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A DPHE Project working with Dutch Aid Drinking Water..Sanitation..Hygiene Education



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NETHERLANDS - BANGLADESH DEVELOPMENT COOPERATION PROGRAMME
DPHE-DUTCH ASSISTED WATER SUPPLY, SANITATION AND DRAINAGE PROJECTS

18 DISTRICT TOWNS PROJECT

WOMEN IN DEVELOPMENT
AND HYGIENE EDUCATION
IMPACT STUDY
PART 1.
SUMMARY VOLUME

DECEMBER 1998

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This report was written by Suzanne Hanchett with assistance of 18DTP staff and consultants: Cindy Geers, Rafiqul Islam, Qumrun Nahar, and Jennie van de Weerd. Survey interviews and data entry were conducted by PRAXIS (Mohidul Hoque Khan, Director). Technical assistance for 18DTP is provided by a consortium of three Netherlands consulting firms, DHV, IWACO, and BKH, and three Bangladesh consulting firms, AQUA, BETS, and DEVCON.

List of Abbreviations

18DTP 18 District Towns Project for Water Supply, Sanitation and Hygiene Education

BBS Bangladesh Bureau of Statistics, Ministry of Planning

CSC Community Sanitation Center

NGO / CSC All-female team hired on contract to do hygiene education, sanitation

promotion, and other duties

DANIDA Danish International Development Agency

Division A project-defined grouping of towns, not identical with national administrative

division

DPHE Department of Public Health Engineering, part of the Ministry of Local

Government, Rural Development, and Cooperatives (counterpart agency for

18DTP)

HEP Hygiene Education Program

HTW Hand tubewell

kacca Roughly, crudely built; rural style (contrasted with pucca) [pronounced:

kuchha]

NGO Non-Governmental Organization

ODS Organizational Development Specialist; over-all supervisor of project division

or pourashava-level project work

PD Project Director, a DPHE official

PO Project Office, under direction of Team Leader

pucca Proper, well made; used to refer to concrete, urban-style buildings (contrasted

with kacca) [pronounced: pukka]

PWSS Pourashava Water Supply Section (managed by PWSS Superintendent)

SAE Sub-assistant Engineer

SDE Sub-divisional Engineer

SMC School Managing Committee (made up of local people and government

employees; every primary school has one)

TEO Thana Educational Officer

UNICEF United Nations Children's Fund

WATSAN Committees A network of thana-level or union-level committees established by

DPHE and UNICEF to manage local water and sanitation improvements

XEN Executive Engineer

Women in Development and Hygiene Education Impact Study

Table of Contents

Executive Summary

Part 1. Summary Report

1.1	Background	and	Introduction
1.1	Dackground	unu	minoaacmon

- 1.1 1 The 18 District Towns Project (18DTP) Background Information
- 1 1 2 Terms of Reference
- 1 1 3 Evaluation Methodology
- 1 1.4 Outline of the Report
- 1.2 Women in Development. Summary of Findings
 - 1 2.1 Trial and Error in Women in Development (WID)
 - 1.2 2 NGO/CSC Teams
 - 1 2.3 The Hand Tubewell Caretaker Training Program
 - 1 2.4 Gender Training Introduction
- 1.3 Evaluation of the Hygiene Education Program
 - 1.3 1 The Hygiene Education Program A Brief Overview
 - 1 3.2 Program Impact Indicators: Household Survey Findings
 - 1 3.3 Evaluation of the 18DTP School Program
- 1.4 Community Participation: General Comments
 - 1 4 1 Formal Participation Efforts
 - 1 4.2 Informal Approaches to Participation

Part 2.

Women in Development

- 2.1 Trial and Error in Women in Development (WID)
 - 2 1 1 The Rise and Fall of the Female Masons
 - 2 1 2 WID and the Water Supply and Sanitation Committee (WSSC)
 - 2 1.3 NGO/CSC Teams
- 2 2 Hand Tubewell Caretakers
 - 2.2 1 The Hand Tubewell Caretaker Training Program
 - 2.2.2 Economic Status of the HTW Caretaker Households
 - 2 2 3 Hygiene Education Levels
 - 2 2 4 Practical Experiences and Constraints
 - 2 2.5 Spreading Knowledge to Others
 - 2.2.6 Attitudes Toward Women Doing Tubewell Repair
 - 2.2 7 Further Training Needs and Tool Distribution
 - 2.2.8 Comparison Between Towns
 - 2.2.9 Summary and Conclusions

- 2.3 Gender Training
 - 2.3 1 Introduction
 - 2 3.2 Description of Group Sessions and Initial Reactions
 - 2.3.3 Project Office Post-training Communication
 - 2.3.4 Six Month Follow-up Findings
 - 2 3 5 Field-level Planning for Future Gender Training
 - 2 3 6 Summary and Conclusions

Part 3.

Hygiene Education

- 3.1 Overview of the Hygiene Education Program and NGO/CSC Teams
 - 3 1.1 The Hygiene Education Program: A Brief Overview
 - 3.1.2 Hygiene Education Methods
 - 3.1.3 The NGO/CSC Teams: Status, Constraints, and Skills
- 3.2 Program Impact Indicators: Household Survey Findings
 - 3.2.1 Demographic Characteristics of Sample Groups
 - 3.2.2 People's Perceptions of Project Hygiene Education Services
 - 3.2.3 Domestic Water Use
 - 3 2 4 Sanitation
 - 3.2.5 Hand Washing Practice
 - 3.2.6 Solid Waste Proposal
 - 3 2 7 Water and Sanitation Knowledge
 - 3.2.8 Family Health Status
 - 3 2.9 Summary and Conclusions
- 3 3 The 18DTP School Program
 - 3.3.1 Introduction
 - 3.3.2 The 18DTP Hygiene Education School Curriculum
 - 3.3.3 Monitoring the School Program
 - 3.3.4 Teachers' Comments on Child Health
 - 3 3.5 Problems, Successes, and Future Plans
 - 3 3.6 Impact of the School Program
 - 3 3.7 Summary of Findings
 - 3 3 8 Conclusions

Annexes

- 11 A Terms of Reference
 - B Impact Assessment of the 18DTP Women in Development, Hygiene Education, and Community Participation Programs; Preliminary Findings and Recommendations
- 2 3 Gender Training Materials and Notes
- 3 2 A Brochures Distributed to Beneficiaries
 - B Questionnaire
 - C Supplementary Data Tables
- 3 3 Sample Curriculum Materials: 18DTP School Program

Women in Development and Hygiene Education Impact Study

Part 1. Summary Volume

Tab	ole of C	Contents			Page
1.1	Backg	round an	d Introductio	on	1 - 1
	1.1.1			s Project (18DTP). Background Information	1 - 1
	112		f Reference		1 - 2
	113	Evaluatı	on Methodolo	ogy	1 - 3
	1.1.4	Outline	of the Report	C.	1 - 3
1.2	Wome	en in Deve	lopment: Su	mmary of Findings	1 - 4
	1 2.1	Trial and	d Error in Wo	men in Development (WID)	1 - 4
		1.2.1.1	The Rise ar	nd Fall of the Female Masons	1 - 5
			1.2.1.1.1	Cancellation of the Female Masons Program	1 - 6
			1.2.1.1.2	Female Masons Program: Conclusions	1 - 7
			1.2.1.1.3	Lessons to be Learned	1 - 7
		1.2.1.2	WID and th	e Water Supply and Sanitation Committee (WSSC	1)1-9
			1.2.1.2.1	Composition and Responsibilities of the WSSC	1 - 9
			1 2.1 2.2	WSSCs in Phase/Batch – III	1 - 9
			1 2.1 2 3	WSSCs: Conclusions	1 - 10
	1.2.2	NGO/CS	SC Teams		1 - 12
	123	The Han	d Tubewell C	Caretaker Training Program	1 - 12
		1 2.3.1	Program Ev	aluation Objectives and Methods	1 - 13
		1 2.3.2	Hand Tube	well Caretaker Training: Summary and Conclusion	s 1 - 13
	1 2.4	Gender 7	Fraining [.] Intro	oduction	1 - 14
		1.2.4.1	Objectives	of the Training	1 - 14
			1.2 4.2 1	Participants	1 - 14
		1.2.4.2	Curriculum	and Training Methods	1 - 15
			1.2.4.2.1	Sociological Assumptions	1 - 16
		1.2.4.3	Summary a	nd Conclusions	1 - 17
			1.2.4.3.1	Effectiveness of the Training	1 - 18
			1.2.4.3.2	Specific Gender Issues in the 18DTP	1 - 19
			1.2.4.3.3	Recommendations	1 - 20

1.3	Evalua	ation of th	ie Hygiene E	Education Program	1 - 22
	1.3.1	on Program: A Brief Overview	1 - 22		
		1.3.1 1	Phase III P	rogram Reorganization	1 - 23
		1 3.1.2		ducation Methods	1 - 23
		1.3.1.3		roups Receiving Hygiene Education	1 - 24
		1.3 1.4	The NGO/	CSC Teams: Status, Constraints, and Skills	1 - 25
		1.3.1.5	Organizati	onal Issues in Brief	1 - 26
	1.3 2	Program	Impact Indic	cators: Household Survey Findings	1 - 26
		1.3 2.1	Limitation	s of the Study Method	1 - 28
		1.3.2.2	People's P	erceptions of Project Hygiene Education Services	1 - 29
		1.3.2.3	Summary of	of Other Findings	1 - 30
			1.3.2.3.1	Domestic Water Use	1 - 30
			1.3.2.3.2	Sanitation	1 - 32
			1.3.2.3.3	Hand Washing Practice	1 - 34
			1.3.2.3.4	Solid Waste Disposal	1 - 35
			1.3.2.3.5	Water and Sanitation Knowledge	1 - 35
			1.3.2.3.6	Family Health Status	1 - 37
		1 3.2.4	Program In	npact: Conclusions	1 - 37
	1.3 3	Evaluati	on of the 18I	OTP School Program	1 - 38
		1.3.3.1	The 18DT	School Program: Introduction	1 - 38
		1.3.3.2	Evaluation	Objectives and Methods	1 - 39
		1.3.3.3	Summary of	of Findings	1 - 39
			1.3.3.3.1	The Primary School: Physical Facilities	
				and Administration	1 - 40
			1.3.3.3.2	The Hygiene Education Curriculum	1 - 40
			1.3.3.3.3	Teachers' Suggestions for Future School Projects	1 - 41
		1.3 3.4	The Schoo	l Program: Conclusions	1 - 42
1.4	Comm	unity Par	ticipation: (General Comments	1 - 44
	1.4 1	Formal F	Participation	Efforts	1 - 44
	1.4.2	Informal	Approaches	to Participation	1 - 46
Refe	rences				1 - 47

Annexes

1.1 A Terms of Reference

B Impact Assessment of the 18DTP Women in Development, Hygiene Education, and Community Participation Programs; Preliminary Findings and Recommendations

Table	es	Page
.3.1	Household Economic Status.	
	Reported Monthly Incomes and Percentages by Sample Group	1 - 27
3.2	Sample Groups, by Level of Hygiene Education	1 - 28
.3.3	Respondents' Familiarity with CSC/NGO Workers' Names	1 - 30
.3.4	Children's Latrine Use,	
	Comparison of Hygiene Education Recipients and Controls	1 - 32
.3.5	Post-defecation Hand Washing Practice,	
	Comparison of Hygiene Education Recipients and Controls	1 - 34
3.6	Knowledge of Diseases Related to Latrine Use,	
	Responses by Hygiene Education Level	1 - 36
.3.7	Disease Spread Causes Mentioned, by Hygiene Education Level	1 - 36
.3.8	Diarrhea Prevention Methods Mentioned, by Hygiene Education Level	1 - 37
Figu	res	
.3.1	Perceived Value of Hygiene Education: Divisional Comparison	1 - 31
.3.2	Safe Water Used for Utensıl Washing	1 - 31
.3 3	Latrine Cleanliness Condition Score	1 - 33
.3.4	Latrine Behavior Score	1 - 33
	3.2 3.3 3.4 .3.5 3.6 .3.7 .3.8 Figu:	Reported Monthly Incomes and Percentages by Sample Group 3.2 Sample Groups, by Level of Hygiene Education 3.3 Respondents' Familiarity with CSC/NGO Workers' Names 3.4 Children's Latrine Use, Comparison of Hygiene Education Recipients and Controls 3.5 Post-defecation Hand Washing Practice, Comparison of Hygiene Education Recipients and Controls 3.6 Knowledge of Diseases Related to Latrine Use, Responses by Hygiene Education Level 3.7 Disease Spread Causes Mentioned, by Hygiene Education Level 3.8 Diarrhea Prevention Methods Mentioned, by Hygiene Education Level Figures 3.1 Perceived Value of Hygiene Education: Divisional Comparison 3.2 Safe Water Used for Utensıl Washing 3.3 Latrine Cleanliness Condition Score

Part 1. Summary Report

1.1 Background and Introduction

1.1.1 The 18 District Towns Project (18DTP): Background Information

This project first started on 19 August 1977, when the Kingdom of the Netherlands and the People's Republic of Bangladesh signed an agreement on technical cooperation. This agreement initiated pilot project in 12 district headquarters towns¹. The initial project focus was on rehabilitation of existing water supply facilities.

The Bangladesh government counterpart agency responsible for the project is the Department of Public Health Engineering (DPHE), Ministry of Local Government, Rural Development and Cooperatives. This office is managed by a Project Director. A Project Office, staffed by a consortium of consulting firms under the leadership of DHV Consultants, handles day-to-day operations. The Project Office is managed by a Team Leader.

In 1988-91 preparations began for an 18-town expanded project, based on the experience of the earlier 12-town project. During this period, considered "Phase I" of the current project cycle, preparatory studies were done on feasibility of engineering works and a number of socioeconomic topics. The concept of the new, 18 District Town Project broadened the focus beyond water supply. The shift in approach was referred to in later document:

"There is now a growing awareness that, as long as water supply facilities are not complemented by sanitation facilities they will not lead to improved health conditions and to a quality of life consistent with human dignity. Moreover, in order to derive full benefit from installed water supply and sanitation facilities, their proper use and the health awareness of the beneficiaries should be increased through health promotion campaigns" (1995 Project Document, p 95)

Between 1991 and mid-1996 "Phase II" work on infrastructure and sanitation commenced in two stages. Groups of towns where work first began are referred to as "Batch I" towns; succeeding groups of towns are referred to as "Batch II" or (during the succeeding phase) "Batch III" towns² In 1996 the final, "Phase III" work began in the last batch of towns — the "Batch III" group — under somewhat modified guidelines. Hygiene education activities, begun in Phase II and re-organized in Phase III, did not follow the batch system. They began more or less simultaneously in all project towns.

¹ The 12 towns were. Brahmanbaria, Chandpur, Cox's Bazar, Gazipur, Gopalganj, Habiganj, Kishoreganj, Munshiganj, Madaripur, Pirojpur, Rajbari, and Sirajganj

² "Batch I" towns are. Bhola, Jhalokatı, Magura, Manıkganı, Narail, and Sharıatpur. "Batch II" towns are Joypurhat, Lalmonirhat, Moulvibazar, Naogaon, Nılphamarı, Panchagarh, and Thakurgaon. "Batch III" towns are Barguna, Meherpur, Netrokona, Satkhira, and Sherpur

There have been several different Project Directors (PD) over the course of the 18DTP (i.e., since 1988). The present PD has held his position since July 1998. There have been two Team Leaders. The present one has held his position since mid-1997.

The project's 18 towns are grouped into four "divisions," which are named for the town where regional supervisors sit. These project-defined divisions should not be confused with Government of Bangladesh administrative divisions. Map 1 identifies locations of the towns. The towns themselves are all classified as *pourashavas*, or small municipalities. This is a relatively new level of Bangladesh political structure. Until recently it, like other decentralization strategies, has been considered something of an experiment -- and not always a successful one, at least, according to the point of view of the Dhaka administrative center. Each pourashava has an elected chairman. Formerly there were three wards per town, now there are nine. Each ward elects a commissioner. Three female commissioners additionally are appointed, rather than being elected. The chairman and commissioners together make up the pourashava council, the official governing body for a town.

Strengthening pourashava administration is an important project objective. There have been various activities directed toward this end. The most enduring has been the formation of -- and financial/technical support of -- Pourashava Water Supply Sections (PWSS), each with a superintendent. Other efforts, to strengthen the Pourashava Health Section or the Pourashava Conservancy Section (which handles solid waste and sanitation inspections), have been less successful, although the project will continue such efforts up to its end.

1.1.2 Terms of Reference

This evaluation concerns the main "software" or non-technical activities of the 18 District Towns Project: women in development and hygiene education. Additional comments are included on community participation strategies, as per the Terms of Reference.

The evaluation study has been done in two stages. In February - March 1998 initial study was done for a preliminary report, which is in Annex 1 1.(B). Between March and October 1998 further research was done as per suggestions in the preliminary report. This recent research is the basis of the present, final report

This report represents a group effort. The consultant specialist worked closely with full-time staff members — (1) the local expert for community participation and women in development; (2) the local expert for hygiene education; (3) the bi-lateral associate expert; and (4) the junior specialist — gathering information and reviewing early drafts of this report. Additional assistance was provided by the research firm, PRAXIS.

The Terms of Reference (presented in full in Annex 1 1.(A)) identifies the following tasks of the evaluation consultant/specialist:

• Impact Study Women in Development

The Specialist should design, guide implementation of, and report on an impact study of 18 DTP on women-in-development. Moreover, recommendations should be given ... during the first input — how to improve the project activities in order to reach a higher level of effectiveness in the remaining project period.

• Impact Study Health Education

The Specialist should design, guide implementation of, and report on an impact study of the hygiene education provided by 18 DTP on the hygiene practices of households and communities in the eighteen towns. Moreover, recommendations should be given... during the first input — how to improve the project activities in order to reach a higher level of effectiveness in the remaining project period

• Community Participation in Health Education

The Specialist should advise the project on the formation of sustainable community groups. During the project period these groups will be supported and guided by the NGO staff and the community participation, hygiene education, and organizational development experts of the project. The emphasis should be on self-help and problem solving by the groups themselves. The advice should include a training needs assessment to ensure effective guidance of the community groups by the NGO staff.

1.1.3 Evaluation Methodology

In order to obtain a balanced picture of the project across the many towns, multiple information gathering techniques have been used *Document review and (present or former) staff interviews* have been done on specific points of project history and organization, including topics such as how certain decisions were made, and over-all assessments of the work in each town. *Checklist interviews and field observations* have been done in Dhaka and field offices, households, and schools. *Focus group discussions* have been organized with hand tubewell caretakers. Gender training was observed closely using standard *situation analysis* techniques and a typed transcript of proceedings. *Workshops* for headmasters and teachers have provided insight into functioning of the school program. And a *household questionnaire survey* has provided data on specific indicators of program impact.

The size of the project and time constraints placed certain limits on the study. The most important limitation is a lack of in-depth information to supplement questionnaire interviews.

1.1.4 Outline of the Report

This summary is the first of three parts. It is followed by Parts 2, on Women in Development, and 3, on the Hygiene Education Program, which present findings in detail.

1.2 Women in Development: Summary of Findings

The project has attempted to promote women's welfare in various ways throughout its history. Some efforts have been more successful than others, but there is something to learn from each activity. This section reviews five specific aspects of the 18DTP WID program. The first two -- a training program for Female Masons and the formation of local Water Supply and Sanitation Committees/ Water and Sanitation Surveillance Committees (WSSC) -- are no longer in effect. The other three — all-women NGO/CSC project teams, training for hand tubewell caretakers and gender training -- are current programs.

The concept of women and development has changed over the life of the project. The shift has been from a community development/income generation/empowerment concept to a current emphasis on promoting "gender awareness" There still are questions in many people's minds about what exactly the gender issues in the project *are* Some clarification emerged during the gender training workshops, which are discussed in Section [1 2 3].

1.2.1 Trial and Error in Women in Development (WID)

Summarizing WID goals and objectives, one consultant wrote in 1992:

"For 18DTP WID means the increased participation and involvement of women within each specified component of the project, which would aim at skill development, income generation, gender awareness and visibility of WID within the framework of the project" (Murshid 1992)

Although WID was introduced at the donor's (RNE's) initiative -- and did not appear in the counterpart's (DPHE's) Project Proforma -- it was not an alien idea to Bangladeshis Indeed, the project's WID concept was embraced enthusiastically by key Bangladeshi staff members. The influence is clear of participatory community development theory propounded by respected thinkers such as Akhter Hameed Khan of the Comilla Project Thanks to such thinkers, WID and participatory community development had by 1990 found their way into the nation's Fourth Five Year Plan.

Visible as WID is in almost all aspects of the project, genuine, whole-hearted support for WID concepts, however, was never widespread in either DPHE or the Project Office DPHE, for example, continually postponed scheduled workshops on WID and Hygiene Education in 1992-93, until the idea was dropped. The Project Office showed ambivalence in various other ways, such as canceling support for key WID functions with minimal community consultation.

Project reports from 1991 onward, echoing familiar community development themes, argued that to be sustainable, the project structure must guarantee maximum community involvement, especially that of women, who bear most responsibility for household hygiene and who form the habits and values of future generations. 'Participation of the community at several levels is essential for the functional implementation of the Sanitation Program', as one report stated (BKH 1991 para 4 3) Latrine equipment was to be affordable. Local people were to produce it Information about why and how to use it was to be available at local level.

The Community Sanitation Center (CSC) was the key to this approach between 1991 and 1996, when most physical work was done in Batch-I and Batch-II towns The 'CSC', as it came to be known, was formed in each town as the local focus of equipment production and sound hygiene practice. Intended to survive the end of the project, the CSC was a place and an institution Latrine parts were to be produced there by trained female masons, who, some expected, would eventually form viable production cooperatives. The female-chaired Water and Sanitation Surveillance Committees would use the CSCs as their base of operations. Hygiene educators (later, NGOs or 'CSC' teams) also would work there, supervising production and promoting latrine use in the community Physical and educational activities promoting safe water use also centered on the CSC. The PWSS (Pourashava Water Supply Section) office was located within the compound And if hand tubewell caretakers expanded their role to conduct community activities, the CSC would provide space for these as well. In those towns where latrine demand warranted it, a CSC was to be built in each ward. In brief, WID, community participation, institutional development, and 'software' project functions (hygiene education, sanitation promotion) were seen as parts of a whole. And the CSC was to be the place where it all came together

By 1998 the Community Sanitation Center as a physical place was still visible in all towns, but the program concept had changed to the point where it was hardly recognizable. Pourashava Water Supply Sections and NGO/CSC teams' offices were still located there. But two other essential groups had disappeared the female masons and the WSSC. The project continues to strive for sustainability, but ideas about the means to this end have changed.

1.2.1.1 The Rise and Fall of the Female Masons

During the first part of the 18DTP (1991-1996) it was project policy to train and employ 'female masons' to produce latrine parts in a Covered Production Area (CPA) within each Community Sanitation Center³ The rationale was two-fold involving community people in producing their own facilities and providing 'income generation' opportunities for poor women The former PD's consultant / advisor, who set up the program, argued that this program could stimulate profound social change 'Female masons could learn sanitation step-by-step', he said. 'They would know how to build, install, and maintain latrines They would educate their children' (November 1998 interview notes)

Women were trained by DPHE masons to make concrete latrine pans, goosenecks, slabs, footrests, and rings, using prefabricated molds. Among the trainees, some were assigned 'mason' jobs, while others were hired as low-skill laborers. The two week training courses began in February 1992 in four Batch-I towns (Narail, Magura, Shariatpur, and Manikganj). By August 1992 almost all training was completed⁴. Nearly 100 women were trained in a total of 11 towns⁵ (MConsult 1995 50) Each trainee group consisted of eight women 'from the poorest section of the population'

³ There never were CPAs in Barguna, Bhola, Jhalokati, Lalmonirhat, Meherpur, or Satkhiia

⁴ Bhola and Jhalokati opted out of the sanitation program (DPHE, Sixth Half Yearly Report, Jan -June 1993, p. 13)

The II towns were those of Batches I and II, except Bhola and Jhalokati namely, Magura, Manikganj, Narail, and Shariatpur in Batch I, and Joypurhat, Lalmonirhat, Moulvibazar, Naogaon, Nilphamari, Panchagarh, and Thakurgaon in Batch II

Before the first latrine was produced in 1993, complaints and management problems interfered. The chief complaint, at least the one mentioned in reports, was that CSC production posed 'unfair competition with commercial producers'. Project officers also were concerned that the eight-woman teams would not be able to produce at fast enough rates to meet project latrine requirements. Selection of NGO staff was slower than expected, so production supervision arrangements were not made in time. Nonetheless, the decision was made to proceed with the program during the Batch-I/II phase. But for Batch-III 'the whole program will be reviewed'. (DPHE Fifth Half Yearly Report, Sept.-Dec. 1992, p. 29)

1.2.1.1.1 Cancellation of the Female Masons Program

Early in 1994 the project, as expected, announced that female masons would not be trained or employed to produce latrine parts in Batch-III towns. Their involvement ended in mid-1996 Although various explanations were offered for the decision to cancel, the former Team Leader felt that the program, which he perceived as being 'contrary to social structure', was more trouble than it was worth.

In a 1998 conversation, 4-6 years after writing these notes, the former Team Leader described the female masons program as 'a catastrophe' He said that the women had not learned anything useful; nor had they produced enough components. The two main reasons for canceling the program were (1) the women produced latrines too slowly and (2) they were competing unfairly with local, private producers He had calculated that, at the rate they worked, it would have been 2005 before project demand would be met. He strongly disapproved of the former PD's consultant/advisor's approach, implying that it was a waste of project time and resources

For his part, the former PD's consultant/advisor in 1998 expressed the opinion that the Project Office managers had been rather naive. They were persuaded to cancel it by social and economic arguments, but there were strong rumors that the true impetus to cancel came from corrupt individuals. Their problem was that the small scale of CSC production made it difficult to steal cement and other materials. And project surveillance made it impossible to "make line" with the female masons themselves, that is, to take a cut of their pay. Managers persuaded to cancel were not trained in 'the social dimension of sanitation', he said, and gave no importance to 'village people'6

Public statements about the cancellation were more upbeat. Freed from the need to do production work, it was said, the 'CSC could. function as a real Community Sanitation Center in the sense that it should give information. at the same time of course promoting latrine/sanitation consciousness and latrine installation, use and maintenance. (Seventh Half yearly Report, July-Dec. 1993, p. 22) Use of private contractors would free project staff from the burden of supervising production. In the Ninth Half Yearly Progress Report (July-Dec. 1994), the decision to engage private producers was explained as a way 'to simplify procedures'. (p. 15)

A 1995 evaluation report said that fewer than 40% of all trainees ever had found employment with the project And 'since their skills are rather limited', it seemed unlikely that the female masons would ever be hired by the private contractors (MConsult 1995 50)

⁶ November 1998, personal communication

1.2.1.1.2 Female Masons Program: Conclusions

The female masons program collapsed for reasons that were more complex than those presented in official reports. Multiple factors were at play. First was the initial community development concept itself. It appears in retrospect to have been based on an overly romantic assumption that somehow ordinary 'people' would work together harmoniously for their own benefit in the CSC Economic class differences would recede to the background, and the needs of the poor would prevail over those of the rich or corrupt.

Another factor was the weak commitment of several managers — in both DPHE and the Project Office -- to either WID, community development, or poverty alleviation ideals on which the program concept was based Private entrepreneurs' demands captured the attention of project staff as soon as they were expressed.

A review of documents shows that the female masons program already had lost crucial management support before production had begun. So poor performance was at best an insignificant reason for cancellation

The decision to abandon the program was sometimes blamed on the women's own work and slow production schedule, but these seem to be among the least of the problems. The women certainly would have improved and sped up production under other conditions. But they did not have enough opportunity to prove their worth as latrine parts producers. More important may have been weaknesses on the DPHE side, although few would be willing to say this.

Social attitudes, assumed by the former Team Leader to be entirely negative, probably would have supported the women's continuing latrine production work. The women selected as female masons, after all, were of poor classes whose need for manual labor jobs in construction or earth works was already widely accepted in Bangladesh by the 1980s, although some middle class men with little insight into the situation of poor women still refused to accept it. As an expatriate, the team leader may not have understood this fact and perhaps tended to believe that the opinions of those around him were typical. He was greatly persuaded by the idea that the female masons' role was socially unacceptable.

1.2.1.1.3 Lessons To Be Learned

This program had inadequate support at high levels of project administration, as organizational shifts and successful local maneuvering showed. Any project policy to promote the interests of poor people and subsidize employment and training will need strong political and managerial support to ensure concerted effort and resources. Considering the many ways that such a project can be sabotaged, careful monitoring by policy-makers of managers' decisions also is essential.

• Implication

Planners should not assume that project managers will support unpopular project policies. Serious effort is required to ensure that such policies get their proper share of project resources.

The female masons program foundered largely because of the poor fit between project objectives and managers' attitudes. Being well educated and relatively well off, such men, whether Bangladeshis or expatriates, tend to have little understanding of the living conditions and social norms of other classes, even if they favor women's rights and economic advancement as abstract principles.

• Implication

Government workers and technically trained expatriates alike need careful orientation/training (and some re-thinking of any personal stereotypes they may have) if they are to promote community development on the participatory/WID model.

Social goals were sacrificed to economic goals Although originally a WID/community development program, the training and employment of female masons was defeated by economic (privatization) and managerial pressures more than by discriminatory attitudes about women doing manual labor

• Implication

Planners undertaking social development activities within large projects need to consider how to maintain a balance between social and economic development goals -- formal or informal

Corruption apparently was a factor — though to an unknown extent — in the decision to terminate the program. There is no remedy for this problem except vigilance and honesty. But it is important to recognize that things are not always what they seem

The women themselves are sometimes blamed for defeat of the female masons program, but this is an unwise and unfair simplification of what really happened. They may have benefited from the temporary rise in income, but the loss of an expected career opportunity must have been a devastating disappointment to some.

• Implication

This history may serve as a reminder that poorly conceived or managed programs do influence people's lives. Well funded programs have a responsibility to avoid raising false hopes or blaming the most vulnerable for problems over which they have no control whatsoever.

1.2.1.2 WID and the Water Supply and Sanitation Committee (WSSC)

In contrast to the female masons program, the WSSC program encountered more obviously gender-related obstacles. Like the female masons, this other cornerstone of project WID/participation policy was abandoned.

1.2.1.2.1 Composition and Responsibilities of the WSSC

A 10-member WSSC was formed in every ward of each project town as an official body of pourashava government⁷. Pourashava by-laws change was planned but never done. Nonetheless, the project created terms of reference for the WSSCs and then left it to each chairman to set them up within broad guidelines, including firm WID requirements that (a) at least 50% of members should be females; (b) the chair of each WSSC should be a female ward commissioner; and (c) the member secretary also be a female, an employee either of a project NGO or the Pourashava Health Section. Other requirements included beneficiary representation. (1990 Terms of Reference, summarized in van de Weerd and Nahar 1998:7)

The project had high hopes for the WSSC as a guarantor of community involvement and a promoter of women's empowerment. Referring to it by a former name, the Water and Sanitation Surveillance Committee, and assuming that the WSSC was performing its duties of beneficiary selection and general community oversight as per 1990 guidelines [Non-Technical Items]. A 1991 document proposed that its functions be integrated into the CSC framework.

Specific responsibilities of the WSSC as outlined in the Terms of Reference were:

- To identify beneficiaries for hand tubewells and latrines, mobilizing beneficiaries to make their required contributions after approval by the chairman;
- To play a vital role in all social mobilization and communication campaigns related to the project;
- To act as a representative of the community in the areas of water supply, sanitation, drainage, and health education;
- To perform the essential task of conveying the community needs to pourashava authorities, allowing pourashavas to meet the public's demands and enhancing project sustainability;
- For members, To motivate inhabitants living in their own neighborhoods to behave in a hygienically responsible way; To make day-to-day contact and organize more formal approaches to dissemination of health messages (Project Document 1995:8; van de Weerd and Nahar 1998:7)

1.2.1.2.2 WSSCs in Phase/Batch-III

Unlike the female masons program, the WSSC survived with continued high expectations into Phase/Batch-III. The Phase III Project Document stresses the need to promote women's role in local policy development through the WSSC (The degree to which managers actually agreed is far from clear.) As the document explains, 'The WSSCs consist [of] more than 50% women. WSSCs are organized and oriented in such a way that they can contribute to the policy and decision making process of the water and sanitation program'. (p.9)

⁷ Until recently there have been three wards per town, but there now are nine.

Specific measures to strengthen the WSSC were identified in the Project Document. Rather than strengthening the WSSC, however, the project office terminated support for it in 1998. This decision, though understandable in view of problems with WSSC functioning, represented abandonment of a crucial project WID component.

A thorough review in 1997 and other evaluation studies have identified the many problems of the WSSCs, such as: misunderstandings about their role, irregular meetings, financial administration problems, lack of involvement in actual beneficiary selection -- a responsibility of which many were ignorant, and others. (van de Weerd 1998) The project office was found to have provided almost 'no guidance'. (Ibid., p.12) The planned connection with the CSC did not materialize, as shown by the 1997 complaint that the WSSC has 'no fixed place to hold meetings'. (van de Weerd and Nahar 1998:13)

Viewed through a WID lens, the WSSC's main problem -- namely, its lack of authority or power to do its project job -- can be seen to have its source in the established Bangladesh gender-power nexus. Women have less power than men in public life. In politics it was and is rare for a woman to be elected to public office. Almost all are appointed. Female commissioners (appointed), therefore have little or no political strength vis-à-vis male officials (elected), especially the all-powerful (and always male) pourashava chairman, who appointed the WSSC members. This fact more than any other has hampered female-chaired WSSCs' capacity to act

By requiring that it be chaired by a woman, the project thus put the WSSC in a situation that was unacceptable to powerful men in all or most project towns. The 1997 study showed this in various ways. '...Male commissioners felt insulted when they were passed for he chairmanship'. (p.11) In Meherpur, Sherpur, and Thakurgaon male WSSC members insisted on being called 'advisors', so as not to be put in the humiliating position of serving under the authority of a female chair (1998 workshop notes) In WSSCs male commissioners succeeded in dominating the process despite project WID requirements.

The result, in brief, has been that while the WSSCs were allowed to exist, they were not granted the decision-making role the project had intended for them. '. The Pourashava ignores the WSSC and [does] not take action after a complaint' (p.13) And 'decisions taken in WSSC meetings are never implemented' (12) About the all-important, politically sensitive job of beneficiary selection, this task the WSSC 'cannot perform, because the [pourashava] chairman will not let them'. About beneficiary selection, delays were often blamed on the infrequency of WSSC meetings.

1.2.1.2.3 WSSCs: Conclusions

The main problem of the WSSC, its powerlessness, has its source in Bangladesh political and social structure. But the project also has responsibility. It set up the WSSC in a way that (in retrospect clearly) made the negative outcome inevitable. One mistaken assumption was that community participation goals — i.e., empowerment of poor people — would be served by the creation of a new municipal council body under the authority of the pourashava chairman. Having given authority to pourashava chairmen to organize their WSSCs as they saw fit, the project relinquished control over this project community development function.

Having little interest in the project's idea of the WSSC as a mechanism for community participation, most chairmen soon transformed the committee into a different type of body than the project originally had envisioned Pourashava chairmen and male commissioners could and did bypass WSSCs when making local facility-distribution decisions. But they ultimately complied with project requirements by producing more or less acceptable beneficiary lists

Viewed abstractly, the situation was one in which already-established, legitimate political bodies (chairman and male commissioners) usurped functions the project had assigned to artificially created, new institutions. A further vulnerability of the WSSC arose, when, as a formal pourashava body (albeit a powerless one), it shared the pourashava's political difficulties in the 1993-94 take-over by national government and was formally dissolved.

By the time of Phase III the project concept had changed to the point where WSSCs, not having become official bodies, were redundant, Project Document endorsement notwithstanding Hygiene education was being done by NGO/CSC staff members. Institutional development efforts focused on the PWSS, where some women are getting jobs, and otherwise building up the legally established pourashava departments (Pourashava Conservancy Section/PCS, perhaps also Health Section/PHS). Project-based training and other human resources work in project towns, therefore, also has bypassed the WSSCs. The CSC has not become the holistic community development force that early project staff had envisioned. WSSCs no longer have any physical or organizational place in the project.

What remains of the former WSSC is a handful of 'volunteers', some very energetic, who may receive new kinds of attention as parts of re-named groups. In abandoning the WSSC, the project supported powerful men's resistance to allowing women to take a leadership role. This outcome has an understandable logic, but from the WID point of view it is a defeat. There are various ways to regard this history Was the female-led WSSC a hopeless fantasy to which few managers actually subscribed? Was it a clumsy job of institutional development? Or was it an idea ahead of its time?

It is important to note, in conclusion, that Bangladesh political culture is changing along with other aspects of society. A few women here and there have been standing for election rather than accepting appointed positions. The one elected woman commissioner in a project town, Ms. Daisy of Netrokona, was interviewed by WID consultant Sharmin Murshid in 1991. Having suffered enough 'humiliation' as an appointed commissioner, including not being invited to important meetings, Ms. Daisy defeated 15 men in an election. Once in office as an elected official, she found others treating her with more respect. The Netrokona Pourashava Chairman was especially supportive. 'They had to accept her in all meetings'. 'She feels that her status as an effective ward commissioner has gone up considerably and the men show her that respect'. More women should stand for election. Her own 'actual success is the best motivator'. (Murshid 1992:32-33)

1.2.2 NGO/CSC Teams

An all-woman team has been employed since 1995 in each town (and earlier in some towns) to promote use of hygienic latrines and conduct hygiene education activities. As they have proven themselves to be reliable workers, their scope of work has expanded. Two specifically WID observations about the teams are. (1) women are generally considered to be more honest than men by project staff and some local officials interviewed, (2) the women have a tough job enforcing project guidelines when these annoy locally powerful men. There are rumors that team members have at times been subject to abuse by such men; as women they have great difficulty defending themselves. Further comments about the position of the NGO/CSC team are made in the discussion of findings on gender training and hygiene education.

1.2.3 The Hand Tubewell Caretaker Training Program

The hand tubewell caretaker program has been the most enduring and successful of all 18DTP WID activities. The Project Document for Phase III emphasizes the importance of hand tubewell caretakers to over-all WID objectives:

"Only women were selected and trained as tubewell caretakers—The introduction to their roles in water supply and sanitation as caretakers and motivators may lead to an elevation in women's status" (p 10)

Caretaker training began during Phase II of the project, in August 1992 By July 1998 77 percent (or 3224) of the women had received caretaker training. PWSS superintendents conduct most of the training with support of NGO/CSC staff; project office staff also do some Project tubewells are installed in these women's names. The caretakers' specific duties are:

- To clean the platform with a rubbing agent, brush, and broom,
- To perform minor repairs without calling officials;
- To share the water with neighbors not having their own tubewells;
- To use tubewell water for all purposes;
- To arrange a sullage connection to a waste water outlet or soak pit,
- To oil/grease nuts and bolts;
- To call mechanics for major repairs.

Caretakers also are expected to promote safe hygiene practices among their neighbors. It is project policy therefore to be sure they all receive hygiene education.

The Bangladesh arsenic problem has caused the project recently to modify message 4, 'Use tubewell water for all purposes', in towns where arsenic has been found in tubewell water⁸. During the last months of the project a significant effort is under way to educate the public about arsenic hazards. The present study, however, has been done to evaluate the effectiveness of work done under the earlier assumption, that tubewell water was safe.

The towns are Magura, Manikganj, Meherpur, Narail, Satkhira, and to a lesser extent Sherpur

1.2.3.1 Program Evaluation Objectives and Methods

The purposes of this evaluation are (1) to determine whether caretaker training has fulfilled the project's poverty alleviation and WID objectives, and (2) to identify specific constraints to effective performance of tubewell caretaker duties. In addition (3) staff and beneficiary suggestions for future caretaker training will be reviewed.

Evaluation methods used for this study component have been.

- Focus Group Discussions with 98 female caretakers in ten towns;
- Key Informant Interviews with 16 local men (14 of whom were caretakers' husbands) and ten PWSS superintendents;
- Sample Household Questionnaire Interviews in 346 caretaker households in 17 towns.

1.2.3.2 Hand Tubewell Caretaker Training: Summary and Conclusions

Caretaker training and hygiene education for tubewell recipients is one of the more consistent non-technical project components. The concept has not changed, but it has expanded. Since 1997 NGO/CSC teams have been expected to motivate caretakers as "change agents" who promote hygiene improvement among their neighbors. Survey findings indicate that indeed caretaker training has reached mostly poor and middle-income households, as intended, and that it has been supplemented with hygiene education as per project guidelines. Support from the pourashava, however, is uneven. Tubewell related activities may compete with other project components (house connections) for PWSS superintendents' attention

The Project has challenged some conservative social norms by insisting that tubewells (like latrines) be installed in women's names. This practice has caused local controversy. The long-term impact is impossible to predict. Social attitudes toward the special place bestowed by the project on female caretakers are variable and changing. All evidence indicates that the caretaker training program thus has contributed to fulfillment to the project's 'women in development' objectives despite some resistance.

Once begun, the caretaker training developed a momentum of its own, at least in some places. In every town except Satkhira one or more woman was found to have trained several others on her own initiative. Some have used their new skill to earn income, also an unplanned WID benefit of the project.

The quality of the caretaker training itself could have been better Considering low educational levels of most trainees, more time and practical experience should have been allotted. The limit of one day may account for variations found from town to town in activity levels of caretakers, since it means that only those already motivated are likely to make good use of the brief training course. Furthermore, caretaker training and tool distribution targets have not been met

1.2.4 Gender Training: Introduction

This review of the 18DTP's 1998 Gender Training Program has two purposes. The first is to assess the effectiveness of gender training within the framework of the project. Analysis of training approaches and participants' reactions during and after the training, together with any resulting action plans, will show its impact on the diverse groups of trainees. The second purpose is to investigate specific gender issues that came up for discussion during training sessions, as a way of clarifying our definition of the project's gender aspect. Details of group discussions will highlight several specific issues

Methods of study were detailed observation of the four training sessions, informal discussion about the training and people's reactions in the office setting (and documenting spontaneous remarks); in-depth interviews with a few trainees soon after the training; a six-month questionnaire on people's memories of the training and its impact, if any, on their work; and review of some staff members' follow-up plans to expand gender awareness in the field.

1.2.4.1 Objectives of the Training

Training objectives were defined (as per Project Document guidelines) in the letter of agreement with USHA, the training consultants:

"Gender workshops will be conducted for DPHE, the Pourashava, the NGOs and the hand tubewell beneficiaries The general objective of these workshops is to introduce gender sensitivity in the water supply program and to strengthen coordination linkages for better management of gender issues The NGO staff shall be trained more specifically on issues to introduce gender sensitivity in water supply at community level."

For field-level personnel, this was considered to be Training for Trainers, presumably increasing participants' ability to train or lead others, or at least to effectively communicate key gender concepts in the working situation.

Project staff had several advance meetings with the trainers and provided them with background information on the project. It was assumed that the trainers, who had no previous experience with water-sanitation related training, would adapt their curriculum accordingly. However, they did not do so at first. So the first two groups' training was done with minimal relevance to project activities.

1.2.4.1.2 Participants

In February and March 1998 gender training was provided to 68 people in four distinct groups. (1) Group 1: Sixteen DPHE and Project Officers plus other central office staff or consultants; (2)Group 2: Twenty mid-level managers (ODS, SDE, and XEN, all males); (3) Group 3: Sixteen Pourashava Water Section Superintendents (PWSS, all males); and (4) Group 4: Sixteen NGO Supervisors (all females) The first group, which included three expatriates, was trained in English. The other three sessions were conducted in Bengali. Written materials for each unit were provided in either English or Bengali.

There was a plan to offer training to others with important project responsibilities, especially pourashava chairmen, but this was not done yet. As some chairmen will be out of office after the forthcoming elections, it seemed best to wait. It also became clear that the curriculum might need improvement if it was to have any positive impact on other trainee groups.

Each of the four groups received a somewhat different course, although the same general outline was used for all. Certain units were expanded or contracted. Training staff (a group of men *and* women) rotated some duties from session to session. The first two groups received one day's training, and the others received two

1.2.4.2 Curriculum and Training Methods

Each training consisted of the following nine units

- 1. Personal Introductions (of both trainers and trainees)
- 2. Biological Sex as Distinct from Social Gender
- 3. Division of Labor
- 4. Gender Relations: A Theoretical Framework (Economic, Political, Social, and Cultural Aspects)
- 5. Socialization of Male or Female Children
- 6. The Trainer as Change Agent: Communication and Motivation
- 7. Situation Analysis (review of case studies, presented in Annex 2.3)
- 8. Role Play: Seeking Solutions to Problems Encountered [Groups 3 and 4]
- 9 Review and Summing Up; Action Planning [Groups 3 and 4]

Objectives were not discussed in the first two groups, but in later training participants themselves were invited to define training objectives as their session began. All participants had an opportunity to describe the ways that gender influenced project organization. Some, but not all, groups discussed specific action plans

Basic messages presented to all groups were

- Biological sex (in Bengali, *praakritik lingo*) is different from socially produced gender (in Bengali, *saamaajik lingo*). Biology does not determine social gender relationships or division of labor Being 'socially constructed', gender relationships can be changed, but biology cannot.
- Social norms force compliance with gender rules, and those who do not comply suffer ostracism and other punishments. 'If you do not follow society's norms, you will be terminated'
- Most work done by one gender actually could be done by the other; there is great cultural
 variability in gender division of labor. Reproduction is the only work determined by
 biological sex.
- In economics, males tend to dominate; economic motives create and reinforce gender power differences
- Gender planning needs to be 'gender sensitive' rather than 'gender blind'. And presuming choice in matters where power relations determine behavior is an error. Distinguish 'practical gender needs' (short-term) from 'strategic gender needs' (long-term social goals).

The presentation format alternated between lecturing and participatory exercises. Some exercises generated enthusiasm or amusement. In one exercise on division of labor, for example, participants' cards identifying male and female tasks were placed on a board at the front of the room under their respective gender labels. Asking participants to close their eyes, the trainer switched the labels, identifying all 'female' tasks as performed by males and viceversa. This always got a laugh and stimulated thinking on which tasks did and did not need to be performed by a biological male or female. At the end of the exercise the only tasks dictated by biological sexuality were those directly related to reproduction (breast feeding, giving birth, providing sperm/ejaculation).

The well-known, well qualified gender trainers, USHA organization directors and staff, used a generic model rather than adapting their curriculum to specific characteristics of this project. They did so, they explained, because it was essential that trainees understand certain general principles if they were ever to be expected to modify the gender aspect of their work. The trainers said that their approach usually demands five days; but the project contracted only for one or two days with each group.

Trainers' examples and general comments were occasionally inappropriate Except for case studies provided by project staff, they referred mainly to rural life, although the project is an urban/small town. The theoretical framework assumed a middle class point of view and stressed middle class life and issues (i.e., men work and women stay home; inheritance issues). This may have been appropriate for staff consciousness-raising, but there was not enough attention to the concerns of the may project beneficiaries who are poor women.

USHA trainers, in collaboration with Project Office staff, modified their approach, incorporating more and more information on water and sanitation as they progressed from one training to the next, and significantly improving the focus. But the two initial sessions suffered because they were not adequately prepared in advance to relate project issues to their established curriculum

Despite initial efforts to make training relevant to project activities, most training time was spent on discussion of abstract sociological or historical issues. Project-specific matters were not discussed in detail in all groups. Minimal if any training time was allocated to a scheduled planning activity intended to operationalize concepts taught. It was clear that some trainees felt it was irrelevant to their actual job performance, even though they may have appreciated the training as an educational experience.

1.2.4.2.1 Sociological Assumptions

Content was based on commonplace Bangladesh social norms and gender stereotypes. For example, one trainer summarized Bangladesh assumptions about gender differences. Men are assumed to be physically strong, intellectually superior, alert, and active. Women are stereotyped as: physically weak, intellectually and emotionally dependent on males, delicate, and more emotional. One Bangladeshi participant in Group 1 expanded on this analysis, saying, 'Here we assume that [a child's] blood comes from the father's side. We never consider that the child carries the mother's blood also'.

The trainers, though certainly knowledgeable about Bangladesh stereotypes and gender theory, took an approach to social life that implied more universal conformity to and agreement about gender norms than actually exist. These issues are now subject to vigorous, possibly even violent dispute. By taking this approach, referring continually to a general point of view that was indeed familiar to all participants but was not actually shared by all, trainers communicated their basic messages. But they also alienated some participants who might otherwise have been more receptive to the training. In brief, though some simplification may have been necessary, debate about basic facts of Bangladesh life (i.e., diversity in norms and gender relationships) was not adequately encouraged.

The issue of how much flexibility or variation is possible in Bangladesh gender roles came up in connection with one case study, that of "Sushila," a girl with boyish habits who is harshly punished and ultimately submits to prevalent behavior codes Each group discussed this (hypothetical) case differently, reflecting a broader range of attitudes within the trainee groups than the trainers themselves acknowledged

1.2.4.3 Summary and Conclusions

As both project staff and consultants were doing this training for the first time, there were initial problems with organization and content. The most serious problems were (1) the lack of clarity about the objectives of the training Neither staff, trainers, nor participants (especially the first two groups) was clear about why this activity was being conducted. And (2) the connection to water, sanitation, and hygiene education was not clear enough, especially in the first two sessions.

The four groups received different training, in terms of both style and content. Groups 1 and 2, consisting mostly of managers and central office staff, received a generally poor quality of training It was not participatory, and it did not relate directly to project goals or activities. Groups 3 and 4 (PWSS superintendents and NGO supervisors) had more scope to express themselves. And the content of their training was appropriately project-related.

In three of the four groups, those in which all or most participants were male, religious issues came up for discussion and debate. This is an inevitable part of such work in contemporary Bangladesh, and various suggestions arose to avoid potential conflicts in future training sessions, especially one to present material in a more 'neutral' manner.

It is important for expatriate advisors and the donor to understand that "religion" is multifaceted matter, not a uniform approach Many different points of view are justified by reference to the *Holy Q'uran* — some pro-WID and others rigidly patriarchal. Being an observant Muslim does not necessarily preclude support of project WID objectives. The proper Islamic view of gender is under intense discussion in Bangladesh nowadays. And USHA has worked hard during the past decade to persuade religious leaders to understand and accept changing gender roles and relationships, as the dialogue quoted in the Group 1 training description shows

1.2.4.3.1 Effectiveness of the Training

Despite several criticisms of their approach made in this report, USHA, the training consultant, provided a satisfactory service over-all. They made up for initial deficiencies by making the curriculum closely relevant to project work as they gained more experience. Their willingness to improve and general competence in gender issues demonstrated a strongly professional approach.

The lack of focus and the inflexible training approach, in combination with already high levels of anxiety about the subject, made the training less effective for the first two groups than for the second two Observations of the training itself and follow-up interviews demonstrate the validity of a standard training principle, namely, that people learn more from active participation than from passively watching or listening to others. Role play and discussion of case studies were especially participatory and effective training techniques, as was the discussion of gender-based division of labor, done with an element of surprise, as roles got reversed while people's eyes were closed

The participation principle, however, is difficult to implement in a strongly hierarchical society such as Bangladesh Gender and social class distinctions can and do undermine even the best intentions. This was true in the case of the training for female NGO supervisors: it was controlled for long periods of time by well-meaning but domineering men. It also is true in the field.

The two groups that received the better quality of training also have been the most active in following up on what they learned in field situations -- changing their own work patterns (for example, giving female staff more responsibility) or training others. These two groups also have received supportive follow-up attention from the Project Office

Despite the fears of some senior staff that this training would lead the project into a negative, anti-male type of feminism, the tone of all follow-up work seems to be very positive and promoting of more cooperation between men and women in water and sanitation-related activities, plus encouragement of poor families to increase their income by allowing women to work outside the home. PWSS superintendents, at least some of them, seemed to learn the most from the training, which might help them improve customer service for house connection users

Positive outcomes, however, cannot all be attributed to the training. Some trainees (most of those in Groups 3 and 4) were highly predisposed to accept and use the messages communicated. Those who were not thus predisposed probably did not change much because of the training.

The most significant outcome of the training thus far has been the preparation of follow-up plans to increase gender awareness regarding water and sanitation in nine project towns. It is especially interesting that PWSS superintendents and NGO/CSC teams have responded to Project Office suggestions and collaborated in five of the towns.

It is important to note that almost all trainees, even those who got little from the experience, would recommend this training to others, even if only as an awareness-building exercise. Some recommended this, of course, with the proviso that changes would have to be made.

1.2.4.3.2 Specific Gender Issues in the 18DTP

Observation of training sessions provided an opportunity to clarify the kinds of gender issues that arise in connection with this (or another comparable) project's work Opportunities and obstacles got expressed. Abstract ideals (for and against gender equality) were affirmed. Specific situations were reviewed and debated Ways to overcome perceived obstacles got tested in role-play

Several important gender issues were highlighted in the training sessions:

• Project Staff Have Strong and Differing Opinions About Women in Development
Some are clearly interested in promoting women's rights and reducing discrimination
through the 18DTP, while others feel that gender and project work are best kept separate,
whatever the official documents prescribe.

• There Is Room for Change

Project personnel's expectations about women's roles or working capabilities affect opportunities provided for women through the project. Some are giving the matter serious thought, as are many others in Bangladesh There is scope for improved cooperation and collaboration between male and female staff members, as well as improved ways of working with both male and female beneficiaries.

• Male and Female Water and Sanitation Roles and Needs Differ

Male and female beneficiaries' water and sanitation needs and problems differ somewhat Women need private latrines more than men do. Women tend to be more inconvenienced than men by broken tubewells. Women are in charge of household water handling and need to learn about not wasting water. Within the household control of money and decisions about large expenditures (purchasing or maintaining project equipment, e.g.) differs from one class to another but is known to cause problems between husbands and wives.

• Differing Political Opportunities of Men and Women Have Affected the 18DTP Community Participation Program

The fact that women are appointed to office rather than being elected may detract from female officials' ability to lead others, or even to command enough respect to bring others to a meeting. The project requirement that WSSCs be chaired by females was discussed as an important reason for committees' uneven performance.

• Social Restrictions Affect Local Government's Capacity to Communicate with All Water Users

Female *purdah* (seclusion) and social invisibility — e.g., neighbors' not knowing women's names — make it difficult to contact or include women Male project staff who do communicate with women may receive complaints from community members. The staff themselves may have conservative views that limit their capacity to communicate directly with female customers.

• Female Customers or Beneficiaries can Help to Promote Project Objectives

If and when they are contacted, however, female customers or beneficiaries can help to promote project objectives. They may persuade their husbands to pay water bills, for example. And they are likely to be strongly motivated to maintain project-provided facilities, especially latrines and tubewells.

• Men Need Encouragement to Support Project WID Objectives

It is important to work with HTW caretakers' husbands and other men, who may strongly object to women taking on important water/sanitation responsibilities. Many men probably can be persuaded to help instead of hindering the work

• Gender and Power Conspire to Create Difficulties

Influential men are known to try to co-opt project equipment or try to direct activities in directions that will benefit them personally or politically. There probably is no easy solution to this problem. Few staff or beneficiaries are able to stand up to such people. Training is not likely to affect their attitudes, which result from their economic and political aspirations or a determination to maintain established hierarchies and defeat rivals.

1.2.4.3.3 Recommendations

As more gender training is to take place before the end of the project, a few things staff might keep in mind are listed below

• Improve Focus and Define Objectives or Action Points

The training needed greater focus and several modifications Objectives must be identified and clearly communicated to any future trainees. The reasons for discussing gender in a water and sanitation project must also be clarified, if only during the training itself Every training session should conclude with a well-focused discussion of how and why the training could affect specific project work.

Objectives need definition from two points of view — that of the project and that of participants themselves. Project personnel should be prepared to explain why they perceive a need for more gender sensitivity within the context of 18DTP activities when they introduce the trainers to any new participant groups. Points that might be stressed would be need for local government to minimize water wastage and make sure that piped water customers pay their bills; health benefits and risks of men's and women's differing hygiene practices, roles and responsibilities of men and women in the water and sanitation sector. Obtaining the trainees' gender ideas and personal training objectives, as was done in Groups 3 and 4, is an effective starting point to which reference can be made at the end of the training. It also tends to bring out the best in people and may help them to stay focused.

• General Approach and Theory

The 'gender equality' concept is highly controversial and sensitive. Even well-meaning project personnel sometimes mistook it for an effort to promote women's domination or a western-style battle of the sexes. A more acceptable concept is 'gender equity', in which both males and females are respected and cooperating, but with differences recognized.

The difference between biological sex and social gender is a very important one and should be maintained. But it could be presented in a more subtle way than it was in the sessions observed. For example, there are 'reproductive' activities conducted by males — child rearing is one.

Trainers' efforts to persuade participants that women are oppressed or discriminated against were strongly resisted by many men (but fewer women). In any future training activities, the woman-as-victim idea should receive less emphasis. There are ways to talk about gender-power relationships and economic inequalities without implying that women are weak or suffering — indeed, some women skillfully manipulate these structures to their own advantage, as many men know. A more balanced approach would be more successful, although no one.

Further suggestions are presented in Part 2.

1.3 Evaluation of the Hygiene Education Program

This evaluation presents findings on three aspects of the hygiene education program. First (in Section 1.3.1) organizational issues and the general approach will be considered. Secondly (in Section 1.3.2) household level impact will be analyzed through a quasi-experimental study of specific performance indicators. Third (in Section 1.3.3) will be a review of the project's work in primary schools.

1.3.1 The Hygiene Education Program: A Brief Overview

The initial goal of the Hygiene Education Program (HEP) has survived throughout the project: 'To increase hygiene awareness among the target group and improvement of their general health status'. The primary target group is poor women, especially those receiving project latrines, hand tubewells, and/or hand tubewell caretaker training. Another priority target group is school children. (1990 Final Report on Non-Technical Items)

An Interim Evaluation (1993) recommended a change in the HEP goal, to bring it into line with the over-all project goal of ensuring that 'the Pourashava will be able to run technically, financially and institutionally sustainable water supply, sanitation and drainage systems. Consequently', this evaluation report suggested, 'the Project's endeavors should aim at equipping the Pourashavas with the necessary knowledge, skills, materials etc. to do this. This also goes for Hygiene Education:...hygiene education should be well integrated into these systems'. (1993'4)

Subsequent efforts to make hygiene education a regular part of the Pourashava Health Section, however, proved fruitless. Limited numbers of PHS staff and other demands on their time prevented them from giving 18DTP hygiene education the attention it required. A 1995 evaluation report summed up this experience by saying that sustainable hygiene education at the pourashava level was not feasible under present circumstances.

"Responsibilities for implementation of a sustainable hygiene education cannot be left completely to the pourashava level. It is increasingly understood that this requires more than assigning or shifting responsibilities. It needs a long term view and strategic support from the central level, which is beyond the reach of the current project." (MConsult 1995:65)

Only 'the school hygiene program, if implemented properly, will endure beyond the project period', this evaluation concluded. (p.66)

1.3.1.1 Phase III Program Reorganization

Some important changes also have occurred in HEP administration. During the first two phases of the project hygiene education was coordinated by one staff member in the office of the Project Director (or PD, a DPHE official). For Phase III, however, it was decided that the Project Office (managed by the DHV Consultants Team Leader) would handle "software" -- 1 e, hygiene education, community participation activities, and women in development (WID) This change was made upon recommendation from an evaluation mission.

Thus in February 1995 the Project Office hired a new staff member to reorganize the program, develop new educational materials, arrange training, and supervise the NGOs. In late 1995/early 1996, when formal responsibility for all 'software' activities was transferred from the DPHE/Project Director (PD) to the Project Office/Team Leader, a Community Participation Specialist was redeployed to the Project Office. These two staff members, the Hygiene Education Specialist and the Community Participation Specialist, have remained in their posts to the present date.

The failed attempts to engage Pourashava Health Section staff in the program led to another decision -- in Phase III, to give the hygiene education task to NGOs who could devote sufficient time to the effort. In some towns preference was given to those NGOs who had already helped with sanitation promotion. In other towns new groups were selected. The project recommended NGOs, and each pourashava chairman made the final decision to hire one?

WSSC volunteers also have been expected to perform hygiene education functions. Like NGO workers, they have been trained in the basic HEP messages and communication strategies. But unlike them, they are not paid.

1.3.1.2 Hygiene Education Methods

Initial project guidelines identified seven basic messages to be delivered the household or neighborhood level through the hygiene education program (Non-Technical Annexes (1990), Vol. 2, p. 8):

- Use safe water for all purposes;
- Maintain your water source and avoid possible contamination modes,
- Use sanitary latrines;
- Dispose of children's feces in a latrine immediately following defecation,
- Make sure that drinking water remains safe all the way from collection to drinking;
- Wash your hands to an adequate level of cleanliness before eating, preparing meals, and
 after any act related to own or children's defecation or any other act related to animal
 feces;
- Dump your waste in a fixed hole.

⁹ In one or two places two NGOs were selected at first rather than just one.

In Phase III the basic list was simplified somewhat, with special emphasis placed on four of the messages:

- Use tubewell water for all purposes;
- Wash hands after using the latrine and before handling food;
- All family members should use a hygienic latrine;
- Put your garbage in a fixed place, keep the home compound clean

Instructional materials consist of two flip charts each on safe water use and latrine use, a brochure on hand tubewell use and hygienic collection of water, and a brochure on latrine use and cleaning. Beneficiary households receive copies of the two brochures. NGO/CSC workers do demonstrations of proper latrine and tubewell use and maintenance in neighborhoods.

As previous evaluation reports have mentioned, the same basic messages are communicated to all beneficiaries rather than being adjusted for different target groups. An important exception is the primary school program, which has its own special curriculum and materials, developed in collaboration with the NGO Forum for Drinking Water Supply and Sanitation in 1995. This curriculum has been in use since 1996.

Four main communication approaches are used.

- 1. Individualized instruction in the homes of latrine recipients and trained hand tubewell caretakers;
- 2. Group meetings with neighbors of latrine recipients and caretakers;
- 3. Community meetings to solve local water use problems;
- 4. Mass campaigns, all associated with National Sanitation Week.

Despite some confusion about its over-all goal, 18DTP hygiene education has always had a sound basis in its firm connection to latrine and tubewell distribution. Sanitation promoters, at first, and hygiene educators, later on, have devoted substantial effort to helping (mostly poor) beneficiaries understand how to use their new facilities. Project hygiene education activities mostly have been done in accord with the principle that. The ideal timing of hygiene education is at the time of construction of facilities: the sinking of a new hand tubewell, the installation of a new house connection, new sanitary latrines... When the attention is there advantage should be taken of the opportunity to provide information on health and hygiene'. (1993 evaluation, p.2)

1.3.1.3 Specific Groups Receiving Hygiene Education

Different groups receive different types of technical assistance (including hygiene education) from the NGO/CSC teams. The most intensive services are provided to *latrine recipients*, who are visited several times before and after equipment is provided. *Hand tubewell caretakers* also get visited and informed about hygiene principles, as they are expected to set good examples for their neighbors, who also use the project-provided water source.

Piped water customers are informed about cleaning of water tanks, but they usually are not all provided with the basic hygiene instruction given to the former two groups. Special projects — on drainage and solid waste disposal -- have been conducted with piped supply customers in some towns. Most piped water customers are middle class or higher economic status and tend to be more well educated on average than other project beneficiaries

1.3.1.4 The NGO/CSC Teams: Status, Constraints, and Skills

Since 1995-96 hygiene education has been more or less consistently provided by NGO/CSC teams, all females, each having an office in a Community Sanitation Center. The project actually has made use of local NGOs as sanitation promoters and/or hygiene educators since 1993, but their role was adjusted to its present form in 1995.

The relationship of NGOs to the project has turned out to be far more complicated than was originally anticipated. There have been many changes, contract cancellations, and so on. By the end of 1998 in eight towns teams originally hired through NGOs had been put under the direct authority of pourashava chairmen. Of the ten remaining local NGOs, at least two, set up by chairmen themselves, may or may not do other work in their pourashavas

Being women, the NGO/CSC team members are widely considered to be more honest and hard-working than men would be in their positions. One pourashava chairman's graphic statement echoed several others' sentiments: 'If the NGO workers were men', he said, 'it would be hell. Stupid men wouldn't produce the good results these women do!'

As they have proven themselves to be generally reliable workers, the NGO/CSC teams in most towns have been handed more and more project responsibilities. While their basic job is doing hygiene education associated with latrine distribution in poor neighborhoods, they also help with hand tubewell caretaker training, piped water leakage reduction campaigns, miscellaneous local needs assessments or surveys, and the school hygiene education program, while also responding to sometimes harsh demands of locally influential people (or citizens supported by them).

Expansion of their role has caused management confusion. Between 1995 and 1997 the Project Office Hygiene Education Specialist (with support from ODS field managers) apparently was more clearly in charge of the NGO/CSC's field activities than he is in 1998. As each new task is assigned to the NGO/CSC a new Project Office staff member comes out to supervise Multiple tasks are not always coordinated. The teams work for too many bosses, who may countermand each other's instructions. This situation has caused tension in the central office and surely has interfered with the teams' work.

Pourashava chairmen, and even commissioners, as well feel entitled to supervise the NGO/CSC teams Some of these officials are very supportive and helpful to them. But there is always the possibility of 'interference' such as dismissing some team members and replacing them with relatives or supporters; demanding that latrines or tubewells be distributed to political supporters instead of project-selected beneficiaries; forbidding the teams to work according to project guidelines (especially in distribution of free or subsidized equipment). There even are occasional rumors of physical abuse or sexually harassment.

As the project end approached and workloads decreased, the Team Leader in 1998 instructed staff to cut 33 CSC positions, including all night guards and some CSC/NGO jobs. Most pourashava chairmen or other officials are accepting the project's decision, but in five cases they are not. Many chairmen appear to be confused about their rights and responsibilities. They are more ready to protest or fight project decisions than to make the inevitable but financially difficult decision to sustain project services with pourashava resources.

Confusing demands and political interference can be resisted by strong teams. Some of the best ones are known to do good work despite their adverse circumstances. Others, however, are too weak to resist negative influences. Or they may lack motivation or skills to do a good tob even in a supportive environment

1.3.1.5 Organizational Issues in Brief

In brief, four factors appear to determine an NGO/CSC team's effectiveness in the field. Of greatest importance, to be sure, is the skill and motivation of team members themselves. Second is the level of support or "interference" they get from locally powerful people. Third is the volume of beneficiary contact, largely determined in this project by the schedule of latrine distribution. Fourth is the size of the town and whether or not the staffing is adequate to provide hygiene education for all beneficiaries. Central project administration affects the CSC/NGO team's work as well. There is abundant evidence of poor management. Lines of authority are confused. Multiple "bosses" influence work schedules and priorities.

The quality of the educational approach is all-important. In a project of this scale and complexity, the approach seems appropriately simple and practical. The extent to which project messages have reached beneficiary populations is reviewed below according to specific indicators

1.3.2 Program Impact Indicators: Household Survey Findings

A quasi-experimental method has been used to assess the impact of the hygiene education program on beneficiaries' knowledge and behavior. Households receiving project hygiene education have been compared to a "control" group of households who did not receive project hygiene education 10.

Detailed questionnaire interviews were done in a total of 2851 households in all 18 towns. (The questionnaire is in Annex 3.2.) A stratified sampling method was used. Sample households were randomly selected from five lists (1) project latrine recipients, (2) hand tubewell recipients or caretakers, (3) households whose tubewell platforms were replaced through the project, (4) piped water supply customers, and (5) households identified (in a previous project survey) as having no latrines. Most households in the final group, it was assumed, would serve as controls. Twenty percent (574) of the 2851 households selected by this method had received no facilities through the project.

¹⁰ This method is used in lieu of a strong baseline study against which to measure project impact.

A review of the hygiene education history of sample households produced a re-classification into four new groups, based on hygiene education levels.

1. "Intensive" project hygiene education

Respondents reporting that they had been visited and instructed on hygiene maters by NGO/CSC team members, or those in possession of project manuals

2. "Some" project hygiene education

Other respondents, not meeting criteria of (1) but otherwise indicating familiarity with project people or materials.

3. "Other" hygiene education

Respondents not in (1) or (2) but mentioning discussion of health matters with other professionals or groups (such as an NGO).

4. "None"

All respondents not meeting the above criteria were considered to have had no formal hygiene education

Ninety-three percent of those having received latrines (with or without other facilities) also received "intensive" hygiene education services, as per project guidelines. Some of their non-beneficiary neighbors benefited from this service or others. But 51% of the non-beneficiary group were found to have received no hygiene education from any source

As might be expected from the project's emphasis on the "poorest of the poor," latrine recipients were found to be poorer on average (59% low income or very poor¹¹) than households who had received only tubewells or piped water supply customers. Non-beneficiaries (70% low income or very poor) were the poorest of all. Table 1.3.1 describes economic status of all sample households.

Table 1.3.1 Household Economic Status:

Reported Monthly Incomes and Percentages by Sample Group

Economic Status	Very	Low	Medium	High	Total
	Poor	Income	Income	Income	
Median Reported Household					
Income (Tk./Month)	1,500	2,000	4,000	10,000+	
Sample Group:					
Latrine Beneficiary	6.8	52.3	40.0	0.9	100
Other Beneficiary	1.8	14.8	54.3	29.1	100
Non-Beneficiary	12.7	57.1	30.0	0.2	100
All	6.7	43.7	41.6	8.0	100
(n)	(192)	(1,246)	(1,186)	(227)	(2,851)

Project guidelines required that latrines be distributed to poor households only. The current economic status (60% poor) data probably indicates (a) that some latrines did not go to poor households, and (b) some latrine beneficialies have improved their economic condition since the time they first contacted the project.

Being largely poor, the households in this study depend mostly on daily-paid laboring employment or petty business activity for their survival. Most women, regardless of economic status, do not work outside the home.

The groups with "intensive" and "no" hygiene education are more similar to each other than to the other two groups, in terms of economic and educational status and religion. The following analysis, therefore, will emphasize findings on these two more comparable sample groups. Comparing those with and without project hygiene education also, of course, offers the best chance of assessing program impact. Table 1.3.2 shows the overlap between beneficiary and hygiene education comparison groups.

Table 1.3.2 Sample Groups, by Level of Hygiene Education (Percentages)

Sample Group: Hygiene Education Level	Latrine Beneficiary * n=1549	Other Beneficiary n=728	Non- Beneficiary n=574	Total n=2851
Project. Intensive	93.4	62.9	5 9	68.0
Project Some	4 5	18.0	32 1	13.5
Other Education		0 1	11.0	2.2
None	2.2	19.0	51.0	16.3

^{*} With or without other facilities, such as a hand tubewell

1.3.2.1 Limitations of the Study Method

• Insufficient baseline data

The quasi-experimental method is needed in this case because sampling and scope of baseline studies do not permit a comparison to pre-project conditions.

• Control group affected by the project

As residents of project towns, people without hygiene education are not as free of project influence as ideal "control" groups should be.

• Interview teams were all male

While most respondents were female, all survey interviewers were male. This may have affected the quality of information on some sensitive hygiene topics.

• Omission of information on some beneficiaries

The analysis presented below has less information on the point of view of piped supply customers, and those with project tubewells only, than on latrine beneficiaries, who are almost all included. As Table 3.2.1 shows, 18 percent of these "other" beneficiaries are excluded because they are not in the "intensive" hygiene education group; nor are they in the "no" hygiene education group.

• Dependence on questionnaire survey data

If time had permitted, it would have been useful to do more direct, intensive study of aspects of water and sanitation knowledge and behavior reviewed below. For example, one-day observations of specific households would have shed light on how and why people behave. In the interest of studying habits of a truly representative sample of beneficiaries in all 18 towns, more qualitative approaches were bypassed. As a result some findings are difficult to explain.

1.3.2.2 People's Perceptions of Project Hygiene Education Services

Respondents considered to have had the project's full (intensive) hygiene education treatment were asked how many times they had been visited by the CSC/NGO team members, how recently, and whether they had found the information useful or not. Responses varied from one town to another.

Latrine recipients had been visited an average of ten times by CSC/NGO team members, who are locally referred to as the 'latrine sisters' (paikhanar apa) or 'pourashava women'. The most recently visited households, on average, were those in: Jhalokati Town, Bhola, Barguna, and Lalmonirhat.

As a check on their familiarity with visiting program personnel, respondents were asked to mention a CSC/NGO worker's name. The answers differed from town to town. A correct identification level of around 50% seems to indicate either (active current / recent contact with beneficiaries, or that meaningful communication has occurred. (Table 1.3.3 presents findings.)

An indicator of respondents' appreciation of the NGO/CSC teams is how they rank them as health information sources. Project hygiene educators ranked fifth: above the TV and after the radio, on frequently mentioned "most trusted health information sources." These responses were consistent from town to town.

The five most mentioned sources were:

Family Planning Field Workers
 Immunization Health Workers
 Radio
 CSC/NGO Project Women
 TV
 (39% mentioned)
 (12% mentioned)
 (8% mentioned)
 (3% mentioned)

People's own perceptions of the hygiene education service were lukewarm. Although most (55%) said they had not learned much, some said they had. The most frequently mentioned benefit of the program was reduced diarrhea (Figure 1.3.1 summarizes comments made by division.)

Table 1.3.3 Respondents' Familiarity with CSC/NGO Workers' Names (Percentages)

	Respondents Who Said CSC/NGO Worker Visited the Hou				
	Mentioned Correct	Mentioned	Could Not		
Division/Town	Name	Incorrect Name	Identify/No Info.		
Jhalokati Division					
Jhalokati Town	49	50	11		
Bhola	46	53	1		
Barguna	67	33			
Shariatpur	30	70			
Magura Division					
Magura Town	22	77	1		
Narail	24_	75			
Satkhira	29	70	1		
Meherpur	56	43	1		
Manikganj Division					
Manikganj Town	22	76	3		
Moulvibazar	11	34	55		
Sherpur	27	72	1		
Netrokona	23	77			
Nilphamari Division					
Nilphamari Town	25	75			
Panchagarh	24	74	1		
Thakurgaon	37	63			
Joypurhat	17	83			
Naogaon	6	93	2		
Lalmonirhat	51	46	5		

1.3.2.3 Summary of Other Findings

1.3.2.3.1 Domestic Water Use

Domestic water management was investigated using three indicators:

- 1. Uses of "safe" or "unsafe" (according to disease-spread risk, but without consideration of arsenic problems, as mentioned above) for several domestic purposes;
- 2. Cleanliness of the hand tubewell platform;
- 3. Management of household drinking water.

Findings on safe / unsafe water uses in all but three towns (Jhalokati, Barguna, and Bhola) indicated minimal project impact. Project-educated households' water use patterns elsewhere were not significantly different from controls' (Figure 1.3.2). A widespread tendency to use "unsafe" water for hand tubewell priming was found in all towns. In five towns (Magura, Manikganj, Nilphamari, Panchagarh, and Thakurgaon) hygiene recipients' hand tubewell platforms were significantly cleaner than those of controls. But in one town (Naogaon) they were significantly dirtier.

70%

-- Diarrhea Reduced
-- Other Health Improvement
-- Health Awareness Improvement

30%

20%

Figure 1.3.1 Perceived Value of Hygiene Education: Divisional Comparison

Responses of 478 beneficiaries, all hygiene education recipients.

Magura

0% ↓ Jhalokati

The most frequently mentioned benefits of the program were diarrhea reduction, other health improvement, and health awareness.

Manikgan]

Nilphamari

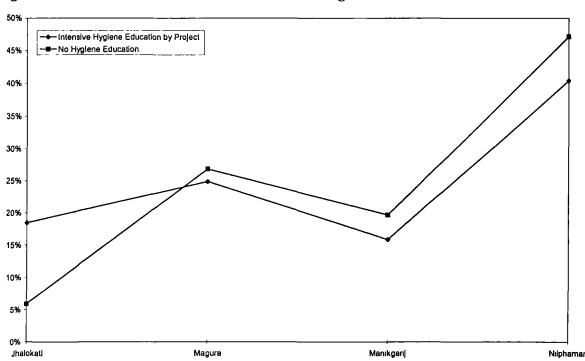


Figure 1.3.2 Safe Water Used for Utensil Washing

Hygiene education recipients make less use of safe water for utensil washing than do controls in all divisions except Jhalokati

Hygiene education recipients were found to manage drinking water only slightly better than controls. Drinking water containers are still kept on the floor, rather than in an elevated place, in more than half of all households, although controls had even more on the floor. Containers were significantly more likely to be covered in four towns (Moulvibazar, Thakurgaon, Joypurhat, and Lalmonirhat). But in three other towns (Nilphamari, Panchagarh, and Naogaon) hygiene education recipients were significantly less likely to cover their household drinking water containers.

1.3.2.3.2 Sanitation

Sanitation was investigated using five indicators:

- 1. Cleanliness of household latrines;
- 2. Evidence sandals, water pot, and/or soap or ash of appropriate latrine use behavior;
- 3. Age at which children start using a latrine;
- 4. Disposal of young children's feces;
- 5. Method of cleaning the hands after cleaning a child's bottom. The first two indicators showed a strong and significant program impact.

There is no question that the project has succeeded in promoting household latrine maintenance and cleanliness. A great many more hygiene education recipients than controls were found in all places to have clean household latrines (Figure 1.3.3).

Regarding latrine use behavior (Figure 1.3.4) findings were positive, but less strongly so than for cleanliness. Hygiene recipients' behavior scores were better than those of controls, especially in Jhalokati and Nilphamari Divisions, but none of the scores was especially high. (Latrines are still being distributed in Jhalokati Division, so communication about latrine behavior is actively going on.) In Naogaon and Magura hygiene education recipients' latrine behavior scores were lower than controls'.

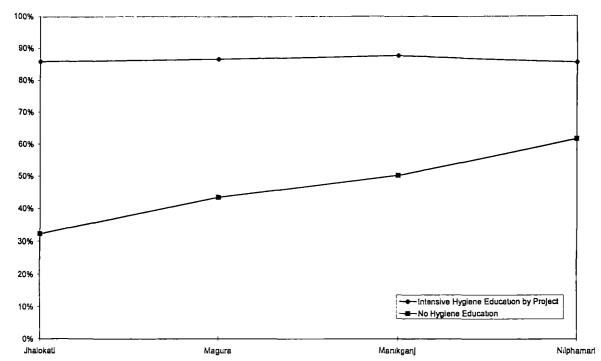
Despite the project's message that 'all family members should use hygienic latrines', findings on use by young children were not especially positive. Findings on children's latrine use varied greatly from one place to another. In three towns (Sherpur, Netrokona and Panchagarh) hygiene education recipients report that their children use latrines at significantly earlier ages — about one year earlier (around age 3) — than controls (around age 4) (Table 1.3.4).

Table 1.3.4 Children's Latrine Use,
Comparison of Hygiene Education Recipients and Controls

Town	Intensive Hygiene Education Mean Age	No Hygiene Education Mean Age
Sherpur	3.1	4.0
Netrokona	3.1	4.6
Panchagarh	3.3	4.4

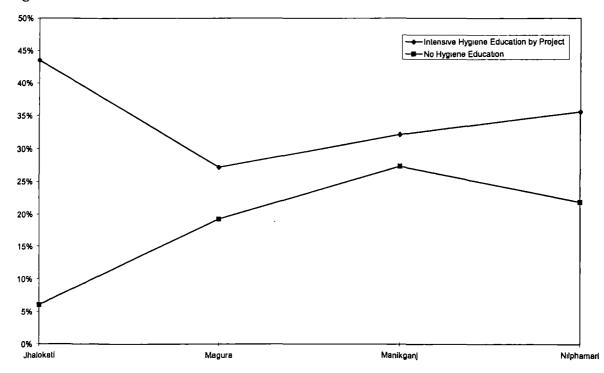
Elsewhere there were no statistically significant differences found, although generally children of hygiene education recipients start using latrines at earlier ages. In five towns (Bhola, Barguna, Shariatpur, Manikganj, and Lalmonirhat), however, they start at later ages.

Figure 1.3.3 Latrine Cleanliness Condition Score



Latrines in project-educated households were found to be significantly more well maintained than in control households.

Figure 1.3.4 Latrine Behavior Score



Hygiene education recipients' latrine-use behavior is better than in control groups, but only minimally so in two divisions

In six towns (Bhola, Shariatpur, Manikganj, Netrokona, Panchagarh, and Lalmonirhat) hygiene education recipients were more likely to dump young children's feces in latrines than in ditches or other family garbage disposal areas -- or leaving them lying around for animals to clean up.

Findings on cleaning the hands after cleaning children's bottoms were not positive. In one town only (Shariatpur) was there any evidence of project effect. In one other (Manikganj) hygiene education recipients were significantly less likely to clean their own hands than were controls

1.3.2.3.3 Hand Washing Practice

Personal hygiene was measured by self-reports on hand washing, as the behavior most related to fecal-oral spread of sanitation related diseases. Indicators used were:

- 1. Post-defecation hand washing practice;
- 2. Female respondents' lists of the important times each day when they feel it is important to wash their hands.

Hygiene education recipients are significantly more likely to wash two hands instead of one, and to use a separate cloth for drying the hands rather than a common towel or clothing (Table 1.3.5).

Table 1.3.5 Post-defecation Hand Washing Practice,
Comparison of Hygiene Education Recipients and Controls (Percentages)

Sample Group	Intensive Hygiene Education by Project			ygiene eation	Total	
Hand Washing Technique	Un- hygienic	Hygienic	Un- hygienic	Hygienic	Un- hygienic	Hygienic
Washing						
Method				İ		
(n=2400):						
Water Only	0.8		1.3		0.9]
Water, Ash/Mud		28.2		30.3		28.6
Water, Soap		71.0		68.4		70.5
Hands Washed						
(n=2395):						
One Only	23.9		27.1		24.5	
Two		76.0		71.8		75.2
Drying Method						
(n=2396):						}
În Air		1.2		2.4		1.4
Separate Cloth		45.5		35.1		43.5
Towel	40.6		41.4		40.8	
Clothes	12.5		20.9		14.1	

There still is a widespread tendency, however, to dry the hands on clothing in all but seven towns (Shariatpur, Magura, Meherpur, Moulvibazar, Nilphamari, Thakurgaon, and Lalmonirhat), where hygiene education recipients were significantly less likely than controls to dry their hands on their clothes. Naogaon hygiene education recipients are more likely than controls to dry their hands on their clothes.

There was less difference between the self-reported hand washing habits of project-educated women and controls than might be expected, considering the project's emphasis on hand washing. In two towns (Magura and Nilphamari) smaller percentages of project-educated women mentioned washing the hands after latrine cleaning or wiping a child's bottom than controls. There also was less-than-expected difference in the mention of washing hands before cooking (about one-third for both comparison groups). A positive finding was the greater tendency of project-educated women to mention hand washing 'after any work' and 'before/after eating'

1.3.2.3.4 Solid Waste Disposal

Solid waste disposal was observed by surveyors Households with hygiene education were less littered than control households (63% vs 57% neat, a statistically significant difference). This is an important finding, considering the effort that NGO/CSC teams have put into educating the public about solid waste disposal.

1.3.2.3.5 Water and Sanitation Knowledge

Water and sanitation knowledge indicators all showed positive program impact. Respondents were asked to identify:

- 1. diseases related to latrine use:
- 2. ways that diseases spread;
- 3. diarrhea prevention methods

The hygiene education program's simple instructional materials and messages seem to have worked in large part. Findings on all three indicators were positive (see Tables 1.3.6, 1.3.7, and 1.3.8).

While knowledge of the connection between hygienic latrine use and diarrhea is widespread in the Bangladesh population by now, hygiene education recipients' awareness is clearly higher than controls', as is knowledge of all sanitation-related diseases.

Knowledge of the connection between four major illnesses—diarrhea, dysentery, cholera, and worms—was found to be much greater among hygiene education recipients than among controls. There was no difference in knowledge of skin diseases, typhoid, or various other possible diseases.

Knowledge of disease spread causes also was better among hygiene education recipients than controls. This was especially true in the identification of insects and animals as contagion agents, and to a lesser extent in the mention of feces (21% vs. 18%) or hands and fingernails (10% vs. 7%). There was little difference in the mention of barefoot latrine use, a project emphasis.

Preventing diarrhea is more well understood by project hygiene education recipients than controls, especially through proper food handling (70% vs. 59%), or -- to a lesser extent -- through cleaning hands or nails (9% vs. 7%).

Table 1.3.6 Knowledge of Diseases Related to Latrine Use, Responses by Hygiene Education Level*

Disease	Hygiene Education Level					
Mentioned	Intensive Hygiene Education			No Hygiene Education		
	Mentioned	Percentage		Mentioned	Percentage	
	by No.			by No.		
Diarrhea	1711	88.3%		360	77.4%	
Dysentery	965	49.8%		205	44.1%	
Cholera	743	38.3%		162	34.8%	
Worms	893	46.1%		162	34.8%	
Jaundice	115	5.9%		17	3.7%	
Skin Disease	31	1.6%		6	1.3%	
Typhoid	36	1.9%	1	13	2.8%	
Other Possible	468	24.1%		129	27.7%	
WATSAN**						
Incorrect	254	13.1%		32	6.9%	
Response***						
Total Respondents			1938			465

^{*} Multiple responses possible

Table 1.3.7 Disease Spread Causes Mentioned, by Hygiene Education Level

Disease	Hygiene Education Level					
Spread Cause	Intensive Hygiene Education			No Hyg	n	
Mentioned	Mentioned	Percentage		Mentioned	Percentage	
	by No.			by No.		
Unsafe Water	681	35 1%		146	31.4%	
Food	762	39.3%		157	33.8%	
Insects/Animals	1210	62.4%	_	249	53.5%	
Unclean Envt./HH	554	28.6%		140	30.1%	
Items						
Air/Wind	385	19.9%		84	18.1%	
Feces	407	21.0%		83	17.8%	
Hands/Nails	185	9.5%		33	7.1%	
Barefoot Latrine Use	101	5 2%		21	4.5%	
Other Contagion	89	4.6%		24	5.2%	
None Mentioned	86	4.4%		36	19.5%	
Total Respondents			1938			465

^{**} Upset stomach, loose motions and vomiting, malaria, fever; polio

^{***} Numerous diseases mentioned, including pneumonia, ulcer, goiter, pox, tuberculosis, cancer, measles, kidney problem, diphtheria, tetanus, asthma, diabetes

Table 1.3.8 Diarrhea Prevention Methods Mentioned, by Hygiene Education Level

Prevention	Hygiene Education Level					
Method	Intensive Hygiene Education			No Hygiene Education		
	Mentioned	Percentage		Mentioned	Percentage	
	by No.			by No.		
Proper Food	1364	70.4%		273	58.7%	
Handling						
Safe Water Use	570	29.4%		125	26.9%	
Good Personal	1394	71.9%		324	69.7%	
Hygiene						
Clean Hands/Nails	211	10 9%		30	6.5%	
Clean House/Latrine	183	9.4%		31	6.7%	_
Avoid Mosquitoes &	62	3.2%		10	2.2%	
Flies						
Use Sandals in	49	2.5%		7	1.5%	
Latrine						
Abide by Health	32	1.7%		6	1.3%	
Messages						
NA (Treatment)	74	3.8%		25	5.4%	
None Mentioned	32	1.7%		22	4.7%	
Total Respondents			1938			465

1.3.2.3.6 Family Health Status

Family health status was investigated in questionnaire interviews, but these data are not as easily used to measure program impact as are other indicators. This is because the diffuse public health effects, especially of improved sanitation are not confined to people actually adopting hygienic practices. Nonetheless, it was found that people in project-educated households were somewhat less likely to have diarrhea and dysentery than controls. But skin disease/eczema was more of a problem in project-educated households. Similar percentages, around 12%, of child deaths (age 10 or less within the past five years) were caused by diarrheal disease in project educated and control households.

Findings on health status reflect many factors other than project influence. And for this reason and others, these findings should be interpreted with caution. But they deserve mention as an important aspect of the total water-sanitation picture in project towns.

1.3.2.4 Program Impact: Conclusions

Expectations of impact in a project such as the 18DTP should be realistic. This has been a vast and long-term effort covering a large number of municipalities, each of which offers unique constraints and opportunities. Like most projects this one had ambitious behavior-modification goals. But it would not be realistic to expect small teams of hygiene educators-cum-sanitation promoters to change all the personal habits investigated in all homes. Nor can

Of course, each town's hygiene education program is unique. Although they are trained and monitored by the central office staff, the CSC/NGO teams' work has been strongly influenced by local factors plus, of course, the teams' own skills and motivation (as discussed above). It was not surprising, therefore, to see differences in project impact among towns. No one town (or team) has been a total success or a total failure, but the findings presented above demonstrate uneven performance between towns, or possibly just a diminishing of impact as contact declines.

Considering the close relationship between latrine distribution and hygiene education, the latrine distribution schedule drives much of the NGO/CSC team - beneficiary contact. Latrine distribution targets have been met at different times in different towns. The only towns where large numbers of latrines still were being distributed around the time of the survey were ¹²:

- Jhalokati and Bhola (in Jhalokati Division);
- Satkhira (Magura Division);
- Sherpur and Moulvibazar (Manikganj Division);
- Naogaon and Thakurgaon (Nilphamarı Dıvısıon).

To the extent that it has affected the water and sanitation life of the 18 towns, the project's most important contribution probably has been in helping people translate general messages into specific practices, especially latrine-related habits. Benefits of such influence can extend beyond the range of direct intervention. It is safe to assume that positive impacts on many domestic practices will affect large populations — not just the formal "beneficiaries."-- have benefited from project services if diligently provided Maybe this is why some towns have better over-all practices than others.

1.3.3 Evaluation of the 18DTP School Program

1.3.3.1 The 18DTP School Program: Introduction

Since 1995 the 18DTP has been working in primary schools. There are two forms of project assistance to schools. First is facilities improvement, which means installation of hand tubewells and sanitary latrines as needed, up to four latrines per school. By the end of June 1998 54 of a planned 67 sanitary latrines had been installed.

The second is hygiene education. Project officials negotiated an agreement with the Ministry of Education's Director General, Primary Education Department, who in 1994 sent a letter to all district Primary Education Officers, directing them to instruct pourashava area schools to implement the hygiene education program. In 1995 a special curriculum, including rhymes and role-play exercises, was developed by project staff in collaboration with the NGO Forum for Drinking Water Supply and Sanitation. Two teachers per school (the headmaster and one science teacher) were trained in 1995-96 by the NGO Forum to use the special curriculum, on the assumption that they would share what they learned with other faculty members.

¹² Sources of information April-June 1998 Quarterly Report, p 28, and Project Office staff

The two types of project assistance are related, at least in theory. New facilities should ensure that the school environment is a place where children can practice the good hygiene habits they are taught. The physical appearance of the school and its facilities may in itself partly indicate the level of program impact.

1.3.3.2 Evaluation Objectives and Methods

Evaluation activities have been conducted to provide insight into the School Program's functioning, and also to assess its over-all impact. An effort has been made to understand both teachers' and program staff's points of view. Key questions are:

- What is the condition of school hygiene facilities? Are school environments clean?
- Are teachers providing hygiene education as per their training? If not, why not?
- Do students learn what they are supposed to?
- What are the main problems and successes of the School Program?
- Will there be any lasting impact of the school program after 18DTP finishes?

Between March and November 1998 staff conducted four workshops for a total of 110 headmasters/teachers of 34 schools in four project towns (Barguna, Lalmonirhat, Netrokona, and Satkhira). Participants reviewed their experiences with the 18DTP curriculum and proposed future activities or improvements for their schools.

Six NGO teams were interviewed in detail about the school program, as were 30 teachers in nine towns. Checklist observations of physical facilities were done in 24 schools of nine towns. Observations and interviews were done as case studies, to illuminate the dynamics of specific types of situations

One or more of these evaluation activities occurred in the following 12 project towns: Barguna, Jhalokati, Lalmonirhat, Magura, Manikganj, Moulvibazar, Netrokona, Nilphamari, Panchagarh, Satkhira, Sherpur, and Thakurgaon. No information was gathered on the school program in the remaining six towns: Bhola, Joypurhat, Meherpur, Naogaon, Narail, and Shariatpur. Evaluation work had to be curtailed because of the 1998 floods.

1.3.3.3 Summary of Findings

The 18DTP program in primary schools consists of: (a) latrine and tubewell installation and (b) hygiene education. The program began in 1995 with the development of a special curriculum. In 1996 two teachers from every school were trained in use of the curriculum, and latrine installation had begun. Project staff had completed a total of 2589 monitoring/teaching visits to 244 schools by the end of June 1998.

This evaluation is based on multiple information sources. In addition to document review, it uses the findings from four 1998 workshops for 110 headmasters and teachers; individual interviews of 30 teachers in nine towns; checklist observations of 24 schools in nine towns; and interviews with six NGO/CSC teams. One or another of these activities was conducted in 12 project towns.

1.3.3.3.1 The Primary School: Physical Facilities and Administration

The situation of the typical project school is not ideal. Two types of schools were visited. One is the government primary school, usually located in a core area and having a sturdy, concrete (pucca) building. This type is usually in an enclosed compound. The other is the 'registered' primary school, typically located in a fringe area and having a less substantial (kacca) building — for example, bamboo mat walls and thatched roof, or concrete walls and corrugated tin roof, and not in an enclosed compound.

Both types of school are so crowded, that they must operate in shifts. The average number of students was 392; and student-teacher ratios were 1:70 for the government schools visited, and 1:50 for the registered schools.

There is great pressure on all physical facilities under the best of circumstances. And circumstances are far from good. The public tries to use latrines and tubewells, so headmasters often put the latrines under lock and key, which also restricts children's access. Public use is almost impossible to prevent in schools without walled compounds. Teachers may designate some latrines for their own use, further limiting the availability to students.

Money for maintenance and all school supplies comes from a small "contingency" fund, which most teachers say is too small to allow for purchase of latrine cleaning supplies. Most latrine cleaning is done by students and/or children, who consider it a distasteful task; some parents complain about teachers' requiring their children to do it. So latrines tend to be poorly maintained. Most tubewell platforms also were observed to be unclean.

The School Managing Committee (SMC) is said by most teachers to have little interest in solving school hygiene problems, although some SMCs do support facilities improvement and repairs. Some teachers recommend that the SMCs need to improve their own awareness of the importance of proper use of water and sanitation facilities.

1.3.3.3.2 The Hygiene Education Curriculum

The Ministry of Education (Primary Education) and the Ministry of Health (Bureau of Health Education) were involved in the program at first. The Ministry of Education in 1995 issued an order to all primary schools in project towns to use the special curriculum. The Ministry of Health was supposed to take an active role in curriculum development and teacher training, but it did not. These tasks were performed instead with assistance from the NGO Forum for Drinking Water Supply & Sanitation (Dhaka).

The curriculum itself is based on an innovative, "child-to-child" concept. It makes much use of rhymes, games, and role-play exercises But many teachers do not see any difference between the project's curriculum and the nationally mandated one.

A serious problem with the curriculum is that it was never reconciled with the already-existing national curriculum, *Paribesh Parichiti*, mandated for use in every primary school. Teachers, trained or not, have been confused about how the new curriculum fits into their lesson plans. There is no evidence of continuing Ministry interest in promoting the project's curriculum. The project has managed the confusion in most cases by having NGO/CSC team members provide lessons with the curriculum, rather than expecting teachers to give them.

In school workshop teachers, mostly not trained in its use, made specific criticisms of the curriculum, such as:

- The approach is boring;
- Role-play, rhymes are monotonous;
- Need more colorful and entertaining materials;
- Messages are difficult to communicate; Sentences should be simpler;
- Some of the words are hard to understand;
- Curriculum demands too much time;
- It is too expensive to stage 'dramas';
- Project materials are not integrated with the national curriculum;
- Project funding cuts are reducing use of the curriculum;
- More teachers need training.

When teachers were trained, it was assumed that the two trained per school would share their knowledge of new techniques with their colleagues. But this sharing did not occur to the extent anticipated. Teachers not receiving the training sometimes feel neglected and resentful -- as well as being confused about the overlap with the national curriculum. If trained teachers are transferred, no expertise with the curriculum remains in the school.

Some important exceptions have been found. In three towns (Lalmonirhat, Nilphamari, and Panchagarh), for example, at least six headmasters are known to be very enthusiastic about the entertaining instructional approach. In their schools NGO/CSC team members are not teaching, because teachers themselves are using the project curriculum. (It is possible that others also are, but detailed information is only available from six towns.) The headmaster of Panchagarh Primary School No. 1, for example, is urging the NGO/CSC team to use the curriculum as the basis of a mass campaign.

1.3.3.3.3 Teachers' Suggestions for Future School Projects

In workshops and individual interviews headmasters and teachers made a number of suggestions for future projects to raise general awareness of hygiene issues. These projects are not feasible within the framework of the 18DTP, but the suggestions might be passed on to the appropriate local or national authorities:

School Facilities Improvement/Protection

- Some teachers should be trained in hand tubewell maintenance; and schools should get some of the necessary tools.
- Pourashava Sweepers should clean school latrines daily, not students.
- Funds should be allocated for cleaning supplies: first from the project and later from school contingency funds through School Managing Committees.
- Neighboring families should be provided with tubewells and latrines, so they will not use
 those of schools. They also need hygiene education, so they do not ruin the school
 equipment they do use.
- Schools without compound walls need money to build them.

Hygiene Education Program Improvement

- All teachers need training in the project curriculum, not just a select few. There also is a need for updating trained teachers' sanitation information.
- School Managing Committees should receive training as well, so that they can understand and support the program and a hygienic school environment.
- Attractive and colorful print or video materials should be developed to make hygiene education more interesting to students.
- NGO/CSC staff should continue doing teaching in schools as long as the project goes on, to reduce pressure on teachers' time.
- The project curriculum should be integrated with the national curriculum, to save time and prevent confusion
- Competition between schools would stimulate enthusiasm. Project funds could pay for small prizes to the cleanest schools After the end of the project the pourashava should continue any competition program.

The teachers' ideas, including competition among schools, are mostly reasonable ones. But any competition among individual students on grooming and personal hygiene should be avoided. There would be a tendency to give prizes to those who can afford good clothes and shoes, thus embarrassing those who cannot Poor people already are stigmatized and considered by others to be dirty. Losing a personal hygiene contest would only cause further, unnecessary personal pain.

1.3.3.4 The School Program: Conclusions

As far as facilities improvement is concerned, findings are only minimally positive. Schools are not well enough funded to properly maintain the facilities. They are over-used and not (in the case of latrines) adequately accessible to school children. Not only is there too much pressure from within each school, but also neighbors and passers-by often insist on using school tubewells; and school latrines too often are regarded as public latrines.

School Managing Committees mostly do not exercise creative leadership in water and sanitation matters, though more effort could have been made to include them in the program. The result is that the planned relationship between facilities improvement and increased hygiene awareness did not work out as well as planned in most places. The most positive thing that can be said about facilities is that, the project installed 67 latrines and a number of hand tubewells¹³ that would not otherwise have been in place.

The most difficult issue raised by the school program is that its hygiene education innovations will not survive the end of the 18DTP in most schools. There are at least three reasons for this. First is the failure of most trained teachers to share their knowledge with colleagues. This lapse means that faculty expertise is low or even non-existent (in cases where trained teachers have been transferred.) Second is the project's decision to take on the responsibility of teaching rather than insisting that the Ministry of Education enforce its early mandate that teachers use the project's curriculum in project town primary schools. Third is the inherent confusion between the project curriculum and that already mandated as a national standard.

¹³ Hand tubewells installed in schools are not counted separately from those installed elsewhere in project reports

One way to increase the likelihood of an enduring impact as the project ends would be to publish and circulate the curriculum as widely as possible. It is one of at least four curricula in use in Bangladesh primary schools, along with those produced by UNICEF, World Vision, and, of course, the nationally mandated Ministry of Education curriculum. Specialists in hygiene education may want to refer to it when the national curriculum next comes up for revision. So it should be available in all appropriate libraries and government offices.

As far as the children are concerned, in the end all that can be said is that, a great many children will have received somewhat unusual lessons between 1996 and the end of the project. When the NGO/CSC teams stop doing the teaching, these lessons will end in most places.

Given its obvious limitations, the program's successes deserve recognition. The program has ignited the imagination of some educators in some towns. These teachers, though a minority, are passing on their knowledge to colleagues and students. Six headmasters are known to be enthusiastically using the project's hygiene education ideas. There probably are others, perhaps more than one in each town. But the exact number is not known.

1.4 Community Participation: General Comments

Two different "participation" approaches are found in the 18DTP. One is the formal effort to create new types of groups or institutions, such as the WSSC, structuring the groups/institutions in such a way that local involvement in decision-making is extended to new groups of people, especially women and poor people. This type of effort has not been very successful. The other approach, being newly tried as the project end draws near, is to inspire people to share information and expertise among themselves as "volunteers."

1.4.1 Formal Participation Efforts

As mentioned in the preliminary report (Annex 1.1 (C)), "community participation" means many things to many people. Whatever the approach, the 18DTP cannot be considered to be a very participatory project. It tends, rather, toward top-down modes of communication and administration, although senior managers have tended to be receptive to new ideas.

The project did, nonetheless, start out with a commitment, however weak, to the community development/local empowerment approach prevalent in the 1970s and 1980s, as the preceding discussion (in Section 1.21) of the Community Sanitation Center concept illustrates. In this way of thinking local "people" (regardless of economic status or interests, but especially poor people) would come together, define their needs, and build self-sufficient local systems, in this case, water and sanitation systems. People's councils (WSSCs), chaired by women, would make latrine distribution decisions, providing facilities to the poorest of the poor. Any problems with either water or sanitation would be sorted out by the WSSCs, whose authority would be respected by all.

As discussed above, things did not work out this way for a number of reasons. And eventually the WSSC in each town was dismantled, or at least converted into a purely local, unofficial volunteer group. In the case of the WSSC the reasons had much to do with the project having failed in its (perhaps less than energetic) attempt to challenge the established gender-power structure through a requirement that each committee be chaired by woman.

While considered thus far mainly from a gender/WID perspective, the WSSC case also is relevant to current thinking about WATSAN committees elsewhere in Bangladesh. The most extensive network of committees, of course, is that organized at thana and union levels by DPHE in collaboration with UNICEF. Re-thinking the approach, UNICEF has decided that the initial WATSAN Committee idea had fatal flaws, and the whole network needs to be replaced by a more workable one 14.

¹⁴ This information is from Dr. Kader Samsul Huda, of UNICEF (Dhaka).

The main flaws UNICEF has found in the WATSAN committee system are:

- That the initial organizing formula was developed without much critical thinking.
- That the size and quorum requirements were too large.
- That committee members were never trained to provide leadership in local water and sanitation.
- That there was no incentive for designated members, such as the Member Secretary (DPHE Executive Engineer), to "run a successful meeting"
- Nor was there any incentive that is to say, political/personal benefit for a union parishad chairman to become active.
- Continuity and motivation in the committee was greatly disrupted when officials were transferred. So any accomplishments, for example, of a Thana Nirbani Officer (TNO) tended not to be sustainable.
- No funding was provided for miscellaneous meeting expenses.

A common feature of the two committees was that they were set up as entirely new local groups by remote administrators who did not train or support them adequately. Neither group had the political legitimacy of a true governmental body, although government policy in both cases supported their existence and developed guidelines for them. An 18DTP plan to enact pourashava bylaws with WSSC as a formally empowered entity was not implemented. Such conditions lead easily to the existence of inactive committees "in name only".

UNICEF is considering a new approach that will assign responsibility to already existing democratically elected local bodies, such as union parishads. If these bodies take an interest in water and sanitation issues, their members will gain the desired political advantage, and sustainable local leadership in the sector may emerge A similar approach is envisioned by the DANIDA-funded Five District Urban Water and Sanitation project in southern Bangladesh. Pourashava councils will be asked to form subcommittees, adding in some beneficiary and other local representatives, to manage project affairs at the ward level¹⁵.

The WATSAN committees, like the 18DTP WSSCs, had "responsibility" to improve local water and sanitation conditions. Unlike the WSSC, the WATSAN committee was made up of people with some local power, i.e. "authority" to do the work. But those people tended to lack interest in using it for the purpose at hand. In the case of the WSSC locally influential people did much to deprive the committee of its authority -- meaning in this case, its right to decide who would receive free or subsidized project facilities.

The "participation" idea often has something to do with challenging power structures by giving poor people and others a chance to make decisions that affect their lives. One problem with the WSSC, however, was that it challenged the existing power structure without following up on its own commitment. The new ideas coming out of UNICEF and DANIDA are interesting experiments in *use* of existing power structures to improve local water and sanitation conditions¹⁶. The appropriate role of DPHE or other government agencies in such a framework remains to be seen.

¹⁵ DANIDA-DPHE Five Districts Urban Water and Sanitation Program information

While failing to use the existing power structure in the case of the WSSC, the project is, of course, doing so in many other aspects of its work oriented toward strengthening of local government's capacity to manage water systems and other local services

1.4.2 Informal Approaches to Participation

The project is winding up with a concerted effort to inspire beneficiaries, especially hand tubewell caretakers and former WSSC members, to promote hygienic practices in their neighborhoods as volunteers Such sharing of knowledge has its power aspect, as the preceding discussion (Section 1.2) of caretakers demonstrates. But it is not the wholesale challenge to the local power structure that the WSSC was.

The idea seems to inspire some energetic local people and may have merit. Evaluation study findings on hand tubewell caretakers sharing their knowledge support the idea.

Things to consider in the near future are:

- Group formation is not an end in itself; people already belong to plenty of groups, including the family. Thus, group formation can be a great waste of beneficiaries' and project staff members' time if objectives are not understood and appreciated by beneficiaries themselves.
- Special attention should be given to areas with the weakest hygiene profiles (NGO/CSC women know which they are) With careful guidance, some people of such areas may be encouraged to take on limited, self-initiated hygiene improvement projects or campaigns. If these are successful, people may be encouraged to devote more of their precious time and energy to local hygiene improvement.
- This may be a good time to activate contacts with existing NGO groups (ASA etc.) and share project materials -- flip charts, brochures with them.

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