

# TOTAL SANITATION APPROACH AND PRACTICE

A case study in Watsan Partnership Project (WPP)  
Bangladesh

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## Summary:

Despite high coverage of water supply provision through hand pump tube well in rural area, the population still suffers from diarrhea. The most serious threat to fresh water quality in Bangladesh is due to poor sanitation. Currently only 43% urban and 10% rural households use water seal latrines. Major population of the country continues to use unsanitary latrines or practice open defecation. With a heavy pathogen load in water, contamination may occur from untreated water or unhygienic food handling. Therefore, the pathogen load in the surrounding surface water must be decreased. To achieve this, the total sanitation approach and practice is essential to sanitize the community entirely. A very promising approach has been carried out by SDC in Bangladesh through the Water and Sanitation Partnership Project to open the participation of the private sector in the whole water supply and sanitation sector and by applying a "demand approach for behavior change, pumps and latrine". The unique characteristics of adaptive change in WPP as per field demand, the total sanitation or 100% sanitation village approach has been incorporated in the action plan of VDC. More than 100 of villages have already eradicated open defecation in WPP area. The villages are clean and bad smell free. People are enjoying a better environment. Several other agencies in Bangladesh are working in the same approach for 100% sanitized village. This is a clear indication that total sanitation is possible. The big challenge is how to scale up to national level. A national strategy is needed to transform the small-scale successes into national level achievements. This total sanitation approach and practices would help in sustaining our surface freshwater resources.



## SDC-WatSan Partnership Project

To improve users' sustainable access and use of affordable arsenic safe water and sanitation facilities and service.

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The WatSan Partnership Project (WPP) is a unique partnership initiative of SDC to create sustainable access to water and sanitation facilities. The WPP has been working in the districts of Rajshahi and Chapai Nawabganj of Bangladesh since 1998. The prime focus of the WPP was on testing new strategic orientation and partnership for WSS service in particular and development in general. The Project aimed to develop mutual beneficial relationships among organizations, where roles, responsibilities, and accountabilities are clearly defined. The WPP partnership is based on three international NGOs - CARE, DASCOH and IDE - act as support organizations to facilitate the development of community level organizations and building their capacity in working towards sustainable community-based organizations. SDC plays an important role as the initiator of the approach and funding the project. It also extends its cooperation through co-ordination and management of the project partners and providing technical assistance through the Project Management Unit (PMU). The WPP is guided through a Steering Committee constituted from SDC and three major partners. The WPP has selected and trained 15 local NGOs to work as implementing/ facilitating organizations. The Project furthermore collaborates with local set-up of government line agencies of different ministries and the Union Council.

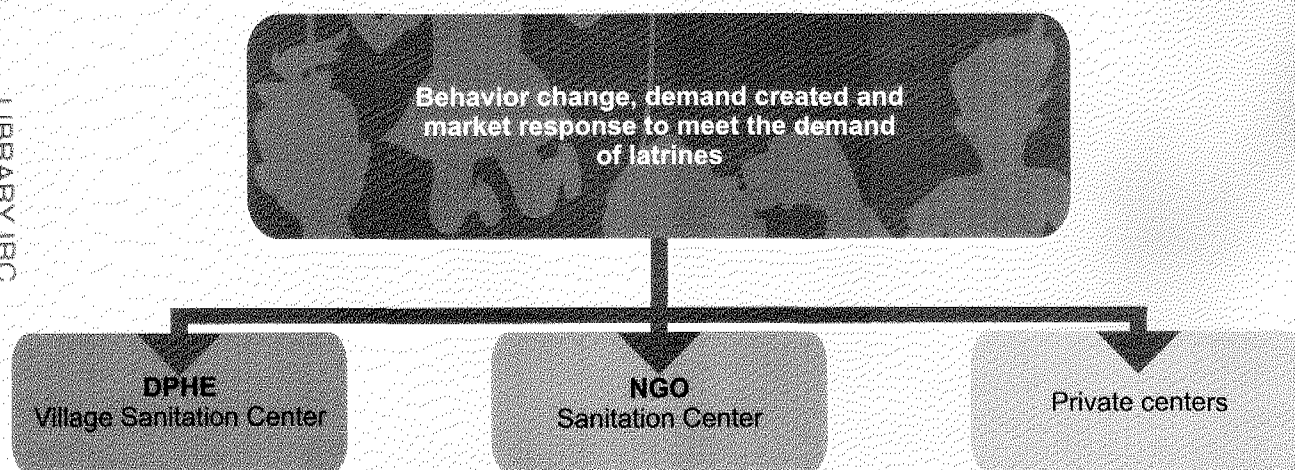
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## Introduction

The most serious threat to fresh water quality in Bangladesh is due to poor sanitation. Currently only 43% urban and 10% rural households use water seal latrines. Major population of the country continues to use unsanitary latrines or practice open defecation. The resultant impact creates a huge discharge of human excreta in the environment amounting more than 20,000 metric tons everyday. This has further enhanced with the release of animal excreta per day. Much of this ends up in freshwater bodies, contaminating the water sources with a heavy pathogen load. The concentration of fecal coliform in the most surface water sources ranges from 500 to several thousand per 100 mL. The impact of this pollution is alarming. Despite high coverage of water supply provision through hand pump tube well in rural areas, the population still suffers from diarrhea. It is estimated that 125,000 children under the age of five die every year due to diarrhea. The surviving children suffer 3-5 episodes of diarrhea each year. Adults also fall victim to water borne diseases. The poor environmental sanitation situation is considered as the root cause for pollution of fresh water and thus having a great health impact on the quality of life. The presence of arsenic above the permissible limit for drinking in groundwater has further aggravates the situation. Estimation shows that over 30 million people are likely affected by arsenic contamination in groundwater. Treating the contaminated water at household is costly and cumbersome. With a heavy pathogen load in water, contamination may occur from untreated water or unhygienic food handling. Therefore, the pathogen load in the surrounding surface water must be decreased. To achieve this total sanitation approach and practice, it is essential to sanitize the community entirely. This case study highlights the way in which the total sanitation approach and practice is gaining importance in providing goods and services for the rural sanitation in Bangladesh. The study methodology combined the literature review of the documents in the water and sanitation sector development and specifically in the implementation experiences of the Water and Sanitation Partnership Project (WPP) in the two northern district of Rajshahi and Chapai Nawabgang.

## Historical Development

In the early 1980s SDC-Danida supported UNICEF-DPHE implemented rural water supply and sanitation projects started to set up small public latrine production centers that manufactured and distributed the water sealed concrete latrines. Initially the latrines were provided free of cost, but the project gradually began selling at subsidized cost. This program was moderately successful, improving the sanitation coverage from 1% percent in 1971 to 16% percent in 1990, contributed to household access to sanitary latrines. However, it was revealed that the coverage was not enough to meet the set target of the Government to 80% percent coverage by 2000. A changed approach was needed and more social mobilization was introduced using the non-governmental organizations as partner. The private sector was becoming involved in the manufacture of latrine components by the mid-eighties. Some support was received by the small private production centers by the UNICEF-DPHE project. In the year 1990, the intensive social mobilization campaigns created to have stimulated demand and these private producers were successful, despite competition from the subsidized public and NGO production centers. More than 6000 private latrine production centers around the country are operating currently to provide sanitary latrines of various types.



In an evaluation carried out by DANIDA in 1999 reported that the public latrine production centers offered a limited range of goods, often had a lot of unsold stock which was of low quality. The customer had to follow procedure for obtaining subsidized latrine goods with bureaucratic obstacles. In contrast, more conveniently located private production centers were perceived to offer a wider variety of products, to be more flexible, to allow payments in installments, to provide construction services, and to offer simpler, and thus cheaper, latrine designs than those available from the public producers.

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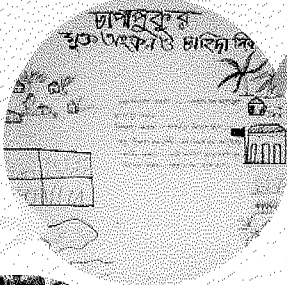
In Bangladesh small-scale private producers now supply over 90 percent of the sanitary hardware used by rural population in their household. As a consequence, external support agencies, NGOs have changed their role. They are now more involved in stimulating demand, through the promotion of the health and “non health” benefits of sanitary latrines. Through providing training to the private producers, the quality of products of sanitary latrines has significantly improved.

## The WPP Approach

A very promising approach has been carried out by SDC in Bangladesh through the Water and Sanitation Partnership Project to open the participation of the private sector in the whole water supply and sanitation sector and by applying a “demand approach for behavior change, pumps and latrine”. The objective is to achieve a synergy of various partnerships. The innovative approach would define marketing strategies with the following elements:

- The creation of village development centers (VDC) through which the villagers would take actions to improve their situations
- The development of affordable “Watsan” products in consultation with the users/customers
- Integrating partner packages (what different NGO partners have to offer) in one integrated WPP
- The development of joint marketing messages and promotion campaigns that include village participation, hygiene changes, and water and sanitation options linked to suppliers
- The development of income generating activities/products linked to watsan supplies
- A plan for phasing out

### Different PRA Exercises



### Group Discussions



### Discussion with the community

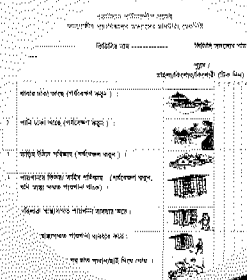


### VDC Formation

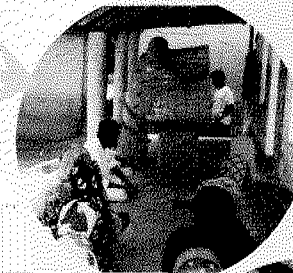
VDC Formation Process

### VDC Development Process

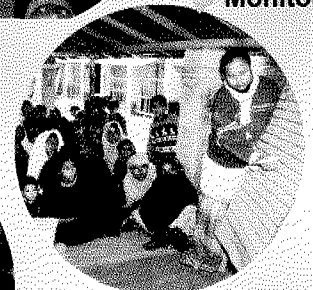
### PME Tools



### Annual Planning



### Progress Monitoring



### Awareness session



The social mobilization campaign is effective to promote and strengthening the supply channels. The market for latrines has been created only by stimulating demand and with social marketing of products, price, place, promotion and people.

## The 5 Ps of Sanitary Latrine Production

**Products:** The latrine products should have good quality and a very good acceptance.

**Price:** The price depends on the standard; a home made latrine is generally affordable for everybody, whereas a water-sealed latrine with one pan and five rings costs \$ 10.

**Place:** The place includes many actors, especially the NGOs and the government as promoters of hygienic practices. The village sanitation centers of DPHE are in competition with the NGO center and the private producers at a convenient location.

**Promotion:** The case of promotion is obvious and is the key for success

**People:** The center of focus is the people for its health benefit and productive use.

## The WPP Practice

With the unique characteristics of adaptive change in WPP as per field demand, the total sanitation or 100% sanitation village approach has been incorporated in the action plan of VDC. The principles of total sanitation are:

1. Target for total (100%) sanitation.
2. Based on demand, not on charity;
3. Through awareness;
4. No fixed technology, provision of options;
5. Choice is based on affordability;
6. Minimum requirement is to confine excreta in sanitary way;
7. Villagers plan, implement and monitor;
8. VDC/Union Parishad/local government lead or champions;
9. Partner NGO facilitate and mobilize;
10. Private sector marketing encouraged.

The flood occurred in 1998 in Bangladesh made an opportunity to receive humanitarian aid from SDC. Through a formulation of a scheme under WPP, the sanitation activities in the flood affected area has been further organized and promoted. The post flood rehabilitation scheme has contributed significantly the total sanitation practices in WPP. Several case studies have been carried out by the partner organizations. A case study in achieving the 100% or total sanitation village is illustrated below.



### Location and Livelihood of the Village:

Elamatpur is a one the village among 640 under the Mougachi union of Mohonpur upazilla of Rajshahi district, which is 24 km from the district town. Social Development Project (SDP), a partner organization of WPP selected the village in 1998 for implementing project activities. 80 households are residing in this village where are total population 345 (158 male and 187 female). People of this village are engaging in various kinds of occupation such as farming, day labor, rickshaw/van pulling and small trading.

### Problems:

The sanitation situation of Elamatpur village was also unpleasant like other villages of Bangladesh before intervention of WPP. To know the real water and sanitation situation of the village, WPP conducted an assessment through applying different techniques of PRA method like transect walk, Social Mapping, Hazard Mapping, Venn Diagram, Matrix Ranking, Seasonal Mobility etc. The villagers identified that only 8 families were having hygienic latrine during PRA exercise. It also identified that most of the people of this village were defecating near their houses, in the field, ditches and bushes. As a result of this poor situation in respect of sanitation, many people of this village were found to suffer particularly from debilitating worm diseases and diarrhea. Much of the sicknesses were caused by direct contact with excreta or infection that was carried by flies from excreta. On the other hand almost always-bad smell generated in the air of Elamatpur village due to open defecation. Social Development Project (SDP), partner NGO of WPP had taken up a series of activities to overcome

### Sanitation and Hygiene Situation of Elamatpur during Inception:

Sanitary Latrine	10%
Covering Food	50%
Covering containers of drinking water	70%
Keeping house yard clean	80%
Keeping latrine clean	5%
Hand washing with ash or soap after defecation	00%
3-5 years children defecate at a fixed place	00%
Hand washing with soap before eating	00%

This profile prepared by the villagers in 1998

### Mobilization and Strategies:

It is now well established that health education or hygiene promotion must accompany sufficient quantities of safe water and sanitary disposal of excreta to ensure the control of water and sanitation related diseases. And it is absolutely impossible to ensure sanitary disposal without effective participation of community. So community participation was an integral part of this project implementation strategies. Because Community Action Planning interventions posit a wider approach, one involving people actively in assessing, analyzing and planning solutions to their own problems and leading to action and self-monitoring using a range of participatory techniques. Village Development Committee (VDC) was formed through applying 7 (seven) techniques of PRA method to ensure peoples participation. At first, Field Facilitator from SDP shared all those findings on current sanitation situation of the village with the VDC member. Consequently VDC shared these findings with the villagers in a mass gathering. VDC was seeking assistance from PNGO to facilitate the issue among the villagers at all level.

Later PNGO staffs and trained VDC members conducted different health education sessions to facilitate sanitation situation of the village and benefits of hygienic latrine. According to the action plan of VDC, sessions were conducted with male, female and children to reach cross section of people of the village. Villagers started thinking how every household of the village to have one hygienic latrine and everyone of the village become aware of hygiene behavior. Elamatpur Village Development Committee (VDC) prepared an action plan for 100% sanitation coverage.

## Action Plan:

To achieve the project objectives different activities were done:

1. Different training on community management, hygiene behavior change and affordable technology marketing provided to PNGO staff
2. Applied PRA techniques to assess WatSan situation of the village.
3. Formation of village based institution like VDC.
4. Provided different training on self-help organization development training, leadership training, HBC&AM training etc.to VDC members
5. Preparation of an action plan with VDC through giving highest priority on 100% sanitation coverage.
6. Conducted awareness sessions on safe water, safe sanitation and hygiene behavior.
7. Regularly held VDC monthly monitoring meeting where villagers discuss regarding their plan, achievement and further initiative.
8. Conducted participatory monitoring and evaluation (PME) on hygiene behavior change in every quarter by the villagers through using pictorial and the result of PME shared in the monthly meeting of VDC.

ক্রমিক নং	বিষয়	কর্মসূচী	সময়	সম্পন্ন	মন্তব্য
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An action plan of VDC

## Implementation:

The flood occurred in the year 1998, inundated many parts of Rajshahi and Chapai Nawabgonj district. Made an opportunity to rehabilitate the flood victims through post flood rehabilitation project (PFRP) adopted under the umbrella of WPP in its operational area. Under this project it was decided that to allocate a fund of Tk. 360,000/= to each of 15 PNGOs for supplying water-sealed latrine with 1 slab and 5 rings at subsidized rate. Later SDP staffs facilitated the issue in the VDC meeting. At that time only 13 sets of latrine were distributed among the villagers, as there was no more demand. The number of households who were using hygienic latrine reached at 21. Till that time rest 59 households were not using hygienic latrine due to lack of motivation. In this context, it was realized by VDC that there was need for more awareness raising and motivational activities. It was started to discuss the benefits of hygienic latrine use along with other issues in the health education sessions. In these sessions it was also informed the villagers that from where they will get low cost hygienic latrine. They were getting this information from different sources like PNGO staff, trained VDC members, MoHI/W field staff. At the same time there was pressure from VDC to the villagers for ensuring safe sanitation in each household. So, incrementally the villagers became convinced and motivated to install and use of hygienic latrine. Gradually increasing the number of hygienic latrine users in this village. But at one stage the trend of increasing stopped. VDC tried to find out the reason behind this and they observed that 15 hardcore poor families of this village are unable to purchase water-sealed latrine due to financial crisis. In a monitoring meeting of the VDC, they had taken a decision to provide interest-free loan to the hard-core poor families from VDC's fund and those families would refund total taka within 12 months through monthly installment. VDC sanctioned Tk. 275/= for each family for buying water-sealed latrine with 1 slab and 3 rings. It may be noted here that all those hard-core poor families refund all money to the VDC's fund in the stipulated time period. And the village became 100% sanitation covered and cent percent families were using hygienic latrine.

## Results:

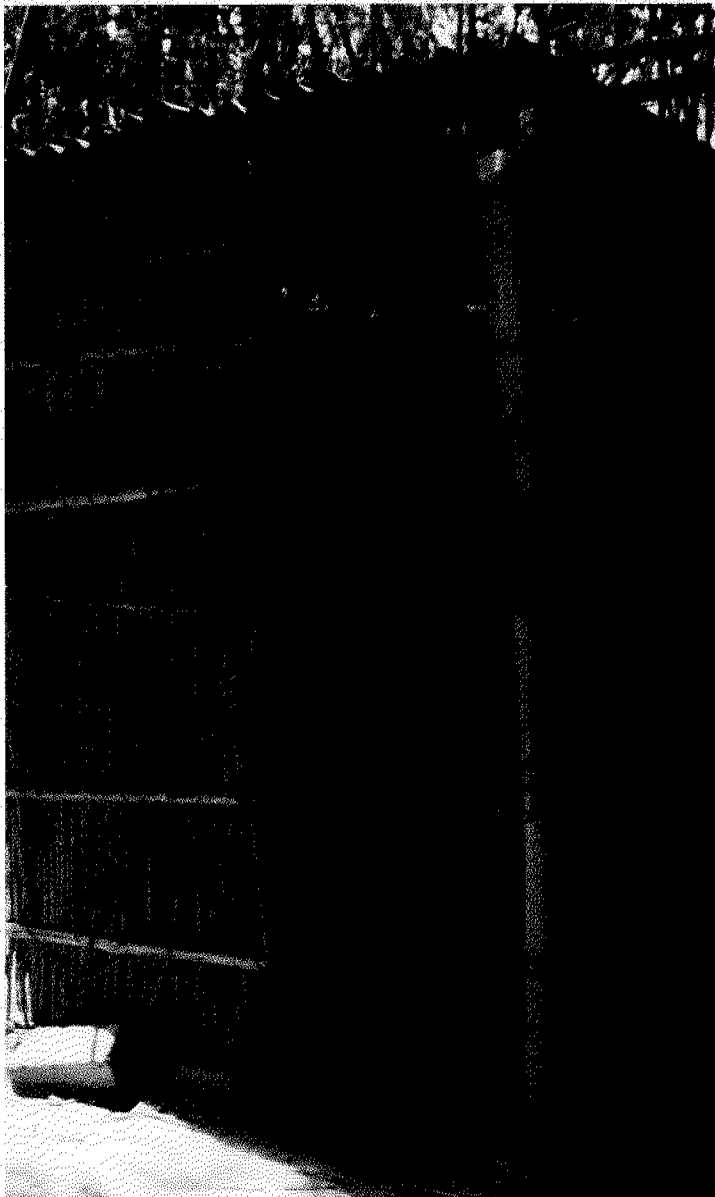
- Community actively participated in the project activities.
- Women's participation was greater in the project activities, which was the important factor for 100% sanitation coverage.
- No one defecate in the open places.
- 100% family have hygienic latrine.
- Everybody of this village using hygienic latrine.

- Dispose garbage in a particular place.
- Reduced fecal and water borne diseases.
- In every three-months, VDC monitor the WatSan situation and hygiene behavior including using the latrine, keeping ash besides latrine and keeping the yards and latrine clean.

### Sanitation and Hygiene Situation of Elamotpur 2002

Sanitary Latrine	100%
Covering Food	100%
Covering containers of drinking water	100%
Keeping house yard clean	90%
Keeping latrine clean	90%
Hand washing with ash or soap after defecation	90%
3-5 years children defecate at a fixed place	80%
Hand washing with soap before taking food.	10%

This profile prepared by the villagers in 2002



#### Lesson Learnt:

- Community participation is essential and should be through village-based institutions involving the community key persons.
- Social pressure is utmost to those who are unwilling to use hygienic latrine.
- Multiple channels are effective for message dissemination in respect of hygiene promotion.
- Initial support can expedite the sanitation activity.
- Interest free loan can be provided to the hard-core poor families for wider coverage.

#### Conclusion:

Elamotpur was 100% sanitation covered village where nobody defecates in the open places and no bad smell in the air of this village. They feel proud with this achievement of the VDC as well as villagers. Meanwhile visitors from different organizations (DPHE, World Bank, Water Aid, VERC etc.) had visited the village to see the achievement of this village. It may be noted here that the comments of the Chief Engineer of DPHE after visit of this village, "I became very much pleased to see the activities of rural sanitation in Elamotpur village of Rajshahi district. Because I observed that hygienic latrine installed in every households of this village when I walked around the village along with personnel from World Bank, VERC, Water Aid, SDC ..... I would like to give thanks and 'Salam' to the villagers for their noble initiative like this." This is the time to think how replicate this model at another village.

## Scaling Up

More than 100 of villages have already eradicated open defecation in WPP area. The villages are clean and bad smell free. People are enjoying a better environment. Several other agencies in Bangladesh are working in the same approach for 100% sanitized village. This is a clear indication that total sanitation is possible. The big challenge is how to scale up to national level. A national strategy is needed to transform the small-scale successes into national level achievements.

## The Way Forward

The abundant fresh water resources especially during monsoon are severely polluted by human waste and thus unfit for domestic use without treatment. On the other hand the arsenic pollution in the groundwater has showed us to look for alternative safe water options. Surface water in particular to pond water use is seen as one of the options for long-term safe water supplies and in many cases would be the last resort of the very poor. Fecal contamination is a major problem and this is caused by lack of latrines and open defecation. If filters catch on, then cleaner pond water would minimize the risk of contaminated water. The total sanitation approach and its practice would certainly be effective in reduction of diarrhea and creating a cleaner environment. A national environmental sanitation strategy and planning should be developed and implemented. This would help us in protecting our huge fresh surface water resources.

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