

PD-AAT-368

45077

For Limited Distribution

WATER AND SANITATION
FOR HEALTH PROJECT



COORDINATION AND
INFORMATION CENTER

Operated by CDM FIVE
for the U.S. Agency
or International Development

INTENSIVE SESSION ON WATER SANITATION AND HEALTH EDUCATION

A WORKSHOP HELD AT UNICEF HEADQUARTERS 22 - 23 APRIL, 1981

611 N. Kent Street, Room 1002
Arlington, Virginia 22209 USA

Telephone: (703) 243-8200
Telex No. WUI 64552
Cable Address WASHAID

WORKING PAPER NO. 5

30 April, 1981

Prepared For:
USAID, DS/HEA
Order of Technical Direction No. 37

CDM FIVE is operated by
Camp Dresser and McKee
Incorporated, Principal Col-
laborator, Center for Educa-
tional Development in
Health, Boston University;
International Science and
Technology Institute, Re-
search Triangle Institute,
University of North Carolina
at Chapel Hill

Contract No. AID/DSPE-C-0080, Project No. 931-1176

INTENSIVE SESSION ON WATER, SANITATION AND HEALTH EDUCATION

**A workshop held at UNICEF Headquarters
22-23 April, 1981**

**Working Paper No. 5
Order of Technical Direction No. 37**

Prepared by

**Raymond B. Isely
Associate Director
Water and Sanitation for Health Project**

Contract No. AID/DSPE-C-0080

Project No. 931-1176

TABLE OF CONTENTS

	PAGE
Introduction.....	1
Objectives.....	2
Participants.....	3
Conduct of the Workshop.....	4
Details of Discussion of Issues.....	6
Background: evolution of UNICEF water and sanitation progras.....	6
Characterization of the problem.....	6
Goals and objectives for water supply and sanitation programs.....	7
Requirements of UNICEF water projects.....	8
Sanitation component.....	8
Community involvement and personal and domestic hygiene education.....	9
Results.....	11
Observations.....	13
Appendix A - UNICEF letter dated 18 March, 1981.	
Appendix B - Order of Technical Direction No.37.	
Appendix C - Issues for the "intensive session" on water, sanitation and health education in UNICEF programming.	
Appendix D - Intensive session on water, sanita- tion and health education, 22-23 April, 1981, provisional list of participants.	

INTRODUCTION

On 18 March, 1981, WASH was invited by Mr. Martin Beyer, Senior Adviser to UNICEF Drinking Water Programmes (see attached letter), to participate in this in-house session revolving around the apparent failure of many UNICEF funded water and sanitation projects to achieve stated health objectives of reduced infant and child mortality and morbidity, at least at a rate commensurate with expectations. The author, because of his familiarity with both the problems and the theme, was invited specifically. Mr. Charles Pineo was also invited but had to decline at the last moment for personal reasons.

The activity was carried out under WASH Order of Technical Direction No. 37, dated 6 April, 1981 (see attached).

OBJECTIVES

The objectives of the workshop were to:

- examine a series of issues surrounding the interrelationships of UNICEF's water and sanitation programs and the agreed upon goals of UNICEF pertaining to maternal, and child health, and to produce an agenda for discussing these issues in a regional and country-specific sense.
- sensitize those attending the meeting to the complexities of the interrelationships of factors influencing water and sanitation program outcomes, and the consequent attention that must be paid to these complexities in program planning.

PARTICIPANTS

Four groups of individuals attended the meetings:

1. UNICEF central staff including such persons as James Grant, Martin Beyer, Lester Teply, Paul Biron and Muriel Glasgo (see attached also)
2. UNICEF field staff, of whom there were four individuals.
3. Representatives of other UN organizations, such as WHO.
4. Outside consultants. Besides the author there were Michael McGarry and Robert Grosse.

In the discussions priority was given intentionally to UNICEF field staff and outside consultants.

CONDUCT OF THE WORKSHOP

First Day

The first day was devoted to a rather free-wheeling discussion of issues. There were all together five general issues:

- A. Objectives and goals - centered on the questions of whether or not to accept health status measures, and if so, which measures as the objectives for water and sanitation.
- B. Requirements of UNICEF water projects, i.e. if these projects are to achieve health related objectives, what should characterize their design?
- C. Sanitation component - the issue was in the main how to integrate sanitation with water programs, given that the former are usually the responsibility of the Ministry of Health whereas the latter fall under various other ministries.
- D. Community involvement and personal and domestic hygiene. The major issue that emerged unresolved was how to keep community participation on track as far as water and sanitation facilities are concerned, while still taking account of the multiple socio-cultural and economic variables (e.g. women's education, agricultural production, rural access roads, etc.) that may be local priorities or may impinge on the effectiveness of the water and sanitation program.
- E. Diarrhoeal disease control as a particular goal for the Decade.

To be discussed were issues related to how UNICEF's water and sanitation programs could be more closely allied with the WHO diarrhoeal disease control programme, particularly in light of the importance of diarrhoeal disease control to the achievement of the overall UNICEF goals of diminished morbidity and mortality among infants and children.

Second Day

The second day, on the other hand, was designed to produce a series of specific questions for discussing at subsequent regional and national meetings. The assumption was made that this group could not dictate solutions to the regions, but should rather define the questions and the parameters within which they are asked.

DETAILS OF DISCUSSION OF ISSUES

Background: Evolution of UNICEF Water and Sanitation Programs

As they have evolved UNICEF programmes have placed a decidedly major emphasis on water supply, almost to the exclusion of environmental sanitation. The latter has in fact been very much the stepchild of the drinking water program.

Water programs began in 1952 on a pilot basis in cooperation with WHO. Drought in Bihar/Orissa (1963), crisis in Bangladesh (1971), and the Sahel emergency (1972-8) have boosted the UNICEF investment in water supply. Always the focus has been on water supply, with related programs in sanitation and food production neglected.

Recently there has been a movement toward integration of programs. The 1979, WHO/UNICEF JCHP paper definitely put the accent on integration of sanitation with water supply and the integration of both with primary health care. A series of six regional workshops have attempted to sensitize participants to what successful integration requires.

Current UNICEF investments in water supply and sanitation total \$60,000,000, compared with \$2,000,000 in 1972 and \$7,000,000 in 1973. Programs exist in 90 countries of which 40 have UNICEF water specialists.

In some cases UNICEF operations represent the field end of World Bank projects, as in Benin and Paraguay. In general, there has been much more planned interagency cooperation since the inception of the Decade.

Characterization of the Problem

With a goal of a reduction in the infant mortality rate to 50/1000 live-births, the question is how to increase the effects and therefore the effectiveness of water and sanitation programs in reaching this goal. In order to reach the goal it would appear that a concentration on the control of diarrhoea-causing disease is needed.

Newton Bowles put the issue simply: "The 1979 JCHP study declares that water supply alone is insufficient. Mahler and Grant both have advocated a major effort to combine water supply with environmental sanitation. But we do not know how to do it."

Mr. Grant urged the group to think about ways of accelerating the achievement of health objectives. He seemed to be preoccupied

with two opposing realities: 1) the scarcity of money for programs, and 2) the enormity of the twin goals of diminished infant mortality (to 50/1000 live-births) and increased life expectancy (to 60). Investments in water supply should therefore be made with the idea of getting out of them the most progress toward these goals. UNICEF should help each country to institutionalize the process of developing a viable village water supply program and continue in that country until health goals have been reached. The relative urgency to accelerate the achievement of those health goals is therefore born of the scarcity of resources and a realization that time may be running out for some programs.

Are water and sanitation always essential to the reduction of infant and child mortality and the prolongation of life expectancy? It would appear they are not. Sri Lanka, for example, by emphasizing equitable distribution of food, health services, and public education, has been able to achieve these goals without much improvement in either water supply or sanitation. This observation led some participants to wonder whether countries with plentiful water supplies may not have more optional routes to improved quality of life.

Goals and objectives for water supply and sanitation programs

Several points were agreed upon by everyone in attendance:

In general, it seems that the most effort has been expended in bringing water to the point where it is required, but little attention has been paid to action necessary to assure that the provision of water contributes to health objectives. The selection of objectives appeared to hinge on the opinion of participants in the meeting on whether UNICEF has the resources and the know-how to implement the essential auxiliary programs in sanitation and health education as well as needed changes in the design of water projects.

Difficulties identified in moving forward in these programs and therefore in deciding on health objectives were:

- The fact that safe abundant water is nearly universal goal among populations, whereas sanitation is much less well accepted.
- The tendency of water programs to move ahead rapidly in a sectoral fashion without taking the necessary time to gather community level data and engage in dialogue with populations about the implications of the new technology.

- The failure to see water supply as an essential part of sanitation. Instead, it often occurs, as noted above, that sanitation is made secondary to water supply and neglected by both those responsible for water and those with legal responsibility for sanitation.
- The frequent failure to link water to nutrition via food production and to health via attention given to the quantity of water available to the household.

In particular, Robert Grosse raised the point that the health objectives of water/sanitation programs may be simply not achievable in areas where such factors as women's education are extremely low. When evaluating programs therefore, he advises one must be aware of other influences at work in a society.

Requirements of UNICEF water projects

Seven basic issues related to water projects were agreed on:

- o Quantity
- o Accessibility
- o Quality
- o Reliability
- o Pump/population ratio
- o Uses of water
- o Appropriateness of technology

Michael McGarry remarked that, in order to reach any of the intermediate objectives related to the water supply itself there must be first a knowledge of the "village." This point of view was seconded by others who emphasized diagnostic community surveys, use of both monitoring and evaluation indicators and engaging in a process of dialogue with the population prior to implementation of the program, in order to be sure both engineering design and maintenance requirements are commensurate with local capability.

Sanitation component

It was agreed by everyone present that the greatest impediment to integration of water and sanitation programs is the position of the Ministry of Health in most countries: underfunded, understaffed, lacking in qualified personnel and handicapped by an excessive orientation to curative medicine. Yet this is the Ministry in most instances with the legal responsibility for both sanitation and health education programs. Even more, this Ministry has frequently a fixed budgetary commitment to a widespread network of personnel already working in rural areas, a potential but often untapped resource for programs.

A second impediment, no less serious, is the inherent resistance of many rural populations to change in defecation patterns. Bangladesh, it was noted, had once dropped its sanitation program in the face of failure at this level. India, however, has put money for sanitation into its 5-year plan for the first time.

Infants and small children must be a particular focus for programs since their stools are the most infectious and their defecation habits the most uncontrolled.

Another point to be emphasized is the disposal of wastewater. Tepley urged participants to consider the use of wastewater for gardens, shrubs, trees, etc. proving they do not contain chemical detergents.

Community involvement and personal and domestic hygiene education

Marguerita Cardenas keyed a plea for targeting community participation to water and sanitation programs and leaving other concerns, viz. nutrition and immunizations to other programs. Her concern may arise from her situation in Pakistan where sanitarians are coopted by physicians for work in MCH/immunization programs. Grosse, however, reminded everyone that in many areas of the world something other than water supply and sanitation must be accomplished in the short run in order for water and sanitation objectives to be achieved in the long run.

What is the incentive for the community to become involved in these programs? What are the incentives for peripheral workers to expend their efforts in promoting community participation? These are key questions. In a sense the dynamics of community participation are already in progress to some degree in every community. To obtain the participation of communities in water and sanitation programs, those programs must some how respond to the priorities inherent in those dynamics, for instance, the drive of the community may be toward production. In this case a water and sanitation program would have to be designed to maximize the impact on agricultural or livestock production. In every case flexibility must be preserved in design so that whatever the ultimate shape of the program it belongs in fact to the community.

Diarrhoeal disease control as a particular Decade goal

This discussion centered around Michael Merson's presentation of the latest developments in the WHO Diarrhoeal Disease Control Program.

This program began in 1978 as the successor to several cholera control programs in the past. It is concerned with a set of infections having diarrhoea as a common symptom, that are responsible for more infant and child deaths than any other etiologic category. Eighty to ninety percent of infectious agents have been specifically identified. Their treatment and control are viewed as an integral part of Primary Health Care.

Treatment using oral rehydration therapy (ORT) is addressed to the 3-5 million deaths under five years of age annually attributable to diarrhoea and dehydration (out of an estimated one billion cases or a 3/1000 case fatality rate). In parallel with ORT has been a renewed emphasis on early refeeding of cases of diarrhoea since an estimated 10% of acute malnutrition is attributable to diarrhoea. In particular, emphasis is laid on breastfeeding, and, importantly, on safe weaning foods.

Two other parts of the program concern environmental health and epidemic control. The former is by far the weakest element in the four-pronged program and therefore the one where collaboration with UNICEF and others would be most welcome.

In implementing these four programs, four strategies have been undertaken:

1. Planning the application of programs
2. Training of upper and middle level management
3. Evaluation and feedback
4. Information dissemination

Discussion centered around the training strategy. Of particular interest is the way in which this strategy has been developed. Using a fictitious country as a continuing case study, trainees are asked to deal with management problems related to a diarrhoeal disease control program. The approach has also been used in the Expanded Immunization Program. For upper level managers in two week regional courses, the areas of concentration include objective setting, priority and target setting, strategy selection, logistics, setting evaluation criteria, and training skills and management. The mid-level managers in national courses 2-3 days per month add supplies management and community participation. The last module is not yet satisfactory.

Participants responded with great interest to these ideas. Similar training is going on with UNICEF assistance in Bangladesh where a "Village Resource Education Kit" has been developed, and in Thailand where a successful communications workshop was recently held. (Documents from this workshop are in the WASH library.) It was pointed out that UNICEF, unlike WHO, sets its training priorities below the mid level, although there is much to be learned from the WHO approach.

This program began in 1978 as the successor to several cholera control programs in the past. It is concerned with a set of infections having diarrhoea as a common symptom, that are responsible for more infant and child deaths than any other etiologic category. Eighty to ninety percent of infectious agents have been specifically identified. Their treatment and control are viewed as an integral part of Primary Health Care.

Treatment using oral rehydration therapy (ORT) is addressed to the 3-5 million deaths under five years of age annually attributable to diarrhoea and dehydration (out of an estimated one billion cases or a 3/1000 case fatality rate). In parallel with ORT has been a renewed emphasis on early refeeding of cases of diarrhoea since an estimated 10% of acute malnutrition is attributable to diarrhoea. In particular, emphasis is laid on breastfeeding, and, importantly, on safe weaning foods.

Two other parts of the program concern environmental health and epidemic control. The former is by far the weakest element in the four-pronged program and therefore the one where collaboration with UNICEF and others would be most welcome.

In implementing these four programs, four strategies have been undertaken:

1. Planning the application of programs
2. Training of upper and middle level management
3. Evaluation and feedback
4. Information dissemination

Discussion centered around the training strategy. Of particular interest is the way in which this strategy has been developed. Using a fictitious country as a continuing case study, trainees are asked to deal with management problems related to a diarrhoeal disease control program. The approach has also been used in the Expanded Immunization Program. For upper level managers in two week regional courses, the areas of concentration include objective setting, priority and target setting, strategy selection, logistics, setting evaluation criteria, and training skills and management. The mid-level managers in national courses 2-3 days per month add supplies management and community participation. The last module is not yet satisfactory.

Participants responded with great interest to these ideas. Similar training is going on with UNICEF assistance in Bangladesh where a "Village Resource Education Kit" has been developed, and in Thailand where a successful communications workshop was recently held. (Documents from this workshop are in the WASH library.) It was pointed out that UNICEF, unlike WHO, sets its training priorities below the mid level, although there is much to be learned from the WHO approach.

RESULTS

In an effort to focus the concepts discussed during the meeting in a way that would be useful to planners of regional workshops later in the year, a series of questions were established and fitted into a matrix with levels of involvement (see Figure 1). If this matrix were used in each regional workshop, the resulting analysis would have immediate applications to programs, but in country- or at least region-specific terms. The group felt strongly that it should not impose answers on field personnel, but rather provide a structured framework for asking relevant questions.

For each question, a subsidiary one would be, "What information is needed to answer the question and where can it be obtained?"

FIGURE 1

Questions to ask about water and sanitation programs
at various levels of concern

Question	<i>Community</i>	<i>Field Workers</i>	<i>Mid-level Managers</i>	<i>National Managers & Policy Makers</i>	<i>External Assistance Organizations</i>
What are the objectives of the water and sanitation program?					
What measures are needed to assure achievement of these objectives?					
What specific technologies should be included as part of these measures?					
What are the resource requirements?					
What are the organization and management requirements?					
What groups/organizations need to be involved?					
What behaviour is needed on the part of groups, individuals?					
What concrete end product of this workshop is needed to proceed with the program?					

OBSERVATIONS

UNICEF is an organization with generous resources and a highly motivated and coherent staff. These resources are however spread thinly over 90 country programs. At present 85-90% of expenditures on water and sanitation (\$60,000,000 total per year) are for commodities. It is little wonder that water projects are programmed in a sectoral fashion and little effort is expended on health education or sanitation. If these later elements are in fact necessary to achieving the health goals that everyone seems to want, then some shift in allocations will be needed.

Before such a shift, however, a careful assessment of required inputs by UNICEF, and possible inputs in other assistance agencies both within and without the UN, and potential inputs at each level in countries will need to be made. A good beginning could be made by assessing these input requirements in a sample of countries. Just such a step is contemplated by UNICEF in the near future. Possible countries include Peru, Cameroon or Sudan, India, Bangladesh, Yemen Arab Republic, Egypt and Burma.

We at WASH and in AID should follow these developments closely since the issues and questions closely parallel our own.

APPENDIX A

UNICEF LETTER DATED 18 MARCH 1981



UNICEF

UNITED NATIONS CHILDREN'S FUND · FONDS DES NATIONS UNIES POUR L'ENFANCE

UNITED NATIONS, NEW YORK

WS/81/224
18 March 1981

W.C.
Dear Mr. ~~Wehman~~,

It is with pleasure that I write, on behalf of UNICEF, to invite one of your colleagues, Dr. Ray Isely, to an intensive session on water, sanitation and health education, scheduled for 22-23 April 1981 at UNICEF Headquarters, New York.

I met Dr. Isely late last year at a seminar promoted by the Margaret Sanger Institute where he was one of the speakers. He touched on the relationship between accessible water and adequate sanitation linking them with maternal and child health, and the caloric demand of various household tasks as compared with water and sanitation.

This is very much an area of activity which is of great concern to UNICEF and we would be pleased to have Dr. Isely's participation. At the session, among other things, we will attempt to thrash out the complexities of water supply and sanitation and its impact, or lack thereof, on health; to examine the critical mix of interventions that would assure greater health benefits; and to determine the role of sanitation/health education in water programmes. Participants will include UNICEF staff both Headquarters and field, and some experts in private institutions.

We look forward to working with Dr. Isely.

Yours sincerely,

Martin G. Beyer
Senior Adviser
Drinking Water Programmes

Mr. Victor Wehman
c/o WASH Project
1611 N. Kent Street, Room 1002
Arlington, Virginia 22209



1979 International Year of the Child

APPENDIX B

ORDER OF TECHNICAL DIRECTION NO. 37

Water and Sanitation For Health (WASH) Project
Order of Technical Direction (OTD) 37

TO: Mr. James Arbuthnot, P.E.
WASH Contract Project Director

April 6, 1981

FROM: Mr. Victor W.R. Wehman, Jr., P.E. R.S. *VWW*
AID WASH Project Manager

SUBJECT: Provision of Technical Assistance Under WASH Project Scope of Work
for DS/HEA/UNICEF

REFS: A) UNICEF letter 18 March 81 Beyer/Wehman

1. WASH contractor requested to provide technical assistance to AID/W, DS/HEA as per Scope of Work in Ref. A.
2. WASH contractor/sub-contractor/consultants authorized to expend up to 8 days total effort during the month of April 1981 to accomplish effort. This should represent coordination and attendance time for Dr. Isely and Mr. Pineo to attend "intensive session."
3. Two round trip domestic trips from Washington, D.C. to New York are authorized (one each for each individual.)
4. Six (6) days of domestic per diem are authorized as necessary.
5. Miscellaneous expenses are authorized.
6. Both individuals will prepare personal contact and perception's report for use by DS/HEA in better understanding UNICEF's current issues, dilemmas, goals and attitudes toward the software aspects of water supply and sanitation.
7. Individuals will hold a joint debriefing for Agency personnel upon returning.
8. Please contact Mr. Beyer to alert him of your coming. Good luck.

APPENDIX C

ISSUES FOR THE "INTENSIVE SESSION" ON WATER,
SANITATION AND HEALTH EDUCATION IN UNICEF PROGRAMMING

**UNICEF****UNITED NATIONS CHILDREN'S FUND · FONDS DES NATIONS UNIES POUR L'ENFANCE**

UNITED NATIONS, NEW YORK

10 April 1981

ISSUES FOR THE "INTENSIVE SESSION" ON WATER, SANITATION
AND HEALTH EDUCATION IN UNICEF PROGRAMMING

Purpose of the Session

1. The intensive session is to be regarded as the first stage in a process leading to questions and the identification of issues for further examination at the regional level. It will aim at establishing a basis for guidelines regarding an operational policy to considerably strengthen the linking of water supply and sanitation with community education and motivation as component of PHC, aiming at an accelerated reduction in infant and child mortality and morbidity.

Background

2. UNICEF's co-operation in water supply has brought, through "non-bankable" projects, improved supplies to millions of people in drought-affected and other difficult areas. For millions of others it has regularized a supply of a better quality drinking water supply. Through its magnitude,



-2-

the co-operation is responding to the goals of the Decade. For all beneficiaries the co-operation is bringing more convenience in their lives. Improved water supply systems are asked for by the people and will continue to be built, irrespective of evidence of health benefits. However, in UNICEF's co-operation we should orient further on the possibilities of how projects can be even further improved to have an impact on health.

3. The provision of improved water supplies and sanitation raises, by intuition, hopes for improved health. It is thus that governments, but more often development agencies and donors, faced with requests for large investments in this sector, want to link these investments to measurable benefits in health improvements. Such benefits, if existent, are however difficult to measure.

4. Within the social goals of the New International Development Strategy UNICEF's concern includes contributing to an accelerated reduction in infant and child mortality and morbidity. Given UNICEF's large investment in the water sector, it is understandable that its Administration, in view of the above-mentioned goal, also would like to link these investments to measurable health benefits.

5. UNICEF's policy on co-operation in water supply/sanitation programmes follows recommendations given by the UNICEF/WHO Joint Committee on Health Policy (1979). These recommendations emphasize:

- strengthening the development of water and sanitation with priority to underserved populations;
- the relationship with Primary Health Care;

"Primary Health Care should include at least: education concerning prevailing health problems and the methods of identifying, preventing and controlling them; promotion of food supply and proper nutrition, an adequate supply of safe water and basic sanitation; maternal and child health care, including family planning; immunization against the major infectious diseases; prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; promotion of mental health; and provision of essential drugs".

the complementarity of water and sanitation.

The components in this section should include:

- a) personal hygiene
- b) supply of clean water for drinking and household care, with emphasis on accessibility and quantity, and accompanying provision for disposal of wastewater
- c) excreta disposal
- d) refuse disposal
- e) cleanliness of the neighbourhood.

Full returns to the effort and resources invested can be obtained only when all these components are addressed. At present in many countries c), d) and e) are lagging behind a) and b) This needs more attention.

Within the sector, UNICEF's investments show a great disparity, with approximately 97% of the funds invested in water projects and only some 3% in sanitation and hygiene education.

Issue I - Objectives and Goals

6. The first issue to be addressed in the session centres around the question: Can, and under what conditions, cost-effective results in health improvements be achieved by an appropriate linking of watersupply/sanitation/hygiene interventions as part of PHC. In addressing this question the following should be taken into account:

UNICEF's emphasis on underserved populations, those at the lower end of the socio-economic scale and plagued by the "poverty diseases" which in turn are closely related to water/sanitation/hygiene.

In the discussion of this issue attention to be given to:

- the relevant infant/child diseases (global/regional/local; also according to age) and the relation of these diseases to other factors (socio-economic status in general; nutrition in particular);
 - suggested reductions in infant and child mortality and morbidity to which the appropriate links of water/sanitation/hygiene may contribute - with or without specific other interventions, such as other ongoing health and nutrition activities;
- medical, specially epidemiological and nutritional status, information required for project design.

Issue II - Water Project requirements

7. The second main issue to be addressed relates to the design requirements for programmes and projects, including improved water supplies, which may contribute to health improvements. These requirements are to be discussed with reference to typical UNICEF assisted projects whose present design may not necessarily be adequate to lead to health improvements. Keypoints in the context of this discussion are:

- water-quality;
- quantity, accessibility, storage, transport, carrying, drainage and reliability of supply;
- users, especially children's customs;

- hygienic deficiencies;
- waterresources and cost-effective technical possibilities;
- strengthen government capabilities;
- indicators for evaluation.

Even the question: Can health improvements be obtained short of yard connections? - may be posed.

Issue III - Sanitation Component

8. The third main issue to be addressed concerns the introduction of the sanitation component in projects. In analyzing the considerable constraints (cultural, environmental, government structures, ignorance, cost, slow/long implementation time) questions may be asked:

- How important is this component for obtaining health benefits?
- Under which situations will an appropriate water supply and hygiene education be sufficient?
- Based on the experiences of the TAG group: Might positive results be expected in the shorter run? and at what cost?
- Realistic indicators for evaluation.

Issue IV - Community involvement and personal and domestic
hygiene education

Should this be recommended to formulate the specific definitions and objectives of community activities as means of changing attitudes and behaviour, based on:

- the existing health and hygienic patterns, and the specifically adapted designs of the water supply/sanitation systems provided?
- How should this motivation/education be integrated with existing community activities? (Especially also strengthening of government structures and capacity)

Further points to discuss:

- Human resources required for the motivational/educational process in water and sanitation;
- Methodologies, including those for behavioral change;
- Indicators for the evaluation of the effectiveness of the activities and the approach.

Issue V - Diarrhoeal diseases control as part goal for the Decade?

The promotion of appropriate water supply/sanitation provisions as important tools to reduce diarrhoeal diseases, is one of the

27

main concerns of the diarrhoeal diseases control programmes. It should therefore be assessed how UNICEF's water/sanitation activities and these programmes could operate more closely, specially in filling knowledge gaps, field studies on specific interventions and in modelling optimum intervention designs.

Since diarrhoeal diseases account for a large part of the cases of infant and child mortality and morbidity, and as these diseases to a large degree are water-related, the control of diarrhoeal diseases could be emphasized as a specific and important part goal for UNICEF activities for the Decade.

APPENDIX D

INTENSIVE SESSION ON WATER, SANITATION AND HEALTH EDUCATION
22-23 APRIL 1981
PROVISIONAL LIST OF PARTICIPANTS

23

INTENSIVE SESSION ON WATER, SANITATION AND HEALTH EDUCATION

22-23 APRIL 1981

PROVISIONAL LIST OF PARTICIPANTS

UNICEF HEADQUARTERS

OFFICE OF THE EXECUTIVE DIRECTOR

Mr. James Grant	Executive Director
Mr. Eric Heyward	Senior Deputy Executive Director
Ms. Lucille Mair	Special Adviser, Women in Development
Mr. Herman Stein	Senior Adviser to Executive Director
Mr. Lester Teply	Senior Nutritionist
Mr. Hossein Ghassemi	Nutrition Adviser

PROGRAMME GROUP

Mr. Manou Assadi	Director, Field Services
Mr. Nyi Nyi	Director, Programme Development and Planning Division
Mr. Edward Lannert	Deputy Director, Programme Development and Planning Division
Mr. Martin Beyer	Senior Adviser, Drinking Water Programmes
Mr. Paul Biron	Senior Programme Officer
Mr. Bozidar Kojicic	Water Supply Officer

Mr. Bruno Ferrari-Bono	Adviser, Drinking Water Progs.
Mr. Henk Davelaar	Consultant
Mr. Newton Bowles	Senior Consultant
Ms. Yangsheng Ma	Senior Officer, Family/Child Welfare
Ms. Muriel Glasgow	Programme Assistant
Mr. Boris Blanco	Chief, Americas Section
Mr. Edward Crunden	Chief, Eastern Mediterranean Section
Mr. Dickson Nkembo	Chief, Africa Section
Mr. Kunio Waki	Chief, Asia Section
Mr. R. Sanderud	UNESCO Adviser to UNICEF

Mr. J. ...

UNICEF FIELD OFFICES

Dr. (Mrs) M.J. Wijemanne Colombo Office	Programme Officer, Education and Social Services
Ms. Margarita Cardenas Islamabad Office	Project Officer, Sanitation
Mr. Pricha Chulavachana Seoul Office	Programme/Planning Officer
Mr. Guy Scandlen Office of the Director, Bangkok	Regional Project Support Communications Officer

WORLD HEALTH ORGANIZATION

Mr. Somnuek Unakul	Interregional Adviser for Environmental Health
Dr. Michael Merson	Diarrhoeal Diseases Programme

UNITED NATIONS DEVELOPMENT PROGRAMME

Dr. Peter Bourne	Assistant Secretary-General and UNEP Coordinator for the Water Decade
------------------	--

OTHER INSTITUTIONS

Prof. Robert Grosse	School of Public Health, University of Michigan
Dr. Raymond Isely	Water and Sanitation for Health Project (USAID)
Mr. M. Mc Garry	International Development Research Centre, Ottawa