used to identify the causes. In general, it is harder to identify effects than to identify causes. This is, in part, because we have given more thought to the causes of poor sanitation than to the effects of our efforts. Nevertheless, identifying the effects of problems is just as important as knowing the causes. (Identification of effects of improvements will likely be included in the long- and short-term objectives of a program.)

El Salvador identified three immediate negative effects of the core problem: contamination of water, soil, and air; low motivation and lack of future vision; and inadequate sanitary practices. These are shown in Box D-6. If the second and tertiary effects were carried out further, the benefits of sanitation programs would become more apparent. For example, the transmission routes for excreta-related diseases would tie in directly to the effects shown, in the El Salvador example, in Box D-6.



Box D-6: Effects of Insufficient and Inadequate Sanitation: El Salvador

When the core problem, causes, and effects are put together, a problem tree will have been created. A simplified draft from El Salvador's workshop is shown in Box D-7.

Using the problem tree as a guide, the working group on sanitation is then ready to create a country-specific conceptual model. The model will depict goals for improved sanitation conditions, addressing areas identified as "causes" of the problem and reducing the "effects", which appear in the problem tree. Negative statements from the problem tree are recast as positive outcomes in the future.

Once the conceptual model has been developed, it can serve as a planning tool for gathering required information, developing the programme, and monitoring and evaluation (selection of indicators). Regarding the gathering of information, each cause in the framework needs to have several issues examined in more detail.

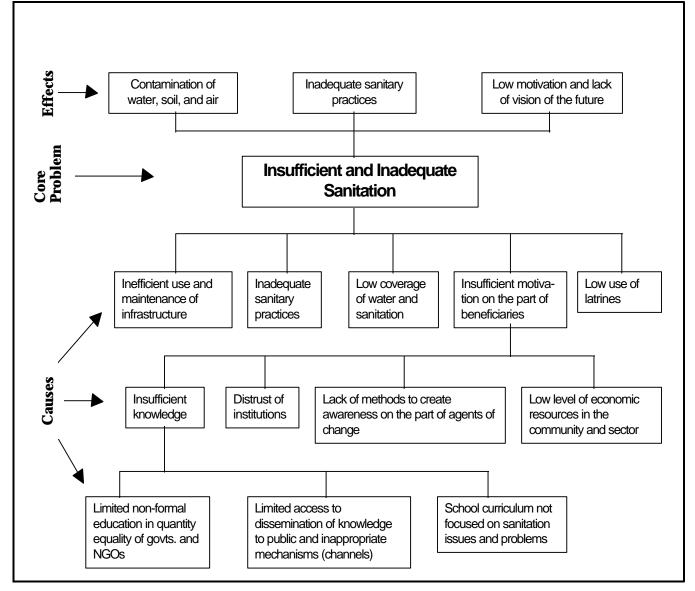
Briefly, for each box it is suggested that six categories of information be considered: community selection, community participation, technology, financing, institutions, and political will. (These six categories are described in more detail in Chapters 5-10 of the main text.) For example, insufficient knowledge, as a cause of the problem, has behavioural, community, technology, financing, institutional, and political will issues that have to be understood for better programming. Regarding programme planning, each box can be thought of as a problem to be solved or addressed, or as a result to be achieved.

To identify the result, rewrite each cause into a positive statement. Insufficient knowledge, for example, could be reworded as "sufficient knowledge." This could be a result to be achieved in the programme. Once a positive result is stated, key inputs and activities can be identified and indicators developed. Finally, "sufficient knowledge" could be the basis for an indicator, either in monitoring, in evaluation, or in both. Good indicators reflect the essence of

what is being measured, are objectively verified, and are precise. Indicators are discussed in more detail in Appendix C.

The problem tree can also be used to identify external factors that may help or hinder programme development, implementation, and evaluation. External factors are also discussed in more detail in Appendix C.





References:

Book D. UNICEF Policy and Procedure manual

SIDA. 1995. Hintbook to the User of Logical Framework Analysis. SIDA, Stockholm

Deutsche Gesellschaft fur Technische Zusammenarbeit (GTZ). 1988. ZOPP (An introduction to the method). GTZ, Frankfurt am Main.

Water, Environment and Sanitation Technical Guidelines Series

- Towards Better Programming
 Implementing Water, Environment and Sanitation Strategies: An Overview
 Water, Environment and Sanitation Technical Guidelines Series No. 1 (ID No. UNICEF/PD/WES/98-1)
- Towards Better Programming A Water Handbook
 Water, Environment and Sanitation Technical Guidelines Series No. 2 (ID No. UNICEF/PD/WES/98-2)
- Towards Better Programming A Sanitation Handbook
 Water, Environment and Sanitation Technical Guidelines Series No. 3 (ID No. UNICEF/PD/WES/98-3)
- Towards Better Programming
 A Handbook on Mainstreaming Gender in Water, Environment and Sanitation Programming
 Water, Environment and Sanitation Technical Guidelines Series No. 4 (ID No. UNICEF/PD/WES/98-4)
- Towards Better Programming
 A Handbook on School Sanitation and Hygiene
 Water, Environment and Sanitation Technical Guidelines Series No. 5 (ID No. UNICEF/PD/WES/98-5)
- Towards Better Programming A Manual on Hygiene Promotion Water, Environment and Sanitation Technical Guidelines Series No. 6 (ID No. UNICEF/PD/WES/98-6)
- Towards Better Programming A Handbook on Communication in WES Water, Environment and Sanitation Technical Guidelines Series No. 7 (ID No. UNICEF/PD/WES/98-7)