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HYGIENE EDUCATION IN BANGLADESH



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Hygiene Education in Bangladesh

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Foreword

T*o maximize the health and socio-economic benefits from water and sanitation programmes the 29th session of the UNICEF–WHO Joint Committee on Health Policy, held in Geneva in February 1992, recommended that the two organizations work towards a joint strategy for hygiene education in water supply and sanitation for the 1990s. This was approved in November 1992.*

A work plan developed for 1993–1994 covers a number of collaborative activities, including the preparation and analysis of seven hygiene education case-studies undertaken in Bangladesh, Turkey, Honduras, Indonesia, Mozambique, Viet Nam and Zambia.

The case-studies will provide background information for the joint strategy document. In addition, the case-

studies will be used by UNICEF to assist in the development of hygiene education guidelines for in-country UNICEF programming. It is intended that the UNICEF guidelines will contribute towards development of the joint strategy (UNICEF–WHO, 1993).

It is widely recognized that hygiene education and hygiene behaviour change are essential if water supply and sanitation programmes are to achieve maximum health benefits. However, the inclusion of hygiene education and communication activities within water and sanitation has frequently been uncoordinated and poorly documented. To date, there has been no consistent hygiene education policy among donors or implementing organizations.

In preparing the case-study on hygiene education in Bangladesh, the International Water and Sanitation Centre was contracted by UNICEF to act as facilitator in a six-day skills workshop for health and hygiene education in Bangladesh, in October 1993. Following this workshop, this case-study was prepared through 20 days of interviews and documentation research among ten different organizations in Dhaka and informal individual and group discussions during two field visits in Bangladesh and 8 days of writing at the International Water and Sanitation Centre.

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Introduction

Hygiene education plus

“Is there any good hygiene education in Bangladesh?” I was asked several times while I was collecting the information for this paper.* Clearly, some doubts were voiced in the question. This paper looks into the current hygiene education activities and experiences, their strengths and weaknesses. But before starting, it is necessary to define what we are talking about. What is hygiene education?

Hygiene education is that part of health education which is concerned with the prevention of diseases related to water and sanitation. A common definition of health education is

**Many thanks are due to the kind and fruitful contributions of UNICEF, Government and NGO staff, and local women and men in the areas visited. A special word of thanks to Mr. Philip Wan, Chief, Water and Environmental Sanitation Section, UNICEF Bangladesh, who coordinated my visit and reviewed the draft write-up. It is hoped that this case-study serves its purpose and will contribute to the development of hygiene education guidelines and the joint UNICEF-WHO strategy.*

from Green et al. (1980): “Health education is any combination of learning opportunities designed to facilitate voluntary adaptation of behaviour which will improve or maintain health.”

This definition implies that:

- Hygiene education is not teaching, but learning.
- Hygiene education is planned, with clear points of departure and objectives to reach.
- Hygiene education helps people to make decisions for themselves and to acquire confidence and skills to put these decisions into practice.

However, if we restrict ourselves to this definition of hygiene education in Bangladesh, we miss out on a challenging experiment that started a few years ago and concerns creating mass support for sanitation through social mobilization. Therefore, this paper will cover both hygiene education and social mobilization experience and actions.

The remainder of this Introduction provides basic background information about the population, health and hygiene situation in Bangladesh. Chapter 1 describes the national Rural Water Supply and Sanitation Programme and its process of change from pure technical implementation of water supply improvements to a broad movement for improved sanitation and health through hygiene education and social mobilization.

Chapter 2 presents an overview of hygiene education activities in Bangladesh; the striking features emerging from the overview are summarized. Hygiene education in schools and non-formal education settings receive attention in

Chapter 3. Chapter 4 discusses organization, collaboration and policy issues. Training is covered in Chapter 5, and Chapter 6 provides an in-depth review of one of the hygiene education/social mobilization activities.

The major learning points from this case-study on hygiene education and social mobilization are summarized in Chapter 7. Finally, the sources of information for this paper are found in the bibliography and the annex. Information was collected through individual and group discussions with government and project staff, NGOs, donor organizations and consultants, local authorities, and men and women in villages. In addition, all relevant documents that I could put my hands on were reviewed. Because an overview of relevant hygiene education in Bangladesh was not readily available, it was necessary to follow an incremental approach, moving from one contact to another and from one report reference to the next. This may have led to imbalances in this write-up.

Population, health and hygiene

Population

Bangladesh has a population of about 120 million people. Population density is one of the highest in the world, with over 8,000 people per 1,000 hectares of land. Over half of the population is below 16 years of age. Even if strict laws enforcing one- or two-child families were to be introduced, the population of the country would still double in the next 30 years. Over 60% of the country's population is below the poverty line.

Health

According to the UNICEF situation analysis of children and women in Bangladesh (1992), half of all deaths in 1991 were children under five years of age. Diarrhoea is one of the major causes of these deaths. Each year there are over 65 million episodes of diarrhoea in children under five years of age, resulting in 260,000 deaths—one third of all child deaths.

Over 90% of children are malnourished by the time they are between 12 and 18 months old. This is not only due to poverty and lack of food, but also to increased exposure to disease.

The poorest 10% of families in Bangladesh spend between 75% and 80% of their total household income on food, generally consume less than 80% of the minimum calorie requirements and are acutely malnourished. The middle 70% of the population spend 60% to 75% on food and are chronically malnourished.

Other common health problems are acute respiratory infections, iodine deficiency disorders and nutritional blindness due to vitamin A deficiency.

Pregnancies that are early and closely spaced, a poor nutritional status and poor health care lead to Bangladesh's having one of the highest maternal mortality rates in the world: 600 per 100,000 live births (UNICEF, 1992).

Education

Although about 77% of children enrol in school, only about half of them attend regularly and almost half of them drop out altogether, especially in the first two years. Access to

education is unequal. People who live in urban areas have greater access than those in rural areas, boys have greater access than girls, and the urban poor are the least likely of all to get any education.

Girls enrol in school at a lower rate and drop out earlier than boys. However, their enrolment is steadily increasing and the boy-girl ratio in primary schools is currently 56 to 44. Nevertheless, only 22% of adult Bangladeshi women are literate compared to 43% of men. The Government has legislated compulsory primary education (UNICEF, 1992).

Water and sanitation

Bangladesh has achieved considerable tube-well water supply coverage. It is estimated that there are some 2.5 million tube-well handpumps in the rural areas, out of which one third are government and two thirds are private tube-wells. A recent national survey (Mitra, 1992) showed that 85% of the rural population and 98% of the households in urban slums and fringes have access to tube-well water within 150 meters. Accessibility to tube-well water increases with socio-economic status. About 90% of the public tube-wells are in operating condition; of the private tube-wells, 96% are.

Improvements in sanitation are lagging behind improvements in water supply. According to the above-mentioned survey by Mitra (1992), sanitary latrine coverage was estimated at 6% in 1987, rising to 10% in 1989, and 26% in 1991. The estimate is 33% coverage for 1993. But this means that 67% of the rural population either are using unsanitary latrines or practising open defecation (assuming that all family members of households with a sanitary latrine use it regularly). About 60% of the sanitary latrines are of the homemade type, while

the remainder are water-seal latrines. In the urban areas, 48% of the population have access to sanitary latrines.

Hygiene behaviour and beliefs

Various studies have been carried out in support of the water, sanitation and hygiene education activities in Bangladesh. Some of these studies included aspects related to hygiene behaviour and beliefs; a brief summary of their findings is given below.

The national survey by Mitra (1992) indicated that 96% of the population use tube-well water for drinking. But despite relatively general access to tube-well water, only 16% of the households in rural areas and 55% in urban areas use this safe water for all personal and domestic needs. Other main water sources are ponds and rivers. Other studies confirm the picture of a general and exclusive use of tube-well water for drinking, while water from ponds and rivers is preferred for cooking, dish-washing, bathing, clothes-washing and other domestic purposes (Kamal and Chowdhury, 1993; Bateman, 1993). Reasons cited for not using tube-well water for purposes other than drinking include: 'tube-well is too far away' (68%), 'tube-well water turns cooked items black and is distasteful', 'boiling requires more time and spots utensils' (32%) and 'washing utensils in the pond is more convenient' (22%) (Kamal and Chowdhury, 1993).

The national survey by Mitra also indicated that although over 90% of families with a sanitary latrine use it regularly, only 10% of children under five and 50% of the older children use the latrine. A recent WHO study found that 25% of the latrines were used by all members of the family

(WHO, 1993). Latrine use is higher and more regular among women and girls than men and boys. Also, people in urban slums and fringes are more likely to use the latrine than people in rural areas (Mitra, 1992). The needs assessment by Kamal and Chowdhury (1993) reports that 24% of men and women do not use the same household latrine. Usually an infant defecates in a bed, napkin, cradle or its mother's lap. In most cases, napkins and clothes are cleaned in ponds, canals and rivers. People having little or no access to these water sources wash these clothes with tube-well water, mostly on the platform. Children one to four years of age defecate on the verandah or in the courtyard or open space near the house. Sometimes small pits are specially made for them. Feces are cleaned away with straw and disposed of in the bush, canal, river or latrine. Feces are also cleaned away with spades and disposed of in ditches. In many cases, feces remain at the defecation site (Kamal and Chowdhury, 1993).

Hand-washing after defecation and before preparing or taking food is a general practice, but is not always followed, especially by children (Abdullah and Boot, 1989). Hand-washing is done with water only, soap, mud (soil) or ash. The survey by Mitra (1992) found that the frequency of hand-washing with only water is very low after defecation (< 5%) and very high before serving or taking food (> 95%). The explanation seems to be that after defecation a lot of people use mud for hand-washing, whereas before touching food nobody uses mud. Bateman (1993) asked the mothers to demonstrate how they wash their hands. Most mothers used water (99%), washed both hands (92%) and rubbed hands at least three times (57%). Fewer mothers used soap, ash or mud (21%) or used a clean rag or air-dried their hands (only 7%).

Several studies show that knowledge about the relations among water, sanitation, hygiene and health is generally low, although most people are aware that drinking unsafe water can cause diarrhoea. Use of a sanitary latrine and washing hands with soap or ash are not often mentioned as measures for protecting health. There is a general belief that worm infestation is caused by eating sugar (Mitra, 1992; 18 District Towns Project, 1991). Bateman (1993) also concludes that knowledge about diarrhoea and the means to prevent diarrhoea is low. Some 22% of the mothers interviewed could not name any cause of diarrhoea, while 36% gave at least one of five traditional causes, such as bad air, evil eye, breastmilk, indigestion and hot temperature. Only 3% of the mothers could name more than two 'medically correct' causes of diarrhoea. Most commonly mentioned by far were the food hygiene-related causes. Almost three quarters (71%) of the mothers could not name even one means of preventing diarrhoea. Those mothers that could name a means of preventing diarrhoea generally knew few.

The results of the study by Kamal and Chowdhury (1993) are a bit more positive about people's understanding of disease transmission. Some 76% of the in-depth interview respondents described a sanitary latrine as: 'flies/mosquitoes/poultry cannot spread bacteria' or 'environment is not polluted'. Some of the perceived advantages of a sanitary latrine were stated to be: '[user] does not become sick' (78%), 'bacteria cannot spread out' (67%) and 'environment is not polluted' (55%). Reasons for diarrhoeal diseases were mentioned to be: 'eating rotten/contaminated food' (77%); 'drinking polluted water and using polluted water for cooking' (54%); 'flies on food' (44%); 'open defecation' (44%); 'not washing hands after defecation and before taking food' (39%).

Mitra's study reports that some 7% of the rural population and 11% of the urban population had received some health information related to water, sanitation and hygiene in the previous three months. The main sources of information were the health system (health and family planning workers, doctors) and the school system (teachers, male and female students). Neighbours and relatives are also important information providers (Mitra, 1992).

In Kamal and Chowdhury's study, a more specific question was asked as to whether people had received any information about sanitary latrines. Dissemination was highest in Banaripara (90%), NGO areas (69%) and Integrated Approach areas with three or more years of intervention (61%), as discussed further in Chapters 1 and 2. The sources of information were primarily the tube-well mechanics (TWMs) and sub-assistant engineers (SAEs) of the Department of Public Health Engineering (DPHE) (40%), NGO workers (18%), health and family planning workers (16%), teachers/students (10%) and friends/relatives/neighbours (9%).

Hygiene behaviour and prevention of diarrhoea

Although not strictly related to the subject of this paper, it would be a pity not to mention some striking information revealed by three recent studies in Bangladesh about the relation between hygiene behaviour and the prevention of diarrhoea.

The baseline study by Bateman (1993) did not find an increased risk of diarrhoea to be associated with using pond water for non-drinking purposes. This may suggest that the common message 'Use tube-well water for all purposes' has a low priority from a health protection point of

view (apart from the fact that such a general message usually does not work from an educational point of view). Bateman unexpectedly found that households living furthest from the tube-wells did suffer less from diarrhoea than households close to a tube-well. A qualitative follow-up study revealed that those who live nearest the tube-well frequently used their unwashed, cupped hands to drink directly from the handpump. People nearest to the tube-well also were more careless about safe water storage, often using an open jug, whereas those living farther away were more likely to use a traditional kolosh or earthenware pot with a lid or cover. A more general finding was that people sometimes mix tube-well water with pond water because they believe tube-well water to have a purifying effect (Zeitlyn, 1993).

Another clear outcome of the baseline study by Bateman (1993) is that latrine use is the key measure for diarrhoea prevention. Not surprisingly, it is much more important than latrine access. The risk of diarrhoea is related to the number of family members that usually use latrines and to exclusive latrine use. In addition, contamination inside and around latrines is an important risk factor for diarrhoea. Another finding of the same study is that diarrhoea rates were lower in households where the mother knows 'correct' causes of diarrhoea. And inversely, attributing diarrhoea to one or more traditional causes was associated with increased rates of diarrhoea. The study also indicated that using soap, ash or mud for hand-washing and using a clean rag or air-drying hands is associated with decreased rates of diarrhoea.

Hoque and Briend (1990) made a comparison of local hand-washing agents in Bangladesh. The study showed that mud and ash were as efficient as soap in reducing hand con-

tamination. Washing hands with plain water was apparently less effective than washing with agents, but nevertheless reduced contamination. The results of this study are consistent with earlier studies that suggest that the effectiveness of hand-washing is determined more by its thoroughness and by the time taken to clean the hands than by the type of soap or water used (Sprunt et al., 1973).

I.

From physical implementation to social mobilization

This chapter focuses on the major developments and aspects of hygiene education and social mobilization under the national Rural Water Supply and Sanitation Programme. A chronological overview was chosen to be able to discuss and highlight major issues in the most insightful manner.

Need for a new approach

Since independence in 1971, the Government of Bangladesh has been implementing a Rural Water Supply and Sanitation Programme. The programme is implemented by the Department of Public Health Engineering under the Ministry of Local Government, Rural Development and

Cooperatives (MLGRDC). The programme receives support from UNICEF, with funds from various donors—mainly, Denmark and Switzerland.

In the early years of the Rural Water Supply and Sanitation Programme, all the programme's efforts were concentrated on the provision of safe water through the installation of tube-wells with handpumps. Latrine construction received much less attention. It was not a need the population felt strongly.

Although the number of tube-wells increased tremendously, the expected health benefits did not materialize (see also Introduction). It was realized that provision of handpumps alone was not enough to meet the challenge. Safe water, safe excreta disposal and improved hygiene have to go hand in hand. For that reason, the Integrated Approach was developed. It was started in 1986 on an experimental basis in two thanas (previously called *upazilas*) and is now being expanded to cover the whole country by 1995.

The Integrated Approach

The Integrated Approach combines water supply, sanitation and hygiene education in the group of households that applies for a tube-well handpump. The immediate objectives are:

- To motivate the members of the tube-well applicant groups to practise safe excreta disposal by installing and using hygienic pit latrines;
- To motivate the group members to adopt important hygienic practices such as hand-washing after

defecation and before eating, serving or preparing food;

- To provide tube-wells to the applicant groups who best realize the first two objectives (Government of Bangladesh–UNICEF, 1988).

During the first years of the Integrated Approach, construction of latrines and improvement of hygiene practices were a precondition for tube-well installation. But this rule was never forcefully applied, and has recently been formally eliminated, although the practice persists. The reason for the 'mixed signals' regarding latrine construction as a precondition for tube-well installation is that although requiring construction of latrines was intended as a lesson in the interrelation of water supply, sanitation and hygiene education, the point of the lesson was often lost as latrines were built with no thought in mind but that of obtaining a tube-well.

Characteristic of the Integrated Approach is the involvement of thana- and union-level authorities, government staff from health, education and agriculture, schoolteachers, NGOs, political leaders and others. Through thana- and union-level seminars, they are invited to help with distribution of tube-well application forms, education and motivation of applicant groups, and to continue promoting hygiene education and sanitation once the tube-well has been installed. Recently, separate women's seminars were added to facilitate the active participation of women. These seminars are held once, at the start of the Integrated Approach in a new thana. Sectoral meetings are held to brief NGO, Health Department and other organizations' and departments' field staff. Finally, the SAE maintains regular con-

tact with all interested parties to further encourage their involvement and to keep them informed of progress.

After a three-year pilot phase, the Integrated Approach was reviewed in 1989. The three most successful thanas were selected in order to get an idea of the potential of the Integrated Approach. The review documented the following points regarding the hygiene education component of the Integrated Approach.

- Just over 60% of the applicant group households remembered having received hygiene education, either once or several times, on one or more health topics related to water and sanitation.
- The hygiene education provided is very rudimentary, and mainly consists of imparting broad messages such as 'construct and use a hygienic latrine', 'wash your hands with soap or ash', and 'use tube-well water for all domestic purposes'.
- General health messages do not work, even when they are disseminated through person-to-person contact. For example, people do not act on the general message to use tube-well water for all purposes. More specific and relevant messages and activities are needed to make hygiene education effective.
- In most thanas, the TWMs and SAEs are the main hygiene promoters. Attempts to interest other parties in filling this role appear to fail because others do not like 'doing DPHE work' since 'DPHE prefers to be in full command'.

- The involvement of the health assistants (HAs) never developed beyond individual cases of cooperation, although both DPHE and the Ministry of Health and Family Welfare (MOHFW) acknowledged the need for cooperation. DPHE wished to cooperate in order to take advantage of MOHFW's comparatively large reservoir of field staff; MOHFW sought to cooperate because control of diarrhoeal diseases is one of its priority concerns and hygiene education part of the regular duties of its staff. However, in practice, cooperation between DPHE and MOHFW was never seriously tried.
- Monitoring, supervision and training of those responsible for providing hygiene education is minimal. If SAEs and TWMs are to be successful hygiene educators, they will need training in motivational and pedagogic skills. Higher-level DPHE levels will need training in hygiene education planning, management and organization.
- The success of the Integrated Approach depends on the personal commitment of the SAEs and TWMs, and on the active support of the thana nirbahi officer (TNO) (Abdullah and Boot, 1989).

The study also recorded the widespread opinion that TWMs cannot be good hygiene motivators because of their low level of education (most have only a secondary school certificate), their low status, and, thus, their lack of credibility and power to convince people. But the pilot Integrated Approach showed that with the day-to-day guidance of the SAE, TWMs can be good motivators when they feel personally committed to the aims of the Integrated Approach, when they feel comfortable talking with men and women at

the tube-well site and when they have confidence in performing motivational tasks. A TWM who meets these conditions can even find ways to involve women who observe purdah. The problem, however, seems to be that there are not many TWMs of that sort. While some optimistically estimate that 50% or so of the TWMs, given the right guidance, can do some motivational work, others believe that a TWM who is also a good motivator is the exception rather than the rule.

Over the years, the Integrated Approach has been implemented in more and more thanas. Although no evaluation has been carried out up till now, it seems safe to say that the hygiene education component has not risen above the rudimentary level of attempting to motivate latrine construction. Training in hygiene education remains minimal, as do supervision and monitoring of hygiene education activities.

A recent study by Kamal and Chowdhury (1993) compared thanas in which the Integrated Approach had not yet been implemented with those where it has been in place for more than three years and those to which it was introduced more recently. The study concluded that in thanas where the Integrated Approach has been implemented for more than three years, although dissemination of knowledge of personal hygiene remains limited, there has been progress in providing information regarding sanitary latrines. The study found that so far as concerns the impact of the hygiene education component on thanas, less than three years of the Integrated Approach and none at all were the same. This study also documented the fact that when a thana's SAE and four TWMs are active, the programme gets promoted.

Sanitation promotion under the Integrated Approach targeted only households in groups applying for tube-wells, but

during the 1990s, efforts to promote sanitation increased significantly and various strategies for intensive promotion of sanitation and several school sanitation programmes were implemented in a number of thanas.

Intensive promotion of sanitation

In Banaripara Thana, intensive promotion of sanitation took place from April 1990 to December 1991. The activities involved in this intensive promotion differed in three ways from those pursued in connection with the sanitation component of the Integrated Approach:

1. There was active participation of thana- and union-level authorities; fieldworkers from family planning, social services, agriculture, public health and education departments; NGOs; Ansar-Village Defence Parties; and, especially, teachers and students from secondary schools and madrasahs.
2. All households were targeted for latrine promotion, not just those in tube-well applicant groups.
3. There was less emphasis on hygiene issues and behaviours not directly connected to sanitation.

The intensive promotion of sanitation in Banaripara resulted from a number of interrelated factors. Banaripara's SAE, having taken a serious interest in sanitation, together with a similarly minded TNO, initiated a series of activities backing up their decision to do something 'different from the other thanas'. For example, they divided each union into 20 areas. On a particular day, 20 groups, each consisting of some 12

field staff from the various departments, went to a designated area and organized 'courtyard meetings' with 20–25 families to discuss sanitation and other health issues. In this way, Banipara's population was covered in a single day.

Banaripara's SAE and TNO also organized a large march promoting sanitation on a market day and distributed to all secondary schools a leaflet with instructions for building a homemade latrine. An accompanying letter suggested constructing a demonstration latrine on school grounds.

Banaripara's deputy commissioner contributed to the success of the intensive sanitation promotion with the promise of an award for the school doing the most to destroy unsanitary latrines and construct sanitary latrines. The students were to build sanitary latrines for their own homes and motivate at least one neighbour to do the same. The deputy commissioner also addressed an open letter to individuals and institutes requesting that they help each other build sanitary latrines. The letter included a reminder that owners of unsanitary latrines were subject to fines. According to the SAE, the letter was very helpful in convincing people to construct sanitary latrines. Unfortunately, unwise use of the letter by some promoters led to needless destruction of hanging latrines and to reliance on fear rather than enthusiasm for sanitation as a motivation for latrine construction.

At the end of the campaign period, sanitation coverage was estimated to be around 80%. Local staff report that rain damage and improper construction make it impossible to maintain this level of coverage, however.

Two quick evaluations have been carried out to learn from this mass mobilization experience (Hoque et al., 1992;

UBINIG, 1993). These evaluations reveal the need to learn more about avoiding the appearance of coercing cooperation in latrine-building activities, ensuring the sustainability of achievements, and involving health workers, imams and other local leaders in promoting sanitation.

Gournadi Thana's intense promotion of sanitation did not employ dramatic strategies like Banaripara's one-day campaign or its march. Gournadi is one of the successful pilots of the Integrated Approach, and intense sanitation promotion in Gournadi differed from the Integrated Approach only in targeting the thana's population as a whole for sanitation promotion rather than just households applying for tube-wells. As in Banaripara, competition among high schools for a latrine-building award proved to be a successful strategy. The winning school divided itself into teacher-led groups of 20 students, whose motivational visits to area households resulted in the construction of 1,200 sanitary latrines, raising coverage to an estimated 60%.

Gournadi's SAE and TWMs had maintained the commitment and enthusiasm inspired by the thana's being chosen for a pilot Integrated Approach programme, but on the whole, participation by local authorities and field workers of other departments in intense sanitation promotion was much less than in Banaripara.

Ramgoti Thana's intensive sanitation promotion (discussed in detail in Chapter 6) was carried out by an NGO as was Kushura Union's in Dhamrai Thana. In Ramgoti, the whole thana was covered at the same time; in Kushura Union the NGO used an incremental approach, using meetings followed by group discussions and then house-to-house visits as the main methods of communication in its one-village-at-

a-time strategy. Kushura's programme is notable for its special effort to involve women as active contributors. It is the only example among Rural Water Supply and Sanitation Programme activities where hygiene education has been given serious, creative attention. Little stories and examples were used to discuss the health and social benefits from improved sanitation. Not only diarrhoea, but also other common diseases, such as worm diseases, caused by poor sanitation, received attention. Non-users of sanitary latrines were brought into contact with users of sanitary latrines for a direct exchange about the use and benefits of sanitary latrines (UNICEF Bangladesh and Department of Public Health Engineering, 1993b; UNICEF Bangladesh, 1993a).

In addition to these thana- and union-level activities, DPHE and UNICEF together organized national-level workshops and meetings to create broad political and social support for sanitation. The inauguration of a national conference on 'Social Mobilization for Sanitation' by the Prime Minister in February 1992 showed that sanitation had become an issue of national importance.



Figure 1. This sanitation logo was launched by the Prime Minister at the national conference on 'Social Mobilization for Sanitation' in February 1992.

The increasing efforts towards and experiences with sanitation promotion culminated in the Social Mobilization for Sanitation Project. Costing US\$3,962,652, this project is part of the Rural Water Supply and Sanitation Programme with a total budget of US\$61,278,652 for 1992–1995. The objectives of the programme are stated in Box 1.

Box 1

Objectives of the national Rural Water Supply and Sanitation Programme carried out by DPHE with support from UNICEF

The general objectives of the present phase (1992–1995) of the UNICEF–assisted water supply and environmental sanitation programme are to help the Government:

- 1) Reduce the incidence of diarrhoeal diseases and parasitic infections in children by further expanding clean water facilities integrated with improved sanitation and promotion of personal hygiene; and
- 2) Strengthen its national capacity to provide water supply and sanitation facilities for rural areas and urban slums and fringes in a way that will achieve the maximum possible health impact, and with particular emphasis in the underserved coastal and low-water-table areas, and on behavioural change in sanitation and hygiene practices.

The specific objectives linked to general objective 1) are:

- a) Increase use of tube-well water for all domestic purposes;
- b) Increase regular and sustained use of sanitary latrines by all family members;
- c) Improve domestic hygiene habits practised by all family members

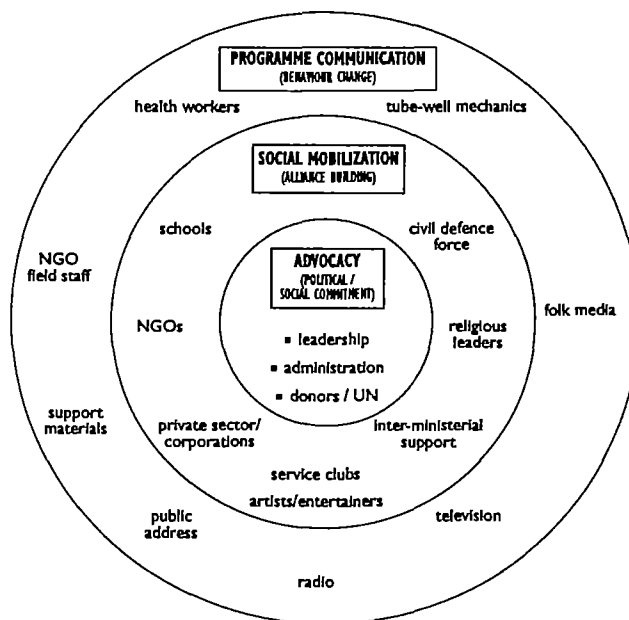
The specific objectives linked to general objective 2) are:

- d) Enhance long-term financial sustainability of the programme by the Government of Bangladesh;
- e) Strengthen the capability of DPHE and allies, particularly in the 'software' component of the programme;
- f) Promote the growth of the private sector;
- g) Increase community participation.

(Department of Public Health Engineering and UNICEF, 1992)

Social mobilization for sanitation

The Social Mobilization for Sanitation Project involves more than its name indicates. In fact, it concerns a communication strategy including advocacy, social mobilization and programme communication as shown in Figure 2.



Source. McKee, 1992.

Figure 2. Communication strategy for sanitation for all in Bangladesh

McKee (1992) defines these three communication processes as follows:

Advocacy consists of the organization of information into arguments to be communicated through various interpersonal

and media channels with a view to gaining acceptance from political and social leaders and preparing a society for a particular development programme.

Social mobilization is the process of bringing together all feasible and practical intersectoral social allies to raise people's awareness of and demand for a particular development programme, to assist in the delivery of resources and services and to strengthen community participation in order to increase sustainability and self-reliance.

Programme communication is the process of identifying, segmenting and targeting specific groups/audiences with particular strategies, messages or training programmes through various mass media and interpersonal channels, traditional and non-traditional.

Advocacy consists of a large number of what are traditionally known as information and public affairs activities, such as lobbying with decision makers through personal contacts and direct mail; holding seminars, rallies and news-making events; ensuring regular newspaper, magazine, television and radio coverage and obtaining endorsements from popular people. The goal of advocacy is to make the programme a political or national priority that cannot be swept aside with a change in administration.

Social mobilization involves the creation of a social movement for a particular programme by mobilizing all kinds of allies at the national, regional and community level. It is less concerned than advocacy with direct behavioural change. Rather, the aim is to create a demand, in this case, for sanitation improvements, and thus a favourable climate for behavioural change. Social mobilization is the glue that

binds advocacy activities to more planned and behaviour-oriented communication activities.

Programme communication comes closest of the three communication processes to being exemplified by what we have defined as hygiene education. Programme communication is the process of facilitating behavioural change, using all available communication channels. Successful instances of programme communication are those that are well planned and based on a sound baseline and assessment of needs, are specific and relevant to their target groups and rely heavily on interpersonal communication and motivational efforts by community-based workers and volunteers.

The communication strategy of advocacy, social mobilization and programme communication has been employed until now mainly for the UNICEF-supported expanded programme on immunization. Thus, using this strategy for sanitation is quite a challenge and will provide valuable experience for programmes in other countries. McKee warns that changing hygiene practices is more difficult than convincing parents to have their children immunized and thus may take more time. It is essential that we establish political will through advocacy, that we mobilize a wide spectrum of allies in order to make a difference and that we have field-workers at community level well-trained to motivate behavioural changes (McKee, 1992; 162–173).

The name 'Social Mobilization for Sanitation Project' may thus be a bit misleading. The project covers advocacy, social mobilization and programme communication with the objective of improving excreta disposal and personal hygiene practices and of promoting the use of safe water for domestic purposes in order to reduce diarrhoeal disease and

improve the quality of life of the rural communities (Government of Bangladesh–UNICEF, 1993a).

Activities aimed at meeting these project objectives have been developed on the basis of a series of planning workshops by DPHE/UNICEF with participation of NGOs, UN agencies and consultants. The MOHFW did not take part in this process. Nearly one hundred activities have been planned, and the complex overall strategy may be somewhat difficult to appreciate for persons who have not been part of the planning process. Basic components of the project are:

- *Needs assessments and other research.* Under this heading, several studies have been carried out and others will follow to support the development of the project. Examples are the ‘Needs Assessment for the Sanitation Programme’ by Kamal and Chowdhury (1993), the ‘Sanitation Training Curricula Review/Needs Assessment’ by Development Planners and Consultants (1993), and forthcoming studies on hand-washing and on water contamination occurring between collection and ingestion.
- *Programme communication development.* Based on literature reviews, small village studies and small communication development projects, a core communication package will be prepared for use by field staff, primarily TWMs but also all other interested allies. The project proposal states: “Clear and specific messages and materials will be developed, prioritized and standardized, focusing on positive behaviour change” (Government of Bangladesh–UNICEF, 1993a; 19). In addition to interpersonal communication through field staff, mass media will be used for the promotion of sanitation.

- *Advocacy and support to allies.* Advocacy and the cultivation of alliances will continue to play an important role, based on the experience gained in previous years. Workshops and orientations will be organized in order to interest political leaders at all levels in actively supporting sanitation promotion. Personnel from health and education, NGOs, religious leaders, schoolteachers, service clubs (e.g., Lions), and Boy Scouts and Girl Guides will be mobilized to join promotion and education activities. The most important allies may differ from area to area, but it is envisaged that schoolteachers and NGOs will usually be the major ones.

- *DPHE capacity-building.* A number of activities will be carried out to strengthen DPHE's capacity in non-engineering aspects. A Social Mobilization Division and a Communication Training Division will be established (see Chapter 4). Emphasis will be on increasing the motivation and communication skills of field staff as well as on increasing their levels of information regarding sanitation and hygiene and their sensitivity to community and gender issues (Government of Bangladesh–UNICEF, 1993a; 23).

The project is still in its early stages, and it is difficult to predict the nature and results of the hygiene education activities. There are indications, however, that we should be modest in our expectations. The project is to be implemented by an engineering department, and TWMs will be the backbone in implementation. Their training will consist of only two sessions of seven days each, and their involvement will be subject to the same difficulties discussed earlier. (The project document mentions the appointment of 50

female community sanitation promoters by DPHE, but their role remains unclear.) Under the circumstances, it is understandable that the communication package is focused on dissemination of messages rather than on a learning approach that emphasizes problem-solving, decision-making and action. It will be interesting to see to what extent this approach succeeds.

Under the umbrella of the Social Mobilization for Sanitation Project, and as a follow-up to the intensive promotion of sanitation initiatives, UNICEF has granted a contract to the NGO Forum for Drinking Water Supply and Sanitation to carry out “social mobilisation and intensive hygiene and sanitation education through interpersonal communication with hundred percent population in 20 thanas (1,217,000 households)” (NGO Forum, 1992). The hygiene education part looks very bleak and comparable to the one in the Integrated Approach, and the main objective seems to be 100% sanitation coverage through the promotion of home-made and water-seal latrines. How activities are to be coordinated with local DPHE staff remains unclear. The estimated costs are remarkably low, just over US\$300,000.

2.

Overview of hygiene education activities

What hygiene education is there in Bangladesh? Finding out was not always easy, and what was found was not always encouraging. This chapter presents an overview of current hygiene education activities, except for hygiene education activities in formal and non-formal education. These are covered in Chapter 3. This overview is based on an unsystematic investigation, starting from UNICEF-supported activities, and the degree to which it can claim to be comprehensive is problematic.

A total of eight hygiene education activities, including those discussed in Chapter 1, have been examined. The first section below presents a summary of the main aspects in a structured format to allow for a quick overview and to

permit some measure of comparison. Striking features that emerged in preparing this overview are discussed in the second section of this chapter.

Summary of activities

The Government of Bangladesh adopted the primary health care (PHC) strategy for achieving the goal of 'Health for All by the Year 2000'. Health education is an important component of PHC and health assistants (HAs), family welfare assistants (FWAs), and assistant health inspectors (AHIs) are the staff directly engaged in health education for individuals, families and community groups. Health education includes subjects like immunization, family planning, diarrhoea treatment and prevention of water- and sanitation-related diseases. Recently, the MOHFW initiated a strategy of intensified PHC in order to develop a sustainable and integrated health care system with active community involvement at the grass-roots level. Village health volunteers, preferably women, are selected by clusters of 30–50 households and trained for four days to carry out minor health care services, including hygiene education for the prevention of diarrhoea (Government of Bangladesh, n.d.).

In addition to these regular health education activities (although the word 'regular' may be a bit misleading, as we will be discussing in the following section and in Chapter 4), there are a number of specific hygiene education activities by MOHFW, MLGRDC, and NGOs. These activities are financially supported by foreign donors in degrees ranging from 100% for NGO activities to 14% foreign support for the activities of the Bureau of Health Education (BHE). Table 1 presents a summary of some major aspects of the hygiene education activities

Table 1. Summary of major aspects of hygiene education activities

Project/ Programme	Implementing organization	Geographical coverage/No. of households	Start/ Finish	Hygiene education characteristics	Staff inputs	Reported results	Financial costs
INTEGRATED APPROACH, under Rural Water Supply and Sanitation Programme (see Chapter 1)	WSSC with UNICEF support	Presently active in 355 thanas	July 1986 start of pilot project in 2 thanas. Gradually expanding to all thanas in 1995.	As part of tube-well installation, promotion through face-to-face contact and a few visual materials of use of tube-well water for all domestic purposes, safe disposal of human excreta and improved personal hygiene. Messages are broad and general.	<ul style="list-style-type: none"> ■ Regular WSSC staff, especially SAs and TMs (nearly all male). ■ Limited inputs and support from local authorities, Government departments, and others 	Figures for 1992-1993. <ul style="list-style-type: none"> ■ thana-level seminars: 81 ■ union-level seminars: 387 ■ sectoral seminars: 230 ■ women's seminars: 181 ■ number of latrines installed per tube-well: 7 (estimate) 	US\$70,000 (estimate) on a yearly basis
INTEGRATED APPROACH FOR SANITATION, under Rural Water Supply and Sanitation Programme (see Chapter 1)	WSSC with UNICEF support	3 thanas in Barisal District. Example taken from Banaripara Thana with 23,227 households	April 1990-December 1991	Promotion of construction and use of sanitary latrines through mobilization and participation of thana- and union-level staff, AScars and teachers and students of secondary schools and madrasahs supported by the IC and the TIO	Regular WSSC staff with active contributions from parties mentioned above	About 80% latrine coverage at the end of the campaign.	Part of US\$70,000 annual costs for Integrated Approach
INTENSIVE SANITATION AND HYGIENE PROMOTION PROGRAMME, under Rural Water Supply and Sanitation Programme (see Chapter 6)	WSSC (an area-based NGO) with support from UNICEF	1 thana (Rangaiti), 56,549 households	July 1992-September 1993	Interpersonal communication with female members of individual households. Meetings with male household members and other more general meetings. Emphasis on latrine promotion	<ul style="list-style-type: none"> ■ 133 locally recruited WSS (70% female, 30% male); ■ 7 locally recruited FSA (6 male, 1 female); ■ 1 thana sanitation coordinator (male); ■ 1 Dhaka-based sanitation programme coordinator (male) 	<ul style="list-style-type: none"> ■ (female) household visits: 226,548; ■ male meetings: 42,878; ■ school/madrasha meetings: 996; ■ mosque meetings: 684; ■ health committees: 645; ■ health committee meetings: 1,567; ■ other meetings: 2587; ■ latrine coverage: 16% to 59%; ■ ash/soap washing: 4% to 74%; ■ tube-well water for all purposes 	US\$109,540

Table 1. Summary of major aspects of hygiene education activities (continued)

Project/Programme	Implementing organization	Geographical coverage/No. of households	Start/Finish	Hygiene education characteristics	Staff inputs	Reported results	Financial costs
SOCIAL MOBILIZATION FOR SANITATION under Rural Water Supply and Sanitation Project (see Chapter 1)	DME with UNICEF support	Country-wide with focus on rural areas	July 1992–June 1995	Hygiene education is part of programme communication for which core communication package will be prepared. Somewhat more specific messages and materials will be developed, based on literature and field studies. Interpersonal communication and mass media will be used. Emphasis will probably be on latrine promotion.	At field level: <ul style="list-style-type: none"> ■ 1,840 twins (nearly all male); ■ 50 DME community sanitation promoters (all female); ■ interested field staff from other organizations, ■ NGOs in 20 thanas. Above field level: <ul style="list-style-type: none"> ■ regular DME staff plus 1 senior communication and training officer, 5 communication training officers and 5 training consultants 	Project is in too early a phase for results other than completed needs-assessment studies. The project document states about 100 expected outputs related to: <ul style="list-style-type: none"> ■ needs assessments and other research, ■ programme communication development, ■ advocacy and support to allies; ■ DME capacity-building. 	US\$3,962,652 (including US\$200,000 for preparatory phase). This is 6.4% of the budget for the total programme.
FAMILY HEALTH EDUCATION PROGRAMME	Bureau of Health Education, Directorate General of Health Services	Country-wide	July 1991–December 1996	Reaching families with health messages related to the use of safe water and sanitary latrines, personal and home hygiene, prevention and control of common ailments, home gardening and animal-raising for improved diet, family planning, and use of health care system. Emphasis on overcoming ignorance, use of broad messages and mass media in addition to routine home visits with visual materials by IM.	<ul style="list-style-type: none"> ■ regular health staff, through the existing health infrastructure. 	No results reported.	US\$1,000,000, with financial support from the Netherlands.

Table 1. Summary of major aspects of hygiene education activities (continued)

Project/ Programme	Implementing organization	Geographical coverage/No. of households	Start/ Finish	Hygiene education characteristics	Staff inputs	Reported results	Financial costs
INTEGRATED/ URBAN BASIC SERVICES	1600 plus City Corporation (big towns) or Municipality (smaller towns) with support from UNICEF	Poor areas in 4 big and 21 smaller towns covering 31,467 households. Activities in 5 towns recently started.	1985— ongoing	Dissemination of basic messages related to water, sanitation, cleanliness, family planning, immunization, nutrition and treatment of minor ailments through individual and group discussions. One begins by going from door to door until people know her and come to her.	At community level: ■ 581 CWs (volunteers, all female, 1 per 50–100 households), guided by 72 community organizers (from NGOs). Above community level: ■ project implementation committee consisting of Paurashava staff from health, family planning, education, NHS, etc. and Paurashava authorities.	■ 340 CWs trained for 3 weeks; ■ increase in number of tube-wells, latrines, dustbins, streetlights, drains, footpaths, etc. ■ some indication that people grasp the general importance of cleanliness.	US\$435,000 for 1993–1995. 26% of the budget is for FIC, including installation of tube-wells and latrines, training and pocket money for CWs, essential drugs and growth monitoring equipment.
18 DISTRICT TOWNS PROJECT for Water Supply and Sanitation	one/ro (Paurashava Water Supply Section and Paurashava Health Section) with Netherlands support	18 towns spread over the country, differing in size from 30,000 to 100,000 population	1989–1995, but extension planned for two years	Group meetings with use of flipchart. Dissemination of broad and general messages, such as: ‘Use safe water for all domestic purposes’; ‘Wash your hands with soap or ash’; ‘Use sanitary latrine’; ‘Throw garbage always in the same hole’ Promotion of latrine construction is separate from hygiene education.	■ Paurashava Health Section — sanitary inspector (if appointed) and vaccinators; ■ WOs (mainly female); ■ 1 project-based local hygiene educator (female); ■ 1 project-based foreign hygiene educator (female); ■ occasional inputs from MA and FWA of Thana health complex.	■ 260 staff trained for 2–3 days; ■ some indication that safe water is used for all domestic purposes except bathing and washing clothes.	Per town 5%– 10% of the budget is for hygiene education and women’s involvement. Expenditure up till now has been minimal. (Estimated hygiene education costs in Mugera Town are US\$18,000.)

Table I. Summary of major aspects of hygiene education activities (continued)

Project/ Programme	Implementing organization	Geographical coverage/No. of households	Start/ Finish	Hygiene education characteristics	Staff inputs	Reported results	Financial costs
SANITATION AND FAMILY EDUCATION (SAFE) Pilot Project	CARE-Bangladesh, with research support from ICDDR,B	16 villages, containing 9,141 house- holds, chosen from 2 unions belonging to separate thanas in Chittagong District.	January 1993 -June 1994	Promotion of appropriate hygiene behaviours by means of effective, replicable participatory methods. Development of specific and relevant hygiene education messages and activities geared to local beliefs and practices. Testing of various communication channels, including tube-well caretakers, key community opinion-shapers and schools	At field level: <ul style="list-style-type: none"> ■ 13 field extension staff (11 female, 2 male); ■ 2 project officers (male); ■ 1 training officer (male); ■ 1 project manager (male) At CARE HQ level: <ul style="list-style-type: none"> ■ 1 project coordinator (female); ■ 1 programme development officer; ■ 1 technical officer/data manager 	Limited results of project's early phases include: <ul style="list-style-type: none"> ■ baseline study completed; ■ hygiene education materials for schools prepared and tested. Expected results include: <ul style="list-style-type: none"> ■ 240 caretakers and spouses trained in hygiene education; ■ improved maintenance of tube-wells and latrines in project area; ■ 50 community leaders trained in hygiene education; ■ 13 field extension staff members trained; ■ introduction of health/hygiene-related school curriculum; ■ distribution of training materials for community-based hygiene education; ■ implementation of system for monitoring and evaluating hygiene education and behavioural change. 	US\$237,940 (from CARE-USA funds).

examined. The NGO Forum activities have not been added to the overview, as they do not add much to the general picture of hygiene education activities under the Rural Water and Sanitation Programme. It should be noted that under the heading 'Reported results' only immediate reported results or expected results are mentioned, not verified results, impact or outcome.

Striking features

Where is the Ministry of Health?

One would expect the MOHFW to play a major role in any hygiene education activity, but nothing appears to be less true. Instead, the TWMs (whose effectiveness is generally questioned), NGO staff, trained volunteers, and other interested parties are relied on as major actors in interpersonal communication and motivation for behavioural change. The only exception is the Family Health Education Programme of the Bureau of Health Education, and this does not have a link to water supply and sanitation.

The general assumption, supported by studies and personal communication, is that health and hygiene education is not a priority within MOHFW. There is, in fact, no directive from higher levels to carry out hygiene education, and many members of the field-level staff simply do not consider it as one of their duties. It is little wonder, then, that so few field-level staff feel committed to carrying out their educational tasks. Their attempts to do so would, in any case, face such obstacles as a lack of initial training (especially in communication skills), refresher courses and in-service training, or super-

vision and monitoring to improve performance. In addition, both field allowances and provisions for transportation to work sites are insufficient.

A study by the Bangladesh Rural Advancement Committee (BRAC, 1990) provides a vivid account of the thana-level obstacles faced by health programmes, including those in hygiene education. For example, it was found that HAs do not devote even one hour a week to health education. And, the report notes, "What is more frustrating is the way health education is delivered. What HAs delivered was very superficial and too often given in a very haphazard way. They never tried to make mothers participate: it was one-way communication. HAs did not seem to care whether mothers learned. In turn, the mothers were not interested in what the HAs were saying" (BRAC, 1990; 12). On the same page an example is given of how HAs work: "The HAs only have to see an adult in the house ... they would start saying: 'keep your house neat and clean, it is very important', 'include enough vegetables in your diet', 'use latrines—they are easy to build', and so on. This health education is given as if they are reciting from a verse."

Health education given by health field-level staff focuses on the expanded programme on immunization (EPI) and family planning. As one staff member pointed out: "the action is where the money goes". But, then, why doesn't money go to hygiene education? The EPI and family planning programmes are considered a success, so lack of cost-effectiveness cannot be the reason. And diarrhoea, worm and skin diseases are serious problems, so lack of need cannot be the reason either.

This case-study did not allow for a thorough investigation of the underlying reasons for the striking absence of

MOHFW participation in hygiene education activities related to water supply and sanitation. One thing is clear, however: nobody seems to be interested in giving it a serious try. Not MOHFW, because it does not consider hygiene education a priority activity. Not DPHE, because it considers MOHFW to be “busy with their own things”. Even donors and NGOs, who agree that the MOHFW should play a key role in hygiene education, do not press the issue (see Chapter 4).

How planned and participatory is the hygiene education?

Disregarding social mobilization activities for the moment, most hygiene education activities do not seem to meet the requirements of good or effective hygiene education. As discussed in the Introduction, good hygiene education is planned and involves the participation of those being educated. Good hygiene education involves the creation of learning opportunities designed to facilitate decisions and choices and designed to promote the acquisition of skills for behaving in ways that will protect one’s health.

When it is said that good hygiene education is planned, part of what is meant is that hygiene education should start with a baseline study and an assessment of needs, with an understanding of local perceptions, practices and problems, and with a list of feasible and relevant options for improving hygiene practices. Although most of the hygiene education activities considered in Chapter 1 did start with some kind of baseline study, the data collected seem scarcely to have been used in designing a practical plan for hygiene education. This is not unique for Bangladesh. It is, unfortunately, a common problem. In part, the unfortunate lack of connection between baseline studies and the design of practical

plans for hygiene education may result from the fact that such studies usually take the form of questionnaires and, like all questionnaires, provide information only about matters the investigator already knows enough to ask about. But it is probable that there is a deeper problem: the lack of imagination, skills and institutional will to translate findings and insights into a meaningful combination of learning opportunities.

As a result, most hygiene education activities just consist of telling people what to do, with or without the help of a flip chart or other visual materials. Messages are generally non-specific, for a non-specific audience, and it is common practice to emphasize the importance of reaching women without a critical analysis of what is needed and desirable. Within its limited framework, the Intensive Sanitation and Hygiene Promotion Programme (ISHPP) tried to deal with some of these problems. Thus, the fieldworkers did not promote the use of tube-well water for all domestic purposes, but rather discussed practical options, such as rinsing cups and utensils with sufficient tube-well water after washing them in pond water. Also, realizing the importance of male involvement, they started to organize men's meetings (see Chapter 6).

Usually, though, hygiene education messages and materials are to a great degree focused on the promotion of latrine construction and use, hand-washing with ash or soap and on the use of tube-well water for all domestic purposes, in order to prevent diarrhoea. Food and personal hygiene receive much less attention, and although skin diseases and diseases caused by worms seem to be a real problem, they are seldom brought into the discussion.

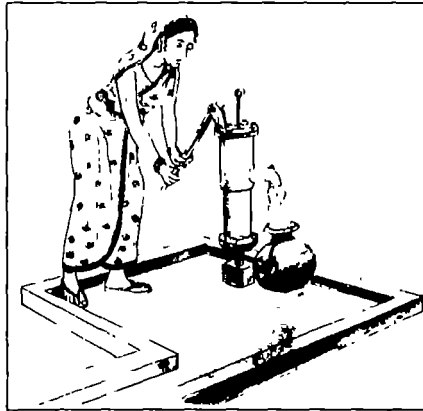


Figure 3. Promotion of tube-well water for all domestic purposes

The messages do not appear to have been tested. Although all the visual materials were reported to have been tested, not all were tested thoroughly, and most were tested only in order to determine whether they were understood and culturally acceptable. They are not tested to determine their suitability as educational tools.

Flip charts appear to be very popular in Bangladesh. But the number of them in use—10 different flip charts were collected in one week—may signify a lack of ideas for alternatives. In addition, there are some posters, leaflets, stickers, etc. Although no systematic investigation has been made on the subject, it seems safe to say that such materials are designed to convey information rather than to inspire action. Thus, these materials reinforce the ‘telling’ or ‘teaching’ way of hygiene education.

An additional drawback of flip charts is their tendency to be used in a mechanistic and inflexible way. Starting from the first picture, the educator/motivator continues to the last, irrespective of the interest and questions of the audience. One of the drawbacks of using leaflets is the fact that many people cannot read. An example of a useful leaflet is provided by a booklet linking hygiene and religious issues that NGO Forum prepared for imams to be used as a source for material for their speeches.

With not much planning and not much hygiene education that goes beyond merely imparting information, it is not surprising that most hygiene education activities do not have specific objectives or clear plans of action. When this is added to the minimal training (see Chapter 5) and professional supervision fieldworkers receive, doubts about the effectiveness of most of the hygiene education activities are inevitable. Indeed, it is likely that hygiene education activities, flawed by the drawbacks discussed, are effective only for promoting the construction and (to a lesser extent) use of latrines in areas where, because of local conditions and preferences or social pressure created by fieldworkers or local authorities, people are predisposed to be receptive. It was learned from interviews that small amounts of social pressure were a quite common form of motivation.

The Sanitation and Family Education (SAFE) pilot project is a prominent exception to the above picture. This project makes a serious effort to put the principles of 'good' hygiene education into practice. First, information was collected on current beliefs and practices through small quantitative and qualitative participatory research activities (Bateman, 1993; Zeitlyn, 1993). Based on current beliefs and practices, hygiene education messages and activities were developed. A limited number of behaviours closely linked to disease transmission and readily modified by providing better information and stimulating community problem-solving activities were selected for intervention. Hygiene education activities are presently being carried out in three overlapping cycles of three months each. During the first month, the emphasis is on sanitation and hygiene, during the second month on safe water use and during the third, on diarrhoea prevention and treatment. The cycle is gone through three times, for a total of nine months of intervention. The hygiene education activities are supported by the use of visual materials directed to action and problem-solving that make the activities interesting and invite participation. A behaviour-based monitoring system to assess the effectiveness of the project and to learn from experience was designed and tested (Jahan et al., n.d.).

Other interesting elements of the activities reviewed are the more participatory hygiene education initiatives in Dhamrai Thana and the attempt at a more systematic work plan approach in Ramgoti Thana (see Chapter 6). Whether the new Social Mobilization for Sanitation Programme will reach the level of planned and participatory hygiene education remains to be seen. Some of the ingredients are there, but the right mix needs to be found and implemented, while at the same time solutions have to be found for the weak-

nesses at the level of human resources and institutional organization (see also Chapter 4).

How effective is the hygiene education?

Except in the SAFE and ISHPP projects, remarkably little is done to monitor hygiene education activities and results. The 18 District Towns Project (18DTP) had set up a practical monitoring system, but the hygiene education project was suffering from problems having to do with design of the hygiene education component as well as ones having to do with human resources and building institutional capacity, and the monitoring system did not work out. At present, the project is being re-established on a new footing, with a more elaborate monitoring and supervision system (18DTP, 1993a).

Most of the activities examined lack specific objectives, and it is difficult to get clear answers to questions about who provides the hygiene education, to whom it is provided, with what frequency, methods and results. As a result, it is very difficult to assess the effectiveness of the material resources and human energies expended in their implementation. This lack of information hampers practical evaluation of the sort that could be used for systematic learning and project development and improvement.

How sustainable are the hygiene education activities?

A last question emerging from the review of current hygiene education activities is how sustainable they are. Regular health staff who are working at community level and have health education as one of their duties are hardly

involved. Instead, use is made of technical staff, volunteers, NGOs and project staff/consultants with donor money. How much in the way of hygiene education activities would be possible without money from donors? And how much attention will be paid to hygiene education once the donors withdraw their support? (See also Chapter 4.)

Hygiene education during emergencies

Bangladesh is one of the unfortunate countries that often suffer natural disasters such as floods and cyclones. DPHE is known for its immediate response to emergencies (Matrix/Associated Consulting Engineers [ACE], 1993). It is hard to judge the extent to which hygiene education is part of emergency activities. DPHE central-level staff indicated that there is just no time for hygiene education during emergencies. Staff members of other organizations indicated that because it is especially important for people to know how to best protect their health during high-risk situations, hygiene education is a natural part of emergency activities. And, in fact, together with UNICEF, the Government has prepared leaflets on what to do when water supply and sanitation facilities are flooded or damaged.

Hoque et al. (1993a) did a brief post-disaster study soon after the 1991 cyclone. They found that "water scarcity was acute, especially water used for washing and personal hygiene. The situation was made worse by the fact that the surface water sources (ponds) which were commonly used for domestic purposes other than drinking were flooded, highly contaminated and regarded as unusable. The user load on existing tube-wells doubled, indicating a significantly increased demand for the tube-well water which is commonly used for

drinking purposes only. The majority (63%) of the water purifying tablets were found to have lost potency. Sanitation was very poor in households as well as in field clinics and shelters. Most people, including relief personnel, lacked environmental health knowledge". As a result, the study team recommended health training courses for relief personnel and promotion of appropriate water use and treatment.

Interestingly, the SAFE project is a follow-up to the post-cyclone relief effort including water, sanitation and hygiene education. However, the software component was limited and could not accomplish much in the short time-frame allotted to it. As a result, the decision was made to continue efforts on the software aspects through the SAFE initiative (Jahan et al., n.d.)

3.

Hygiene education in schools and non-formal education settings

This chapter outlines health and hygiene education activities in the formal and non-formal education systems. Emphasis is placed on describing examples of activities oriented towards active learning, since these activities show greater promise for protecting health as a result of behavioural change. Such activities are found mainly in the non-formal education programmes and generally supported by donors, which provide both technical and financial support to government activities and financial support to activities undertaken by NGOs. As indicated in the Introduction and in Chapter 2, the overview of hygiene education activities was based on an unsystematic investigation and therefore may not provide a fully comprehensive picture. There was, for example, no time to look into the part played by hygiene education in functional education for adults.

A discussion of the health and hygiene education activities through the formal and non-formal education systems is not possible without paying attention to issues and developments in general education. Therefore, these are also briefly covered in the following text.

Formal primary and secondary education

Bangladesh's formal education system consists of five years of primary school and seven years of secondary education, followed by two to four years of higher education. There is also a parallel religious system of madrasahs (Islamic schools) with similar levels. Health and hygiene education in the madrasahs are not covered in this overview due to time limitations.

The education system does not yet have the capacity to educate all the children in the country. Not only is there a lack of schools, but the quality of education itself is low because of the insufficient training and supervision of teachers, the high rates of teacher absenteeism, a curriculum that is not relevant to the needs of the students and the small proportion of time that teachers actually spend on teaching and learning. As a result of these problems, only about 35% of those who enter the system in first grade complete primary school, and a mere 5% are able to pass the Higher Secondary Certificate examination in twelfth grade (UNICEF, 1992). The situation for girls is even worse than for boys.

The Government of Bangladesh adopted the declaration 'Education for All by the Year 2000' and, in January 1992, started to phase in compulsory primary education for all children and free education for rural girls until eighth grade.

Recently, with the aim of accelerating developments, the Prime Minister became minister of what was formerly known as the Primary and Mass Education Division of the Ministry of Education. The Government recognizes the important role of non-formal primary education (NFPE) in achieving universal primary education in Bangladesh.

Primary education

The National Curriculum and Textbook Board (NCTB) is responsible for curriculum development and changes. A revised curriculum that puts more emphasis on the practical application of what is taught was introduced in 1992, and an attempt is being made to make schooling more relevant to the lives of the majority of Bangladesh's people, who are poor. The new curriculum for first and second grade is ready, and recently a massive training programme for all first and second grade teachers was completed. In the course of a one-week training workshop, first and second grade teachers were familiarized with the new materials. The curriculum for the pre-service training of primary education teachers is also being improved.

There are new teachers guides with units on health and hygiene for the first and second grades. Revisions in the curriculum for the third, fourth and fifth grades are in progress. In those grades, health and hygiene will be part of the social studies and science curriculum. Water, sanitation, health and hygiene subjects are also covered in the Bangla- or Bengali- and English-language textbooks. Health inspectors are supposed to visit the schools regularly to offer instruction as well as to carry out health inspections, but their visits are, in fact, very infrequent.

Although a serious attempt is being made to make the education more learner-centred, it is realized that there is still a long way to go before this aim is attained. The new curriculum is still rather didactic and concentrates on memorization rather than problem-solving. In addition, it will take time to change the teachers' current teaching methods. Difficulties are compounded by the fact that due to the introduction of compulsory education, the number of children in school has increased considerably (60 to 70 children per class), making it difficult for the teachers to maintain order. As a result, teachers are less inclined to attempt new methods, finding it easier to retain existing methods.

The Child-to-Child experiment

With support from the Education Section of UNICEF, the NCTB is interested in introducing the Child-to-Child approach for health and hygiene education in the third through fifth grades. This approach is meant to complement and reinforce the new NCTB curriculum.

The Child-to-Child experiment is a child-centred approach to health education in primary schools. The approach is based on three assumptions.

1. Primary education becomes more effective if it is linked closely to things that matter to children, their families and communities.
2. Education in school and out of school should be linked as closely as possible so that learning becomes part of life.

3. Children have the will, the skill and the motivation to help educate each other, and they can be trusted to do so.

The Child-to-Child approach aims to have knowledge lead to action. This involves the acquisition of skills as well as changes in attitudes and behaviour. With the help of activity sheets and the guidance of the teacher, the children discuss and share views on health topics and apply their skills and experiences in practical activities. Thus, knowledge and practice are linked, not only in the classroom, but also at home and in the community.

The NCTB aims to use the Child-to-Child approach to attain the following objectives:

- to make education effective, meaningful and life-oriented;
- to help prepare children for solving day-to-day problems through practical application of knowledge and understanding;
- to create opportunities for individual and group activities that help develop health-promoting skills, behaviour and attitudes;
- to help children to study and understand their environment and to increase awareness of why and how to protect the environment;
- to inspire children with a sense of self-reliance, responsibility and fellow-feeling and thereby prepare them for their future tasks in life (NCTB, n.d.).

A first experiment with the Child-to-Child approach is under way. Three activity sheets have been developed on water, personal hygiene and night blindness. Teachers in 30 schools were trained in the approach and tried it out with their students. The first feedback showed that the children really liked it, but that teachers sometimes found it hard to change their role from one of teaching to one of facilitating learning.

Secondary education

Water, sanitation, hygiene and health issues are not adequately covered in the secondary education curriculum, although water contamination caused by industry, agriculture and overpopulation is discussed in science classes. The present curriculum was introduced in 1974, but the total revision that is urgently needed still awaits a government decision.

Sanitation support

Many schools do not have any latrine facilities, although latrines are important not only for protecting health, but also for the school attendance of the girl child. Under the sponsorship of the Water Supply and Sanitation Programme of DPHE/UNICEF, primary school sanitation activities began with headmasters' orientation in Rajshahi Division in 1990. School latrines were constructed, and using sanitation education, teachers promoted latrine construction at the students' homes. A study by WHO sponsored by UNICEF in 1992 showed that the overall sanitary latrine coverage for households of students in the third through the fifth grades was 62%; 20% of the students' households used hanging latrines. Over 90% of the latrines had been built prior to the headmasters' orientation. Although the

usage level was almost total, over 50% of the latrines were not maintained properly (WHO, 1993).

Another sanitation project supported by UNICEF was launched in late 1992 and covered 1,090 primary schools in 16 thanas. The project included the provision of a sanitary latrine-cum-urinal complex and water supply, where needed, and an orientation session for teachers, students and school administrators to ensure proper use of the facilities. The teachers were also encouraged to give more attention to sanitation education in their classes. The project is now being extended to another 440 schools in 32 thanas. A teachers manual has been developed on the construction, use and maintenance of the latrine and on related health and hygiene topics (UNICEF Bangladesh and DPHE, 1993c). One of the advantages of this manual is that a clear picture is given of how to use the latrine properly. This is an issue that is often forgotten, but one that is ever so important when children are not familiar with, or fear or dislike using a latrine. It should be noted, however, that the manual relies on traditional educational methods.

A small research project that covers five schools was carried out by the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) with the aim of learning more about the feasibility of promoting safe water and sanitation practices through the formal primary education system. The project started with a baseline study, followed by a one-day teachers' orientation on health and hygiene. Assistance was provided in constructing sanitary school latrines, and, after four months, a final survey was conducted. The preliminary results of the survey were:

- School textbooks contain environmental health topics, but their treatment is not on a level comprehensible to the students and so is not effective.

- One of five schools had a sanitary latrine at the beginning of the project.
- Of the eight newly constructed latrines, five had filled up within two months and three were damaged. The reason the latrines were filled so quickly was that they were used by passers-by after school hours.
- It is difficult to change the attitudes and teaching habits of teachers.
- Action-oriented education is more effective than passive knowledge transfer. It was discovered that children could provide the right answers about health and hygiene if asked in the way they were taught, but could not utilize their knowledge in an independent way. This indicates that the present teaching results in memorization, not in accurate conceptualization, and will not lead to the initiation of appropriate actions.
- Some hygiene practices require clear instructions and demonstration—for example, how to wash hands properly (Hoque, personal communication, 1993).

Non-formal primary education

Integrated Non-Formal Education Programme (INFEP)

The non-formal primary education activities of the Ministry of Education are mainly carried out through INFEP with financial support from UNICEF and UNDP. INFEP is a kind

of umbrella organization, comprising 33 NGOs that together run 525 centres for pre-school children (four and five years of age), 1,000 centres for children six to ten years old and 2,000 centres for children eleven to fourteen years old. Each centre handles 30 children.

INFEP is intended for children of disadvantaged families in rural areas who have never attended school or who have dropped out at an early stage. Most teachers are from the communities where the centres are established. They receive training and regular supervision. There is one supervisor for every 15 centres.

The Education Section of UNICEF provides support to INFEP's efforts at improving curriculum. One of the components of the curriculum deals with matters relating to health and hygiene. Nineteen play-based activities have been developed for pre-school children. These activities aim to develop the children's sensory, linguistic, cognitive and physical abilities and to foster the children's emotional and social development. Matters relating to health and hygiene are treated as physical abilities. They include washing hands before and after eating, washing hands after coming from the toilet, brushing teeth, cutting and cleaning nails, and combing and washing hair.

A teachers manual has been completed for the first grade. The manual develops a problem-solving approach to personal hygiene, food and water, cleanliness of the close environment (at school and at home), how to safely dispose of human excreta (because many children do not have a latrine at home, various possibilities are discussed). Stories, playlets, question-and-answer games, competitions, self-checks, role-plays, practical individual and group tasks (for

example, cleaning the classroom, helping mother with household chores), interviewing mothers and observations at home are among the strategies used to make learning attractive, active and effective.

A teachers manual and a students guide are being developed for second-grade classes. These materials cover the same subjects as are covered in first grade but present them through a story about two families—one doing well, the other with problems. Each topic begins with a picture accompanied by text and by space for students to add their own writing—for example, a description of their household chores.

INFEP hopes that these new educational tools employing a problem-solving approach will gradually be integrated into the formal primary education system. Despite many similarities in concepts, methods and subjects between the two approaches, INFEP's work and the Child-to-Child experiment remain unlinked, and neither is formally linked to the educational activities of other NGOs, though there is some exchange of information and experience at an informal, personal level.

Bangladesh Rural Advancement Committee (BRAC)

BRAC is running a non-formal life-oriented primary education programme for children of poorer households who have never been to school or who dropped out during first grade. There is a three-year programme for children 8–10 years old and a two-year programme, plus an additional year of schooling with a more functional curriculum focusing on health, nutrition and social environment, for children 11–16.

More than 70% of the students are female. Regularly scheduled parent-teacher meetings ensure active community involvement in the project.

At the end of 1992, there were 11,108 BRAC schools in operation. Most are in rural areas, but an experiment in extending such schools to urban slums is in progress. Each BRAC school has 30 students and 1 teacher, who must be a married person from the community who has completed more than nine years of schooling. The teachers—over 80% of whom are women—attend an initial 15-day training session; thereafter, they attend monthly teacher-training meetings.

The curriculum is divided into four subject areas: Bangla, English, arithmetic and social studies. Nutrition, hygiene, sanitation, safety and first aid, ecosystems, community, the country, the world and basic science are considered part of the social studies subject area. The teaching method, employing such tools as rhymes, poems, games, cards, mimes and role-plays, is learner-centred and participatory. One of the pedagogical tools is an illustrated story about a girl who does not want to eat at home unless hygienic measures she has learned about in school are applied. Her mother does not believe what her daughter tells her about hygienic food handling and preparation and complains to a neighbour about her daughter's conduct. As they discuss the daughter's refusal to eat, mother and neighbour grow less skeptical about the information the daughter has brought back from school. Together they ask the daughter to repeat what she has learned and then seek confirmation from the health centre. In the end, the adult women become active promoters of hygiene, not only in their own households, but also in the community (see Figure 4). This story grapples

with the difficulties children encounter when they try to put into practice at home what they learned at school. The story also deals with cultural obstacles to children's educating their parents.

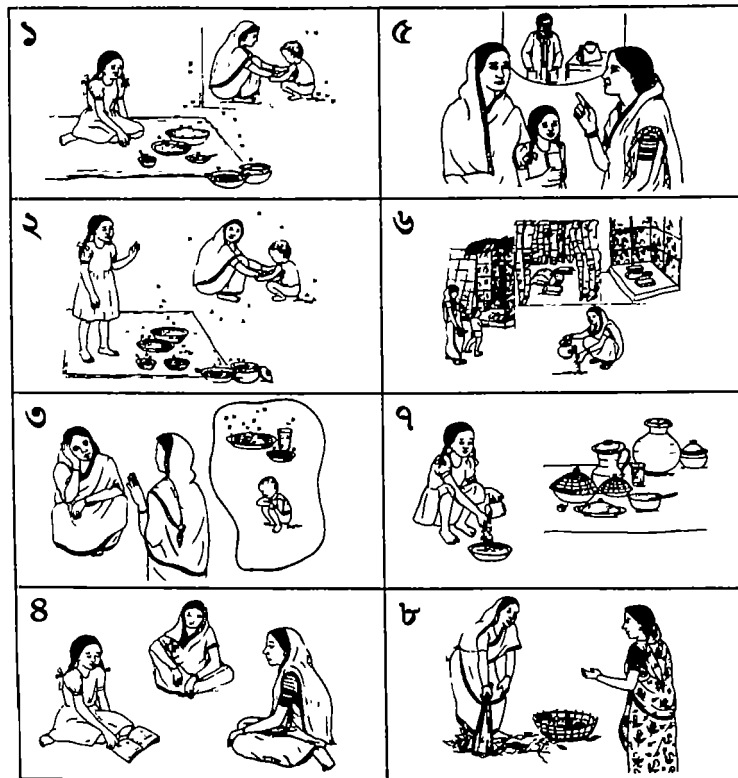


Figure 4. Illustrations from a story about a schoolgirl who teaches her mother to apply hygienic practices

The educational methods used in the BRAC schools have proved to be effective. BRAC students achieve as much as or more than formal school students. During a three-year period, BRAC students completed the NFPE programme and entered the fourth grade of formal school at a greater rate than did students in the formal system (Ahmed et al., 1993). BRAC is taking an active role in assisting other NGOs involved in non-formal primary education and is sharing experiences with them. One of these other NGOs is Gonoshahajya Sangstha (GSS) (BRAC, 1993a; BRAC, 1993b).

Gonoshahajya Sangstha (GSS)

The GSS Primary Education Programme (PEP) offers education to children up to age 12 who have never been to school or who have dropped out. The programme started in 1986 and currently covers some 100 schools in urban slums and rural areas. About 45% of the students are girls, 55% are boys. Monthly meetings are held with parents, teachers and school supervisors to strengthen the links between the school and the community.

PEP teachers in rural areas have at least completed secondary school; in urban areas, teachers must have a bachelor's degree. Preference is given to female teachers. Teachers receive an initial training lasting 12 days, and this is followed by monthly one-day training meetings. Once teachers start work at their schools, they are given constant support by a school supervisor, who visits each school at least three times a week. After one year on the job, teachers participate in a five-day refresher course. This intensive training and support system is considered to be the key to PEP's success.

PEP's educational methods are learner-centred and designed to encourage the development of creative thinking and problem-solving abilities (see Figure 5).



Figure 5. Creative and problem-solving group work with teacher's support

The children work in groups, each group doing different activities. For health and hygiene education PEP uses the Child-to-Child approach. Subjects covered include: diarrhoea, water and sanitation, measles, skin diseases, accidents and night blindness. In first and second grades, one topic is discussed each week. In the third, fourth and fifth grades, the discussion of each topic lasts six weeks, and no matter what the topic, the discussion follows the same

sequence. For example, the topic 'cleanliness' starts with a question by the teacher: "What do you do when you get out of bed in the morning?" Answers to this question lead to a discussion about cleanliness and health. Next, the children make drawings about the topic, and questions are asked about the drawings. Then, the class divides itself into three groups. Each group carries out a community survey, reports back to school, returns to the community to discuss the topic with people in the neighbourhood, and once again reports back to school. At the conclusion of each topic, the children write a play demonstrating their newly acquired understanding and perform the play for the other schoolchildren and for the community at large.

Recently, a two-year programme for children 10–16 years of age was initiated. This adolescents' programme covers the same subjects and employs the same methodology as the primary education programme, but it emphasizes, in addition, income-generating activities and home gardening (GSS, 1992; GSS, 1993).

4.

Policy, organization and collaboration for hygiene education

This chapter explores issues of policy, organization and collaboration among the major actors concerning matters related to hygiene education. The issues are complicated but crucial for achieving effective interaction and therefore deserve study in greater depth with a view to making practical recommendations and stimulating realistic progress. Some topics treated here will be considered once more in Chapter 7.

Policy

The Government of Bangladesh is committed to achieving universal coverage of rural and urban water supply and sanitation. The Fourth Five-Year Plan (1991–1995) allocates a

greater proportion of resources to this sector and states: "In order to develop an effective water and sanitation programme, the level of awareness of the local population regarding safe drinking water and its use, sanitation and hygiene as preconditions to good health and longer life expectancy is to be gradually promoted from its present low level. Therefore, the package programme of water supply, sanitation, drainage and health education will be pursued during the plan period" (Government of Bangladesh-UNICEF, 1990; xiv-7). However, the programme based on the plan fails to mention any sanitation plans above the level of production and installation of water-seal latrines. (Government of Bangladesh-UNICEF, 1990; xiv-9). Following sections concerned with tourism and financial allocations for the implementation of the plan, hygiene education is covered under the heading 'women's role and community participation'. The plan states:

The provision of clean water, improved sanitation and hygiene are the basic elements of primary health care and are essential preconditions for improvement of public health.... The hardware part of the ongoing programme is mostly engineering and the software part relates to health and hygiene education. These two should be integrated during the Fourth Five Year Plan.... During the plan period, efforts will be made to employ female health workers on the water supply and sanitation projects for transfer of knowledge on health and hygiene to the users of water and sanitary latrines. Apart from personal contact, knowledge of this type of informal education can be disseminated through the media of radio, TV, video, movies, leaflets, stickers, etc. This policy will eventually generate public awareness on health and hygiene and will give rise to an approach of women's participation in operation and maintenance of tube-wells, the water supply and the sanitation system.... During the plan period, it is

envisaged that the Department of Public Health Engineering will not only be responsible for implementation of water supply, sanitation and drainage projects, but will also motivate beneficiaries/users on health and hygiene education and sharing a part of the cost of installation and maintenance. This will eventually transform it into a peoples' oriented organization (Government of Bangladesh; UNICEF, 1990; xiv-13).

Discussion of the view of hygiene education (and women's role in hygiene education) expressed in the plan is beyond the scope of this paper. What is important to note is that hygiene education is given attention in the plan, that it is seen as a part of primary health care and that DPHE will be responsible for both the 'hardware' and 'software' components of hygiene education.

Organization and cooperation

Department of Public Health Engineering (DPHE)

As stated earlier, the Department of Public Health Engineering (DPHE) under the Ministry of Local Government, Rural Development and Cooperatives (MLGRDC) is responsible for the implementation of water supply, sanitation and drainage in all areas except for the cities of Dhaka and Chittagong.

The organogram of DPHE is presented in Figure 6. It shows that DPHE is made up of professional engineers and technicians. Six of the TWMs and one executive engineer (EE) are female. In addition, there are 20 health educators, 20 sanitary assistants and 20 projectionists under the project

director of village sanitation, and their roles and positions require a bit more explanation.

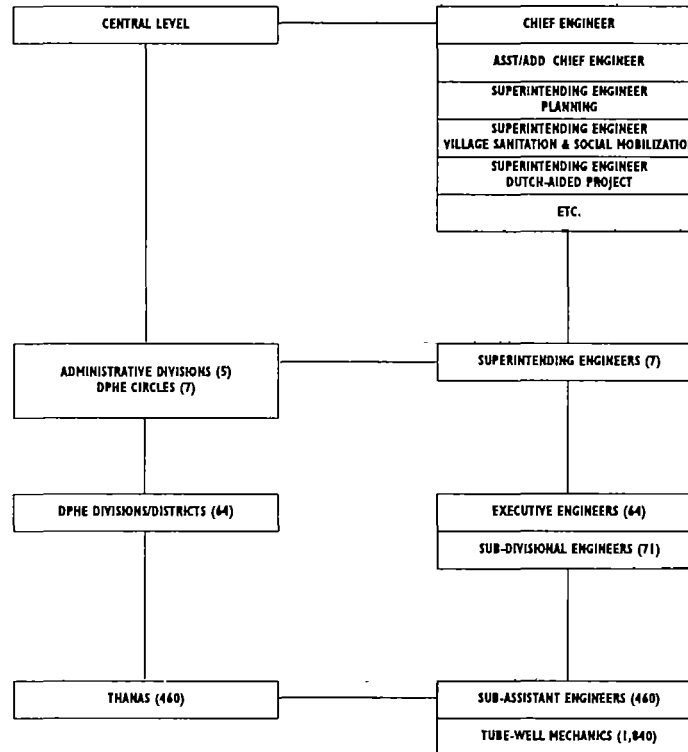


Figure 6. Organogram of DPHE

The first health educator was appointed in 1963, when health education activities began in DPHE in the context of

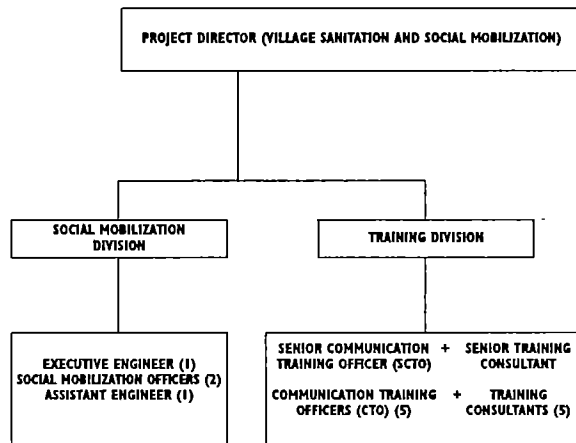
a pilot village Sanitation Project. Sixty posts were created in the 1970s, but only eight health educators (with master's degrees in non-engineering, public health subjects), four project workers and six assistants were actually hired up until 1989, when all vacant health education posts were filled by appointees (whose suitability to their respective posts is open to question). Most of the appointees were internally recruited, apparently attracted by the prospect of promotion from clerical grades rather than by the distinct challenges of working in the field of health education. All appointees received three-month certificate training in the National Institute of Preventive and Social Medicine (Matrix/ACE, 1993).

In 1992, 64 districts—each headed by an EE—were created and each member of the health education staff was required to work under the direction of the EE heading the district to which he or she was assigned. The EEs receive programmatic support from the chief health educator, but the nature of their work remains obscure. When lower-level DPHE staff members, in particular SAEs, were questioned about the duties of the health educator assigned to their district, they answered that the health educator was hardly seen and that activities of a single health educator could hardly be expected to have an impact over so large an area as a district. When staff members at the central level were asked about the health educators' work, no definite objectives, plans or evaluations were cited, and discussion of the link between the work of health educators and social mobilization was minimal (Kabirushan, 1993). In Government of Bangladesh–UNICEF and UNICEF water and sanitation documents, health educators are rarely referred to. The project proposal on Social Mobilization for Sanitation states that the role of health educators needs to be defined more precisely

(Government of Bangladesh–UNICEF, 1993a). In sum, one is left with an impression of organizational weakness. The reasons for this situation require more research, but it seems evident that deficiencies in the organizational set-up and in the qualifications and experience of the health education staff play an important role.

DPHE's organizing for social mobilization

The recently approved Social Mobilization for Sanitation Programme indicates that DPHE, assisted by UNICEF, will have the overall responsibility for implementing the programme. Two new divisions will be established and staffed under the project director of village sanitation (see Figure 7):



Source: Government of Bangladesh–UNICEF, 1993a.

Figure 7. Social Mobilization Organogram—DPHE

- a Social Mobilization Division, which will coordinate the overall sanitation activities related to the software aspects. The division will be headed by an executive engineer (EE), who will be responsible for implementation and monitoring of the project. An assistant engineer (AE) will assist the EE in technical and administrative issues, and two social mobilization officers, with social science/communication backgrounds, will assist the EE in 'software' issues.

- a Communication Training Division responsible for training all levels of DPHE staff. This division will be headed by a senior communication and training officer (SCTO) with a social science background. Five communication training officers (CTOs) with social science backgrounds will be placed under the SCTO and posted to the offices of the superintending engineers (SEs) in the five Government of Bangladesh administrative divisions. The SCTO and five CTOs will each be supported by a training consultant. In each of the five SE's offices, the CTO and the training consultant will form the core training team and be responsible for organizing and implementing all training activities related to the social mobilization programme.

Social Mobilization Programme activities will be carried out by regular DPHE staff with support from allies that the programme is mandated to identify and cultivate. The SE will coordinate all the activities in his or her circle and report to the project director. The EE/sub-divisional engineer will coordinate all activities at the district level; the SAE will coordinate all activities at the thana level. The TWMs will work at the community level in conjunction with other interested parties. All personnel will receive orientation courses and two

rounds of week-long training in communication techniques as well as in the 'hardware' and 'software' aspects of hygiene and sanitation (Government of Bangladesh–UNICEF, 1993).

These new developments raise questions about the appropriateness of DPHE's being the focal organization for the non-engineering aspects of water supply and sanitation. During a recent organizational study of DPHE, several development scenarios were discussed. DPHE itself focused on a scenario in which its effectiveness as an engineering organization was increased, while in relation to the 'software' aspects of hygiene and sanitation it was 'downgraded' to playing an enabling function for other actors—in particular, local authorities and NGOs who would take on the actual implementation of those functions (Matrix/ACE, 1993). What implications this choice will have on the proposed organizational structure of the Social Mobilization for Sanitation Programme remains to be seen.

The question of whether DPHE is the appropriate organization for implementing the 'software' aspects of hygiene and sanitation is to some extent an academic one. If one looks at the division of responsibilities for the activities under the Social Mobilization for Sanitation Programme, it appears that to a large extent UNICEF is taking the lead (Government of Bangladesh–UNICEF, 1993a). This is in line with earlier work in EPI, or as Matrix/ACE (1993; Appendix 17, 2) put it: "No central government Department has ever implemented a mass Social Mobilization Campaign. Bangladesh's world-renowned EPI programme—amongst others—was the result of national political pressure and commitment, and the harnessing of a very wide range of actors. However, UNICEF played a major role in day-to-day coordination, under the supervision of the Ministry of Health, using NGOs and local authorities extensively."

The organizational problems with respect to the 'software' aspects are to some extent a manifestation of the complexities of donor views and interests on the one hand and Government priorities and DPHE interests on the other hand. And, as usual, money dictates the compromise. The donors put increasing emphasis on 'software' aspects. The country is not—or not yet—on the same line. From reports and discussions, the impression is gained that sanitation is gradually advancing as a priority, but it is sanitation coverage that is in question. Hygiene education does not appear to be a priority with politicians, general Government or DPHE staff.

The stand of DPHE seems to be clear. It takes responsibility for hygiene education as part of the deal. If hygiene education has to be done, DPHE itself should be in control because it is responsible for implementing water supply, sanitation and drainage. Therefore, it feels strongly that motivational staff should be under its control, with accountability and continuity being the reasons mentioned most often. However, DPHE indicated its acceptance of the involvement of NGOs because the donors want this involvement. Acceptance of the involvement of NGOs is seen as the way to safeguard donor money.

Acceptance of the involvement of NGOs in the implementation of the 'software' aspects also has a practical rationale: DPHE field staff—in the persons of TWMs—are sufficiently numerous and competent. They are already in place and in communication with men and women in the communities. On the other hand, as noted in Chapter 2, there are serious doubts about the degree to which TWMs can fulfil the role of motivators and educators. These doubts are also voiced in the organizational study of DPHE by Matrix/ACE (1993).

Apart from questions about the suitability of TWMs as motivators and educators, it is unclear whether four TWMs—the number assigned to each thana—will be able to ensure that every member of the community receives intensive direct communication. Moreover, because nearly all TWMs are men (and a hiring freeze makes it unlikely that this situation will change in the near future), effective communication with women would be difficult (Alam, 1993).

Non-governmental organizations (NGOs)

The involvement of NGOs brings with it many advantages. Such organizations are generally people-oriented and place great emphasis on women's participation. Matrix/ACE (1993) presents an overview of characteristics of NGOs in Bangladesh (compared to those of DPHE). The overview notes that:

- NGO water, sanitation and hygiene education interventions occur as a component of a much broader development strategy aimed at overcoming poverty.
- NGOs are more flexible in accommodating women when it comes to making arrangements for travel and relocation.
- NGOs recognize that effective hygiene education is a long-term, continuous communication process. In consequence, they have a high staff-to-population ratio, and their staff is often recruited from and continues to reside in the communities where they work.

- NGOs emphasize practical training and supervision of field staff. The training focus is on social attitudes (towards poverty), technical skills (including pedagogy and communication), organizational and motivational skills.
- Senior NGO staff keep abreast of the actual functioning of their organizations by regularly joining workers in the field.

Despite the overall accuracy of these observations, experiences with the involvement of NGOs in the 'software' aspects of water supply and sanitation have not been uniformly encouraging. The degree to which the NGO is dependent on donor funding and the amount of experience it has in providing health education seem to make the difference between successful and less-than-successful experiences. Where activities of an NGO are ongoing, the organization seems to be able to continue applying its principles and way of working when it is invited by UNICEF/DPHE to take up additional motivational roles in the field of sanitation. This was the case, for example, in Kushura Union of Dhamrai Thana. However, if NGO involvement is based only on a consultancy contract, as in the case of NGO Forum, compliance seems to shift in favour of the wishes of the client. Thus, NGO Forum is aware of the fact that more is needed for effective hygiene education than it has been contracted to offer, but nevertheless it accepted the contract.

Donor dependency is not the only constraint on an NGO's effectiveness as an educator and motivator in the field of hygiene. The types of NGOs also seem to be an influencing factor. Although this case-study only allows for preliminary conclusions, it was striking that NGOs involved in education

displayed far more imagination and a much more sensitive 'feel' for the development of hygiene education than NGOs originally involved in 'hardware'-oriented water supply and sanitation activities.

Ministry of Health and Family Welfare (MOHFW)

Mention of MOHFW is conspicuously absent from discussions and documents that examine options for creating the best organizational set-up and division of responsibilities for the 'software' components of water supply and sanitation programmes. The Bureau of Health Education (BHE) under the Directorate General of Health Services would be the most appropriate agency to take a lead coordinating role for hygiene education, and BHE staff indicated that they are ready if they are asked and if they are provided the means to do so (Mia, 1992). However, it is unlikely that they will be asked, because BHE is considered a non-functioning body. There is a hint of a vicious circle here: BHE may have become a non-functioning body because it is never given the opportunity to develop and prove itself. This true situation may come to light if the Netherlands-supported 18DTP carries out its intention to start working through BHE.

Interministerial cooperation

There seems to be a consensus that cooperation among the various ministries at field level will succeed only when there is an official body for interministerial cooperation at the national level. The main task of this body would be to direct the lower levels to engage in coordinated efforts in the field of hygiene education and motivation. However, because

hygiene education does not figure in any list of priorities, it is unlikely that such a body will be created in the foreseeable future. Because sanitation issues have higher visibility than those having to do with hygiene education, the possibility for interministerial cooperation on sanitation is somewhat greater, but there is a general sense that it would be difficult to induce the ministries to cooperate in implementing the 'software' components of sanitation promotion.

Collaboration with other programmes and agencies

Collaboration with other programmes and agencies on hygiene education and social mobilization is a somewhat tricky issue. On the one hand, optimism about the possibilities for such collaboration is rare because it is well known that the organizational structure of Bangladesh's programmes tends towards extreme verticality. Even programmes originating within the same ministry find it nearly impossible to arrive at a modest level of collaboration. On the other hand, as part of its social mobilization drive, the national Rural Water Supply and Sanitation Programme expects to collaborate closely with allies in the promotion of sanitation. It should be noted, however, that collaboration with those programmes (e.g., in CDD or PHC) and agencies that are the most obvious candidates, or with other water and sanitation programmes, is not anticipated. Instead, major allies are expected to be the primary- and high-school schoolmasters and the NGOs. In fact, their cooperation is considered necessary for accelerating sanitation coverage and improving health in the community.

On paper, collaboration—albeit in general terms only—with other programmes and agencies is given due attention. For example, the Rural Water Supply and Sanitation Programme for 1992–1995 states that it “will exploit all opportunities for convergence and interlinkages with other child survival activities, particularly CDD” (Government of Bangladesh–UNICEF, 1992). However, making this happen is quite a different matter and does not seem to have a high priority among the many tasks awaiting accomplishment. The constraints discussed earlier play important roles in this situation. In addition, the CDD and PHC programmes have their own problems. CDD has been mainly focused on diarrhoea treatment rather than hygiene education, and until recently did not involve the private sector, although the private sector provides 80% of the health services. The PHC programme is still very small and powerless. And while CDD and EPI as well as water supply, sanitation and hygiene education should be part of PHC, this is still far from being the case.

The result is that collaboration remains at a rudimentary level and is extremely limited. For example, the 110 diarrhoea-prone thanas identified by the Ministry of Health will be given high priority for sanitation activities by the national Rural Water Supply and Sanitation Programme. In addition, promotional materials/posters will be made available at the oral rehydration therapy (ORT) centres, and ORT messages will become part of the sanitation and hygiene promotion messages.

Collaboration between donor agencies does exist, at least to a certain extent, but does not seem to cover hygiene education activities.

5.

Training for hygiene education and social mobilization

The huge task of achieving universal water supply and sanitation that the Government of Bangladesh has set for itself demands a lot from TWMs, together with their SAEs, as well as from NGO field staff, since in the present set-up they are given prime responsibility for community motivation and education. But what training do they receive that would enable them to carry out these tasks? This chapter provides a brief review.

TWMs and SAEs

It is not necessary to repeat the limitations (discussed in Chapters 1 and 4) of TWMs as motivators and educators, but

it is important to review how their capabilities are maximized through training opportunities.

Training of TWMs and SAEs for the Integrated Approach does not seem to have grown beyond the level of the yearly four-day refresher courses required of all SAE and TWM staff. These refresher courses are given by DPHE staff and cover every aspect of their daily work. It is rather surprising that the Integrated Approach utilizes technically trained staff that have never received supplementary training in communication, motivation and education. Such training was originally envisaged but never implemented, although the need for such training was emphasized in the review of the Integrated Approach (Abdullah and Boot, 1989).

The new Social Mobilization for Sanitation Programme includes two week-long training sessions that will cover communication and motivation skills (for all TWMs and SAEs). The planned Communication Training Division of DPHE will develop and implement these training courses. How this training will work and how it will help the TWMs and SAEs to carry out their 'software' tasks remain to be seen, since developments are still in the planning phase only.

NGO field staff

NGOs appear to have a better training record than DPHE. Training courses are among the forms of support offered by NGO Forum (established in 1982) to water supply and sanitation projects initiated by grass-roots NGOs in Bangladesh. According to NGO Forum's information, their 10-day training courses include training designed to develop skills in

the areas of communication, community participation and social mobilization. Using methods such as brainstorming, small group discussions, role-plays, simulation games, case-studies, practical group and individual exercises, demonstrations and question-and-answer sessions, their training methods emphasize participatory learning. NGO Forum also offers a 26-day course on the same subjects, using the same methods, to instructors of the 10-day training courses (Kanchwale and Rizwan, 1993).

In addition to providing an overview of its own training activities, NGO Forum has prepared a list of the courses offered by 61 NGOs involved in water, sanitation and hygiene education training. Typically, these NGO training courses—usually lasting between 1 and 15 days, with a 3-month course being the longest—are for internal use only: few NGOs conduct courses open to staff from other organizations. A number of the courses deal with issues such as preventing water- and sanitation-related diseases, personal hygiene, safe water, safe human excreta disposal and other hygienic practices. Courses offering instruction in hygiene education are rare. Reportedly, teaching methods are generally participatory, utilizing pedagogic strategies such as those mentioned in connection with NGO Forum (Kanchwale and Rizwan, 1993).

Because neither course curricula, training materials nor evaluations of training courses were received and no training courses were observed, it is not possible to present a proper review of these NGO training activities in this study. However, mindful of the increasing emphasis on social mobilization and hygiene education, UNICEF/DPHE commissioned a training review and needs assessment in 1993.

Training review and needs assessment

The training review and needs assessment by Development Planners and Consultants (DPC) (1993) covers both Government of Bangladesh and NGO training programmes. The study indicates that internal training and staff development at DPHE are not yet institutionalized. Of the 5 Government agencies and 13 NGOs covered by the study, only 5 (all NGOs) provided their sanitation training curricula, and these were only course outlines, most of which were still in the draft stage. Training programmes—particularly those associated with the DPHE/UNICEF Integrated Approach—were not always well designed, often failing to allot sufficient time to the courses.

The DPC study found that while NGO instructors receive some training in communication and in the participatory approach, DPHE trainers failed to receive any training of this kind. The study team concluded that the training of trainers should be strengthened, especially with respect to ‘software’ issues. In addition, the training of field staff in communication, motivation and education methods should be intensified and make greater use of participatory approaches.

The study also found that the pre-service training of engineers requires reconsideration. The Bangladesh University of Engineering and Technology, the four Regional Institutes of Technology, and the 18 Polytechnic Institutes are the main training institutes for engineers working in the water supply and sanitation sector. The curricula of these technical institutes are ‘hardware’-oriented, employing a conventional Western approach to sanitation. ‘Software’ aspects are virtually uncovered, but, the report noted, should be given increasingly greater attention in view of the new tasks of engineers and requirements for successful water and sanitation developments.

6.

**In-depth review of a hygiene
education activity:
The Ramgoti experience**

Because of an opportunity to visit the project area in the company of project staff, the Ramgoti experience was selected as an example for a review in greater depth of a hygiene education activity. In addition to discussions and observations in the field, this description of the Ramgoti experience is based on the following documents: Project in Agriculture, Rural Industry and Medicine (PRISM) Bangladesh, 1992; PRISM Bangladesh, 1993a; PRISM Bangladesh, 1993b. One advantage of using Ramgoti as an example of a hygiene education activity is that in addition to its hygiene education component, it also possesses a social mobilization component.

Set-up and organization

The programme

The Ramgoti Intensive Sanitation and Hygiene Promotion Programme ran from July 1992 to September 1993. It was supported by UNICEF with funds from the Australian Government and implemented by PRISM Bangladesh. PRISM is a young NGO with activities in agriculture and rural credit in six thanas of Chittagong Division—Ramgoti in Laxmipur District, among them. Following the 1991 cyclone, PRISM became actively involved in water supply, sanitation and hygiene education.

The Ramgoti programme had three main objectives:

1. Social mobilization and intensive hygiene and sanitation education through interpersonal communication with the entire population of Ramgoti Thana.
2. Better sanitation practices and behavioural changes:
 - increased use of tube-well water for all domestic purposes;
 - proper hand-washing practices with soap/ash before handling food and after defecation;
 - construction of sanitary latrines to be used by all family members;
 - improved personal hygiene practices.
3. Building an effective grass-roots organization and finding allies in the local administration, DPHE, schools, madrashas and mosques.

The population

Ramgoti Thana contains 85 villages and 56,549 households. The Moslem majority observes strict purdah, the traditional system of sequestering women to guard their honour and the honour of their families. In contrast, women of Ramgoti's Hindu minority face no religious obstacles to participating in public life, if they possess the self-confidence to do so.

Organization and staffing

Village sanitation motivators (VSMS) formed the backbone of the programme. Each VSM was responsible for communicating with about 425 individual households.

The 133 VSMS were selected from more than 3,000 applicants. Selection criteria included literacy, status in the community, communication skills and enthusiastic commitment to improved sanitation and hygiene practices. VSMS were required to devote six hours daily, six days a week to motivational work and to travel throughout the village using any available means. Given the cultural context in which VSMS were to function, it was decided to recruit as many female VSMS as possible. Ultimately, the female-to-male ratio among VSMS was 7 to 3.

The VSMS were supervised by one female and six male field sanitation supervisors (FSSs), who were responsible for the day-to-day guidance, on-the-job training and quality control of the motivation and education activities. FSSs' duties also included management, financial control and liaison with government agencies and other NGOs in the area. They were responsible to the thana sanitation coordinator, who carried overall responsibility for the programme activi-

ties, including training of FSSs and VSMS, monitoring of the process and the performance of the programme, and liaison and coordination with government agencies, especially DPHE. Overall coordination was in the hands of the sanitation programme coordinator based at PRISM Headquarters in Dhaka.

Immediately after recruitment, the thana sanitation coordinator and the seven FSSs received 18 days of basic training, covering programme orientation, promotion and use of safe water, sanitation and hygiene practices, techniques of interpersonal communication, community mobilization, planning, supervision and monitoring.

The VSMS received 11 days of pre-service training on the promotion of safe water, sanitation and hygiene, interpersonal communication and community mobilization. Two days of refresher training were given after the first month's fieldwork, followed by one day of refresher training after the third month and again two days after the sixth month.

Baseline survey

A baseline survey was carried out as part of the VSM pre-service training to assess the existing sanitation and hygiene conditions in the area. It was found that 78% of the households use tube-well water for drinking. However, only 1.5% use this source for all their domestic needs. Only 3% of the households had access to a sanitary latrine; 81% used an open latrine and 16% did not have any latrine at all. Nearly 4% of the households indicated that family members washed their hands with soap or ash after defecation and before handling food.

In view of the limited time available, the baseline study consisted of a brief household questionnaire. As it was realized that more in-depth information was required for an effective hygiene promotion programme, the VSMs used their first household visit to also discuss current ideas, beliefs and constraints with regard to water, sanitation and health.

Activities

Household visits

Because the programme was designed to reach every family through house-to-house visits at least four times during the project period, VSMs needed to visit at least six households a day. Some families indicated that they had been visited between 8 and 12 times during the project. The large number of visits probably resulted from the fact that the VSM lived close by.

During the first visit, the VSMs explained the programme and, using flip charts, discussed the benefits of safe water, sanitation and hygiene. This first visit was felt to be the most difficult. The VSMs found people reluctant to interrupt their household chores. Also, the VSMs had not fully grown into their roles as communicators and motivators. Female VSMs, in particular, experienced shyness during the first visits, feeling that their youth—most were younger than 25—made it difficult to establish credibility and gain a rapport with household members. But, as the VSMs gained experience and as their work became more widely known and more accepted by the community, they became more confident and the situation improved.

The VSMs' second visit, three weeks after the first, was intended to reinforce earlier messages and to motivate families to construct a sanitary latrine. (It had been thought important to have this second visit soon after the first in order to maintain and strengthen relationships, but experience revealed that this was not necessary.) The third visit followed after two to four months and the last visit two to three months after that.

A register, in which each visit was recorded, was maintained for each family by the VSM, who carried it when visiting the household in order to note any changes in the household. For its part, each household maintained a monitoring card, which was updated on each visit.

The FSSs organized twice-weekly (once-weekly, during the first month) meetings with the 19 or so VSMs they supervised. The meetings enabled the VSMs to share experiences and to discuss ways of tackling problems faced in the field. In addition, the FSSs accompanied their VSMs on household visits at least once a week in order to provide guidance and support. The VSMs tended to use the visits of the FSS to motivate families to build latrines, suggesting that the FSS would be unfavourably impressed unless action were taken before the FSS's next visit.

Social mobilization

Male 'seminars'

Since men usually work outside the home during the day and were thus unable to meet with the VSM, meetings were held once weekly for male members of the households visited that week. These so-called male seminars took up the

same issues that the VSMs had dealt with during household visits, but female VSMs often found leading these seminars a difficult task and appreciated support from their FSSs.

Involving men in sanitation and hygiene improvements turns out to be very important. Several women reported constructing a hygienic homemade latrine on their own initiative only to find that the men would not use it, claiming that they were only interested in ring/slab latrines, which were far too expensive for the household to purchase. In addition to resisting the use of homemade latrines, male household members, women reported, also tended to leave the hygiene training of children to mothers and older daughters. Thus, many fathers were criticized both for failing to provide good models for hygiene practices and for failing to take an active role in the hygiene training of their children.

Hygiene and sanitation classes in schools and madrasahs

FSSs, together with the family's VSM and local teachers, conducted bimonthly classes on hygiene and sanitation for children in primary and secondary schools and madrasahs. The main aim of the classes was to ensure maximum support for the programme activities. (Because schools were closed for a number of days on account of a national festival, no direct information could be obtained on these classes for this study.)

Involvement of religious leaders

At first, it was difficult to obtain the active support of the imams in the area, who were reluctant to accept women VSMs because it would require women to travel in public. However, through fruitful communications with the programme staff and because the VSMs showed that they did a

good job, the imams changed their minds and became very cooperative. Imams of the mosques included a discussion on hygiene and sanitation in their sermons before the Friday prayer. Also, on several occasions, the imams permitted male FSSs and VSMs to address prayer gatherings on the subject of sanitation and cleanliness.

Mass propaganda

Rallies and meetings were held for the general mobilization of the population in support of the programme during three consecutive days halfway through the programme period. Posters were displayed, leaflets distributed and processions held, followed by meetings with local authorities and Government officials.

Health Committees

Because the aim was to create a grass-roots organization that would survive after PRISM had phased out, the working area of each VSM was divided into four blocks, and each block set up its own Health Committee, consisting of 7 to 11 respected persons from the block area. It remains to be seen whether these committees will continue their activities now that the project is finished.

Progress and achievements

When the programme concluded at the end of September 1993, all households had been visited at least four times. In addition, an impressive number of meetings had been held with various audiences. A detailed overview of the total number of household visits and meetings is presented in Chapter 2.

Latrine construction and use

The main emphasis of the programme was on latrine promotion. The result was an increase in sanitary latrine coverage from 3% to 59%. To what extent this also implies an exclusive use of the latrines installed is not yet clear. A brief visit to two villages resulted in a mixed view. Some very nicely constructed and apparently used ring/slab and homemade latrines were observed, especially in the better-off Hindu village. None of the homemade latrines in the poorer Muslim village had a superstructure, but the women did not indicate that this was a problem, because the latrines were located behind the houses where nobody is supposed to go. Some of the homemade latrines had already collapsed due to heavy rains, adverse soil conditions and construction problems. Some others were not used or only partly used. As indicated above, men used the latrines less than women. All homemade latrines that were in use had a cover.

According to the men and women interviewed, the main reasons for latrine construction were prevention of flies, diarrhoea and bad smells. This contrasts with the usual reasons given for latrine construction, such as convenience, privacy and status, but the contrast is understandable in the circumstances. Most people already used some type of latrine, and thus the major change was from an unhygienic to a hygienic latrine.

Other hygiene practices

Other hygiene practices that were promoted included hand-washing with soap or ash after defecation and before handling food, the use of tube-well water for all domestic purposes and a clean household environment. To facilitate the

- use of tube-well water, support was given to the construction of tube-wells in areas with low tube-well coverage and to tube-well repair. Support was also extended to the private sector to induce it to stock spare parts for tube-wells.

The figures in the overview in Chapter 2 show the achievements in hygiene practices. These figures have to be considered with the usual precautions, since judgements about the cleanliness of the household environment were based on the subjective assessment of the VSM, and assessments of water use and hand-washing practices were based on what the women themselves reported. One woman indicated, "We knew that we should wash hands with soap or ash, but now we also do it." Still, researchers can never be sure that people do what they say they are doing. An attempt was made to estimate hand-washing after defecation by looking at the availability of ash or soap in or near the latrine, but this was an unreliable indicator, especially where there was no superstructure. Also, the availability of ash or soap is not always a sign of use: its presence may indicate a desire to please the VSM.

Coordination and collaboration

The programme was coordinated with the thana administration, DPHE (EE and SAE) and the Ministry of Health through meetings and reports. However, this did not result in collaboration and integration of activities. For example, PRISM would hold a meeting and invite the SAE to participate, and vice versa, rather than organizing a combined meeting. There was no cooperation between the TWMs and the VSMs, and the DPHE division health educator was never seen. Clearly, DPHE acknowledged the work by PRISM but

at the same time felt that motivation should be under its own aegis, with motivational staff directly responsible to it.

Also, there was no cooperation between the VSMS and the HAS and FWAs, although the union chairmen instructed the HAS and FWAs to work together with PRISM. A compounding problem was that even though hygiene education is clearly part of PHC, and the HAS are supervised by health instructors who have prime responsibility for hygiene education, HAS and FWAs do not see hygiene education as part of their duties.

Coordination and collaboration with other NGOs in the area were more profitable. They helped each other in tube-well construction and rehabilitation and in the provision and setting of uniform prices for ring/slab latrines.

Financial costs and lessons learned

Costs

The total costs of this one-year programme amounted to US\$100,540. Personnel costs were by far the largest item, as shown below:

Personnel	70%
Transport and travelling	11%
Organization and management	7%
Programme publicity and dissemination of materials	5%
Training FSSs and VSMS	4%
Baseline, reporting, fuel, etc.	2%
Seminars and meetings	1%

The future

The question is now how to go forward. The project is finished, much is achieved, but much remains to be done. Homemade latrines have to be replaced regularly, and sustained hygiene practices take time to develop. PRISM itself indicates that without further Government or NGO support the programme is not yet sustainable. As donor funds are depleted, PRISM will continue on its own with 24 VSMS, 1 FSS and 2 agricultural supervisors, who will mainly work through group discussions and in cooperation with the imams, schoolteachers, SAEs, HAs, FWAs, union chairmen, thana education officers and thana administration. The deputy commissioner of Laxmipur District has targeted the whole district for intensive sanitation promotion, and Ramgoti has been brought under this scheme.

Because the implementation model of the Intensive Sanitation and Health Promotion Programme proved to be quite effective, it will be replicated in a second thana of Laxmipur District, again with UNICEF funds, and again for one year. Some minor changes will be made:

- The programme will start with briefing seminars at thana, union and village levels to solicit the interest and cooperation of local authorities, Government and non-government staff and the population at large. In line with the Integrated Approach, Water, Sanitation and Hygiene Education Committees will be established at each level. The purpose is to get more community participation and to create more interest among Government staff for sanitation and hygiene.
- The total number of visits will be increased from four to six to allow more time for motivation and

demonstration of hygiene improvements. Only the first round will be individual household visits, while subsequent rounds will consist of group discussions. The people are in favour of group discussions because they are more interesting and enjoyable and allow for a better exchange of views. Group discussions will also save a lot of time, thus increasing the cost-effectiveness of the programme. However, the VSMs prefer individual household visits because they find it difficult to manage a group discussion. Thus, the VSMs will need additional skills in interpersonal communication.

- The availability of a sufficient number of ring/slab latrines to meet the rising demand during the motivational campaign will receive more, and more timely, attention.

7.

Learning points

What did we learn from this review of current hygiene education in Bangladesh? Without trying to give a complete overview—the various chapters are full of learning experiences—this chapter will look into three main points that are especially important for the development and improvement of hygiene education as part of water supply and sanitation programmes. Although the learning points are based on the Bangladesh experience, they have been broadened and lifted to a more general level.

1. Effectiveness

Much more is needed for effective hygiene education. Hygiene education effectiveness does not follow automatically from an increased acknowledgement of its importance.

Although there is a general consensus that hygiene education is essential for achieving health and socio-economic benefits from water supply and sanitation programmes, the conceptual framework, factual knowledge and material inputs needed to make hygiene education work are generally lacking.

Maybe we first should specify what is meant by 'general consensus'. In fact, the level of consensus ranges from a deep conviction that hygiene education is essential, to mere lip-service to a current trend. Donor organizations are instrumental in creating more support for the importance of integrating hygiene education into water supply and sanitation programmes. Country organizations respond to the gentle pressure of donor organizations, and whether they do so wholeheartedly or for the sake of good donor relationships is subordinate to the overriding constraint that the country's priorities are elsewhere.

A compounding problem is the generally limited understanding of what hygiene education really is. A common answer to my question concerning the nature of the major constraints on effective hygiene education is the poverty and the low literacy rate of the people. Surprisingly, this answer was common both among engineering/technical staff and among health staff. The answer not only shows that there is little understanding of hygiene education; it also implies that major constraints are beyond their sphere of influence. Thus, there were also few ideas for hygiene education improvements: only requests for more manpower and more audiovisual tools and equipment to increase the capacity for imparting knowledge to an ignorant people.

With low commitment to and little idea about what constitutes effective hygiene education, it is quite understandable

that essential ingredients for effective hygiene education are not always present, and if they are present, they are not always used in the right order or mix. The review showed that there is not much hygiene education planning: clear objectives or a realistic work plan are generally lacking; education activities are usually limited to imparting information; field staff training and supervision are minimal, and monitoring and evaluation are virtually non-existent.

Of course, there are exceptions, and there are some positive examples to build on and learn from. In addition, there seems to be a good deal of room for learning from and making use of developments in non-formal education, especially with regard to education methods and tools.

2. *Staff*

Hygiene education will stand a chance of being effective only when there is staff that can do a good job. This may be obvious, but it is also a serious constraint, intimately related to the constraints mentioned above. The reality is that at all levels there is a lack of staff that can do a good job.

At the level of development, coordination and management of hygiene education, we need staff that have clear insights into the preconditions and requirements for effective hygiene education. They need to be able to set priorities and make realistic plans. In addition, they need to have the authority and means to translate plans into action. Problems at this level are that sufficient staff that meet these requirements are not available and that the institutional setting is not conducive to giving this staff the authority it needs (see also the next point).

At the field level, we need committed staff with sufficient baggage and backup to create hygiene education and motivation learning opportunities for specific target groups. Staff commitment shows a mixed picture. On the one hand, we find staff whose own motivation leads to their commitment, and we have seen that the success of the Integrated Approach and the Intensive Sanitation Mobilization is very much dependent on these staff. On the other hand—and this seems to be the more general picture—we find staff who do not consider health and hygiene education one of their duties. Pre-service and in-service training—if any is provided—are not sufficient to equip staff with the necessary skills, attitude and knowledge. Working conditions and career structure do not stimulate staff to be more active educators and motivators. Lack of supervision and monitoring paves the way to disregarding hygiene education tasks and activities.

One way of overcoming the field-level staff problem is to turn to NGO staff. This may be the way out, at least in the short run, but only when the right NGOs are selected and realistic demands are made on them. This requires appropriate staff at central level to be in place. In the long run, this will not provide a sustainable solution, unless the involvement of NGOs is institutionalized. But such institutionalization may jeopardize the strengths of NGOs and, ultimately, the reason for their involvement.

3. *Organizational structure*

Institutional weakness is a characteristic of most hygiene education, and this has everything to do with the constraints discussed above. From an outsider's point of view, it may

be self-evident that only the Ministry of Health can be the right home for health and hygiene education, with the ministries responsible for water, sanitation and education having supporting, enabling and contributing roles. However, reality is never simple, and certainly not in this case. The organizational structure of hygiene education—or the lack of it—is a complicated problem that does not stand a chance of being solved in the foreseeable future. It may be that this problem can only be overcome when there is a political and social change in the direction of greater emphasis on preventive health and primary health care. Until then, one must make do, but what is best done may require more consideration based on an open mind, imagination and will.

Social mobilization

The above points are specifically concerned with hygiene education. To a certain extent they are also learning points for social mobilization and require due attention to ensure that the ambitious and important programme of social mobilization for sanitation is more than a balloon that will grow and grow but in the end will burst, leaving behind much less than hoped for. The programme has much potential; the challenge is to make it work, and to do so beyond the level of mere latrine construction, with the goal of safe excreta disposal by all as an enduring practice for the future.

Abbreviations

ACE	Associated Consulting Engineers
AE	assistant engineer
AHI	assistant health inspector
BHE	Bureau of Health Education
BRAC	Bangladesh Rural Advancement Committee
CDD	control of diarrhoeal diseases
CHW	community health worker
CTO	communication training officer
DC	deputy commissioner
DGHS	Directorate General Health Services
DPC	Development Planners and Consultants
DPHE	Department of Public Health Engineering
EE	executive engineer
18DTP	18 District Towns Project
EPI	expanded programme on immunization
FSS	field sanitation supervisor
FWA	family welfare assistant
GSS	Gonoshahajya Sangstha
HA	health assistant
HQ	headquarters
ICDDR,B	International Centre for Diarrhoeal Disease Research, Bangladesh
INFEP	integrated non-formal education programme
ISHPP	Intensive Sanitation and Hygiene Promotion Programme
LGED	Local Government Engineering Department (under MLGRDC)

MLGRDC	Ministry of Local Government, Rural Development and Cooperatives
MOHFW	Ministry of Health and Family Welfare
NCTB	National Curriculum and Textbook Board
NFPE	non-formal primary education
NGO	non-governmental organization
ORT	oral rehydration therapy
PCIS	Programme Communication and Information Section (UNICEF)
PHC	primary health care
PEP	Primary Education Programme
PRISM	Project in Agriculture, Rural Industry, Science and Medicine
SAFE	Sanitation and Family Education (project)
SAE	sub-assistant engineer
SCTO	senior communication training officer
SDC	Swiss Development Corporation
SDE	sub-divisional engineer
SE	superintending engineer
TNO	thana nirbahi officer
TWM	tube-well mechanic
UNDP	United Nations Development Programme
VSM	village sanitation motivator
WES	Water and Environmental Sanitation (section, UNICEF)
WHO	World Health Organization

Glossary

hanging latrine: elementary latrine structure (sometimes just a piece of wood, with or without an upright stick to hold with one's hand to keep one's balance while squatting) with an open area below, allowing feces to fall into a pond, ditch or on the ground.

homemade latrine: ordinary pit latrine, constructed by the household, using readily available materials that cost nothing. The pit is usually rather shallow.

madrasha: religious (Islamic) school.

thana: administrative unit under the district and above the union. Each thana has one sub-assistant engineer (SAE) and four tube-well mechanics (TWMs).

tube-well: a small-diameter protected (sealed) well with a handpump.

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Annex:

List of persons met and field visits

UNICEF Headquarters:

Ms. Vanessa Tobin, Senior Programme Officer

UNICEF Bangladesh:

Mr. Rolf C. Carriere, Representative

Mr. Philip Wan, Chief, WES Section

Mr. A.S. Azad, Project Officer, WES Section

Mr. T. Danagarajan, Project Officer, WES Section

Ms. Ayesha Hossain, Project Officer, WES Section

Mr. M.J. Kabir, Assistant Programme Officer, WES Section

Ms. Shaila Khan, Project Assistant, WES Section

Ms. Farhana Huq, Project Assistant, WES Section

Mr. Neill H. McKee, Chief, PCIS Section

Ms. Pamela Clifton Reitemeier, PCIS Section

Mr. Selim Ahmed, Programme Officer, Education Section

Dr. Kamal Islam, Project Officer, Health and Nutrition Section
Ms. Shabita Saha, Integrated Basic Services
Ms. Mahera Khatun, Chief, Dhaka Divisional Office
Mr. A.T. Siddiquee, Chief, Dhaka Divisional Office
Mr. Mizanur Rahman Khandker, Field Assistant, Khulna Office
Mr. Manjur Ul Alam, Chief Rajshahi Divisional Office

Department of Public Health Engineering:

Mr. Amin Uddin Ahmad, Chief Engineer
Mr. Farid Uddin Ahmed Mia, SE Planning
Dr. A.M.S. Hoque, SE, Project Director Water Supply and Sanitation for Urban Slums and Fringe Projects, and Acting Project Director, Village Sanitation
Mr. Ahmed Mofazzal Huq, EE, Village Sanitation
Mr. Al Haj Syed A.N., Md. Kabirushan, Chief, Health Education Programme
Mr. Asadul Hoque, EE, Laxmipur District
Mr. Rafiqul Islam, SAE, Ramgoti Thana
Mr. Kazi Nasiruddin Ahmad, SE, Barisal
Mr. Bazlur Rahman, EE, Barisal
Mr. Nuruzzaman, SAE, Banaripara
Mr. Md. Abdur Rahim Khan, SAE, Gournadi
Mr. Sultan Ahamed, TWM, Gournadi

Ministry of Health and Family Planning, Directorate General of Health Services:

Dr. Sukumar Sarker, Assistant Project Director, Control of Diarrhoeal Diseases Programme
Dr. Mutiur Rahman Chaudhuri, Director, Primary Health Care and Disease Control
Dr. A. Mannan Bangali, Assistant Director, Malaria and Parasitic Disease Control
Mr. Abdur Rashid Sikder, Md., Malaria and Parasitic Disease Control

Mr. Fakrul Islam, Thana Health and Family Planning Officer,
Banaripara, Barisal District

Mr. Ali Akbar, Divisional Health Education Officer, Rajshah
Division

Bureau of Health Education:

Mr. A.M. Zaurul Alam, Chief

Mr. Khondoxer Mahfuzul Haque, Assistant Chief

Mr. Sazzadur Rahman, Training and Field Officer

National Curriculum and Textbook Board:

Professor Md. Ali Azam, Chairman, NCTB

Dr M.A. Wahab Mian, Specialist, BHE

**International Centre for Diarrhoeal Disease Research,
Bangladesh:**

Dr. Bilqis Amin Hoque, Coordinator, Community Health Division

Dr. K.M.A. Aziz, Social Anthropologist, Community Health
Division

Dr. Sushila Zeitlyn, Social Anthropologist, Community Health
Division

Mr. O. Masee Bateman, Epidemiologist, Community Health
Division

Non-Governmental Organizations:

Dr. Sadia A. Chowdhuri, Coordinator, Essential National Health
Research, and Director, Women's Health and Development
Programme, BRAC

Ms. Sumana Brahman, Health Sector Coordinator, CARE
Bangladesh

Ms. Raquiba A. Jahan, Coordinator, SAFE Pilot Project, CARE
Bangladesh

Rekha Kibria, Education Section, GSS

Mr. S.M.A. Rashid, NGO Forum for Drinking Water Supply and Sanitation

Mr. Rafiqul Haider, Sanitation Programme Coordinator, PRISM

Mr. Feroz Kabir Khan, Programme Officer, Ramgoti Thana, PRISM

World Health Organization:

Mr. Alex Redekopp, Sanitary Engineer, Team Leader

Swiss Development Corporation:

Mr. Peter Tschumi, First Secretary (Development)

Consultants/advisors:

Ms. Tahrunnesa Abdullah, Development Consultant

Mr. Nizam Uddin Ahmed, Social Anthropologist, Consultant WES Section, UNICEF

Ms. Nurzhat Shahzadi, Consultant, PCIS Section, UNICEF

Mr. Abdul Aziz, Consultant, Education Section, UNICEF

Ms. Farida Akhtar, Consultant, Education Section, UNICEF

Mr. Ashoke Chatterjee, National Institute of Design, Ahmedabad, India

Ms. Rachel Carnegie, Child-to-Child, Health Education

Mr. David Watson, UNICEF/DPHE Organizational Study, Matrix Consultants

Mr. Kees van der Poort, UNICEF/DPHE Organizational Study, Matrix Consultants

Mr. Tacco de Vries, Project Manager, 18 District Towns Project

Ms. Corinne H. Hinlopen, Community Participation, Hygiene Education and WID, 18 District Towns Project

Field visit Ramgoti Thana:

Visit to one Muslim village and one Hindu village. Informal individual and group discussions with men and women (sep-

arately). A number of latrines were observed.

Individual and group discussions with male and female VSMs and FSSs.

Visit to the thana health complex in Koritola, Lawrence Union, and discussion with the thana health and family planning officer in charge, a health assistant and a health inspector.

Visit to DPHE office in Laxmipur and discussion with the EE and the SAE of Ramgoti Thana (see above).

Field visit Banaripara and Gournadi Thanas:

Visit to three villages. Informal individual and group discussions with men and women (separately). A number of latrines were observed.

Discussion with Ms. Fatema Begum, Headmistress, Gournadi Girls' High School, Barisal District.

Visit to DPHE offices and village sanitation centres in Banaripara and Gournadi and discussions with the SAEs. In Gournadi also discussion with TWM (see above).

Visit to DPHE office in Barisal and discussion with SE and EE (see above).

Visit to thana health complex in Banaripara and discussion with thana health and family planning officer.

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This case-study presents an overview of hygiene education in Bangladesh. The overview includes both hygiene education activities related to water and sanitation interventions and hygiene education activities in schools and non-formal education settings. In addition, the case-study covers the challenging programme on social mobilization that started a few years ago with the aim of creating mass support for sanitation.

The case-study identifies three main learning points for the development and improvement of hygiene education as part of water supply and sanitation programmes. These learning points are closely related to one another; they concern the effectiveness of the hygiene education, the competence and availability of staff at all levels and the organizational structure for sustainable hygiene education.