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### SUSTAINABLE DEVELOPMENT OF WATER RESOURCES, WATER SUPPLY AND ENVIRONMENTAL SANITATION

## Process Proved Product: A case of Hygiene Project in Bangladesh

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*This paper deals with a Hygiene Project in Bangladesh, financially supported by the United Kingdom Department for International Development (DFID), technically assisted by the UNICEF and implemented by the Department of Public Health Engineering (DPHE) of the Government of Bangladesh. The project work started in November 2002 and ended in December 2005. The purpose of the project was to improve hygiene practice and behaviour, especially for the poor, and to contribute to reducing mortality, morbidity and malnutrition caused by poor sanitation and unsafe water related diseases, especially among women and children. The project adopted some participatory mechanisms that helped communities take the lead in planning, implementation and monitoring of the project activities. The project focused much on the community processes that led the community to achieve the project goal as the communities are at the centre of changing their own behaviour on a sustainable basis.*

### Background

DURING the UN Declared International Drinking Water Supply and Sanitation Decade (1980-89), Bangladesh started its journey towards improvements of water and sanitation coverage. In 1980, only did 1% of the population use latrines that safely confined human waste. Safe water supply coverage was only 37%. Within the decade and in spite of rapid population growth, sanitation coverage increased to 16% while water supply went up to 90% (DPHE et al, 2001).

In 1992, a national conference on social mobilization for sanitation was inaugurated by the then Prime Minister, heralding a new political willingness to tackle the sensitive subject of environmental pollution by human excreta. A national sanitation logo was launched, with three messages for health: safe use of latrine, washing hands, and using tube well water.

In 1993, first "Sanitation Week" was launched to mobilize the society towards installation of sanitary latrines and improved hygiene behaviour. This initiative raised sanitation coverage in rural areas from 16% to 37% in 1999. But that was not even half of the journey. Moreover, increased water supply and sanitation coverage could not reduce the incidence of diarrhoea proportionately. In that context it was revealed that lack of hygiene practices was one of the major factors.

Historically, the government's role was limited to provision of latrines free of cost. Community involvement was not considered necessary. The situation analysis found that about 41% of the population used unsafe over-hanging latrines, only 19% of children's excreta were disposed of in sanitary latrines and just 20% of the population washed their hands with soap or ash after defecation (UNICEF, 1999).

United Kingdom Department for International Development (DFID) came forward with their assistance to support a Hygiene Project through UNICEF. The project covered 37 upazilas (sub-districts), out of 472 and addressed 8.4 million people, out of 140 million of the country. The project work started in November 2002 and ended in December 2005. The purpose of the project was to improve hygiene practice and behaviour, especially for the poor on a sustainable basis, thereby contributing to reducing mortality, morbidity and malnutrition caused by diarrhoea and other poor sanitation related diseases, especially among women and children.

The project adopted some participatory mechanisms that helped communities take the lead in planning, implementation and monitoring of the project activities. The project focused much on the community processes that led the community to achieve the project goal as the communities are at the centre of changing their own behaviour.

This paper focuses on the guiding principles of the project, modus operandi, involvement of the local government institutions, achievements made and lessons learnt.

### Guiding Principles of the Project (DPHE et al, 2001).

- Human rights and social justice for all
- Poverty focus and empowering the voiceless
- Demand responsive
- Sustainability
- Building institutional capacity and partnerships
- Inter-sectoral linking
- Monitoring and utilizing lesson learned.

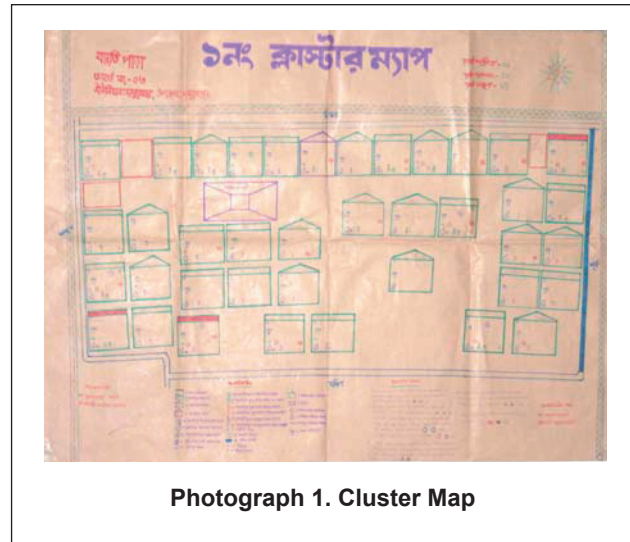
## Modus Operandi

Participatory Rural Appraisal (PRA) method was followed in almost all aspects of project planning, implementation and monitoring. An agency called “Facilitating Agency” was engaged in the district level to impart training/orientation to all the stakeholders of the sector to sensitize them in taking part in the project implementation. Facilitating Agencies also trained the “Field Agency” staffs in upazila (sub-district) level, who were the prime actors in mobilizing the community. Field Agency engaged one local man/woman from the locality known as “Community Hygiene Promoter” (CHP) for about 400-500 households to work with in the community intensively in finding out their water supply and sanitation needs, on a priority basis. In true sense, he/she was the main actor, who bridged the gap between the project and the community. There was a supervising staff for CHPs in a union (sub-upazila), who guided the CHPs in delivering assistance to the community. Primarily, the following eight steps were followed in involving the community members to prepare a Community Action Plan (CAP) and a **community map** showing all the existing water and sanitation facilities in the locality.

## Eight steps of community Action Plan (CAP)

1. Community meeting
2. Transect walk
3. Community mapping
4. Wealth ranking
5. Focus group discussion
6. Ideal *bari* (home) building
7. Consensus building
8. Community action plan

In the process of involving community, the CHPs arranged community meetings to explain the project objectives and necessity of sanitation and hygiene practice. Community people including elites and CHPs then took part in a visit to see the existing water supply and sanitation situation of the area, so that, they themselves could take part in planning process for improvement of sanitation situation. Preparation of community map was the next step. First the beneficiaries drew the social map of the locality on the ground. CHPs tried to involve everybody in the process of drawing map, so that, they felt ownership. CHPs asked somebody to find out certain things, such as, his/her house or house of the nearest one for understanding of map and for creating interest. In true sense, the prepared map might not satisfy the basic requirements of a standard map, but every thing, necessary for preparation of community action plan regarding water supply and sanitation were included in it and community owned it. Community’s ownership for map contributed a lot to achieve project objectives. And that was the beauty of the project. The map was then drawn in a piece of paper,



Photograph 1. Cluster Map

with the help of community members by the CHPs. In the map, it was also indicated that who were the well off, who were the middle class and who were the poor families in the locality. For doing this, a number of indicators had been used considering the local socio-economic situation. This was wealth ranking. The community people then took part in several discussion sessions to find the ways and means to get rid of sufferings caused by insanitation and lack of proper hygiene behaviour. CHPs helped them to materialize their dream for an ideal home considering WATSAN (Water & Sanitation) aspects. Community people themselves drew their future house and hanged it on visible location of their present house. This was called “**Ideal Bari (home) Building**”. Ideal home was individual initiatives. Community also came up with their ideas and views to bring positive changes in water supply, sanitation and hygiene behaviour. After many trials and errors community came to a common decision regarding future plan of action. Finally, community action plan had been prepared for implementation.

The above participatory process was not followed throughout the whole project period in a similar fashion. During project implementation, depending on local situation and sentiment of the beneficiaries, changed modalities were followed to ease the process. But the variation was not much.

Certainly, the process described above was a long process. But it revealed that this was one of the most effective tools for materializing a demand driven project. Obviously, this is a continuous process and needs regular updating of the map and CAP. But it keeps the community getting involved them in the whole project process.

## Involvement of Local Government Institutions

In Bangladesh there are four tiers in Local Government Institutions (LGIs). Starting from the grassroots levels, these are Gram Sarkar (village government), Union Parishad (sub-upazila level), Upazila Parishad (sub-district level)

and Zilla Parishad (district level). Project target was to involve first two tiers intensively. Central government, by circulating orders, formed Ward WATSAN committee, Union WATSAN committee, Upazila WATSAN committee and District WATSAN committee, so that, the committees could work with full authority.

Project also put due emphasis in involving LGIs by giving them leadership in implementation. Beginning from the recruitment process of the Field Agency staffs, Union Parishad Chairpersons were involved in project activities. In providing hardware support for water supply, the Union Parishads were the final approving authorities for selection of sites and types of water sources the particular area requires.

As part of social mobilization activities multi-pronged communication techniques were used. Arrangement of WATSAN fair at union level; arrangement of drama, folk song, video show, TV spots, film show at crowded places of union, tea stall session, court yard session were few of these. Union Parishad chairpersons and members of the union parishad including the women members were involved in deciding the places and times of the events.

Facilitating Agency, engaged at district, imparted orientation to the chairpersons and members of the Gram Sarkar and Union Parishad.

Existence of hanging latrines was one of the hindrances in achieving project targets. Project policy regarding hanging latrines was to convert or replace it with sanitary ones by motivating the community members without any coercion. For doing this, convincing the LGI leaders was the first task. The leaders shouldered the responsibility and motivated people to replace the hanging latrines with hygienic ones. Sometimes, local leaders took very interesting and effective measures to eliminate open defecation. A union parishad chairperson supplied whistles to the community people to blow it when anybody went for open defecation. Another leader supplied pair of sandals of different colours to community members to use at the time of using latrine, which refrained them from using the same for other purposes.

**Achievements made**

The project has made a number of achievements in improving sanitation and hygiene practices. The following three are the major ones:

**Results in sanitation**

Table. 1 presents that a large number of community people have constructed new latrines in the project areas. Over the period 44% of the people having no latrine earlier constructed new ones and use them.

**Results in decrease of open defecation**

Over the project period, open defecation has been decreased tremendously in project areas (Eusuf & Associates, 2006). Figure. 1 shows that open defecation dropped from 30% to 7%.

**Results in hand-washing**

In 2000, the status of hand washing after defecation with ash as reported was 19% and 3% with water/soap in rural areas only (UNICEF, 2000). In 2005, the status of hand washing with ash as reported was 12% and 75% with water/soap in rural program areas (Eusuf & Associates, 2006).

The findings support the fact that knowledge and practice as regard to personal hygiene has significantly improved. During demonstrations the data suggest that about 50% of people wash their hands with soap/ash and water. The behaviour people demonstrated was verified in subsequent field observations conducted by the independent monitors without informing them (people) of their (monitors’) presence. Moreover, the project personnel (field agency staffs) also observed the behaviour of the people at different critical times keeping them out of the sight. However, it is difficult to claim that the same level of behavioural pattern will continue in future also, especially when the external support will be withdrawn. Nevertheless, it is hoped that personal hygiene behaviour of the people will be sustained because of their motivation and ownership achieved by the intensive project processes.

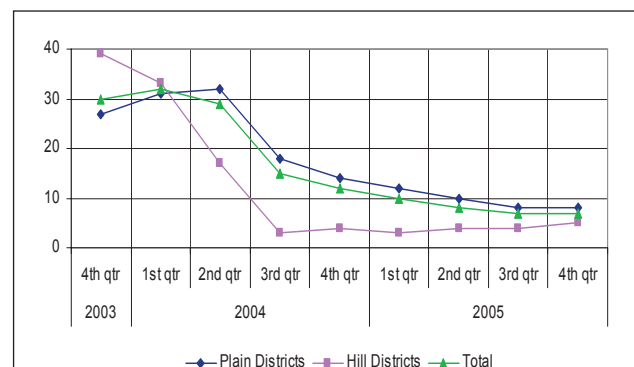
Water and soap availability in /near latrines also increased significantly. Figure. 2 indicates that availability of soap/ash in /near latrines increased from 43% to 73%.

It is important to note that the community could see the destination they want to reach. Before starting the project, sanitation and personal hygiene behaviour was one of the most neglected issues in the community. At the end of the

**Table 1. Latrine construction during project period for plain lands**

Year	No. of HHs	No. of latrines installed	%
Nov. 2002	1,583,400	500,392	32%
Nov 2005	1,656,801	1,255,485	76%
Increase in three years	73,401	755,093	44%

Source: Field Agency reports compiled by DPHE



**Figure 1. Faeces lying around the households in %**

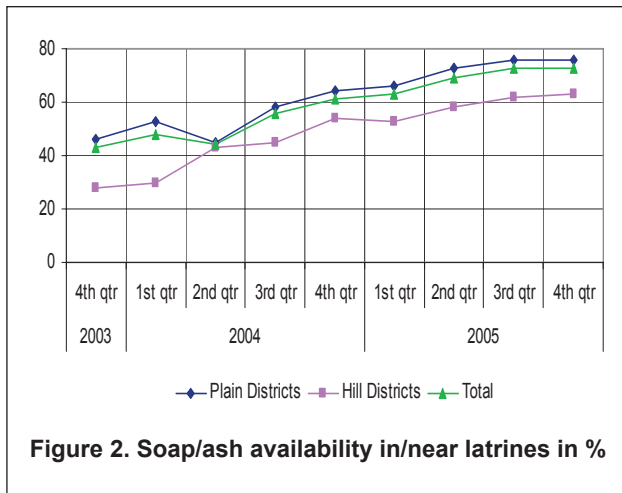


Figure 2. Soap/ash availability in/near latrines in %

project, priority of sanitation and hygiene practice has been upheld. Defecation in open places became a rare incident; every household has its own or shared fixed place for defecation. Ash or soap is available in or near latrine. These are the few visible changes that have taken place.

### Lessons learnt

- Flexibility in implementation process is a key issue to be considered for a hygiene project.
- Avoiding coercion is an effective technique for motivating grassroots people.
- An inclusive and integrated approach is necessary to motivate the whole community, the project approaches helped a lot in achieving that.
- Community ownership and partnership have been essential to the success of such process-focused project.
- Community has its own innovative technologies for meeting needs.
- Involving change agents from community itself can be a most effective means for community motivation.
- Hardware support is not mandatory for implementation of a hygiene project.
- Grassroots level local government institution leaders have the most important role to play in motivating the community in adopting sanitation and hygiene practice.

### Conclusion

This was pilot project using PRA approach in small-scale covering less than ten percent of the population and geographical area. Upon successful completion of the project, Bangladesh Government has come up with another large-scale implementation project to replicate the model with

the financial assistance from DFID through UNICEF, in 32 districts of the country out of 64, in the forth coming five years period. This demonstrated achievement indicates that the proven approach utilized in the project can be replicated elsewhere in the developing world in planning, implementing and monitoring of a hygiene project in large scale.

### Acknowledgement

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