



Sanitation Week '96

Build a sanitary latrine for every family, let everyone, old and young make use of it and keep it clean at all times.

A one ring, one slab latrine is inexpensive and easy to make.

Wash both hands thoroughly with soap, dry soil or ash, before you eat and every time you use the latrine

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Development of Rural Sanitation in Bangladesh

THE developed countries of the world today are ceaselessly engaged in research work for making the diseases like AIDS and cancer easily curable. For other curable diseases they have no concern as they know the remedies and have arrangement for preventive measures. On the other hand the underdeveloped countries of the world have been dragging on with the sufferings of millions mostly from curable diseases. Many of these diseases stem from absence of sanitary defecation systems. This essay is an attempt to focus on the development of rural sanitation system in Bangladesh.

As regards rural sanitation in Bangladesh, no significant coverage has so far been achieved. In the past all efforts were concentrated to improve water supply situation within the rural community. The strengthening of the sanitation programme was started only a few years back. At present the local as well as the external assistance have been combined effectively to play significant role towards improving sanitation situation in rural Bangladesh. The steps so far taken in accelerating this programme have

been proved satisfactory. The coverage is now 48% (13% by water seal and 35% by pit latrine). Millions of microbes live in human excreta. Indiscriminate defecation practice makes avenue for transmission of pathogenic bacteria to human body through various ways, thereby making healthy persons sick. Twenty thousand metric tons of human excreta discharged in the surface of Bangladesh everyday are polluting our environment and about 2.5 lakh children under five die every year in Bangladesh due to diarrhoeal diseases which are directly linked to unsanitary defecation practice.

Safe water and sanitation practice are preconditions of good health. In rural water supply we have achieved remarkable success. Now about 86 percent of our rural population have access to safe water mainly from hand pumps within 150 meter distance from households. But our sanitation situation is bleak. As a result the full benefit of safe water supply could not be harvested.

Aminuddin Ahmad
Chief Engineer, DPHE

From the health point of view the importance of hygienic sanitation practice can not be denied. There is no room for complacency in our success of water supply as we are lagging behind in respect of sanitation without which health impact will not be realized.

Let us now look at the village sanitation project of DPHE. In 1950 the idea of village sanitation project came into being with WHO assistance having the objectives of (i) research and development on use of safe water supply and sanitation, (ii) practical application of research outcome and (iii) looking into the effects of water supply and sanitation in controlling outbreak of cholera and diarrhoeal diseases. Under that project there was a provision for installation of slanting pit latrines. But the project could not come out successful due to fund constraints and inadequate management.

Afterwards in 1962 a small scale project on sanitation was undertaken with UNICEF assistance, where there was a provision of supplying concrete slab latrines to 2 lakh families un-

der 10 selected Thanas. Latrine slabs were produced at Thana headquarters and were distributed to rural families free of cost through union parishads. A total of 1.6 lakh of slabs were produced and supplied under this project. But absence of pit lining rings in those latrines made them inoperative due to land slide and as such the project could not bring about expected health benefit.

In the subsequent year in 1963, DPHE procured a design of latrine slab from Chingnai in Thailand, which was later improved and changed to a water sealed slab latrine. With the assistance of W.I.O, DPHE took up a pilot project and distributed 10,000 improved latrine slabs to rural families by 1964. Later on the design of the slab was further improved for installation in subsequent projects.

A large scale sanitation project was undertaken in 1975. DPHE came up with the Village Sanitation Project, Phase-I for implementation during 1975-82 with UNICEF assistance. Under this project, a target of supplying free of cost 2.80 lakh sets of latrine to the families of 620 villages under 62 subdi-

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MESSAGE

The Department of Public Health Engineering under the Ministry of Local Government, Rural Development and Cooperatives and UNICEF have taken initiative for observance of the National Sanitation Week 1996. I believe that observance of this week will go a long way in motivating all people in their day to day hygiene practices and encourage them to actively participate in the sanitation activities.

The Department of Public Health Engineering is engaged

in the implementation of development projects in the field of sanitation in rural Bangladesh. Since it is very difficult for the department alone to accomplish this uphill task with its limited resources and manpower, non-government and voluntary organizations should also come forward to work hand in hand with it for promotion of sanitation activities in the villages. The observance of this week with UNICEF assistance will be very helpful to attain the national goal 'Health for all by the year 2000'.

It is my firm belief that successful implementation of sanitation activities will prevent diarrhoeal diseases and thus reduce the infant mortality rate to a great extent.

Hence, I call upon everyone irrespective of group or class to take part in observance of the sanitation week.

I wish the National Sanitation Week every success.

Md Zillur Rahman
Minister
Ministry of Local Government, Rural Development and Cooperatives
Government of the People's Republic of Bangladesh

Towards a Common Vision for Sanitation, Hygiene and Primary Environmental Care

Dr Deepak Bajracharya

Chief, Water and Environmental Sanitation Section
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THE observance of National Sanitation Week, as over the last two years, is more than a social mobilization event. It generates enthusiasm and commitment to achieve universal sanitation coverage by the year 2000. It opens up to public review the past year's achievements. Government officials, NGOs, communities, and families look at persistent challenges and plan how to tackle them. And, by increasingly focusing on behavioural development, it helps to ensure that children learn in a clean and safe environment, acquire correct hygiene behaviour from the

start of life, and increases their role as communicators and agents of change, fulfilling some of their fundamental rights.

Achievements so far are considerable. Momentum has been generated to ensure that every household will have a sanitary latrine. Today, about half of all rural households have a water-seal or a home-made pit latrine, a three-fold increase, compared to 16% in 1990. In urban areas, coverage has doubled, from 40% in 1990

to 79% in 1995. Significantly more people are no longer practicing open defecation nor using handpots or other latrines that do not isolate faeces. The credit goes to high government officials and people's representatives at all levels who demonstrated the necessary political will; to DPHE, the lead government agency for the sector; and to NGOs which mobilized communities and encouraged households to install hygienic latrines. Equally encouraging is the presence of more than 4,200 private latrine producers spread across the country that now supply the hardware to meet the increasing demand.

Participants at a recent Future Search Conference on Safe Water, Environmental Sanitation and Hygienic Behaviours, organized jointly by the Ministry of LG&D&C and UNICEF, concluded that this momentum

for universal sanitation coverage must be kept up. What is especially noteworthy is that participants emphasized the need for greater attention on the development of hygienic behaviours and on protection as well as care of the environment. Participants recognized the primacy of enabling the household and the community and streamlining the partnership of all stakeholders to that effect. This common vision is the collective wisdom reached through active participation of a wide spectrum of stakeholders: direct beneficiaries from rural areas, representatives from the private sector and NGOs, and high-level government officials (including policy makers, planners and programme implementers).

The strongly-felt need to add this dimension came from the persistence of water- and faecal-borne diseases in Bangladesh despite the success achieved so far in safe water.

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Appropriate and adequate sanitation system is one of the preconditions of healthy living, which the country is yet to achieve. As a result, on an average a staggering number of seven hundred children die of water borne diseases every day. Children are the country's future. We cannot allow our future generation to be helpless victims of such diseases, nor could we remain apathetic to the lack of proper sanitation system in the country, which is

posing as a great health hazard.

With the formation of the people's government under the dynamic leadership of Prime Minister Sheikh Hasina after long twenty-one years new vistas have been opened for formulating pro-people policies and implementing them with devotion, dedication and sincerity.

Against this backdrop, I welcome the observance of the National Sanitation Week 1996. In the changed political realities now prevailing in the country I expect that the observance this year should be altogether different. We should see to it that it does not become merely a ritual.

Sanitation should be taken up as a social movement and motivation involvement and participation of all strata of people should be ensured for the success of this endeavour.

I wish the Sanitation Week 1996 all success.

Ahij Syed Abul Hossain
State Minister
Ministry of Local Government, Rural Development and Cooperatives
Government of the People's Republic of Bangladesh



MESSAGE

The National Sanitation Week is going to be observed for the third time in the country. The objective of this observance is further spreading the awareness about sanitation and hygienic behaviour among the people and to promote support of all political leaders, public representatives, administrators, educationists, religious and social leaders, women's groups and NGOs in this respect.

Though at present 96 per cent of the population are covered under safe drinking water practically only about 26 per cent of the rural population use safe drinking water for domestic purposes. The use of hygienic sanitary method is even more dismal as only 48 per cent population come under its coverage (13 per cent water seal and 35 per cent pit latrine). Though a priority area for a long time, the increase of coverage under

safe drinking water and sanitation continues to draw our serious attention on an emergency basis. If success can be achieved in these two areas, the rate of infant mortality can be drastically reduced and the goal of health for all can be achieved.

Our goal is to achieve 100 per cent coverage in sanitation in rural areas in two years for which optimum use of resources and maximum efforts will have to be made. We would like to enter 21st century with 100 per cent coverage in both safe drinking water supply and sanitation. For this to happen the participation of local communities, local government bodies, government and non-government organizations, donors or organizations and the media is essential. If the awareness among people about the need for safe drinking water and sanitation can be increased further through the observance of the sanitation week, an important step will have been taken for attainment of the desired goal. This year a new component has been added to the programme of the Sanitation Week. One toilet for girl students in a school in each union and thana will be constructed by the DPHE. It is hoped that this programme can be expanded in collaboration with the donors and Ministry of Education. Let us hope that the Sanitation Week becomes a social movement and highlights its continuing role throughout the year.

Hasnat Abdul Hye
Secretary
Local Government Division



MESSAGE

The past two and a half decades have seen tremendous achievements and challenges, not the least of which in the areas of water and sanitation. We often say that 'water is life'. Bangladesh's achievement in increasing access to safe water to 97 per cent of the population today is to be considered not only a life-saving public health achievement, but also a great step towards a better standard of living to which children are entitled as an inherent right.

By the same token, we might also say that 'poor sanitation is death'. Bangladesh still lags behind in preventing the spread of many water- and faecal-borne diseases because of the use of unsafe water; unsanitary environment; and poor personal hygiene practices. These are some of the major causes of 80 per cent of the diseases afflicting children in Bangladesh. Diarrhoea, one of the deadliest diseases spread by the use of unsafe water and

unsanitary practices, causes some 700 deaths of children under five every day.

We can all contribute to the prevention of this tragedy. We can promote the easily doable solutions, including the use of sanitary latrines and hand-washing after defecation and before meals. There is progress to build on: about 48 per cent of the population used sanitary latrines in 1995, compared to 10 per cent in 1989. The goal is to achieve universal coverage of sanitary latrines by the year 2000.

We should do this FOR the child, and also start WITH the child. We need to focus on increasing awareness, promoting correct practices in every household, in every school, and ensuring that every child grows up developing correct hygiene behaviour in a safe and clean environment. We count on the continued support of many partners with this common goal in sight, including communities, government agencies, community-based organizations, NGOs and private sector producers of sanitary products.

Let us dedicate this occasion of the 1996 National Sanitation Week to reaffirming our commitment to providing a safe water supply as well as ensuring sanitation and correct hygienic practices in every household by the year 2000. The outcome will not only be a public health achievement, but also a people's movement for children — and the future of the country.

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Environmental Concerns in Bangladesh

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also one of the poorest countries with per capita income of only \$220 as per 1994 records.

Major environmental issues in Bangladesh

Major environmental issues which threaten sustainable development and even existence of Bangladesh are as follows: (1) Population growth, (2) Natural Hazards, (3) Agriculture, (4) Water, (5) Land issue, (6) Forestry, (7) Industry, (8) Biodiversity, (9) Sea-level Rise, (10) Global Climate change.

Causes and Classification of Environmental Degradation

Naturally, environment is not polluted unless some natural catastrophes such as eruption from volcanoes, earthquake, cyclone, flood, tidal surge etc cause it. Environmental pollution is mainly caused by human activities,

unplanned development, disharmonious urbanization, over-exploitation of soils, use of excessive insecticides, pesticides, chemical fertilizers, untreated industrial waste, establishment of industries in residential areas, industrial accidents, fossil fuels, deforestation, over population, poverty, illiteracy, black smokes and sharp horn from vehicles, inadequate sanitation system, over exploitation of natural resources and many other factors are altogether contributing pollution to our environment thereby destroying the overall ecological balance.

Any degradation due to physical, chemical, biological and radiological change in the qualities of the environmental elements such as water, air, or soil caused directly or indirectly or subsequently which may give rise to adverse effect is defined as environmental pollution.

Pollutants which cause pollution are of three types, viz (1) Energy based pollutants such as noise, heat and radiological emission (2) Chemical pollutants such as organic/inorganic and manmade or natural substances and (3) Organisms such as virus, bacteria and parasites.

Environmental pollution are mainly classified in to four group — Water pollution, Air pollution, Soil pollution and Noise pollution.

Arsenic Toxicity is one of the main contributors of water pollution at present in Bangladesh and this issue will be discussed accordingly.

In the recent past all over the country, in virtually every villages and towns Arsenic problems were spreading like anything. Panic was created among the

public. Neither a single day was passed without a single discussion or debate nor a single national or local daily was published without news or report. Unfortunately over the last few years there has been alarming news of arsenic related cases reporting to dermatologists and physicians seeking treatment for their ugly ailments and remedy for the unforeseen consequences. Not only the Government but also deferent agencies related directly or indirectly like DPHE, Health Department, WASA, WHO, UNICEF and others also became worried and started investigation with the issue to find a probable solution.

In the past major arsenic toxicity problem have occurred in many countries of the world i.e. Taiwan, Chile, Mexico, Argentina, Poland, Hungary, Thailand, USA, etc. but the incidents of arsenic poisoning was unknown in the sub-continent except in West Bengal of India. The issue of arsenic in underground drinking water was possibly noticed in 1978 in

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Role of DPHE in Rural Sanitation: Impact on Rural and Social Infrastructure

Overview of Sanitation Situation in Bangladesh

Bangladesh has achieved about 90 per cent coverage in rural water supply having access to tubewell water within 150 meters, but has lagged far behind in rural sanitation which rose from 6 per cent in 1987 to 10 per cent in 1989 and 26 per cent in 1991. The big jump in coverage from 10 per cent in 1989 to 26 per cent in 1991 was possible due to a change in policy of the government by bringing the other private and NGO development partners into confidence. Today the coverage in rural sanitation is about 44 per cent. The target is universal access to water supply for the year 2000.

In the past, DPHE used to construct, supply, sell and impart technical knowledge for installation of the low cost sanitary latrines in the rural areas without giving adequate attention to the behavioural changes of the people. If attention is focused further back, it

can be seen that during the decade of 1960-70 people were reluctant to use sanitary latrines, even if these were given free of cost. Now the situation has changed and a demand has been created. Sanitary latrines are on sale, market extended to private producers, which substantiates the positive role of DPHE on rural sanitation.

The recent trend of DPHE to implement sanitation programme along with the participation of other private bodies and NGOs has clearly shown the impact of DPHE policy on the rural sanitation pushing the rural sanitation coverage from 10 per cent in 1989 to 44 per cent in 1995. This achievement is a remarkable one and must be noticed as a success of policy changes in the government.

DPHE has about 1000 sanitary latrine construction centres in the country. It is evident that these centres are not sufficient to produce the required number of latrines for the entire rural area of the country. Therefore, DPHE has taken up a programme of encouraging establishment of private production centres at different growth centres of the country as a result about more than 4000 private producers have entered into the profession by establishing private production centres.

DPHE has arranged training to the latrine users for installation and maintenance of the latrines. It has also imparted training to the masons and labourers of the private production centres with a view to increasing the production efficiency of the workers. This has created trained manpower in this field, although the situation demands large scale training needs.

DPHE has been constantly undertaking research and development programmes with the aim of developing more efficient, reliable, acceptable and cheaper latrine technology. By doing so, DPHE has been trying to standardise the design which can be replicated by the private producers.

Alhaj Md Quadiruzzaman
Additional Chief Engineer, DPHE

Role of DPHE

Bangladesh was among the first twenty-two countries to ratify the UN convention on the rights of the children. It was also a signatory to the declaration of world summit in 1990. All signatories at the summit agreed upon a set of goals for child survival and development to be incorporated into national plans of action, universal coverage of water supply and sanitation being one of them.

The Bangladesh goals for W/S and sanitation by the year 2000 are as follows:

1) Universal access to safe drinking water.

2) 80% coverage of sanitary means of excreta disposal.

The DPHE being the lead agency in this sector has every responsibility to achieve the goals as enumerated in the UN declaration.

Since then, DPHE has been striving hard and launched and concentrated all efforts for a vertical social mobilisation for sanitation programme. However, the Bangladesh government achieved mid-decade goal of 36% sanitation coverage. In 1994 during the inauguration of sanitation week the honourable Prime Minister declared new mid-decade goal of 45 per cent coverage by 1995. National sanitation week created further momentum for increase of sanitation coverage. The Finance Minister immediately allocated substantial fund for further promotion/coverage in sanitation. The role of DPHE was very significant and laudable.

Effective Communication
The real success of DPHE programme depends on reinforcing the intensive hygiene education in the community. In the past, communication activities under the DPHE have been few. Efforts have been made to train the TV mechanic, caretakers, chairman-UP, NGO workers, school teachers.

National Media: TV and radio being the widest national media of the country there is wide scope for utilisation of the

mass media. Effective dissemination of information on sanitation and hygiene is on progress. Different agencies are now working to design the appropriate message concept which will fit in a culturally sensitive manner. DPHE has been working with different news media.

Analysis and Impact on the Society: On analysis of the development and promotion activities reflected in the description backed by different data, charts, graphs and research results mentioned in earlier chapters on sanitation, the impact of DPHE activities in the rural society can well be understood. The impact of DPHE activities may be summarised as follows:

Technical Innovation: DPHE from time to time since 1962 has been constantly trying to bring a change in the latrine technology taking into consideration the right type of design, acceptability of the latrines in terms of user-friendliness, easiness and cost. As a result technological innovation has taken place in the sanitation field and various designs such as latrines having water seal or no water seal slabs, rings of varying diameters/dimensions and thickness, latrines with various materials and strengths etc. have been devised and tried by the people themselves. Thus they have been actively associated in the design and production of latrines.

A Shift in the Sanitation Policy: A shift of policy in terms of sanitation has taken place. People who could not afford to buy DPHE type concrete water seal latrine have been more inclined to the home made latrines made of indigenous materials at a cheaper cost. This has created a positive impact on the society by increasing the sanitation coverage at a faster rate from 11 per cent in 1994 to about 46 per cent in 1996. The salutary effects are: increase in awareness, recognition of women's role, self-help in maintenance of water sanitation utilities, people's participation, enhancement of self-respect, increase in en-

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