

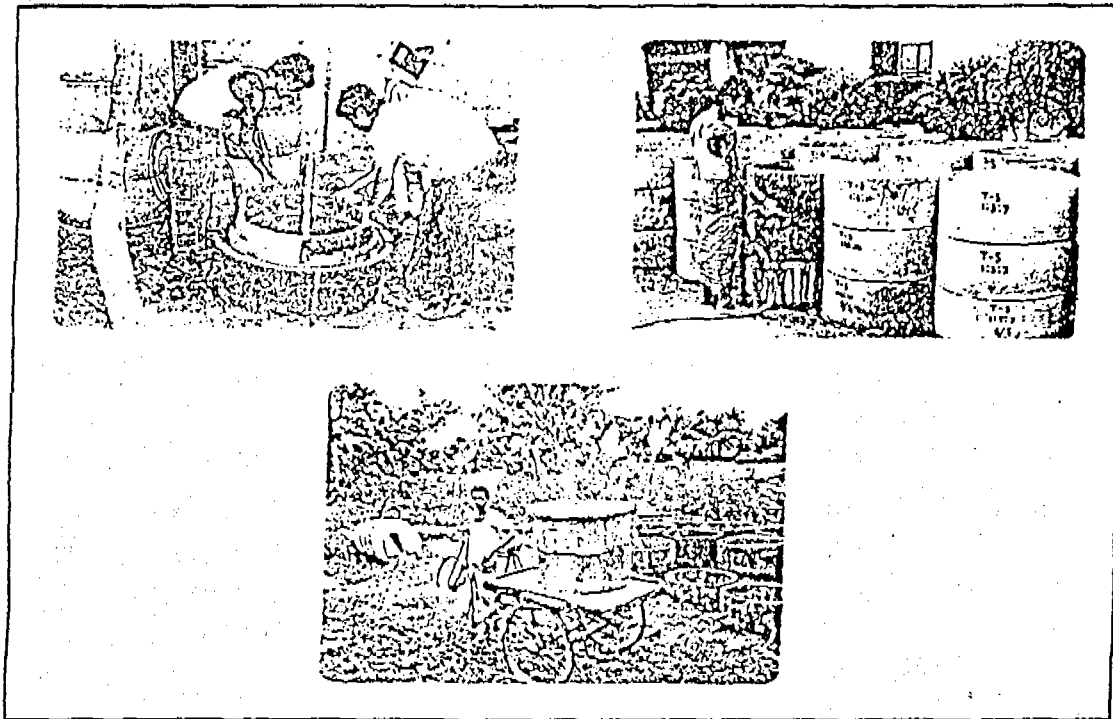
WATER SUPPLY AND SANITATION PROGRAMME IN BANGLADESH

Study No. 19

REPORT ON

STUDY OF THE PERFORMANCE OF MOBILE VILLAGE  
SANITATION CENTRES OPERATED BY DPHE, NGOs  
AND PRIVATE PRODUCERS

January 1997



WHO in collaboration with DPHE, UNICEF & SDC

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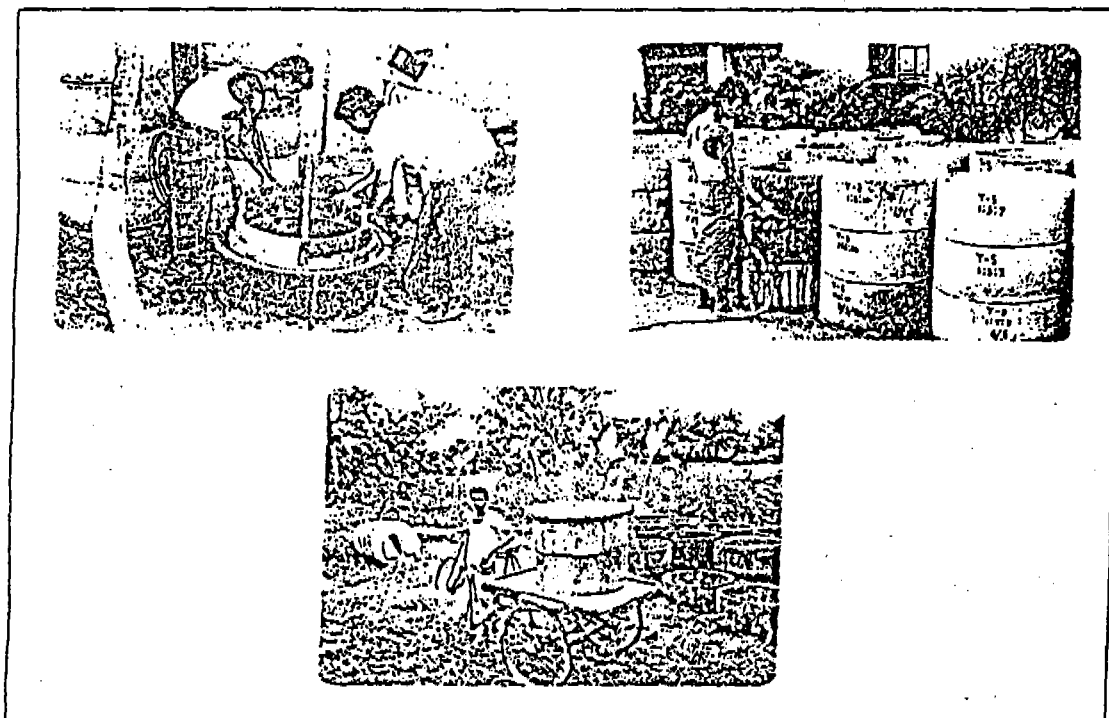
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Study of the Performances of Mobile Village Sanitation Production/Selling Centers of  
DPHE,NGO and Private Producers

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## EXECUTIVE SUMMARY

Department of Public Health Engineering had been promoting sanitation for last two decades with the introduction of water sealed slab for hygienic disposal of excreta in the rural areas. One thousand Village Sanitation Centers (VSC) for selling water sealed slabs had been operational in the rural areas of Bangladesh since 1985. In spite of increased promotional activities, the sale of latrine components has not been found encouraging as evidenced by stockpiles of latrine components in the Govt. VSCs. It has been observed that the number of families located in the proximity of these centers have already constructed their latrines and the demand for the product has been found minimal in the surrounding areas of the centers. For a number of reasons the majority of the DPHE centers at union level could not be located in places with good access to road and water transport. As a result, transportation cost of latrine components become a burden to the buyers. All these factors discouraged people to buy latrine from the DPHE. centers.

With a view to increase sale and to facilitate availability of latrine components at the nearest point of the rural community, mobile VSCs (both production cum sale and sale only centers) were introduced by DPHE in the recent past. It has been claimed that a good number of mobile centers are established and the sale of product has been improved with the introduction of mobile VSCs. A few NGOs, private producers (PP) and Chittagong Hill Tracts Development Board are also involved in the production and sale of latrine components in rural areas through mobile centers. This report is the outcome of the study sponsored by WHO to assess overall performance of the mobile VSCs operated by DPHE, NGO, PPs, and Chittagong Hill Tracts Development Board and their effectiveness in the improvement of sanitation coverage. The centers belonging to Chittagong Hill Tracts Development Board is categorised as 'Others'.

A total of purposively selected 90 VSCs from a ready list were visited. These are located in 73 Thanas of 29 districts of 7 DPHE territorial circles. Field data were collected through a pre-designed tool and informal consultations with Thana level officials, UP chairmen, Ward members, local leaders, imams, school teachers and local community members.

Out of 90 VSCs surveyed 67 were found to be mobile and 23 non-mobile. Out of the mobile VSCs, 48 belonged to DPHE (72%), 10 to NGO (15%), 6 to Private producers (9%) and 3 belonged to Others (4%). Information with respect to terms of reference on those 67 mobile VSCs only were analyzed for the evaluation purpose. Out of total 67 mobile centers analyzed, 67% were recorded as "production cum sale center" and 33% as "sale only center".

Location of mobile Centers were investigated and observed that 75% of all categories of center were in the market place (in and around UP office) and 37% were located along the public roads, 35% along the high ways, 13% by the river sides, and 15 % were located elsewhere. 70% of NGO centers were in market place and 60% by the highways. 50%

private producer center were on the highways. In most of the cases VSCs were established without any market survey. From the communities UP chairman were identified as key initiators. Involvement of school teachers as initiators was found totally absent.

While assessing storage facilities available locally, UP Chairman extended facilities for more than 60% of the DPHE centers.

Some 75% mobile centers were established at no cost. The remaining 25% had cost involvement at different ranges varying from TK. 500/- to TK. 10,000 and more. 80% of DPHE, 90% NGO, 15% private producer and one-third of others center were established at no cost. About 80% private producer centers costed Tk. 1000 -5000.

The two major factors influencing establishment of mobile VSCs were identified as

- (i) High transportation cost and
- (ii) Demand of latrine.

The management aspect was analyzed and found that the guide lines for mobile centers were partially followed.

The buyers carried the products to their houses at their own costs. Cash sale was practised in all the cases and in 10% DPHE centers products were sold on treasury challan.

The prices of slabs in DPHE, NGO, private producer and others centers were TK. 75, TK 100 - TK. 125, TK. 75 - TK. 125 and Tk. 75 respectively.

The rings in DPHE, private producer and others centers were sold at Tk.50 - TK. 70. At NGO center the price was TK. 70 and above.

The promotional work was limited to posters, Leaflets and meetings.

Seasonal variation of demand resulting in stockpiling of products at the center was liable to damage of some of the products.

Lack of adequate storage facility and skilled mason/labour low level of supervision were the causes of low to medium quality products accross the centers.

NGOs and private producers (50%) were concerned with low demand of latrine and insufficient fund for the initiation of mobile center. They need market development and loan for the purpose.

Based on the findings, the following recommendations are put forward :

- (i) The mobile center should be located in market place.
- (ii) Social mobilization campaign involving UP chairman should be initiated before establishment of mobile center.
- (iii) All sorts of appropriate promotional activities should be carried out.
- (iv) For planning purpose TK. 10,000 should be considered for each of the centers and a sale target of about 200 sets of latrine should be considered.
- (v) Training and supervision level should be enhanced.
- (vi) For siting a center workshop, store, water and open space should be kept in mind.
- (vii) More mobile centers should be established.

# STUDY OF THE PERFORMANCES OF MOBILE VSCs OF DPHE, NGOS AND PRIVATE PRODUCERS

## 1. INTRODUCTION

### 1.1 Background

The Department of Public Health Engineering (DPHE) established one thousand village sanitation production cum selling centers throughout the country, out of which 460 are located in Thana head quarters and 640 are located at Union level. NGOs and a few private producers ( PP) are also involved in the production and sale of latrine components in rural ares. Rural Sanitation program has recently been strengthened by GOB with the introduction of social mobilisation activities to promote sanitation. In spite of increased promotional activities, the sale of latrine components has not been found encouraging as evidenced by stockpiles of latrine components in the Govt. VSCs. It has been observed that most of the families located in the proximity of these centers have already constructed their latrines and the demand for the products has been found minimal in the surrounding areas of the centers. For a number of reasons the majority of the DPHE centers at union level could not be located in places with good access to road and water transport. As a result, transportation cost of latrine components become a burden to the buyers. All these factors discourage people to buy latrine from the Govt. centers.

With a view to increase the sale and to reduce stockpiling at the Govt. VSCs and to facilitate availability of latrine components at the nearest point of the rural community, mobile VSCs (production cum selling center and selling center) have been introduced by DPHE in the recent past. It has been claimed that a good number of mobile centers are established and the sale of product has been improved with the introduction of mobile VSCs. When the demand is met, the center is withdrawn and relocated at place of demand.

It is reported that NGO forum , a co-ordinating body of NGO of the sector has also introduced a few mobile VSCs for promotion and sale of sanitary latrine . Private producers ( PP) have also been known to be using mobile production center concept to meet the demand of the rural community.

The Department of Public Health Engineering with the assistance of WHO initiated this study to assess the performance of VSCs and the field responses to the new strategy for increased sanitation coverage.

### 1.2 Objective of the Study

The purpose of the study is to evaluate the overall performance of the mobile VS centers run by DPHE, NGO and PPs and their effectiveness in the improvement of



sanitation coverage. The study will benefit DPHE and Development Partners of this sector to identify sectoral strategy for increased sanitation coverage. (Annex- I).

### 1.3 Scope of Works

The scope of study will include the following :

- Review and assess the adherence to the circulars/guidelines which have been prepared in relation to the DPHE mobile centers and NGO mobile VS centers.
- Identify the key factors and the key initiators for the establishment of the mobile centers with specific relevance to Union Parishad concerned.
- Identify the factors that controlled the selection of the type of mobile centers (sale or production-sale) to be established.
- Study the appropriateness of the location of the DPHE and NGO mobile centers with reference to private producers and available transport (road/water).
- Determine the dates of mobilization and demobilization of the mobile centers.
- Study the selling procedures of latrine components.
- Identify the mode of sale transactions.
- Study the utilization of funds for the transport of latrine components and raw materials.
- Identify problems regarding the initiation of the mobile centers, transport, production, sale and deposit of funds.
- Assess the utilization of manpower at the mobile VS centers.
- Study the management system employed at the mobile VS centers.
- Assess the reliability of the VS mobile centers.
- Assess the motivation and follow-up initiatives in connection with the promotion of sanitation & hygiene education in the surrounding areas of the mobile VS centers.
- Assess the quality and determine the quantity of latrine components produced.

- Assess the potential for the emergence of private producers in the area.
- Assess the degree of community participation in the activities / management of mobile centers.
- Assess the potential of mobile centers in increasing latrine coverage in consultation with local group like Up Chairman etc. and Communities.
- Compare modus operandi and performance of DPHE, NGO and private producer mobile centers with one another.

## 2. APPROACH & METHODOLOGY OF THE STUDY

### 2.1 Sample Size

It is learnt from DPHE source that about 300 mobile VSCs were put in operation. The sample sizes of different category of mobile center are not proportionate to the total number of centers in existence and the sample sizes are purposively chosen for study of their characteristics. A sample of eight mobile centers from each of six DPHE circles namely Dhaka, Chittagong, Khulna, Rajshahi, Barisal and Rangpur and three NGO centers and two private producers were considered for each circle. As there was neither DPHE nor NGO center in the Chittagong Hill Tracts, two private producers and two centers belonging to category "OTHER" (neither DPHE nor NGO ) were selected for the study.

Finally in consultation with WHO project BAN CWS 001 team, to accommodate field situation and uncertainties in identifying VSCs as real mobile centers a slight change in the program was made and finally 90 VSCs were visited. These are :

DPHE center	- 48 Nos.
NGO center	- 23 Nos.
PP center	- 16 Nos.
Others' center	- 3 Nos.

On final scrutiny of characteris of the centers visited 27 samples were not mobile centers in true sense and as such data gathered related to these were discarded and not considered for analysis.

### 2.2 Design of Survey Tools

Field data required to carry out the study in line with the scope of works was collected through a pre-designed survey proforma. In the design of the study tool,

care was taken to make it objective oriented as well as to cover scope of works. Major components of the tools covered the following aspects.

- General Information
- Information on establishment of center covering on key initiators, key factors for establishment and selection of type of center, appropriateness of location.
- Management aspect of the center involving adherence to the guidelines, selling procedure, raw materials procurement and cost involvement towards transportation.
- Identification of problems with regard to initiation, transportation, production, sale, deposit of funds and effect on seasonal variation.
- Assessment and evaluation with respect to sanitation promotion, hygiene education, quantity and quality of products, buyer's problem, difficulties faced by DPHE / NGO / PP, community participation, and potentials of mobile center in achieving sanitation coverage.
- Comparative performance of DPHE/NGO/PP mobile centers with regard to guidelines, selling procedures, community participation, promotional activity, quality control and role of women.
- Developing guidelines for establishment of mobile centers in future.

A discussion meeting was held on the draft survey tool with the World Health Organization for finalization. Prior to that comments were also invited from SDC & DPHE. The survey tool is annexed in Annex- II.

### 2.3 Orientation of Field Enumerators

A day long orientation was held on 17th October 1996 with the enumerators. The consultant introduced the survey tool on the study of the performance of mobile village sanitation production / selling center to the enumerators. The experts from Village Sanitation Division, DPHE and WHO were also present to enrich the session with their valuable inputs.

The orientation program was divided into two sessions. The first session was conducted by the consultant for briefing the enumerators in details on the study tool. The second session was devoted for response to questions from participants for clarifications in recording information/data.

The field survey and data collection were carried out by four WHO Project Officers stationed at territorial circle offices of DPHE. The consultant undertook field visits

in selected VSCs to assess the performance and arranged focal point discussion during field survey.

#### 2.4 Field Survey and Investigation

The field survey and investigation program were conducted from mid-October through mid-December.

##### Dhaka Circle

A total of thirteen centers were surveyed in Dhaka circle out of which eight centers belonged to DPHE, four to NGOs and one to the Private producer. A list of thanas where sample centers are located is given below :

Narsingdi district - Sadar and Monohardi thanas.  
Sherpur district - Sadar and Jhenaigati thanas.  
Mymensingh district - Sadar, Trisal and Muktagacha thanas.  
Manikgonj district - Singair thana.

##### Barisal Circle

In Barisal Circle eight DPHE and one NGO centers were visited in the following thanas:

Pirojpur district - Bhandaria and Nazirpur thanas.  
Rajbari district - Rajbari Sadar, Baliakandi, Goalandaghat and Pangsha thanas.  
Barisal district - Bakergonj, Babuganj, Sadar thanas.  
Sariatpur district - Sariatpur thana.  
Bhola district - Sadar, Charfession and Borhanuddin thanas.

##### Rangpur Circle

In Rangpur Circle the following thanas were visited:

Kurigram district - Nagesshari and Bhurungamary thanas.  
Lalmonirhat district - Hatibhandha, Kaligonj and Aditmari thanas.  
Nilphamari district - Sadar and Kishoregonj thanas.  
Dinajpur district - Sadar, Parbatipur, Birampur and Birol thanas.

A total of eight DPHE centers were visited.

## Khulna Circle

A total of thirteen centers - eight DPHE, two NGO and three private producer centers were visited in the following thanas.

- Bagerhat district - Sadar, Kachuaand and Morrelgonj thanas.
- Khulna district - Terokhada ,Koyra, Rupsha and Daulatpur thanas.
- Jessore district - Keshobpur and Bagharpara thanas.
- Magura district - Sadar thana.
- Chuadanga district - Sadar and Damurhuda thanas.

## Rajshahi Circle

In Rajshahi Circle, the following thanas were visited.

- Pabna district - Ishordi, Sujanagar and Santhia thanas.
- Sirajgonj district - Shahajadpur, Tarash and Ullahpara thanas.
- Chapai-Nawabgonj dist.-Sadar, Bholahat and Gomastapur thanas.

A total of eight DPHE centers were visited.

## Chittagong Hill Tracts Circle

A total of three centers belowing to 'others' category were visited in the following three thanas.

- Bandarban district - Bandarban thana.
- Rangamati district - Kawkhali and Kaptai thanas.

All the centers belonged to chittagong Hill Tracts Development Board.

## Chittagong Circle

The following thanas were visited

- Cox's Bazar district - Teknaf and Chakaria thanas.
- Noakhali district - Begumgonj thana.
- Chandpur district - Kachua thana.
- Comilla district - Chaddagram, Brahmin para and Burichong thanas.
- Sylhet district - Jaintapur, Sadar, Balagonj, Kanaighat, Goinghat, Jakigonj, Golapgonj, Beanibazar thanas.
- Chittagong district - Fatikchari thana.

The number of centers visited was 17, out of which 8 belonged to DPHE, 6 to NGO and 3 to private producer.

## 2.5 Consultative Process

Discussion took place with Thana Nirbahi Officers, Thana level officials, UP Chairmen, Ward Members, Local leaders, Inams of Mosque, School teachers on the following issues;

- Facilities in the form construction of shed and water source.
- Demand for latrine sets in the area.
- Availability of raw materials for production.
- Affordability of the community.
- Level of education of surrounding community.
- Degree of sanitation awareness.
- Existence of production cum sale/sale center nearby.
- Communication facilities prevailed in the area.
- Mode and cost of transportation of materials.
- Community participation in the establishment and operation of the center.
- Sale of products on credit.
- Quality of products.
- Potentials for increased demand of latrine products.
- Security for man, raw materials, equipments, products.

## 2.6 Data Analysis with Computer Aid

Computer software package was used to analyze the field information collected through consultative process and field Survey. The processed data are presented in the annex- III (Table 1 - 66).

### **3. FIELD OBSERVATIONS AND FINDINGS**

On careful study, it has been revealed that 27 centers out of 90 surveyed are not really mobile centers and hence data pertaining to those centers have not been considered for analysis.

#### **3.1 General Information on VSCs**

##### **Categories of Mobile VSC**

Out of a total 67 centers 45 VSCs (67%) were recorded as production cum sale centers and rest 22 mobile VSCs (33%) were operated as sale only centers, the products were being produced in some other centers. The numbers of production cum-sale centers were 35, 4, 4 and 2 against total numbers of 48, 10, 6 and 3 belonging to DPHE, NGO, private producer and others respectively. A detailed circle wise breakup has been depicted in Table - 1. (Annex - III).

##### **Location of VSCs**

75% of all the centers were located in the market places. More than 60% DPHE centers are located near UP office and market places. 70% of NGO centers were in the market place. About 14% of DPHE, 60% of NGO and 50% of private producer centers were located by the highways. About 10% of DPHE, NGO and private producer centers were established by the rivers. Table - 2 (a), (b).

##### **Distance of Mobile VSCs from Thana HQ**

About 80% center were located beyond 5 Km from thana HQ. 87% of DPHE centers, 70% of NGO centers and 100% of others are located at distance more the 5 km from thana HQ. On the other hand, private producer centers were spread over at all stretches from thana HQ. (Table - 3)

##### **Period of Operation of Mobile VSCs**

Most of the DPHE mobile centers commissioned in 1994 and 1995, those of NGOs in 1996, private producer centers uniformly over the period and others centers developed before 1993. Of the centers visited 6 DPHE, 3 NGO, 1 private producer centers were operative at the time of survey. It appears that mobile centers developed with the generation of demand and wound up business on meeting the demands. Table - 4 (a), (b).

### **Initiators of Mobile VSCs**

DPHE personnel and UP chairmen were identified as key initiators and supporters for DPHE centers. School teachers as initiators was found totally absent. NGO and private producer centers were mostly initiated by the local elites or social worker or themselves. (Table - 5).

### **Supporters**

The Table 6 indicates that DPHE centers were supported by Union Parishad Chairman, NGOs, TNO and local club in 15%, 6%, 6% and 10% cases respectively. In cases of private producer centers. 80% centers were supported by contractors, relations and neighbours.

### **Market Survey**

Market survey was considered for establishment of mobile centers in one-third of the cases in DPHE while in NGO it was 40%. (Table - 7).

### **Cost of Establishment of Center**

Of all the centers, 75% were established at no cost. 80% of DPHE centers, 90% of NGO centers, 15% of private producer centers and one-third of others centers were established at no cost. 10% of DPHE centers spent upto TK.500 and 12% TK. 1000-10000. About 80% private producer centers were built at TK. 1000-5000. (Table- 8).

### **Local Transportation Modes**

Location of mobile Centers was such that transport in order of preference were van, cart, truck and boat. (Table -9).

### **Key factors in the Establishment of Mobile VSCs**

Demand of latrines and high transportation costs mainly warranted establishment of DPHE and NGO centers while private producer centers were created for profit earning. Other category of center are based on demand of latrine for increased coverage under sanitation. (Table - 10).

## **3.2 Operation and Management aspects of VSCs**

### **Management**

Management of NGO centers appeared easier in 60% centers. DPHE and private producer felt comfortable with management of center in about 30% centers. Lack of security of materials and products appeared in 40% centers of DPHE. (Table - 11)



### **Supervision**

In 30% center DPHE and NGO complained of difficulties in supervision. (Table-11).

### **Storage Facility**

Storage facilities were available is 60% of DPHE, 40% NGO, 85% private producer and 100% of others category centers. Union Parishad supported DPHE only with storage facility. NGO and private producer had their own storage facilities. (Table-12).

### **Water Source**

80% DPHE, 70% NGO, 50% private producer and 100% others centers had water sources at the centers or at minimal distance. (Table - 13).

### **Raw Materials**

Table 13 also indicates that to about 70% of DPHE and NGO centers raw materials were not easily available. 50% of private producer centers had difficulties in getting raw materials.

### **Transportation of Raw Materials**

Carrying cost of materials were borne by DPHE, NGO, private producer and others. Buyers paid in 2% of centers.

NGO and private producer centers spent maximum of TK. 3000 per center for transportation of raw materials depending on quantity of products. Others centers spent less than TK. 1000. DPHE centers spent at a rate more the TK. 3000 in 30% centers. Table - 14 (a), (b).

### **Mode of Payment for purchase of Latrines**

As regards mode of payment, cash sale was in practice in all categories of centers. In DPHE 10% was sold on Treasury Chalan. (Table - 15).

### **Proportions of Slabs & Rings sold**

Most of the NGO, private producer and others centers sold latrine sets of one slab and five or more rings. DPHE maintained different options of 1 to 5 rings per slab as well (Table - 16).

### **Selling Prices of Slabs & Rings**

The sale price of a slab is Tk. 75.00 in DPHE and others centers. The price varied from Tk. 100 to more than Tk. 125 in NGO and Tk. 75 to more the Tk. 125 in private producer centers. The private producers in Khulna sold at lower price than those in Chittagong.

The sale price of a ring in DPHE and other center was Tk. 50 to Tk. 70, Tk. 50 to more than Tk. 70 in private producer centers and Tk. 70 and above in NGO centers. Table - 17 (a), (b) & (c).

### **Carrying the products to the houses of buyers**

In all cases buyers carried the products to their houses at their cost from DPHE , NGO and other centers. In 33% of private producer centers the carrying cost was borne by the private producers. (Table - 18)

### **Utilization of Funds**

Fund involvement in all centers of NGO, private producer and others and 50% of DPHE centers was at the rate of less than Tk. 10000. In the rest of the DPHE centers (50%) the fund ranged from Tk. 10000 to more than Tk. 100000. (Table-19).

### **Production achieved ( slabs & Rings)**

60% DPHE and 100% of NGO private producer and other center produced less than 100 sets of latrines. 30% DPHE center produced more the 100 to 500 sets of latrines. (Table - 20).

### **Sale Target achieved**

70% DPHE, 100% NGO, 66% private producer and 100% others centers sold 200 sets or less. (Table - 21)

### **Use of communication materials**

75% DPHE and 60% NGO centers only used communication materials for promotion of latrines. (Table - 22)

### **Quality of products**

20% DPHE and 30% NGO centers reported breakage of 10 slabs and 10 rings (Table 32). 90% DPHE, 60% NGO, 100% Private Producers and 66% others centers produce unattractive products with rough surface (Low to Medium Quality). (Table - 23)

## **Reporting**

90% DPHE, 70% NGO, 33% private producer and 100% others centers prepared monthly reports. The rest of the centers either prepared reports irregularly or did not prepare at all. (Table - 24).

### **3.3 Problems**

#### **a. Problems Encountered by the VSCs**

##### **Initiation of centers**

Insufficient fund and insecure location were two major problems faced by DPHE centers (27%), while NGOs and private producers (50%) were concerned with low demand of latrine and insufficient fund. (Table - 25) .

##### **Transportation within Catchments of Center**

Bad conditions of long road rendered risks for carrying ring/slab in 50% of DPHE and two-third others centers. 50% of NGO centers called for combination of road and waterway transports for carrying of latrines. Private producer centers appeared to be better located in respect of local communication. (Table - 26).

##### **Production of Products**

Lack of adequate storage facilities and skilled mason/labour production as well as quality of products was found affected in 35% DPHE, 70% NGO and 80% private producer and 2/3 others centers (Table - 27).

##### **Sale of Products**

Cost of transportation and cash sale were two major problems in the sale of products. For high cost of transportation the people arround 65% DPHE, 70% NGO, 66% private producer and 100% others centers were discouraged to purchase latrines.

Because of cash sale people arround 44% DPHE, 90% NGO, 80% private producer and 66% others centers were incapable financially to buy latrines. Credit sale was welcomed. (Table -28).

##### **Handling of Sale Proceeds**

SAE, manager or co-ordinator of DPHE, NGO and private producer handled the sale proceeds while in case of others centers mason handled the sale proceeds. In 30% DPHE centers sale proceeds were not deposited in the Govt. account in time. Table - 29(a), (b).

### **Seasonal variation in demand**

The seasonal variation in demand resulted in idle workforce in 20% of DPHE, 50% NGO, 30% private producer and 60% others centers. 35% DPHE centers noted damage of products for long storage as a consequence of seasonal demand (Table - 30).

About 70% DPHE, 60% NGO, 85% private producer and 100% others centers faced inconveniences resulted in from fluctuation of demand. (Table - 31)

### **Security of materials**

About 30% DPHE centers fund difficulty in ensurring security of materials and manpower at the centers.

### **Uncertain Duration**

Duration of center appeared to be uncertain in 85% DPHE, 70% NGO and 35% private producer centers (Table - 31).

### **b. Problems Encountered by Buyers**

#### **High Transportation Cost**

Even with the mobile centers the people arround 65% DPHE, 90% NGO, 40% private producers and 100% others centers complained of high transportation costs.

#### **Sale in Limited Time Span**

In 35% DPHE centers, people could not by latrine beyond office hours.

#### **Advance Payment and Quality of Products**

The people arround 30% of all categories of centers were reluctant to pay advance and were unhappy for breakage of products during transportation (Table - 32).

To address the problems in 50% DPHE and 30% NGO centers it was recommended to establish more mobile centers so that these were closer to households and to charge transport cost from GOB (Table - 33).

### 3.4 Potentials of Mobile Centers

#### Sustainability of the centers

About 40% of DPHE, 50% of NGO and private producer centers had potential to continue operation. The private producer liked to diversify products along with latrine components. (Table - 34)

#### Emergence of Private producers

In about 60% of private producer centers there was demand of latrines, people were financially solvent and as there was no public VSCs where the sale was subsidized there was potentials for emergence of private producers. (Table - 35).

### 3.5 Achievement of objectives

Private Producers mentioned that they were earning profit. Demand creation were observed in all the categories of centers. Surprisingly variable price offered by three different categories of centers appeared affordable to buyers. However the community mobilization was not done around the private producer centers while community supports were available for DPHE and NGO centers. The increased demand will encourage more private producers to joint the business resulting in increased coverage under sanitation. (Table - 36)

### 3.6 Modus Operandi

The guide lines for DPHE mobile centers were reviewed and observed that restrictions for establishing mobile centers within 5 km from the existing center were violated 30% cases.

In most of the centers DPHE relied on UP Chairman, Chowkider and mason/labour as caretaker. Private producers, NGOs and others arranged caretakers for their mobile centers by themselves. Materials and products were secured in all the centers of NGO, private producers and others while in 25% centers of DPHE it was not secured. (Table - 37).

#### Guide Lines

About 42% DPHE, 60% NGO and 100% others centers followed established guidelines. Table - 38 (a).

#### Selling Procedures

The selling procedure for all categories of centers was on cash, except one NGO center sold on loan. Table - 38 (b).

## **Community Participation**

Community involvement in DPHE and NGO centers was rated to be medium to high, that in private producer and others centers low or nil. Table - 38 (c).

### **Use of Promotional materials & Activity**

In 60% of DPHE centers posters and leaflets were used as publicity materials. In addition, meeting and workshops were considered in 35% and 22% centers respectively.

In case of NGO, 20% centers used leaflets, 40% centers posters, 30% centers meeting and workshop for promotional purposes.

The private producer and others centers promoted sanitation through participation in workshops only. (Table - 22).

### **Prevalence of diarrhoea and dysentery in the command area**

The command area of 88% of mobile centers were found having low prevalence of diarrhoea and dysentery, 10% centers, under medium category of prevalence and only 2% centers under low category of prevalence. (Table - 39)

### **Quality Control**

The quality of products of all categories of centers appeared to be in the range of low to medium. (Table - 23).

### **Community Support**

It was observed that participation of the community was minimal. In only 16% DPHE mobile centers community participation with land and only 2% with Tubewell was observed. (Table - 40)

### **Community Involvement for Generation of Demand**

Communities around 75% DPHE and 40% NGO centers were proud of the VSCs located at their neighbourhood. 40% DPHE and 80% NGO centers could mobilize people around for generation of demand through interpersonal communication.

About 90% DPHE, 80% NGO, 50% private producer and 30% others centers were experiencing demand in upward trend (Table - 41).

### **Role of women**

In about 55% DPHE, 30% NGO, 50% private producer and 100% others centers women role was absent. In the rest the participation of women was also very low (Table - 42).

### **3.7 Recommendations Proposed from the Field**

#### **Siting of mobile VSCs**

The major recommendations regarding site selection came up as mobile VSC should be at market place with good communication. 60% DPHE and NGO, 50% private producer and 33% others centers opined for good communication. Table - 43 (a).

30% DPHE and NGO, 15% private producer opted for market place for location of center.

20% DPHE and 66% others centers decided UP office campus as site for mobile centers.

#### **Ancillary Facilities**

The four basic needs basic useds for a mobile center as identified were work shed, store, water source and open area.

About 50% DPHE centers identified shed, store and water source as essential elements of mobile center. In addition about 35% opted for open space. 40% - 60% NGO center recommended shed, store, water source and open space were requirements for mobile center.

Open space store and shed were requirements for private producer center as opted by 33%-60% centers. Table - 43 (b).

#### **Quality of Products**

About 93% DPHE, 70% NGO, 33% private producer and 66% others centers proposed close supervision for quality products. 60% NGO, 85% private producer and 33% others centers needed training for quality improvement. Table - 43 (c).

#### **Promotional Work**

Posters were preferred by 60% DPHE and 50% private producers.

Leaflets were recommended by 60% DPHE and 33% private producers.

Miking was preferred by 50% private producers. Film show was proposed by 50% DPHE, 80% NGO and all other centers. Table - 43 (d).

### **Sale of Products**

DPHE and private producer centers recommended cash sale, while NGO and others centers opted for both cash and credit sale. Table - 43 (e).

### **Handling of Fund**

Existing arrangement in the respective category of centers would remain valid. Table - 43 (f).

### **Community Participation**

All categories of centers recommended community participation through local leaders and elites. In addition, DPHE, NGO and private producers proposed UP Chairman as an agent for community mobilization. Table - 43 (g).

### **Monitoring**

In DPHE centers 93% opted for SAE, 80% for SDE and 15% for XEN for supervision.

40% NGO centers liked to be monitored by SDEs and SAEs and 10% by XEN, DPHE. 30% others center opted for XEN DPHE to monitor activities. Table - 43 (h).

### **Bank Loan**

20% NGO and 50% private centers requested for provision of bank loan for them. (Table - 44).

### **Training**

40% NGO and 50% private producer needed training programme for capacity building. (Table - 44).

## **3.8 Case Studies**

### **■ Case Study in GM Hat in Anandapur Union**

Mobile centre was set up at GM Hat in Anandapur Union. The SAE met all the UC Chairman of the thana and explained his case. A particular chairman showed interest. The local bazaar committee helped in providing security for the materials. The centre



was set-up at the Chairman's house. The money was collected by the Chairman who then advanced money for 100 sets although they requested that 200 sets be produced, ultimately 222 sets were produced. The thana VSC closed its production and sent a mason and labourer to the centre. It took 3 months to complete production. The centre was 20 km from the Parshuram thana VSC and 5 km from Feni district DPHE. The DPHE arranged transport and the customers paid only the price of slabs (70 Tk. initially and then 100 Tk.) and rings (TK. 45 per ring).

The Chairman informed that after meeting with Unicef/DPHE officials he discussed the issue in Union Council meeting (he is a popular local leader who has been Chairman for 22 years). He motivated ward members about necessity of sanitary latrines and each member was given a certain quota of customers to be identified & money collected. He thought that if the local Chairman of UCs took initiative then there would not be any problem in finding out potential customers at village level.

#### ■ Case study in Mukulkandi

Under Feni district Sonagaji DPHE thana office set up a mobile centre in 1991-92. in Mukulkandi (10 km from Sonagaji thana - it was remote and relatively less accessible because of water barriers). A local NGO 'Sheba' arranged production (cost of production & transport cost was paid in advance). The local people through Union Parishad/NGO/Club collected the money; in some cases the thana parishad provided the carrying costs (to a certain point of convenience to the locality), in others the local people provided the carrying costs. He thought that mobile sales should be promoted & it had great future. The Chairman informed that he was motivated by (a) a local youth club called 'Jana Kalyan Club' (people's welfare club); (b) SAE and (c) attending meetings with DPHE and UC office holders arranged by Unicef;

A labourer complained that as a poor fellow he has to do what he is asked to but staying in a remote place, away from families, arranging lodging and food, guarding the materials entails difficulties. When local organisations (UC Parishad Chairman, or any other relevant body) take up responsibility it becomes easier for them to work.

#### ■ Case Study in Kashimnagar

In March, 1991 Comilla Proshika unit working in Chouddagram thana contacted the SAE C/G thana VSC to supply 200 slabs and 600 rings for their group members at Kashimnagar. There is a written provision of DPHE which entitles the thana level VSC to set up a mobile centre. An estimate was made about the costs involved. The money was taken from Proshika Central Association Fund and was realized after selling to the members at Tk. 270 for 1 slab and 3 rings (in this way Tk. 54,000 was realized). The Kashinagar Bazaar is 21 km from Chouddagram VSC and 14 km from Shuagazi Bazaar VSC

The production was started in June 20 and finished in July 15 (about 3 weeks). Production at thana VSC was during this time; Mason and labour from thana VSC were sent to the site; besides 2 labourers were deputed from another VSC to help finish the production in time. The masons and labourers stayed full time in the village. The NGO requested the bazaar committee to provide land for production and NGO built a temporary shed there. Supply of water was a problem so they arranged setting up of a tubewell which provided water for curing.

#### 4. Discussion

The sample of different categories of centers were purposively taken to review their operational status and to identify major issues that could be addressed in planning of mobile centers in future. As the sample sizes of NGO, private producers and others centers are very small the findings are indicative only.

It appears from Table 2(a), 2(b) and Table 8 that for DPHE to establish mobile center at no cost, UP office compound in or around market place is the best location.

It is strange to note that most of the DPHE center were located is UP office compound and were looked after occasionally by chairman, chowkider in addition to the mason and the labour employed, in spite, 25% of centers suffered from insecurity of materials.

The multiple choices in price and quality of the products the NGO and the private producers attracted buyer from different socio economic profile. Similarly multiple choices in selecting number of rings per set of latrine at DPHE centers encouraged buyer from different socio economic slabs.

It appears from Table 19 except DPHE, the NGO and the private producer centers were small in terms of economic scale. The private producer need patronization with market development support and loan.

Lack of skilled manpower in the area and supervision by appropriate authorities and absence of training activities resulted in relatively low quality products in all categories of centers.

Even after establishment of mobile centers the transportation cost of products is still beyond affordable limit. Therefore, to achieve lower cost of transportation more mobile centers are encouraged. The cash as well as credit sale of products will further enhance the rate of sale. This will also reduce the damage of products resulted in longer storage for seasonal demand.

As the demand is generated in the catchment areas of the centers the centers are likely to continue operation.

In the centers motivational work was not done adequately. With systematic appropriate promotional work, the demand will further grow and encourage more private producers to join the business.

The Table 42 indicates that women were not involved. Involvement of women would also help generate demand and ensure benefit through proper use of latrine.

## 5. CONCLUSIONS

- (i) Union Parishad compound within or around market place by the highway was an ideal low cost options for location of mobile VSC.
- (ii) Demand of latrine and high transportation cost were the major factors in establishing mobile centers.
- (iii) Union Parishad Chairman was the prime initiator from the community for establishment of center. Other formal or informal local leaders were found passive in the issue.
- (iv) In most of the centers the supervision level was low and the management poor.
- (v) Some of the GOB guideline were found not workable in the field. Those guidelines are on
  - Location of center.
  - Mode of sale (Cash as well as credit sale preferred)
  - Transportation cost of raw materials.
- (vi) The prices of products of all categories of center appeared more or less uniform.
- (vii) Fund involvement per center stood at about TK. 10000 and quantity of latrine sets sold at about 200.
- (viii) Seasonal variation of demand/sale was one of the causes responsible for damage of some proportion of products.
- (ix) Water transport was preferred to road transport for carrying of products to avoid damage.
- (x) Quality of products of all categories of centers was low to medium. Lack of adequate storage facility for the products and unskilled mason/labour were identified as hindrances for quality products.

- (xi) The number of centers was not adequate to reduce the transportation cost to an affordable level.
- (xii) Mobilization of people around the centers were inadequate. UP chairman came up as focal point in the community.
- (xiii) Promotional work was minimal. Leaflet, posters, meeting and workshop were the only promotional aids. Miking and film show were absent.
- (xiv) For establishing center four items namely work shed, store, water and open space were important factors.

## 6. RECOMMENDATIONS

- (i) Union Parishad in or around a market place by a high way and or water way should be considered for location of center.
- (ii) Social mobilization campaign should be run before establishing center. UP chairman, school teachers and other local leaders should be involved.
- (iii) Diversified appropriate promotional activities should be carried out (leaflet, poster, meeting, workshop, miking, film show etc.)
- (iv) Fund requirement and sale target for a mobile center should considered as TK. 10000 and 200 sets of latrines respectively.
- (v) Mechanism for sale in cash or credit should be established.
- (vi) Mason/Labour should be trained.
- (vii) Supervision and monitoring level should be enhanced.
- (viii) Guideline should consider
  - Work shed, store, water and open space for siting a center.
  - Transportation cost of raw material borne by GOB.
  - Cash and credit sell.
- (ix) To reduce the cost of transportation burden on buyers more centers should be established.