



21st WEDC Conference

Kampala, Uganda, 1995

SUSTAINABILITY OF WATER AND SANITATION SYSTEMS



## Sanitation and hygiene, Bangladesh's action

*Dr (Ms) T. V. Luong, Bangladesh*

DURING THE INTERNATIONAL Drinking Water Supply and Sanitation Decade (1981-1990) Bangladesh has already achieved the universal coverage of water supply in the rural areas. Today, 85 per cent of the rural population have access to safe water supply within 150 metres at the average of 115 persons per public operating tubewell. In addition, there are more than 1.6 million of private tubewells (1). Over 97 per cent of the rural people drink tubewell water. Yet, the prevalence of communicable diseases such as diarrhoea and intestinal worm infections remains high. Every day more than 700 children under the age of five die of diarrhoea. It is obvious that improved public health can not be achieved by provision of safe water along unless people take actions to clean up the environment and adopt good hygiene to break the disease transmission routes.

Promotion of sanitation in rural Bangladesh began in the early 1960's. By 1989 only 10 per cent of the rural population had sanitary latrines after more than two decades of promotion. However, accelerated progress has been made in the last few years. The government's mid-decade goal of 35 per cent sanitation coverage has been achieved during 1994 and a national coverage increased to 41 per cent in January 1995. Also, there has been an improvement on people's hand washing habit after defecation. A national average of 70 per cent people use soap/ash or soil as rubbing agent (2). The recent steady progress made on sanitation and hygiene in rural areas can be attributed to the following key factors:

- intensive social mobilisation;
- introduction of a range of low cost latrine options including "do-it-yourself" simple pit latrine and
- high political commitment.

### Integrated approach and building up partnership

Until 1987, sanitation received little emphasis compared to the water sector. Realizing the potential of better impact on health, the Department of Public Health Engineering (DPHE), the Government rural water supply and sanitation implementing agency, assisted by UNICEF, adopted an Integrated Approach (IA) using water supply as an "entry point" to promote sanitation and hygiene. The IA also laid the foundation for social mobilization, as partners from other sectors e.g. education, health, women affairs, NGOs, scouts and girl guides and religious leaders were involved in promotion at the field level.

Schools, Madrasas (religious schools), Expanded Programme on Immunization (EPI) centres and Satellite Clinics for Mother and Child Health (MCH) have been involved as change institutions where promotion on improved sanitation and hygiene started within these institutions and extended to the communities. Sanitary latrines and water supply facilities were provided to selected schools to enhance students' behavioural change. This resulted in about 10 per cent increase in girls attendance (3). Sanitary latrines are being built in selected EPI/MCH centres to benefit mothers who visit these centres and to serve as demonstration model for health workers to promote hygiene and sanitary latrine in the communities.

The widespread demonstration, production and sale of latrines by government centres and NGOs over the years, combined with intensified sanitation and hygiene promotion have stimulated the demand for sanitary latrines. This has created market opportunity for the private producers and led to the further growth of the private sector.

A national survey on latrine producers and market situation in Bangladesh in early 1994 reported that there are a total of 4152 latrine producers in the country. The number of private producers doubled in the last three years reaching more than 2700. It is interesting to know that about 100 potters are currently producing burnt clay rings for sale as latrine pit lining. These burnt clay rings are traditionally used as lining for dug wells (4). All producers are concentrated in 1800 Unions and 430 Thanas. There are more than 2500 Unions and 30 Thanas currently without any producer. To meet the demand in the unserved areas, DPHE has already set up 255 mobile centres in places where the demand is high. Actions are being taken up by DPHE and NGOs to set up more production centres in the unserved areas.

### Intensive social mobilization communication and hygiene promotion

A national conference on social mobilization for sanitation and hygiene inaugurated by the Prime Minister, Begum Khaleda Zia, in February 1992 added a new dimension to the social mobilization initiative taken up by DPHE and other partners in the country.

Subsequently, a "National Sanitation Week" was launched by the Prime Minister in October 1994 to intensify and accelerate the social mobilization efforts. In her inaugural speech, she called for a concerted effort to achieve a new Mid-decade goal of 50 per cent sanitation

coverage by 1995. The National Sanitation Week has demonstrated the highest level of political commitment on improved sanitation and hygiene.

A three-year social mobilization programme (1994-1996) is being implemented to strengthen the on-going rural sanitation programme. The programme also aims at building up the DPHE's capacities on social mobilization and communication to complement their technical inputs. DPHE is setting up a Social Mobilization Division and a Training Division with communication staff.

The intensive social mobilization programme has marked the turning point for sanitation and hygiene prospect in Bangladesh. Furthermore, the programme also transforms DPHE from a largely technical and "hardware" organization to one which gives greater focus to software aspects and facilitates partnership-building with other sectors.

To establish a community-based infrastructure at the community level for promotion and monitoring of the sanitation and hygiene activities, a Water and Sanitation (WATSAN) committee at each Union has been formed. The Union Parisad Chairman serves as the WATSAN Committee chairperson and the DPHE sub-assistant engineer, the secretary. The Union WATSAN committee members (40 per cent females) consist of selected Ward councillors, teacher, health worker, community leaders, local NGO representative. The functions of the Committee and the roles and responsibilities of the members are contained in a set of guidelines developed by DPHE (5).

The need for behavioural change and the role of women as key change agents has placed the hygiene education high on the Programme activities. Gender-sensitive promotional materials on hygiene have been developed, used and updated as necessary. Community awareness is created by field motivators through interpersonal communication and courtyard meetings in the villagers. DPHE staff at all levels and field workers have been given training on communication skills.

A recent village-based study (6) focused on women's knowledge, practices and attitudes in water use, sanitation and hygiene reports the following:

- some girls as young as five years old are also water carriers;
- majority of rural women (eighty-five/ninety-six per cent) are aware of the health benefits of safe water, sanitary latrine and washing hands;
- more than ninety per cent of rural women wash hands with soap/ash or soil after defecation and after cleaning baby's bottom and before handling food. In spite of having the knowledge, the rural women are still continuing their traditional practices. In another study, rural women were found to wash their hands more than twelve times a day, but they did not do it in a proper way and they dry their hands with dirty clothes (7).

These studies indicate that rural women are aware of the health implication of unsafe water, unsanitary envi-

ronment and dirty hands. However, they need further education and motivation to change their habits and practices for tangible health benefits.

### The challenges

Improved sanitation involves not only technology; it hinges on human behaviour and attitudes. The major challenges are:

- sustained behavioural change and durability of the low-cost latrine technology;
- enhanced motivation for women's participation, and
- strong participatory monitoring mechanism at all levels for continuous assessment of behavioural change, use of sanitary latrines and quality of latrine construction.

Research and studies are being carried out to provide necessary information for sustained behavioural change and further improvement of the technology and environmental safety. Maps of top soil conditions and high ground water level for all Districts in the country have been produced. These maps show geological and geographical locations where pit lining is essential. Currently, a study on pit lining technologies using locally available materials is on-going in different areas to determine cost-effective options. Proper application of these simple technical information can further enhance the sustainability of low-cost latrine technologies. For environmental safety, a ground water monitoring study on pollution risk from pit latrines is being formulated. The results of an on-going anthropological study on men, women and children in the context of water, sanitation and hygiene will provide some basis for further sharpening of promotional activities and messages to fundamentally change behaviour.

Over the years, women's involvement in the programme implementing process, particularly at the community level, is quite visible at various places. In some areas women have successfully taken the lead in promotion of sanitation and hygiene. However, motivation for women's participation at all levels is essential for the acceleration of progress and sustained behavioural change.

### Conclusion

Bangladesh has demonstrated the positive and realistic ways of promoting sanitation and hygiene under some of the most difficult situations such as massive poverty and high illiteracy rate. The great strength of the programme is the ability of the DPHE and other partners to adopt various approaches to meet the programme needs at different stages. Furthermore, national commitment, supported by various field level organisations is growing. Currently, the Government of Bangladesh is formulating a policy on water supply, sanitation and hygiene programme. The lessons learnt over the years on the promotion of sanitation and hygiene activities should provide the basis to further accelerate the programme in the future.

**References**

- 1 Mitra and Associates (1992), National Survey on Status of Rural Water Supply and Sanitation, Bangladesh, DPHE-UNICEF.
- 2 Bangladesh Bureau of Statistics (1995), Progotir Pathay, Ministry of Planning, Government of Bangladesh.
- 3 Consulting Services and Associates (1994), Evaluation of the use and Maintenance of Water Supply and Sanitation System in Primary School, DPHE-UNICEF.
- 4 House of Consultant (1994), A National Survey on Latrine Producers and Market Situation, Bangladesh, DPHE-UNICEF.
- 5 Department of Public Health Engineering (1995), Guidelines on the formation of Union WATSAN Committee, Government of Bangladesh.
- 6 Voluntary Health Services Society (1995), Women in the context of Sanitation, Water supply and hygiene: a village based study, DPHE-UNICEF.
- 7 B.A. Hoque and S.A. Ahmed (1995), Handwashing, Home Management of Water and Ingestion of Polluted Water, International Centre for Control of Diarrhoea Research, Bangladesh, DPHE-UNICEF. (draft report)

The water and sanitation programme in Bangladesh is supported by UNICEF through funds from various donor agencies, particular DANIDA and Switzerland Development Cooperation (SDC).

\*Bangladesh has 114 million population over an area of 147570 sq. km; 5 administrative divisions, 64 districts, 460 Thanas and 4451 Unions.

**Rural women handwashing practices<sup>(6)</sup>**

**Access to sanitary latrine in rural Bangladesh**