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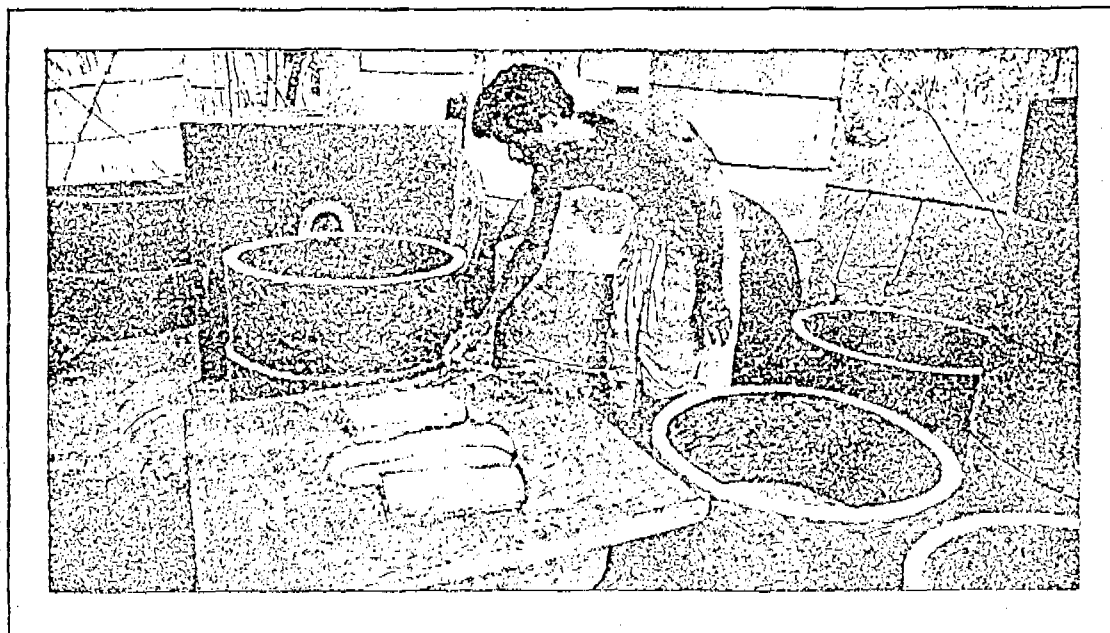
WATER SUPPLY AND SANITATION PROGRAMME IN BANGLADESH

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Study No. 16

REPORT ON  
THE IMPACT OF SOCIAL MOBILIZATION  
FOR SANITATION ON THE PRIVATE  
PRODUCERS

February 1996



WHO in collaboration with DPHE, UNICEF & SDC

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## ABBREVIATIONS

BRAC	Bangladesh Rural Advancement Committee
BRDB	Bangladesh Rural Development Board
DC	Deputy Commissioner
DPHE	Department of Public Health Engineering
GB	Grameen Bank
GOB	Government of Bangladesh
HH	Household
HHH	Household Head
ISS	Institute of Social Studies
NGO	Non Government Organisation
PP	Private Producers
SDC	Swiss Development Cooperation
SMC	Social Mobilisation Campaign
SocMob	Social Mobilisation for Sanitation Campaign
SSC	Secondary School Certificate
TNO	Thana Nirbahi Officer
UNICEF	United Nations International Children's Emergency Fund
VGD	Vulnerable Group Development
VSC	Village Sanitation Centre
WATSAN	Water and Sanitation
WHO	World Health Organization

# THE IMPACT OF SOCIAL MOBILISATION FOR SANITATION ON THE PRIVATE PRODUCERS

## SUMMARY

### 1.0 Introduction

In 1990, UNICEF and DPHE with the support from DANIDA and SDC initiated a Social Mobilisation for Sanitation Campaign (SocMob) for the promotion of hygiene and sanitation. There is a common consensus that the campaign has led directly to a substantial increase in the demand for latrines. The sponsors of the programme are convinced that such a Campaign including the stimulation of demand and the growth of the private producers of latrine components would be a step towards sustainable growth of the sanitation sector. The WHO Community Water Supply and Sanitation Team was requested to study the improvement in sanitation status for the campaign and its impact on private producers in Banaripara thana of Barisal district.

### 2.0 Objectives

This is a study which seeks to look at the underlying causes resulting in the emergence, growth and success of the private sector in the field of sanitation and explore ways of sustaining and revitalizing the trend. The promotion of the private sector will ease the burden on the DPHE and enhance sanitation coverage.

The specific objectives were to assess the impact of the campaign and changes which occurred therein and the growth of the private sector as well as the private producer's perception of the Campaign and generation of demand for latrine components. Further, the study was to explore the reasons for the continuous stock piling in the DPHE Village Sanitation Centres and suggest ways for sustaining the demand created by SocMob.

### 3.0 Methodology

Private producers of the sanitary latrine components and the DPHE Village Sanitation Centre management in Banaripara Thana were intensively interviewed and case studied. The household sample survey was conducted in two rural clusters in Banaripara thana: one in Udaykathi union and other in Iluhar. The total number of households covered is 250 and 125 from each cluster. Only the household heads were interviewed for the household questionnaire. Moreover, there were Focus Group Discussions covering the private producers, local leaders, teachers, UP chairmen and members, social workers, field workers and VSC managers. WHO Project Officers were involved in collecting information.



#### 4.0 SYNOPSIS OF FINDINGS

##### 4.1 Background Data on Study Households

- (a) Thirty eight percent of the study households have no agricultural land, only 18% have land above 100 decimals, 35% of the household heads are illiterate and only 7% have education above the Higher Secondary level.
- (b) A total of 99% of the households use tubewell water for drinking purposes. Only 1% respondents wash their hands with soap and water before taking a meal; 63% of the households dispose their household garbage either in a ditch or anywhere around their homestead.
- (c) Some 74% of the households have sanitary latrines including home made latrines, ring-slab being the most common type (48% in all households). Some 18% of the households have no latrines and 8.0% have open or hanging latrines.

##### 4.2 Impact of SocMob on Study Households

- (a) About 55% of the households that currently possess sanitary latrines had pit latrines before-hand. Some 35% of the current sanitary latrine users have switched over from a hanging/open latrine type or no latrine to sanitary latrines.
- (b) Some 74% of the households preferred to install ring-slab latrines, money permitting. Only 0.4% preferred pit latrines and 20% favoured septic tank installations.
- (c) Some 64% of the households which possessed ring-slab latrines had selected private producers as their source of procurement; 33% of them bought from the DPHE.
- (d) Some 36% of the respondents had no knowledge of the existence of any DPHE Village Sanitation Centre anywhere.
- (e) About 78% of the households would desludge their existing ring-slab latrines for re-use. Only 12% would buy new latrines.
- (f) Since 1990, the installation of ring-slab latrines increased over the years. Of the total of 120 ring-slab latrines installed during the period 1988 - 1994, only 6 were installed in 1988 but after the SOCMOB Campaign was initiated the installations went as high as 12 and 17 in the following two years.
- (g) The installation of sanitary latrines is related to some degree to the ownership of household land.

- (h) Families with a higher level of education tend to accept the use of sanitary latrines more readily.
- (i) The installation of sanitary latrines has a direct link with household income. Households with a higher income are the best acceptors of sanitary latrines.

#### 4.3 Baseline of Private Producers

- (a) A total of 13 producers were found in Banaripara Thana. Three had stopped production for various reasons. Those who stayed in production have been able to conduct profitable businesses. All of them came from the better segments of the community with higher land ownership, income level and education.
- (b) The amount of capital invested varied from person to person based on the ability of the person to invest. The average investment was Tk.7200 while the investment volume ranged from Tk.2000 to Tk. 17000. None of the producers could borrow money to establish their business.
- (c) The average annual household income of the producers is Tk.45570. The main sources of income are agriculture, labour and services, business and livestock.
- (d) Only 13% of the household income comes from agriculture. The main source of income is business which contributes 43% of the family income. A total of 60% of the income is spent for food items. The pattern of other expenses indicates that the private producers belong to middle class income families.

#### 4.4 Impact on Private Producers

- (a) The average annual profit earned by the producers from latrine production was Tk. 6376 which constitutes about 14% of their total income.
- (b) Labour productivity in private producers is 41.76 while with respect to DPHE it is 130.16 . The profit ratio indicates that an unit cost of Taka one brings a profit of Tk. 0.34 to private producers while it bring a loss of Taka 1.26 to DPHE.

#### 4.5 Development of Demand and growth of Private Producers:

- (a) After the introduction of one ring and one slab latrine for subsidised sale by DPHE in 1989 and increase in subsidized price and formalities required to be observed for purchasing of DPHE latrine, the purchasers began to look for alternative sources of supply. This encouraged the development of private producers. Some 25% of the private producers in the study area started business in 1989. Another 38% started production in 1990, 25% in 1993 and only 13% in 1994.
- (b) The SOCMOB produced a phenomenal rise in the demand for latrines in Banaripara area. About 68% of the latrines demanded were sold by the private producers during the period of 1989 to 1990.
- (c) According to the combined total sales statistics of selected private producers and DPHE, more than fifty percent of their latrines were sold and installed during the early years of the SOCMOB. The rate of sales and installations declined consistently over the following years.
- (d) DPHE no longer remains an important source of supply of latrine components in the survey area. There have also been significant purchases from private sources which come from outside the survey area. These latrine components are reportedly brought by traders by boats from Jessore and Khulna areas.

#### 4.6 Reacting to a New Market Situation

- (a) Procuring raw materials at lower prices was indispensable for the private producers (PPs). Their acquaintance with the local scene enabled them to manage production at lower prices. By using unemployed family labour, the PPs reduced non-mason labour costs to a large extent. The private producers reduced costs by hiring part-time masons at almost half the cost of DPHE. Some PPs are masons themselves.
- (b) The PPs used their status of being locals which brought public sympathy and help. DPHE is thought to be an outsider in the area. The PPs offered personalised and need oriented extra services and sold on instalment and credit. Flexibility in design, shape and colour as per customers orders and needs were very attractive to the buyers. Producing complementary items is the most prominent reason of their success.

- (c) The private producers spend about 40% of time on other masonry jobs which bring much higher returns. Links with the people, appropriateness of the technology, absence of formalities and better service, sale on credit, consultancy and orientation etc. were the advantages of the private sector.
- (d) Inadequate capital seems to be the major constraint facing the PPs. The market is very competitive which gives them only nominal profits. Damage in post sale transportation and sales on credit involves risk and insecurity. One emerging problem is the competition from the sanitary shops selling urban sanitary products which are capturing the market of the richer segments of the society.

#### 4.7 DPHE's Village Sanitation Centres

- (a) DPHE has two production centres in Banaripara Thana. The production figures at the two centres show that DPHE produced the maximum number of units in the years 1990 and 1991. This declined drastically in the following years. There has been a slight rise in the production of latrine components in 1994. DPHE produces on set targets. The production does not depend on the demand for the product.
- (b) Over the last few years DPHE could not sell what it produced. However it went on producing. The situation did not change over time.
- (c) The manpower costs of latrine production is very significant. The salaries paid to DPHE employees was comparatively high. To provide employment for one day Taka 293 had to be invested compared to only Taka 23 by the PPs (CLR 293).
- (d) The better off section of the population probably benefited the most from the DPHE subsidy. About 72% of the buyers of DPHE latrine components have monthly incomes ranging from Tk.2000 to 5000. On the contrary, only 28% of DPHE buyers had household incomes less than Tk.2000. The corresponding figure is 52% with respect to the PPs.
- (e) Communication is one major problem for DPHE and also for the buyers. The DPHE Village Sanitation Centres are located far away from the river bank and the cost of carrying latrine components is very high. DPHE is considered to be an outsider in the area and information about the price and quality of DPHE products is not generally known to a large proportion of people, resulting in stock piling of the products.

## CONCLUSIONS / RECOMMENDATIONS

- (1) According to the data generated by the study, 74% of the households of the study area have sanitary latrines, 8% of the households have open/hanging latrines while 18% do not have latrines at all. These figures would indicate that there is a potential market which can be explored.
- (2) Among those who have sanitary latrines 21% have monthly incomes less than Tk. 1500/- and another 48% have incomes between Tk.1501 and Tk.3000. It is therefore, the poorest who are left out by a large margin. It means that they are left out of the benefits of SocMob and the DPHE subsidy which go to those who are better off.
- (3) Raising the awareness of the people to spontaneously adopt the concept of sanitation and improved hygienic practices can be done collectively through Thana health workers, Schools, NGOs, BRDB, GB and through the formation of Union WATSAN (Water & Sanitation) Committees. The Committees could be responsible for collective action on the promotion of sanitation and thus create demand.
- (4) DPHE should concentrate on design, demonstration, SocMob, training masons and giving other support to the private producers for promotion of sanitation.
- (5) If DPHE stops producing, the private producers will benefit in several ways. The demand would shift in favour of the private producers. If DPHE stops producing, the market as well as the profit level of the private producers will increase and they may be able to grow into commercially viable production centres on which they can depend for a living.
- (6) DPHE should consider maintaining a few demonstration centres and conduct research on cheaper latrines. DPHE could also open some demonstration sites in remote locations for popularising latrines.
- (7) One slab costs a maximum of Tk.100 with no ring. The poor could buy that on credit. The credit may come through NGO's. The Grameen Bank, BRAC and CARITAS are already giving loans, the scope of which could be widened. If one ring is added, it will cost another Tk.50. The cost of the ring can be subsidized or provided free to the identified poor. NGOs, DPHE and local government officials may be made responsible for identifying deserving poor.

- (8) "Give subsidy to the poor through private producers and give knowledge and motivation to all" should be the strategy of DPHE.
- (9) Private producers who are already in business may be provided with moulds and other production equipment at subsidized prices or low interest credit. Such producers should report production and sale statistics to DPHE periodically.
- (10) DPHE should consider training masons for the PPs at the existing DPHE Village Sanitation Centres.
- (11) A Thana WATSAN Committee may be formed with the representatives of NGOs, local government representatives, Thana officials, teachers and social leaders who would be responsible for organising periodic SocMob campaigns and coordinating other related activities.
- (12) There is no formal association between the private producers. DPHE could facilitate the formation of such an association. Presently some of the private producers cooperate with each other in sharing ideas, and in sharing masons although there is no formal association for collective action.
- (13) DPHE should also consider providing marketing support for the private producers.
- (14) Banaripara is an example which suggests that the overall sanitation status can be significantly improved provided there is dedicated leadership to promote hygienic practices and encourage the establishment of a viable private sector to produce a range of affordable latrine components.
- (15) It may be concluded that a coordinated campaign for social mobilisation for sanitation is possible and practicable involving all segments of the society. Such a campaign, can have a significant impact on improving sanitation practices. Commercial production of sanitary latrines is possible, profitable and practicable once there is an increased demand. The private sector performs more efficiently in terms of cost, marketing and profit than the public sector.

# THE STUDY

## 1.0 INTRODUCTION

DPHE with the support from UNICEF, DANIDA and SDC started a Social Mobilisation For Sanitation Campaign (SOCMOB) for the promotion of hygiene and sanitation in Barisal district in 1990. The original traditional DPHE "Integrated Approach" was basically service oriented; it only attempted increasing latrine coverage. This approach has only enjoyed limited success. It is generally acknowledged that the new SOCMOB has led to a substantial increase in the demand for latrines.

The sponsors of this programme are convinced that such a strategy would be an important step towards sustainable growth of the sanitation sector. This would include the stimulation of demand and the growth of the private sector. The underlying forces resulting in the emergence, growth and success of the private sector need to be identified. The promotion of the private sector will ease the burden on DPHE and enhance sanitation coverage.

The WHO Community Water Supply and Sanitation Team was requested to study the improvement in sanitation status for the campaign and and its impact on private producers in Banaripara thana of Barisal district.

## 2.0 OBJECTIVES

The following were the objectives of the study:

- (i) To describe and to assess the direct and indirect impact of the SOCMOB campaign on the latrine producers in the private sector.
- (ii) To try to reconstruct the situation of the private sector in the late eighties before the launching of the SOCMOB.
- (iii) To assess the private producers perception of the Campaign and development of the demand of latrine products during the past years.
- (iv) To investigate the reactions of private producers reactions to the new market situation ( e.g. prices of products, location of business, marketing)
- (v) To determine the reasons for the continuous stock piling at the DPHE Village Sanitation Centre in Banaripara despite increased demand.
- (vi) To provide inputs (key factors) into the development of a strategy to sustain the demand of latrine components and SOCMOB (e.g. needs for another SOCMOB, marketing).

### 3.0 THE METHODOLOGY

#### 3.1 The Sample:

All the private producers of the sanitary latrine components and the DPHE Village Sanitation Centre management in the whole Thana were intensively interviewed and case studies prepared to obtain information. To obtain feedback about the impact of the SOCMOB Campaign on PPs, information on demand patterns and perception of the customers of sanitary latrine components was collected. Two purposively selected villages were surveyed. A total of 250 households were covered from both the clusters. The villages were selected from among the villages with the highest incidence of latrine users as reported by DPHE. One village was close to the DPHE Village Sanitation Centre and the other village was far away from the Centre.

The SOCMOB Campaign was presumed to have caused a change in the demand for sanitary latrines in the area and the rise in demand has resulted in the growth of private producers. The survey was to examine the processes therein along with verifying the assumption of impact and pattern of impact in relation to the type of supply (PP or DPHE). There are reasons for taking the best villages as the sample. The best villages were taken as the sample to measure the highest impact in all areas to match it with supply type. Moreover, a village is a highly stratified social unit and it is probable that latrine use correlates with income status and social status of the people providing an opportunity to study the impact on both the poor and the rich.

In addition Focus Group Discussions were arranged: one covering the private producers, two covering the local leaders and social workers, and one covering the field workers and DPHE Sanitation Centre managers.

The composition of the samples was as follows:

Private producers & DPHE Centre Managers	19
Household interviews (125 x 2)	250

#### Focus Groups

Local Leaders (10x2)	20
Private producers	10
Field Workers/Centres	10

The Focus Group discussion of local leaders covered the chairmen, head masters, primary school teachers and local elites. The DPHE field workers consisted of Sub Assistant Engineers, masons, and other office staff.



### 3.2 The Instruments:

#### 3.2.1 Household (HH) Questionnaire:

A structured questionnaire was prepared for collecting quantitative and qualitative information about the villagers to obtain feedback about the latrines as well as the impact of the SOCMOB Campaign in quantitative terms. The questionnaire also included some open ended questions with a view to eliciting opinion of the users of latrines on a wide range of issues relating to quality of latrines by sources and types. The questionnaire sought to obtain data about the pre-intervention situation through recall methods which have been used as a crude bench mark for assessing the quantitative impact on latrine use.

#### 3.2.2 The Intensive Questionnaire:

Very intensive interviews were conducted with the private producers and DPHE Sanitation Centre managers with both qualitative and quantitative questions for generating information required by the study. The questionnaire covered organisation of production including labour and capital, cost structure, profitability conditions, marketing, production and marketing constraints, views and ideas, mechanisms for reading and responding to the felt needs of the people and also individual information.

#### 3.2.3 Check List:

A Checklist was used to conduct the focus group discussions. The checklist covered all the key queries of the above two questionnaires and some general information about the participants and the area.

### 3.3 Stages of Implementation:

The following were the stages of the implementation of the study :

- (1) Preparing questionnaires, comments, pre-testing and printing of questionnaire.
- (2) Training researchers on detailed aspects of the questionnaires including problem solving and the definition of data and writing down of qualitative data.
- (3) Conducting HH interviews
- (4) Interviewing private producers/ DPHE Centre Managers and conducting Focus Group Discussions
- (6) Quantitative data processing
- (7) Qualitative data processing
- (8) Relating and compiling results
- (9) Analysis of qualitative data
- (10) Interpretation of tables and report writing

### 3.4 Data Collection:

Experienced WHO Project Officers were involved in collecting the information for the study. Only the household heads were interviewed for the household questionnaire. In the absence of any pre-project information a household list and a household map had to be prepared for conducting the survey. For obtaining frank responses of the respondent, utmost effort was made to establish rapport and create an atmosphere of conviviality with the respondents. The accuracy of the filled out questionnaires was instantly checked at the end of each working day by discussion with the investigators.

### 3.5 Limitations of the Study:

The study, of course, is not without limitations. Baseline information of the situation of the study households before the SOCMOB Campaign in the area is almost non-existent. Nor had there been any data generated on PPs that can help get a longitudinal overview of their status and growth. It was therefore deemed essential to examine the situation retrospectively through various approaches - both quantitatively and qualitatively. To this end, the number of focus group discussions were increased than originally planned.

Although household heads were the most desired respondents, in some cases they were not available at the time of the interview. It was decided to collect information from the eldest member or another well-conversant household member who could answer most of the queries. Many difficulties were encountered in collecting data on household income. However all possible measures were taken to gather the needed information.

## 4.0 THE INTERVENTION

### 4.1 Background of the Campaign

Poor sanitation has long been recognised as one of the most important health issues in Bangladesh, especially in rural areas. The high incidence of diarrhoea - the country's number one killer disease - and other water-borne diseases attest to that. The severity of the situation can be assessed from the fact that about 30% of all deaths in children ages 0-5 years are caused by diarrhoea. A Bangladeshi child on average suffers from the disease at least four times a year. An epidemic of diarrhoea broke out in Barisal district in March-April 1990 and caused much suffering in the rural areas. Banaripara Thana was worst hit: many people succumbed to the epidemic. This event received much coverage in the national dailies, prompting DPHE and UNICEF to take some effective measures to control the disease.

As diarrhoea, dysentery, and other water-borne diseases are the consequences of poor community health status, prevention is directly related to the provision of adequate public health amenities at all levels. GOB in collaboration with UNICEF, launched a SOCMOB Campaign in Banaripara in April 1990. It was repeated in April-May 1994. In 1990, from July through December, DPHE introduced the Integrated Approach (IA) with a wider spectrum of interventions. This was conducted in one in ten Thanas of Barisal including Banaripara. All these interventions laid much emphasis on the installation of sanitary latrines in each and every household in the programme areas.

#### 4.2 Programme at Banaripara

Banaripara Thana has a population of about 170,000. It has 8 unions. The Thana is criss-crossed by many rivers and canals. The main river is the Sandhaya that passes by the Western border of Banaripara town. The SOCMOB Campaign was carried out here for 8 days, one day for each union. At the District level, the lead came from the Deputy Commissioner of Barisal district. Prior to launching the campaign, he convened a meeting of executive heads of various government departments stationed at the district level including the Directorate Generals of Health Services and Family Planning, the Department of Education, the Dept. of Agriculture, DPHE and BRDB. The local community leaders, imams and social workers were also invited to attend the meeting.

At Thana level, the campaign was coordinated by the TNO (Thana Nirbahi Officer). The required manpower for the campaign was selected from the participating government offices. The Thana DPHE office took the pioneering role in the whole process. To cover all villages in a union, 20 teams were formed: each team consisted of at least one member from each government department. In each team there were about 7-8 members. During the Campaign, they held courtyard meetings with the villagers.

Team members emphasized three issues: i) installation of sanitary latrines, ii) usage of safe water for all purposes and iii) hygienic practices like proper hand washing before taking food and after defecation. People were also told about the menace of diarrhoea, its causes and the correct methods of prevention.

#### 4.3 Integrated Approach

##### July through December 1990

The Department of Public Health Engineering (DPHE) and the UNICEF jointly carried out a special sanitation program - the Integrated Approach (IA) for Sanitation - in Banaripara along with other 9 thanas of Barisal district. Its prime objective was to improve personal hygiene and have households install latrines along with tubewells and encourage collaboration among government and non-government organisations, community leaders, teachers, students,

union and Thana parishad Chairmen, Imams, village elders in educating the people about the benefits of sanitary latrines. Regarding to sanitary latrine types, the recommended designs were the low cost ring-slab and the home-made pit latrines.

The District administration played the pivotal role in coordinating the various agencies in carrying out the intervention. It gave special emphasis on the motivation of teachers and students of local high schools and madrasas. At Thana level, an orientation seminar was held to focus on main objectives of the intervention, and was attended by about 200 participants from all walks of life.

In November 1990, the intervention reached its highest peak. In Banaripara town, a large colourful rally was organized out, its prime objective was to project the indispensability of sanitary latrines in preventing diarrhoeal deaths and diarrhoea related morbidity. The rally was attended by the D.C., UNICEF executives, judicial staff, doctors, police officers, TNO, DPHE staff, upazilla & union chairmen, Imams, teachers, students, businessmen, and many others. They wore badges, held banners, raised placards and shouted slogans while passing through the major streets. The whole exercise attracted much attention of the local people and thus helped imprint the importance of sanitary latrines on the public mind. In the town and also in surrounding areas, it remained the top issue of discussion for many days to come.

On that occasion, the local office of DPHE arranged a demonstration exhibition of five model latrines in the Thana Parishad campus and people showed much interest. In order to generate more enthusiasm in teachers and students of the local schools, the D.C. of Barisal made a well-aired announcement that whichever school showed the highest sanitary latrine coverage in its catchment area would receive a development grant as a token of appreciation. It worked. Throughout the whole period of the intervention, the teachers and their students played an active role in carrying out the message from village to village and from household to household.

The foremost effect of the campaign was noticed in their own families: they persuaded their parents to install the prescribed latrines. They also encouraged their neighbours to do so.

In IA programme allotment of tubewells was made conditional to the installation of latrines. A group of 10 households installing sanitary latrines, would be allocated a tubewell. The DPHE staff was entrusted with the responsibility of spot checking whether the households actually possessed the latrines or not.

During the Campaign, the law enforcement agencies too, showed their presence. It was announced in almost all public gatherings that those who damaged the environment or created a threat to public health by their unhygienic practices was punishable under the existing law of the country. In this regard, Penal Code no 188 and Criminal Procedure no. 133 were shown and recited in public

assemblies.

Few cases were brought before the local magistrates for prosecution. Some were fined for making a public nuisance by the unsanitary disposal of faecal matter.

The TNO of Banaripara wrote letters to the head of local schools and madrasas asking them to install model latrines on school premises. He carried out a follow-up enquiry in 1991 to evaluate the progress of the whole process. To supplement it, in 1992, the TNO launched miking programme for the installation of sanitary latrines focusing on those households that were still using unsanitary latrines. While the Campaign was in progress, DPHE developed a monitoring system aimed at collecting data from local schools and madrasas on latrine installations in each village. As a token of disgust against unsanitary practices, the students burnt several open/ hanging latrines in their own locality (in 1991).

The Focus Group data suggests that DPHE was the initiator and cementing force in the SOCMOB Campaign providing logistical support. However, the coordinator was the Deputy Commissioner and the prime force was the students. The government officials, the Chawkidars, the Dafadars and the Chairmen of the Union Councils also cooperated in the effort.

#### 4.4 The Potentials and the Pitfalls:

##### 4.4.1 The Potentials:

Unconstricted sanitation status over last years, the emergence of commercially viable production centres, repeating and circulating nature of demand, the continuation of increasingly good sanitary practices of the people, their awareness of the quality and price of latrines - all speak of the viability of the programmes.

- (1) All citizens irrespective of whether rich or poor came together for a single cause and worked for a single goal. Under the leadership of the DC, the officials, the TNO, Thana education officer and all segments society came together and DPHE cemented their actions. This set an example for all others.
- (2) DPHE did not have the leading role. It rather had the cementing role and was just a partner in the SOCMOB campaign.

##### 4.4.2 The Pitfalls:

- (1) Awareness building of the people to spontaneously adopt the concept of sanitation has not been continued.
- (2) No follow-up programmes to sustain the momentum had been

planned or implemented.

- (3) The subsidy provided by DPHE was intended for all classes of people irrespective of economic status. But more benefit went to the better off people who were more aware.
- (4) The demand created by the campaign was one shot and its effect faded away as soon as it was completed. The latrines which were built stayed but the tempo of the campaign faded away.
- (5) Other Agencies like BRDB or NGOs were not involved to sustain the effort.
- (6) Funds were inadequate for the campaign.

## 5.0 IMPACT ON HOUSEHOLD : THE SAMPLE SURVEY

### 5.1 Socio-economic profile of the study population

Table 5.1.1: Distribution of households by socio-economic characteristics

Category (in decimal)	Area				All	
	Udaykathi		Iluhar		Number	Percent
	Number	Percent	Number	Percent		
<b>Landless</b>	58	46.4	38	30.4	96	38.4
1 - 50	41	32.8	29	23.2	70	28.0
51 - 100	11	8.8	28	22.4	39	15.6
Above 100	15	12.0	30	24.0	45	18.0
<b><u>Education</u></b>						
Illiterate	49	39.2	38	30.4	87	34.8
Primary	60	48.0	44	35.2	104	41.6
Secondary	14	11.2	27	21.6	41	16.4
Higher Sec. & above	2	1.6	16	12.8	18	7.2
<b><u>Occupation</u></b>						
Farmer	19	15.2	32	25.6	51	20.4
Labourer	31	24.8	19	15.2	50	20.0
Service	10	8.0	18	14.4	28	11.2
Business	51	40.8	45	36.0	96	38.4
Others	14	11.2	11	8.8	25	10.0
<b><u>Income(month)</u></b>						
Less than 1500	33	26.4	27	21.6	60	24.0
1501-3000	72	57.6	53	44.4	125	50.0
3001-5000	16	12.8	34	27.2	50	20.0
5000+	4	3.2	11	8.8	15	6.0

### 5.2 Household land

Amidst total households, about 38.4 % have no agricultural land. The landlessness is more pronounced in Udaykathi, here it is 46.4 percent. And in Iluhar, it is 30.4 percent. Only 33.6 per cent of total study households have more than 50 decimals of land. Such households are fewer in Udaykathi, here only 20.8% have more than 50 decimals; whereas they are 46.4% in Iluhar. Only 18.0% of total households possess above 100 decimals of land, they are 24.0% in Iluhar and 12.0% in Udaykathi. So in terms of landholding, people of Udaykathi present a poorer picture than those of Iluhar.

### 5.3 Education

The study finds 34.8% of household-heads illiterate. The illiteracy is more marked in Udaykathi, here it is 39.2 %. In Iluhar, it is 30.4%. Only 23.6% of total household heads have education beyond primary level, and only 7.2% beyond secondary level. The data reveals better literacy profile in Iluhar than Udaykathi, 34.4% of household heads in Iluhar have education beyond primary level, whereas it is only 12.8% in Udaykathi. In Iluhar, 12.8% household heads have education above secondary level and in Udaykathi they are merely 1.6 percent.

### 5.4 Occupation

Of great surprise, in this distant rural population of Bangladesh, business is found to be the prime source of income in maximum households, and it is more in Udaykathi than Iluhar: 40.8% in the former and 36.0% in the later area. On the other hand, only 20.4% households are farmer, it is lower in Udaykathi (15.2 percent) than Iluhar (25.6 percent). The study finds 20.0% households dependant on labour sale; it is markedly higher in Udaykathi (24.8 percent) than Iluhar (15.2 percent). Only 11.2% household depends on service, it is 14.4% in Iluhar and 8% in Udaykathi. So, it is revealed that a larger proportion of household heads in Udaykathi belong to low earning profession than those of Iluhar. In Iluhar, farming and service play a more important role in supporting family income than in Udaykathi.

### 5.5 Household Income:

Regarding household income, the study reveals that about 74% households earn up to Taka 3000.00 per month. The situation is worse in Udaykathi than Iluhar; this income bracket contains 84.0% of households in Udaykathi, whereas in Iluhar it covers 66.0 percent. In Udaykathi, 26.4% households earn less than Taka 1500 per month, in Iluhar they are 21.6 percent. Of total households, only 6.0% earn more than Taka 5000 per month, they are 8.8% in Iluhar and only 3.2% in Udaykathi.



## 5.6 Household Livestock

Table 5.6.1 : Distribution of households by livestock and poultry

Category	Area				All	
	Udaykathi		Iluhar		Number	Percent
	Number	Percent	Number	Percent		
<b>Cow</b>						
None	96	76.8	96	76.8	192	76.8
1	6	4.8	8	6.4	14	5.6
2	7	5.6	14	11.2	21	8.4
3	7	5.6	5	4.0	12	4.8
3+	9	7.2	2	1.6	11	4.4
<b>Goat</b>						
None	106	84.8	95	76.0	201	80.4
1	8	6.4	13	10.4	21	8.4
2	7	5.6	11	8.8	18	7.2
3	1	0.8	5	4.0	6	2.4
3+	3	2.4	1	0.8	4	1.6
<b>Chicken</b>						
None	15	12.0	6	4.8	21	8.4
1-3	40	32.0	26	20.8	66	26.4
4-6	42	33.6	36	28.8	78	31.2
6+	28	22.4	57	45.6	85	34.0
<b>Duck</b>						
None	60	48.0	51	40.8	111	44.4
1-3	35	28.0	42	33.6	77	30.8
4-6	27	21.6	22	17.6	49	19.6
6+	3	2.4	10	8.0	13	5.2

Surprisingly, the number of cattle is unusually low in the area. 76.8% households possess no cow, 80.4% possess no goat. Only 4.4% households have more than 3 cows, only 1.6% have more than 3 goats. However, chicken rearing is found comparatively more prevalent, only 8.4 percent have no chickens and 34.0% households have more than 6 chickens. Duck rearing is not very common in the area. 44.4% households have no duck. Only 24.8% households have more than 3 ducks.

## 5.7 Household assets

Table 5.7.1: Distribution of households by assets

Category	Area				All	
	Udaykathi		Iluhar			
	Number	Percent	Number	Percent	Number	Percent
<u>Almirah</u>						
Yes	35	28.0	55	44.0	90	36.0
No	90	72.0	70	56.0	160	64.0
<u>Cot</u>						
Yes	97	77.6	107	85.6	204	81.6
No	28	22.4	18	14.4	46	18.4
<u>Watch</u>						
Yes	30	24.0	48	38.4	78	31.2
No	95	76.0	77	61.6	172	68.8
<u>Table/chair</u>						
Yes	69	55.2	90	72.0	159	63.6
No	56	44.8	35	28.0	91	36.4
<u>Bi-cycle</u>						
Yes	2	1.6	0	0.0	2	0.8
No	123	98.4	125	100.0	248	99.2
<u>Radio</u>						
Yes	20	16.0	50	40	70	28
No	105	84.0	75	60	180	72
<u>Two-in-one</u>						
Yes	3	2.4	6	4.8	9	3.6
No	122	97.6	119	95.2	241	96.4

64.0% households have no almirah, 18.4% have no cot and 36.4% have no table or chair. Surprisingly, 99.2% households have no bi-cycle, probably this owes to more convenient water ways in the area. Some 72% households have no radio and 68.8% have no watch or clock. However, with regard to household assets, there exist noticeable differences between the two areas, it is better in Iluhar than Udaykathi. More households in Iluhar possess almirah, watch, table, radio and two-in-one than those in Udaykathi. So, it may be assumed from the data that people in Iluhar get better exposure to more education through radio and other media and thereby to better standard of living.

## 5.8 Drinking Water

Table 5.8.1: Distribution of households by source of drinking water.

Source	Area				Both	
	Udaykathi		Iluhar			
	Number	Percent	Number	Percent	Number	Percent
Tubewell	125	100.0	123	98.4	248	99.2
Non-tubewell	0	0	2	1.6	2	0.8
Total	125	100	125	100	250	100

With regard to drinking water, the study population shows good hygienic awareness. Except two, all households use tubewell as source of drinking water. The two households that are still not using tubewell water live in Iluhar Union.

## 5.9 Hygiene washing practices

Table 5.9.1: Distribution of households by hand washing practice before taking meal

Category	Area				All	
	Udaykathi		Iluhar			
	Number	Percent	Number	Percent	Number	Percent
Only water	122	97.6	125	100.0	247	98.8
Water and soap	3	2.4	0	0	3	1.2
Total	125	100.0	125	100.0	250	100.0

It can be seen that 98.8% respondents wash their hand only with water before taking a meal. Surprisingly, in Iluhar, none were found to use soap with water for such washing purposes. In Udaykathi, 2.4% respondents use soap with water.

Table 5.9.2: Distribution of households by hand washing practice after defecation by all

Items	Area				Total	
	Udaykathi		Iluhar			
	No	%	No	%	No	%
Use Water only	2	0.3	8	1.3	10	0.8
Use water & soap	118	19.3	156	24.8	274	22.1
Use water & mud	264	43.3	293	46.5	557	44.9
Water & ash	226	37.0	173	27.5	399	32.2
Others	0	0	0	0	0	00
Total	610	100.0	630	100.0	1240	100.0

A Large percentage of people (44.9%) use water and mud after defecation, 32.2% use water and ash, and 22.1% use water and soap. This shows that people have a tendency to use hygienic practices.

Table:5.9.3 Distribution of Hand Washing Practice for Adult Male & Female For Udaykathi Union after defecation

Items	Male	%	Female	%	Total	%
Use Water only	0	0	0	0	0	0
Use Water & soap	41	20.1	35	20.2	76	20.2
Use Water & mud	90	44.1	75	43.4	165	43.8
Water & ash	73	36.8	63	36.4	136	36.1
Others	0	0	0	0	0	0
Total	204	100.0	173	100.0	377	100.0

Table:5.9.4 Distribution of Hand Washing Practice after defecation for Adult Male & Female For Iluhar Union

Items	Male	%	Female	%	Total	%
Use only water	4	1.8	2	1	6	1.4
Use Water & soap	63	28.4	52	27.1	115	27.8
Use Water & mud	101	45.5	87	45.3	1^Xx	45.4
Water & ash	54	24.3	51	26.6	105	25.4
Others	0	0	0	0	0	0
Total	222	100.0	192	100.0	414	100.0

From the above two tables it can be seen that there is not much difference in the practices between adult males and adult females. It is interesting to note the demographic feature that in both areas the number of adult females is much less than those of adult males.

#### 5.10 Disposal of household rubbish

With regard to the disposal of household rubbish, it is found that 36.8 % households use a rubbish pit; the figure is slightly higher in Iluhar than Udaykathi, (37.6% in the former and 36% in the later area). 27.2% households have no fixed place for the disposal, therefore they throw rubbish anywhere around the homestead. The practice is more prevalent in Udaykathi (32.8 percent) than Iluhar (21.6 percent). Some 36% households dispose rubbish in ditches, and it is more practised in Iluhar (40.8 percent) than Udaykathi (31.2 percent).

Table 5.10.1: Distribution of households by disposal practice for household rubbish

Category	Area				All	
	Udaykathi		Iluhar		Number	Percent
	Number	Percent	Number	Percent		
Rubbish pit	45	36.0	47	37.6	92	36.8
Thrown anywhere	41	32.8	27	21.6	68	27.2
Ditch	39	31.2	51	40.8	90	36.0
Total	125	100.0	125	100.0	250	100.0

### 5.11 Disease Prevalence status : Prevalence of illness

Table 5.11.1 Distribution of households by incidence of illness

Category	Area				Both	
	Udaykathi		Iluhar			
	Number	Percent	Number	Percent	Number	Percent
Diarrhoea	10	26.3	4	16.0	14	22.2
Non-diarrhoea	28	73.7	21	84.0	49	77.8
Total	38	100.0	25	100.0	63	100.0

When asked about illness of any household member in the last 7 days, just prior to the day of the interview, 22.2%. The respondents replied in affirmative. It was higher in Udaykathi (26.3 percent) than Iluhar (16 percent).

## 6.0 SANITARY STATUS IN THE AREA

### 6.1 Present latrine type

Table 6.1.1: Distribution of households by present latrine type

Latrine type	Area				Both	
	Udaykathi		Iluhar			
	Number	Percent	Number	Percent	Number	Percent
Sanitary latrines	91	72.8	95	76.0	186	74.4
1) Ring slab	54	43.2	66	52.8	120	48.0
2. Pit	36	28.8	29	23.2	65	26.0
3. Septic tank	1	0.8	0	0	1	0.4
No latrine	22	17.6	22	17.6	44	17.6
Open/Hanging	12	9.6	8	6.4	20	8.0
Total	125	100.0	125	100.0	250	100.0

The study finds sanitary latrines in 74.4% of the households, the rate is higher in Iluhar (76.0 percent) than Udaykathi (72.8 percent). It is worth noting that 17.6% of the households possess no latrines, the rate is equally numerous (17.6 percent) in both the areas. The prevalence of open/hanging type is quite low - only 8.0 percent. It is much lower in Iluhar (6.4 percent) than Udaykathi (9.6 percent). In both the areas, ring-slab type is the most predominant type, it is higher in Iluhar (52.8 percent) than in Udaykathi (43.2 percent).

## 6.2 Reasons for installation of sanitary latrines

Table 6.2.1: Distribution of households possessing sanitary latrines by reason for installation

Reasons	Area				Both	
	Udaykathi		Iluhar			
	Number	Percent	Number	Percent	Number	Percent
For clean Environment	18	19.8	15	15.8	33	17.7
Fear of law	14	15.4	10	10.5	24	12.9
Privacy	14	15.4	16	16.8	30	16.1
Convenient	4	4.4	2	2.1	6	3.2
Status symbol	2	2.2	-	-	2	1.1
No bad smell	8	8.8	-	-	8	4.3
Prevent disease	31	34.1	52	54.7	83	44.6
Others	0	0	0	0	0	0
Total	91	100	95	100	176	100

While asked the reasons for installing latrines, most of the respondents (44.6 percent) replied that prevention of disease was the greatest motivating factor. This same reason was more prevalent in Iluhar than Udaykathi: 54.7% in the former and 34.1% in the latter. Some 17.7 percent respondents installed latrines for a clean environment. Some 12.9% respondents indicated fear of the law as the most important reason for installation. This reason was more prominent in Udaykathi (15.4 percent) than in Iluhar (10.5 percent). Some 16.1% respondents replied that ensuring privacy was the most important motivating factor.



### 6.3 Previous latrine type

Table 6.3.1: Distribution of households having sanitary latrines by type of their previous latrines

Type of previous latrine	Area				Both	
	Udaykathi		Iluhar			
	Number	Percent	Number	Percent	Number	Percent
Ring slab	9	9.9	8	8.4	17	9.1
Pit	44	48.4	59	62.1	103	55.4
Septic tank	0	0	1	1.1	1	0.5
Hanging	38	41.8	24	25.3	62	33.3
No latrine	0	0	3	3.2	3	1.6
Total	91	100.0	95	100.0	186	100.0

Of the households currently possessing sanitary latrines, 55.4% had pit latrines previously and 33.3% had hanging latrines. Only 1.6% of them had no latrines.

It is worth noting that in Udaykathi, most of those who currently possess sanitary latrines had hanging or open latrines previously: they comprise 41.8% of the current sanitary latrine users. But in Iluhar, most of these households had pit latrines (62.1 percent) previously. The data also reveal that those having no previous latrine constitute the smallest proportion of the current sanitary latrine users.

#### 6.4 Latrine Installation over the years

Table 6.4.1: Distribution of Ring-slab latrines in the sample by year of installation

	Union				All	
	Udaykathi		Iluhar		Number	Percent
	Number	Percent	Number	Percent		
1987 and before	23	42.6	32	48.5	55	45.8
1988	3	5.6	3	4.5	6	5.0
1989	5	9.3	7	10.6	12	10.0
1990	9	16.7	8	12.1	17	14.2
1991	3	5.6	4	6.1	7	5.8
1992	4	7.4	4	6.1	8	6.7
1993	5	9.3	3	4.5	8	6.7
1994	2	3.7	5	7.6	7	5.8
Total	54	100.0	66	100.0	120	100.0

The installation of ring-slab latrines increased in 1989, and peaked in 1990. Although this increase is evident in both the areas, it is more pronounced in Udaykathi. It is worth noting that the number of installations decreased in both the areas in 1991, and it was again more marked in Udaykathi. The installation pattern remained more or less the same before and after the period of the social mobilisation campaign. Of all the ring-slab latrines, 45.8%, a little less than half of the total latrines were installed before 1988, and it was a little less in Udaykathi (42.6 percent) than in Iluhar (48.5 percent).

Table 6.4.2: Distribution of Pit latrines by year of installation

Year of Installation	Udaykathi		Iluhar		Total	
	No	%	No	%	No	%
1987 and before	6	16.7	4	13.8	10	15.4
1988	5	13.9	4	13.8	9	13.8
1989	3	8.3	2	6.9	5	7.7
1990	7	19.4	5	17.2	12	18.5
1991	2	5.6	2	6.9	4	6.2
1992	6	16.7	7	24.1	13	20.0
1993	3	8.3	4	13.8	7	10.8
1994	4	11.1	1	3.4	5	7.7
Total	36	100.0	29	100.0	65	100.0

Some 15% of the pit latrines were built before 1990. The rate of installation of pit latrines is higher in 1990 and 1992.

## 6.5 Socio-economic differentials

### 6.5.1 By household land

Table 6.5.1: Distribution of sanitary latrines by household land

Land (in decimal)	Total HH	Latrine type Sanitary	
		No.	Percent
0 (landless)	96	63	66.0
1 - 50	70	56	80.0
51 +	84	50	80.0

The above Table reveals that the usage of sanitary latrine goes up for the higher landholding categories. Among completely landless families, 66 % possess sanitary latrines, whereas it is 80 % in land owning households.

### 6.5.2 By Education of Household Head

Table 6.5.2: Distribution of sanitary latrines by education of household head.

Education	HH	Latrine type			
		Sanitary		Non-sanitary	
		No.	Percent	No.	Percent
Illiterate	87	60	69.0	11	12.6
Primary	104	79	76.0	9	8.6
Secondary	41	31	75.6	0	0
Higher Secondary & above	18	16	88.8	0	0
Total	250	186	74.4	20	8

Table 6.5.2 reveals that the educational level of the household head directly affects the household's behaviour towards installation of sanitary latrines. Households with no or lesser education have lower rate of sanitary latrines coverage. It is highest in households with highest level of education (88.8 percent) while lowest amidst illiterates (69.0 percent).

### 6.5.3 By household income

Table 6.5.3: Distribution of sanitary latrines by household income

Income ( per month)	HH	Latrine type			
		Sanitary		Non-sanitary	
		No.	Percent	No.	Percent
Less than 1500	60	39	65.0	9	15.0
1501-3000	125	89	71.2	10	8.0
3001-5000	50	43	86.0	1	2.0
5000 +(Above 5000)	15	15	100.0	0	0
Total	250	186	74.4	20	8.0

Table 6.5.3 reveals that possession of sanitary latrines shows a positive correlation with income. The chi-square test shows P-V at 0.0187. The households with income less than Taka 1500 per month have lowest sanitary latrine coverage (65.0 percent), the rate is highest in top-most income group families. But surprisingly 14.0% families with monthly income range of Taka 3000 - 5000 still do not yet possess sanitary latrines. The sanitary latrine coverage rate is 86% in households with income Taka 3001 - 5000 per month and 100% with income of taka 5000 and above.

#### 6.6 Knowledge about best latrine producer:

Table 6.6.1: Distribution of respondents by perception of the best latrine producer.

Source of best type	Area				Total	
	Udaykathi		Iluhar			
	Number	Percent	Number	Percent	Number	Percent
DPHE	51	40.8	16	12.8	67	26.8
Private producer	22	17.6	79	63.2	101	40.4
NGO	14	11.2	1	0.8	15	6.0
Do not know	38	30.4	29	23.2	67	26.8
Total	125	100.0	125	100.0	250	100.0

The Table reveals that private producers have established their reputation in the trade, 40.4% respondents consider them the best source of latrines, while it is 26.8% for the DPHE. The popularity of private producers is markedly higher in Iluhar (63.2 percent) than Udaykathi (17.6 percent). Whereas for DPHE it is the reverse, in Udaykathi it has a better reputation (40.8 percent) than Iluhar (12.8 percent). Some 26.8% people still have ignorance of the best source, but is more pronounced in Udaykathi (30.4 percent) than Iluhar (23.2 percent). The existence of a source of latrine has direct bearing on the findings.

## 6.7 Knowledge of cheapest source

Table 6.7.1: Distribution of respondents by perception of the cheapest source of sanitary latrine.

Source of cheaper type	Area				Both	
	Udaykathi		Iluhar			
	Number	Percent	Number	Percent	Number	Percent
DPHE	26	20.8	18	14.4	44	17.6
Private producer	21	16.8	49	39.2	70	28.0
NGO	17	13.6	0	0	17	6.8
Others	1	0.8	0	0	1	0.4
Do not know	60	48.0	58	46.4	118	47.2
Total	125	100.0	125	100.0	225	100.0

It is evident from table that private producers have established themselves as the best latrine producers - as revealed from the previous table. Of all respondents, 28% consider private producers as the cheapest latrine sellers, whereas it is 17.6% for the DPHE. DPHE's popularity is comparatively higher in Udaykathi, whereas in Iluhar it is the private producers. NGOs have gained some access to the market in Udaykathi, but in Iluhar they are non-existent. It is note-worthy that 47.2 percent of respondents are unaware of the source of cheapest latrines; such ignorance is more or less equally distributed over the whole area indicating a low profile of promotional activities of both the private producers and the DPHE. The existance of a source of latrine in and around the sample villages is an important factor.

## 6.8 Preference for latrine type

Table 6.8.1: Distribution of households by preference for latrine type if had enough money

	Udaykathi		Iluhar		Both	
	Number	Percent	Number	Percent	Number	Percent
Ring slab	87	69.6	97	77.6	184	73.6
Septic tank	28	22.4	23	18.4	51	20.4
Pit latrine	1	0.8	0	0	1	0.4
Do not know	1	0.8	0	0	1	0.4
Others	8	6.4	5	4	13	5.2
Total	125	100.0	125	100.0	250	100.0

The respondents were asked the type of latrine they would install if they enough money and it was found that 73.6% of households prefer the ring-slab type. This preference is more prevalent in Iluhar than Udaykathi: it is 77.6% in the former and 69.6% in the latter area. Septic tank latrine is the second most popular type, being more popular in Udaykathi (22.4 percent) than in Iluhar (18.4 percent). It may be that people have heard of the septic tank from the SocMob campaigners as the qualitatively superior type to which they put their choice. Only one household still prefers the pit latrine. Less than 1% of the households seem to be undecided about the selection of any latrine type.

### 6.9 Sources of ring-slab latrine

Table 6.9.1: Distribution of households having ring-slab latrines by source of procurement

	Udaykathi		Iluhar		Both	
	Number	Percent	Number	Percent	Number	Percent
DPHE	29	53.7	11	16.7	40	33.3
Private producer	22	40.7	55	83.3	77	64.2
NGO	2	3.7	0	0	2	1.70
Other	1	1.9	0	0	1	0.8
Total	54	100	66	100	120	100

Of all study households, 120 possess ring-slab latrines; most of these latrines (64.2 percent) are procured from private producers. Next comes the DPHE, 33.3% households bought ring-slabs from its sale centres. However, private producers have almost complete dominance of the market in Iluhar: 83.3% consumers purchased ring-slabs from them. Here, DPHE attracted only 16.7% of the consumers. In udaykathi, although DPHE has dominance over the market (53.7 percent), private producers, too, attracted contain a significant proportion (40.7 percent). Latrines from NGOs and self-made variety though show in Udaykathi - however insignificant, but they are non-existent in Iluhar.

## 6.10 Determinants for selecting specific source

Table 6.10.1: Households with ring-slab latrines from private producers by reasons for selection

	Udaykathi		Iluhar		Both	
	No	%	No	%	No	%
Nearest	9	40.9	34	61.8	43	55.8
Good quality	1	4.5	8	14.5	9	11.7
Cheapest	6	27.3	0	0	6	7.8
Square slab	4	18.2	3	5.5	7	9.1
Less transport cost	0	0	3	5.5	3	3.9
Others	2	9.1	7	12.7	9	11.7
Total	22	100.0	55	100.0	77	100.0

The data show that private producers captured more of the market in Iluhar than Udaykathi. In Iluhar, 55 households bought latrines from private producers, whereas it was only 22 in Udaykathi. It is clearly revealed that the most important reason for selecting private producers is its close proximity to the consumer. The second most important factor is good quality. It is worth-mentioning that in Iluhar there exists no DPHE production centre, but in Udaykathi there is one in its nearest vicinity (Shere-Bangla Bazaar sub centre). 9.1% consumers liked it for its square-size slab which is non-existent in DPHE. Good communication with private production centres plays important role in Iluhar, but this factor is not evident in Udaykathi. In Udaykathi 27.3% consumers of private producers like it for being the cheapest, but in Iluhar price plays no role.



Table 6.10.2: Households by preference of source of latrines if given a fresh choice

Source	Area				Both	
	Udaykathi		Iluhar			
	Number	Percent	Number	Percent	Number	Percent
DPHE	82	65.6	14	11.2	96	38.4
Private	25	20.0	107	85.0	132	52.8
NGO	16	12.8	0	0	16	6.4
Others	2	1.6	4	3.2	6	2.4
Total	125	100.0	125	100.0	250	100.0

Respondents were asked their preference of source of latrines if given a fresh choice and they displayed divergent views in both unions.

In Udaykathi, DPHE enjoys highest popularity (65.6 percent) but in Iluhar it is the private producers (85.6 percent). However, among total households surveyed, the private production centres has the maximum acceptance; 52.8% would prefer them, whereas it is 38.4% for the DPHE centre.

One interesting aspect is that the popularity of DPHE latrines seems to be rising and of PP latrines falling if options of purchase is compared with the existing users. While the present buyers of DPHE latrine are 33.3%, 38% preferred DPHE latrine if given a fresh choice. The percentages are 64.2 and 52.8 with respect to private producers. In Udaykathi, NGOs are emerging as the third popular source; but in Iluhar, they are surprisingly non-existent.

The findings in Tables 6.6.1, 6.9.1, 6.10.1 and 6.10.2 are directly influenced by existence of a source of latrine in the area. Nearness of a source is an important factor in wider publicity and increased sale.

### 6.11 Perceptions of the DPHE latrine

Table 6.11.1: Distribution of households by knowledge of DPHE's sale centre

Category	Area				Both	
	Udaykathi		Iluhar			
	Number	Percent	Number	Percent	Number	Percent
Know	103	82.4	56	44.8	159	63.6
Do not know	22	17.6	69	55.2	91	36.4
Total	125	100	125	100	250	100

While about 36.4% of respondents do not have any knowledge of the DPHE sales centre, this ignorance is more pronounced in Iluhar: 55.2% respondents in Iluhar did't know about the DPHE sale centre, whereas it is 17.6% in Udaykathi. For DPHE, this may be an important reason for being the less preferred source (another reason is distance) in Iluhar.

Table 6.11.2: Distribution of households with ring-slab latrines by practice to be followed while pit gets filled up

Category	Area				Both	
	Udaykathi		Iluhar			
	Number	Percent	Number	Percent	Number	Percent
Desludging	35	64.8	58	87.9	93	77.5
New latrine	10	18.5	4	6.1	14	11.7
New pit with old ring-slab	9	14.8	4	6.1	12	10.0
Do not know	1	1.9	0	0	1	0.8
Total	54	100.0	66	100.0	120	100.0

While the existing ring-slab latrines will get filled up, desludging would be the most common practice in either area for re-use. The practice would be more predominant in Iluhar than Udaykathi, 87.9% households in the former and 64.8% in the latter area. Some 11.7 percent households would set up new ring-slab latrine, this method would be more practised in Udaykathi (18.5 percent) than Iluhar (6.1 percent). Some 10% households would set up new pit but with old ring-slabs and this practice is also better liked by residents of Udaykathi than Iluhar. It is note-worthy that only 0.8% respondents are still undecided.

In focus group discussions participants suggested that water borne diseases have declined to a great extent after the introduction of sanitary latrines in the area. There has been a fruitful social mobilisation, where participation of all segments of the population took parts in a welfare acts. This subsequently resulted in the growth of the private producers, improvement in health and sanitation and increased loan programmes for sanitation in the area by the NGOs.

## 7.0 IMPACT ON PRIVATE PRODUCERS :

### 7.1 Income Effect:

Income is a major yardstick in measuring economic status and an indicator of progress. Income information of the private producers was collected with a view to obtaining background information, economic status and investment potential which have direct bearing on capital availability and entrepreneurship. This is the source of economic strength, social status and power of the producers, interpreting their relative situation, differences in standard of living and access to resources. Estimation of income in any study requires much caution and all possible sources of income have to be identified and taken into account in order to reflect an accurate picture of the existing situation.

The income earning activities of the households, have been identified through a structured questionnaire. Income earning activities cover both on - and off - farm activities. Income generated from productive assets and income generated from off-farm activities related to business, small trading, wage labour etc. have all been covered. The net income of the private producers was estimated by adding income from the sale of all crops, interest/profit from loans, day labour/services, income from business, income from cottage industries, income from livestock and poultry, income from fishery, remittance, donations & gifts, ration/relief/subsidy, self employed, non-agricultural activities, and other income, if any.

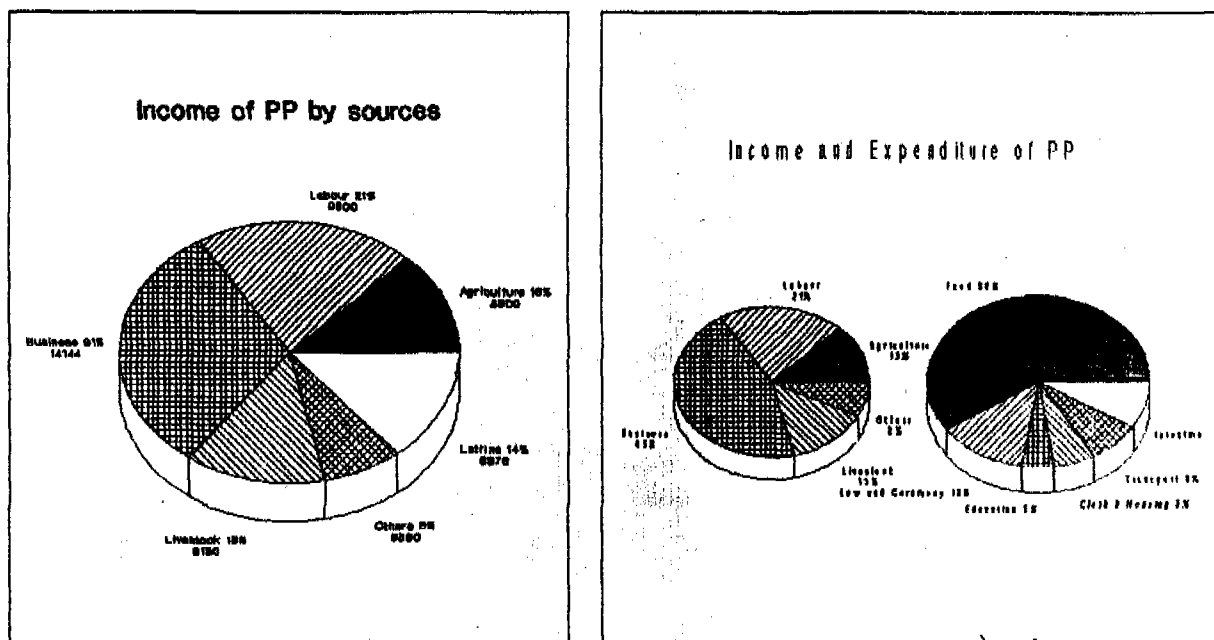
It must be pointed out that a rigorous income calculation has not been attempted because income information of the producers was collected from retrospection and price differences could not fully taken into account.

The average annual household income of the producers is Tk.45570. The main sources of income are agriculture, Labour and services, business, and livestock.

Average Annual HH Income of PP		Average Annual HH Cost of PP	
Agriculture	5800	Food	25280
Labour & Serv	9600	Cloth & House	2510
Business	20520	Education	1960
Livestock	6120	Marriage	2650
Remittance	1200	Ceremonies	1600
Self Employed	1200	Transport	3396
Others	1130	Litigation	1320
		Investment	7350
<u>Total</u>	<u>45570</u>	<u>Total</u>	<u>46066</u>

The income and expenditure structure of the private producers provide important indications of their background and the impact of the trade on their lifestyle. Agriculture is not the mainstay of their income as only 13% of household income comes from the source. The main source of income is business which contributes 43% of the family income.

There is a healthy balance between the income and expenditure pattern of households. A total of 60% of income is spent for food items. The pattern of expenses spread over education, marriage, Ceremonies, litigation, and investment depicts elitist family characteristics of the producing HH.



The average profit earned by the producers from latrine production is Tk. 6376 which constitutes about 14% of their total income. On the other hand the percentage of income from other businesses about 31%. This implies that the profit from latrine production does not constitute the most important income source for the producers and is not the main stay of their income. A large part of the income of the producing household comes from other sources and other businesses.

## 7.2 Profitability and Productivity of Latrine Production:

The objectives of the following analysis are to :

- Look at the comparative situation of DPHE and private producers with respect to capital productivity, labour productivity and value added.
- Look at income, employment, and value added pattern of DPHE Centres and private producers' production centre.

The analysis starts with the following definition:

### 7.2.1 Capital Labour Ratio:

Capital labour ratio gives the capital intensity of latrine scheme and shows the amount of capital required to create one person day of employment. The ratio in the report has been defined as

$$\text{CLR} = \frac{\text{Fc} + \text{Wc}}{\text{L}}$$

where CLR = Capital Labour Ratio

Fc = Fixed capital which includes the cost of land and structure.

Wc = Working capital which includes all items of working capital minus stock of finished goods and outstanding loans.

L = Person days employed which include family labour and hired labour.

### 7.2.2 Value of output:

It is the total output in a particular period of time which is taken as the number of days of operation in a year. The elements of gross value of output (Q) includes cost of raw materials, hired labour charges, equipment and tools, cost of land and structure and residuals. The residuals include return on capital, the profit, the wages of unpaid family labour.

### 7.2.3 Output Capital Ratio:

Output capital ratio measures the average productivity of capital invested in a scheme and it is a statistical relationship relating flow of income with the amount of capital in a certain period of time.

$$\text{OCR} = \frac{\text{Q}}{\text{Fc} + \text{Wc}}$$

where Fc = Fixed capital.

Wc = Working capital.

### 7.2.4 Value Added:

Value added is the value newly created and reflects surplus creation and employment generation in the economy. It is calculated as the difference between value of output and intermediate inputs and service charges. It consists of wages, rents, interest on capital and profit.

### 7.2.5 Output Labour Ratio:

Output labour ratio (OLR) measures the relationship between the flow of income and the employment in a certain period of time. The ratio has been calculated as follows:

$$\text{OLR} = \frac{Q}{L_m}$$

where Q = output.

L<sub>m</sub> = total man days employed.

Table : Comparative Characteristics of DPHE and Private Producers

	Private producers	DPHE
Net output	382081.00	338409.00
Total capital	210737.00	763347.00
person days employed	9150.00	2600.00
Total value added	274500.00	104906.00
Output capital ratio	1.81	0.44
Capital output ratio	0.55	2.60
Output labour ratio	41.76	130.16
Capital labour ratio	23.03	293.00
Profit Cost Ratio	0.34	-1.26

**7.2.6 Output Capital Ratio:** Output Capital ratios measure the average productivity of Capital invested and it implies a statistical relationship which relates the flow of income to the amount of capital in a certain period of time. The higher the output capital ratio, the higher is the productivity of capital invested in an enterprise. In other words, it indicates maximization of output per unit of capital. For a scheme to be good it maximizes output with high rate of capital turnover (higher output capital ratio).

Capital productivity of private producers is higher than DPHE. It may be because, the size of Capital output ratio depends not only on the amount of capital employed but also on a number of factors like the level of technology, the efficiency in handling resources, the quality of organisational and managerial skill, the composition of investment, the pattern of demand and the impact of orientation programmes.

Capital structure and hence the volume of total investment largely depend on the technology and system of production. Productivity of any production schemes in terms of value added, level of capital intensity in terms of capital output ratio and investment for creating one day employment are some of the indicators of judging the desirability.

Table 7.2.6.1 : Capital output ratio, capital value added ratio and capital labour ratios by projects.

Producers	Capital output ratio	Capital value added ratio	Capital labour ratio
DPHE	2.6	7.28	293.0
Private producers	0.55	0.77	23.03

7.2.7 **Labour productivity:** Labour productivity defined as output labour ratio measuring the relationship between the flow of income and employment is varied depending upon the nature and type of Production. Labour productivity in private producers is 41.76 while with respect to DPHE it is 130.16.

7.2.8 **Capital Intensity:** Capital labour ratio gives the capital intensity of an latrine scheme and shows the amount of capital required to create one person day's of employment. At a given, output capital ratio and output labour ratio, the less the capital labour ratio. i.e., the less the capital requirement to create a person day of employment, the better is the scheme. Capital intensity is the lowest in respect of private producers.

7.2.9 **Profitability:** Absolute profit in any investment is crucially important for those who run the production. But profit in isolation does not reflect the operational efficiency of the project. Profitability has to be understood in relation to gross output, cost and the cost of capital. Profit Cost ratio indicate the level of profitability. The ratio indicates that an unit cost of Taka one brings a profit of Tk. 0.34 to private producers while it bring a loss of Taka 1.26 to DPHE.

### 7.3 Producers Perception :

#### 7.3.1 Why did they start the business ?

The private producers were asked to state the reasons for starting their business in spite of the risks involved. All were asked to give multiple responses. Seventy percent stated the economic consideration as the prime movers which induced them to the trade. Only 30% responses indicated social reasons as considerations for starting the production of sanitary latrines.

The reasons for starting their business among other things included giving employment to a mason who was priorly known to them, availability of suitable land at river bank, earning some profit out of non-farm activities, extra income earning for the family, meeting unmet demand of sanitary latrine at distant areas, creating some employment for the

family members, earning more in addition to what the family have, opportunity to start the business with very little capital, to get rid of the curse of unemployment and under employment, utilise the underemployed time of himself and the family members, earning a little bit of surplus income, security reasons which takes less time and materials are not perishable, It is a profitable business worth pursuing, fulfilling the health need of the area and getting social recognition, Social responsibility and providing social services to the people, doing some good to the society along with doing some good to self, giving employment to a mason who inspired the producers to do the business, and by giving a vital social service doing good to society.

### 7.3.2 Sources of Inspiration:

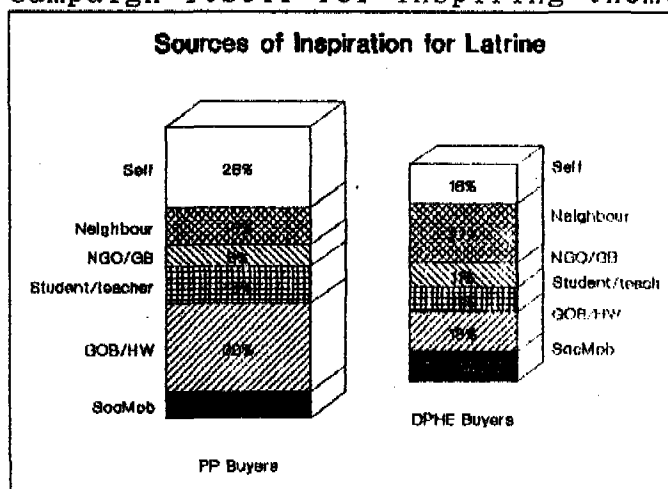
Although the social mobilisation campaign encompassed everybody including health workers, students, teachers and the general public, only a small percentage of respondents irrespective of DPHE or PP purchasers credited the Campaign itself for inspiring them.

A total of 28% of DPHE buyers and 18% of PP buyers claimed that it was their own idea to have latrines and no none influenced them to buy one.

13% of DPHE buyers and 27% of PP buyers said that they were inspired by neighbours including the producers themselves.

PPs create their own market through their own promotional techniques. As a result, this has increased the demand for latrines.

The figure shows that most of the DPHE buyers were inspired by the Students, teachers and Health workers while most of the PP buyers were inspired the neighbourhood and GOB/HW and students.



### 7.3.3 Reasons of Satisfaction or Dissatisfaction:

Some 60% of the responses given by the private producers expressed satisfaction with the overall situation of production and gave economic reasons while 25% responses expressed reasons which are social in nature. Only 15% of responses were characterised by complete dissatisfaction over the situation.



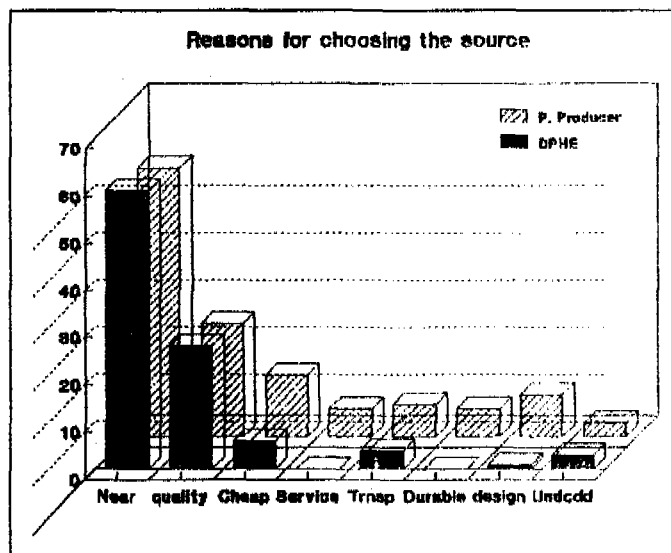
Economic reasons of satisfaction include making additional profit, employment of unemployed people, living a better life through extra income, diversification of business as well as income, generating some employment for family members and continuing a profitable business. With little capital it is a good business, utilizing unemployed time for income generation, good rate of return, the allocated time is very little while none of the materials or products is perishable, utilisation of unused land, and giving work and income to family members of all ages.

Social reasons of satisfaction include doing good for society and satisfaction from being acclaimed by the people, creating some employment for society, meeting the health needs of the area, and helping people through services of the production centre.

Reasons for dissatisfaction include the very marginal and nominal level of profit, inadequate demand conditions, very slow rate of sales and also that the cost of materials is increasing over the years.

#### 7.3.4 The reasons for choosing the source:

Users of latrines in the sample area were asked the reasons for choosing to buy the latrine from the DPHE or private producers. Most mentioned the quality and cost as they perceived them. The feeling of better quality and proximity was almost equal for both DPHE and PP latrines. But with respect to private producers, some other qualities were also mentioned, of which cheapness of the products of the private producers, better installation services, lesser transport cost, durability and better design, emerged as reasons for choosing the latrines from the private producers. Familiarity with the producers and square size of the slabs on which super structure can be installed were also reasons for choosing private producers. If people of the two sample villages were given a choice again 52.8% would buy a latrine from private sources, while only 38.4% would prefer to buy a latrine from the DPHE.



#### 7.4 Development of Demand:

The Social Mobilisation Campaign was not imported from outside; it rather reactivated and bolstered already existing forces for added action for a certain period of time. It was the processes and forces already existing which took up added action for achieving certain results.

7.4.1. Social Mobilisation Campaign is the most effective weapon which resulted in a phenomenal rise in the demand for latrine in the Banaripara area. A total of 63% of the private producers started business during the period of 1989 and 1990 and 68% latrines were demanded and sold in the same period.

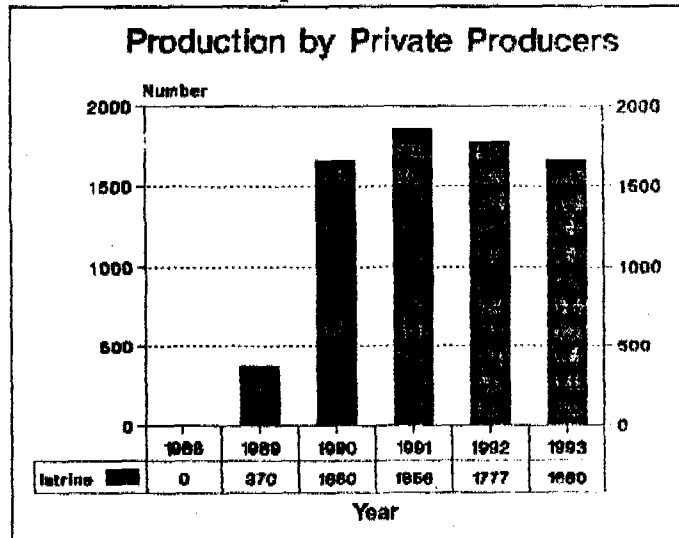
7.4.2. CARITAS has wide coverage in the area and gives special emphasis for the popularisation of sanitary latrines in the area. The installation of a tubewell and selection of its site is conditional to having ten latrines in the neighbourhood. These latrines are provided for low cost is accompanied by health education.

7.4.3. Grameen Bank also provides loans at low interest rates to clients with a view to encouraging purchase of latrines. These loans are repaid with the income from other income generating schemes and are tied to purchasing latrines.

7.4.4. BRAC although a newcomer in the area, has started a process of developing new producers from among the group members through providing loans to them.

7.4.5. Limits to the demand of latrines. There are professional groups to clean up the latrines when these are full prolonging their lifespan. Moreover, the demand for latrines is seasonal. most of the purchases take place during the harvesting season of rice and jute when people have income to spare.

The Figure on sanitary latrines by latrine Installation by year in two sample villages shows that most of the latrines were installed right at the beginning years of the SocMob campaign when more than fifty percent were installed. The rate of installation declined consistently over the period by years.



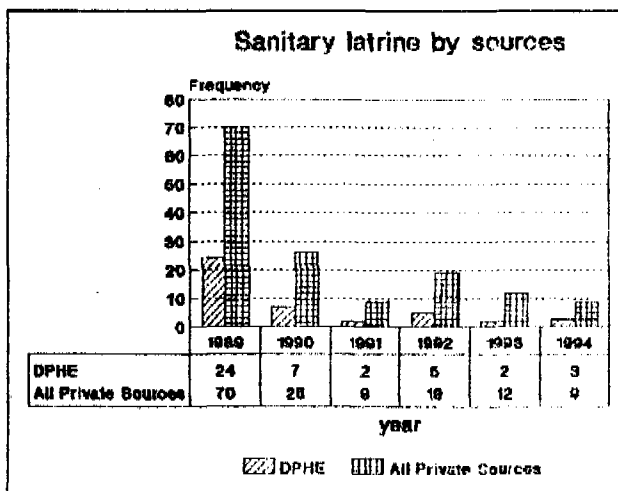
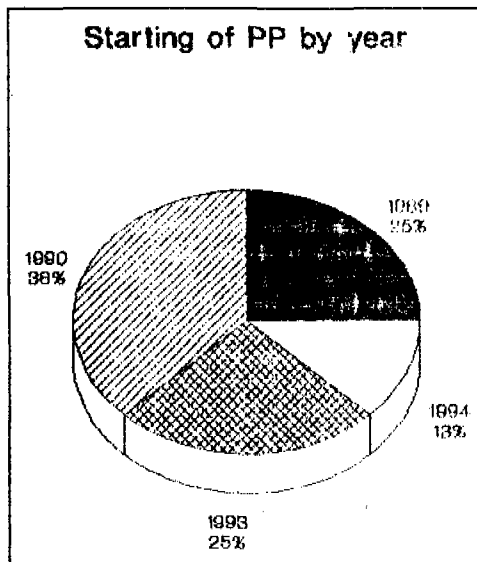
The reasons could be two fold:

(1) At a certain period of time the demand for latrines is limited and the buyers do not demand new latrines unless the remaining one wears out. Unless a new demand is created the same volume of demand is met by the suppliers over the years.

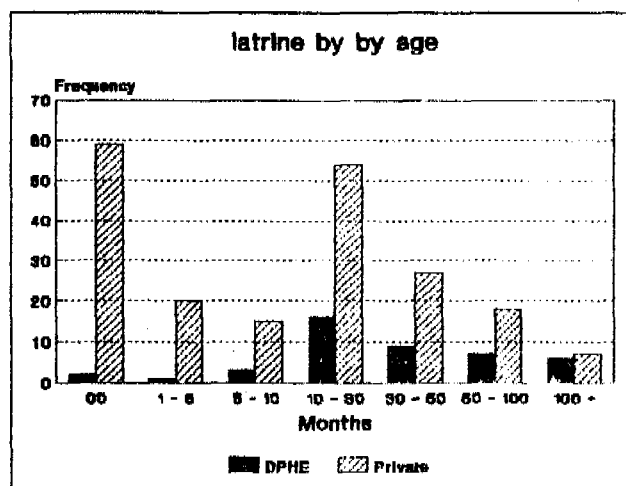
(2) New efforts were not made to create a situation of added demand condition which consequently resulted in the decline of demand for new latrines. The data also suggest that the purchase is consistently higher from the private producers than from DPHE. It means that the importance as well as the role of DPHE as the sole source latrine supplies has declined over time.

It is also interesting to observe that DPHE no longer remains an important source of latrine supply to the sample area. There have also been significant purchases from non sample private sources which come from outside the area of the sample. This latrines are reportedly brought from Jessore and Khulna Areas by traders by boat.

In spite of the decline of the sale of DPHE products the sale by the private producers has remained steady and strong. Private producers of the area started business only in 1989 when 25% began production. Another 38% started production in 1990, 25% in 1993 and only 13% in 1994. But the absolute production by the sampled private producers have increased steadily over the period as the data on production by private producers suggest.



The figure on latrine by age suggests that there were two peak latrine installation periods. One is in the 20-30 months group while the other is in the 00 group. These two period coincide with the two SocMobs when a maximum number of latrines were installed. The One Slab One Ring Programme introduced in DPHE was rigidly followed. The purchase lost flexibility and this greatly enhanced the coming up of the private sector.



### 7.5 Publicity:

Seven of the producers do not have signboards nor do they keep price lists for the buyers. Only three producers have publicity oriented signboards and maintain price lists showing the variation in quality and in prices. None of the private producers deliver any health messages except telling the usefulness of latrines. Only half of the latrine production Centres are visible from the main roads close by. None of the private producers except two has a demonstration latrine for the public.

Out of the ten private producers who started business after the SocMob, six were inspired by other private producers to start and run the business. Two others were inspired by the masons who were interested in earning extra income by extra work in the private production centres. Only two of the producers stated that they were inspired by the Sub Assistant Engineer of DPHE.

Asked what they would do if more money was made available to them all the producers invariably said that they would expand their business further with fresh investment. Some of them opted for producing pipe, pillar, tubewell platforms, coloured slab, washing slab and platforms.

The private producers in response to structured questions put forward the following suggestions for making latrines available to the poor.

- (1) Giving one ring-one slab latrine completely free to the poor which should be supplied by the private producers and for which the Government should bear the cost.

- (2) Providing very easy loan through NGOs or other agencies combined with subsidies repayable in easy instalments.
- (3) Providing ring and slab free and making a charge for installation.
- (4) Buying the latrine from the private producers and providing to the poor at half price.

#### 7.6 Reacting to the New Market Situation:

The private producers had to start business in a situation where DPHE had control of the market supported by official subsidies and backup support such as production sites, organised publicity and leaflets. It was very hard for them to enter into the market with competitive prices and good quality. A very planned marketing strategy taking advantage of every means available was the corner stone of their success.

##### 7.6.1. The Private Producers Strategy to compete with DPHE:

- Since the materials of latrine production are fairly costly, procuring low cost inputs at cheaper prices was indispensable for them. Their acquaintance with the local situation enabled them to manage sands and Khoa at unimaginably low prices.
- Non mason labour cost and profit share of the suppliers are very important cost component in DPHE latrine production. By using unemployed family labour PP reduce non-mason labour cost to a large extent.
- Private producers reduce cost by hiring part time mason at almost half the cost of DPHE. The masons are part timers and work at different places. To face the crisis the private producers are training themselves as masons and take part in production. Some of them are masons themselves. Some are also developing their own masons through training.
- Wherever their production centres were located, they started targeting the buyers of those areas who are far away from DPHE centres and for whom buying and carrying DPHE latrines was too costly. A significant number of their sales are made to the buyers who live outside the Banaripara.
- All the private producers selected location at strategic sites.

- They used local images and hired local help for the sale and made personal contact with potential buyers. They also get recommendations from local leaders for purchasing their products. DPHE is thought to be an outsider in the area by the private producers as well as the buyers.
- They instigated a very silent whispering propaganda against DPHE. The information related to quality of goods, level of honesty of government officials, and chances of misappropriation of money and giving people inferior quality latrines. On the other hand, one producer was found to keep very thin DPHE Slabs for demonstration and testing strength in the counter as his own.
- They started very personalised and need oriented extra services, and sale on instalment and credit which was so important for their survival.
- They were very flexible in responding to the felt needs of the people. Flexibility in design shape and colour according to customers orders and needs was very attractive to the buyers. There were times they responded to the needs of the customers by tailoring the latrine to the size of the space in the corner or backyard.
- Producing complementary items is the most prominent reason for their success. In pricing they would sometimes offer a package sale at reduced prices making buyers feel rewarded as they got extra items at reduced prices.
- They provide maximum marketing and other opportunities to the buyers to bring them to their fold. Loanees of GB and other NGOs come to the private producers for convenience. GB gives loans for latrines. Private producers give false vouchers to enable the borrowers to obtain the rest of money which they utilise for other purposes.

#### 7.6.2 Prices of Products:

Pricing has not been a function of demand and supply in the case of latrine products in the Banaripara area. The reasons are the following:

- (a) The demand has been one shot and hence was not unlimited and in most cases supply created new demand for itself. The orientation given by the partners of Social mobilisation combined with the fear of litigation on the part of the defaulting people in building sanitary latrines and drive to sell the product of the producers created demand in the area.

- (b) The whole market was distorted by the subsidised products of DPHE. The market force was distorted, acting against the interest of the private producers. Unwarranted competition combined with other forces has been perceived to be the most powerful discouragement to the expansion of private business in the area.
- (c) The other reason of market imperfection was the inadequate level of information of the buyers about the cost, quality and standard of the products available in the area or in the immediate surroundings. This disturbed the marketing of products and smooth development of the market forces.

Almost all the private producers expressed dissatisfaction over DPHE and perceived the government as their enemy. "Government gives money to DPHE and they compete with us with government help. It would seem that not DPHE, but the government is our enemy." was the opinion of all the private producers attending the Focus group discussion.

#### 7.6.3 Location of Business:

The appropriate location of the production centre takes place depending upon the availability of communication facilities, buyers, raw materials and other inputs of production. Six of the ten centres are located in a cluster very close to DPHE Centre. The DPHE centre is located at a somewhat disadvantageous position at a short distance from the river bank. However, the location of the private producers was advantageous. At the initial stage DPHE was in a monopolist position and could harness all the demand of the area. The remaining two centres of private producers and other DPHE centre are also located close by within two km of Thana headquarters. The whole Thana is covered with rivers and canals and the headquarters is the centre of business. Purchases of latrines take place at weekly shopping times. Private production centres are located at river banks, thus reducing production costs.

#### 7.6.4 Quality of Product:

Judging the quality of the product and looking at the engineering aspects of latrines produced by private producers or DPHE was not within the scope of this study. Local engineers and those of DPHE agreed that the latrines produced by the private producers meet all the safety standards. The data suggest that the buyers think PP latrines are as good as those of DPHE but much lower in price and far better in services. The observation was that private producers are liked by the people for their service interest and good product quality. But some DPHE staff wondered whether all private latrines invariably satisfy safety standards, a proposition difficult to verify in the absence of any quality inspection system.

The inadequacy of supply from DPHE contributed much to the outgrowth of the private sector in the field of sanitary latrine production.

The universal impression of all the attendants in the Focus group meetings of local leaders was that the quality of the products of the private producers is very good." DPHE latrines are not as good as Dhaka Officials think it to be. They come to see the demonstration latrines at Banaripara and never bother to see what is given to the people for money" commented a local headmaster who was a pioneer of the SocMob. Quality is what the consumers think it should be and if it is not better quality, what accounts for the steady expansion of the business of private producers ?

#### 7.6.5 The Advantages and Constraints:

##### (1) Diversification:

Almost all private producers have diversified their income generating business in addition to what they earn from the sale of latrines. In the focus group discussion it was estimated that about 40% of their involvement in sanitary work is other masonry jobs which bring a much higher return for them.

These include production of supplementary goods like washing platforms, pillars for boundary and ventilators for building. This activities give private produces an advantage over DPHE production centres.

##### (2) Links with the people:

Private producers have links and year long acquaintance with the people and they often obtain the sympathy of the power structure and local elites. They are known to the people and people have confidence that they can be questioned in case of problems and can be forced to respond in case things go wrong. Private producers are the people to whom they have access, with whom they can converse and share information. On the contrary, DPHE is considered as an outsider, unreachable and unmanageable.

##### (3) Investment Security:

Latrine components of latrine are not perishable and they do not depreciate in value. This gives the seller the security of knowing that if the goods are not sold instantly, they will be sold immediately. This fact alone gives security of investment which is rare in other investments.



(4) Technology:

The private slabs are square and the superstructure can be installed on it without touching the ground. The advantage of this is that the roots of the pole do not decay and last longer. The perception of the people is that DPHE made latrines do not have this feature, nor do they provide enough room for water and a pot for washing.

(5) Absence of Formalities:

Differing from DPHE, purchasing latrines from private producers is completely free of official formalities. There are no official formalities, money need not be deposited in the bank treasury, there is no need for submitting an application, there is no wait for a delivery date, and there is no problem with deliveries after complete payment has been made.

(6) Services:

Private producers give a replacement guarantee to buyers if the latrine components break away during transportation. They guide and provide help to buyers from the initial contact to the installation of latrines. They provide advices on transportation, help in loading the components on to carriage/transport and provide technical support (along with manpower if required) in installation of latrines.

(7) Sale on Credit:

Private producers sell primarily to people known to them to whom they extend sale on credit. The realization of money may be in different modes suited to local situations. Normally the money is realized at harvesting time or when income generates to the family.

(8) Consultancy and Orientation:

Through orientation and inspiration private producers created their own client base. The suggestion about the utility of water seal latrines created a demand for their products. They also discussed very intimately the usefulness of latrines to potential buyers and gave help & support at every stage of the latrine operation.

## 7.7 The Constraints:

Inadequate capital seems to be the major constraint facing the producers. Most producers reported a dearth of capital as the major obstacle in the way of expanding their production activities thus earning more income and creating employment. The market is very competitive which gives them only nominal profits. Sales on credit are very common.

The private producers often report inadequacy of working capital which hinders procurement of raw materials. This hinders them from one shot purchases of inputs like cement, sand etc thus minimizing the cost through lower prices of goods, transport costs and other allowances of procurers. As the private producers do not have transports they face difficulties in carrying of raw materials and finished products. Moreover, unpredictable demand conditions and inability to forecast demand often creates problems for private producers.

Private producers are doing business under several other constraining factors and there are some who had to leave the business. Those who left the business gave their reasons during the interview and in the focus group discussion:

- a) Annoyed by the upsurge of private producers in the surrounding area DPHE became fearful of developing enemies and losing the market it had monopolized so far. As according to the producers DPHE started an intense propaganda campaign promoting the quality of their product in the market as well as maligning the product of the private producers. This is, of course, denied by the DPHE people. This practice according to the private producers creating problems for the existing producers contributed to the shut down of business by some producers whose project sites were located very close to the DPHE Centre.
- b) Capital shortage was one of the major reasons for the suspension of business and a hardship to existing producers. Although shortage of capital was a problem for all the producers specialising in latrine production about 30% stated this reason among others.
- c) The sale by credit strategy did not work for some of the producers. Those who stopped business had to extend credit through pressure from their acquaintances. Unfortunately they did not clear enough money to run the business and lost the market.

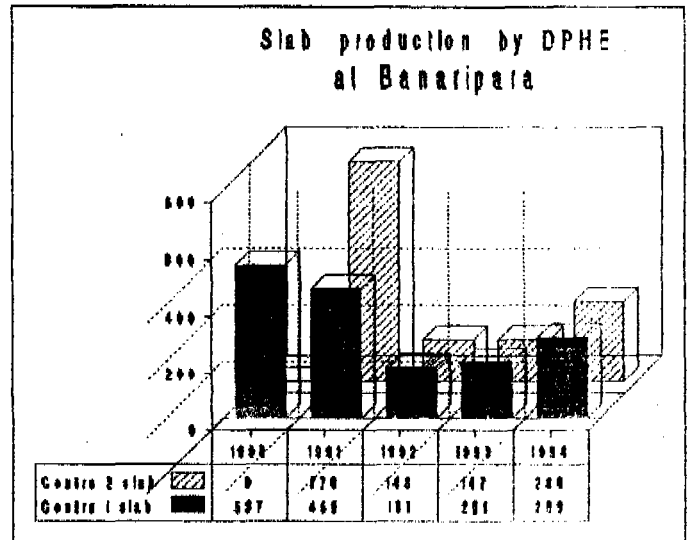
- d) Shortage of trained masons was also mentioned as another reason. In the competition to obtain the services of a few good masons, the relatively weaker ones got lost out and the economically stronger ones survived. In the absence of a training programmes to produce more masons, the presently employed one are charging increasingly higher wages, thereby raising the cost of operation for PPs.
- e) The market of latrine products shows a slow yield; the rate of sales is very low and hence income generation is also very slow. This business cannot be the means of subsistence for a variety of reasons; sales are seasonal, the market is very competitive and the rate of return is very low. Producers are not very confident that it can be the means of subsistence without official patronisation and that, too, can only be achieved through diversification of the business. The agencies/actors working for sanitation should assist the private producers in generation of demand/market development. On the other hand, the private producers should produce/ deal with varieties of products ranging from ventilators, boundary demarcation pillars to pipes for culverts.
- f) One emerging problem is the competition from the Sanitary shops selling urban sanitary products capturing the market in the richer segments of the society. This problem is very recent and poses a threat to private producers.

#### 7.8 Stock piling in DPHE Centres:

DPHE has two production centres in the Banaripara areas one of which started operation in early seventies while the second one was brought to existence in 1991 to ensure supply to inaccessible remote areas. The production figure in two centres show that DPHE produced maximum in the year 1990 and 1991 and declined drastically in the following years. There was a slight rise in the production of latrines in 1994. The following are the characteristics of the DPHE production:

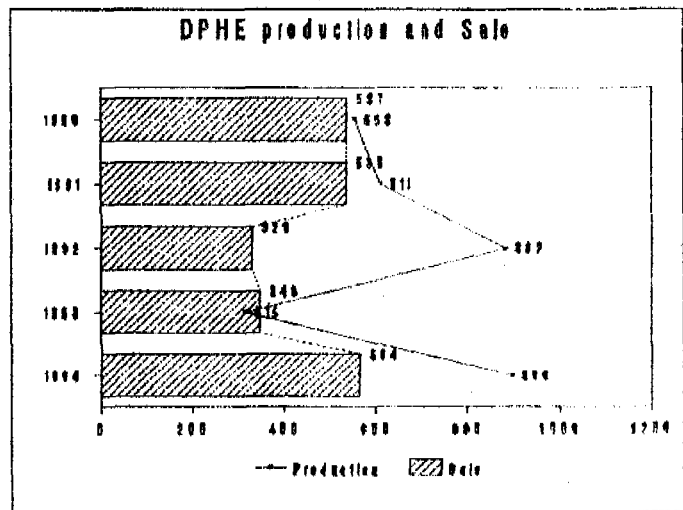
1. From the discussion from DPHE officials it appears that DPHE produces on targets and the process of target making is top down. These are given to the centres and the achievement of targets is judged to be the criteria of success.

2. The production does not depend on the demand for the product. Production targets are just given while the demand is not controlled by DPHE. Funds need not be procured from the sale of the products.
3. DPHE produces on loss (as the sale price is subsidized) covered from project budget and the profitability condition will further worsen if DPHE stops producing. It is because there are investment overheads and salaried masons who will stay idle if production is temporarily suspended.



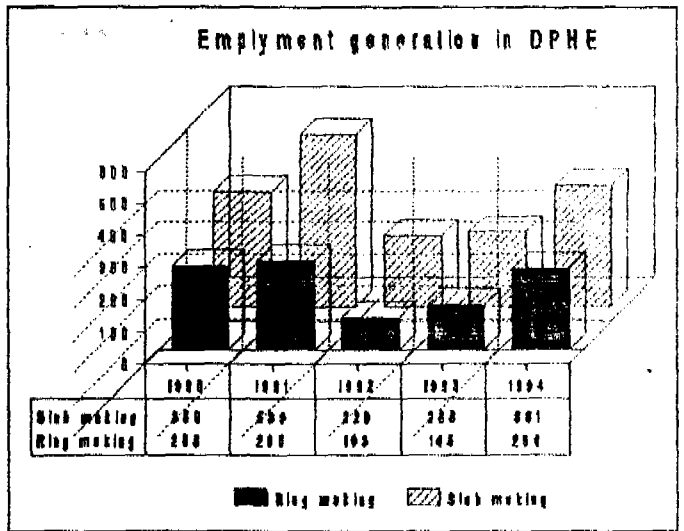
The following Figure shows that over last years DPHE could not sell all it produced. It went on producing in spite of the stockpiling and the situation did not change over time. The differences in volumes of production and sell were overwhelming in the year 1992 and 1994.

The employment effect of latrine production is very significant. People were hired on salary but the salaried people. But the level of employment generated was very costly. For generating one day's employment Taka 293.0 (CLR 293.0) had to be invested compared to only Taka 23.0 by the private producers.

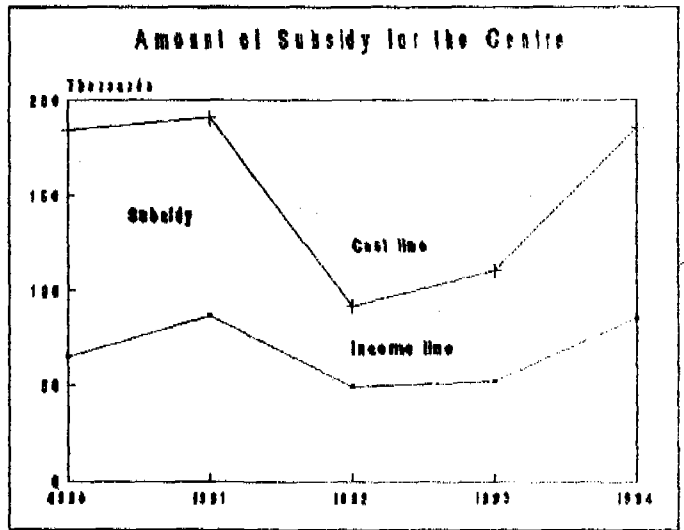


**SUBSIDY:**

The subsidy to DPHE is given on the assumption that Sanitation is a costly social overhead where people are not ready to spend money. In spite of genuine intentions many can not afford it. But an alarming amount of money is being spent on subsidies.



It is very hard to decide whom the subsidy affects. The most outstanding negative effect of the subsidy was perhaps on the private producers in the form of unequal competition. But since the private producers have already overcome and almost eliminated the competitors from the open market this is no longer seen as an issue.



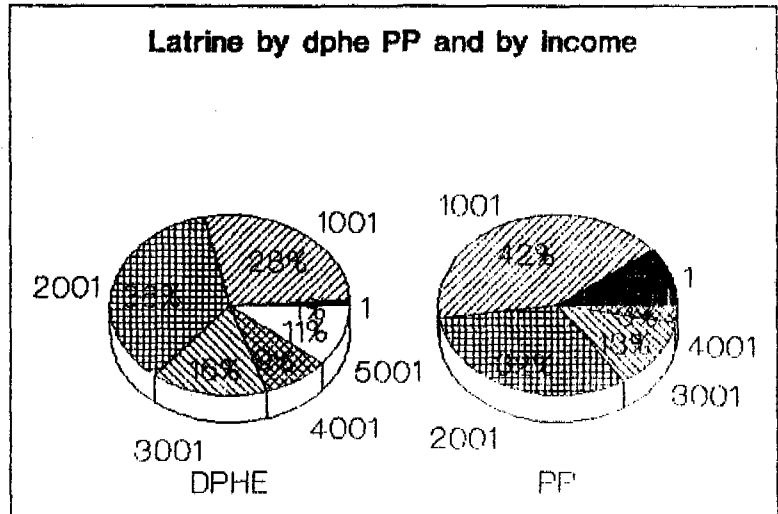
But the beneficiaries of the subsidy are obvious. The proportion of benefits which has probably gone to the buyers has been skewed in favour of the better off section of the buyers. The following Figure shows that 72% of the buyers of DPHE products have monthly incomes ranging from Tk.2000 to 5000 while the percentage is only 48% for private producers. On the contrary, the households with incomes less than Tk.2000 are 28% of DPHE buyers while the corresponding figure is 52% for private producers.

One may argue the rationale of benefit of subsidy trickling down to the buyers. In a perfectly competitive market, price is considered to be the deciding factor and since the DPHE buyers are becoming fewer and lesser, people do not seem to feel that they gain anything by buying DPHE latrines. But the market is not perfectly competitive and there are market imperfections and

it is obvious that by a certain percentage, it (subsidy) may probably be going to the buyers. Since 90% of the households who do not buy latrines are the poorest of the poor, the benefit it has gone to the rich. A DPHE Official observed "At the beginning only the rich were the buyers. When the poor started buying DPHE latrines, the price was raised." The poor can afford fewer rings than the rich and hence, more subsidies on rings goes to the rich.

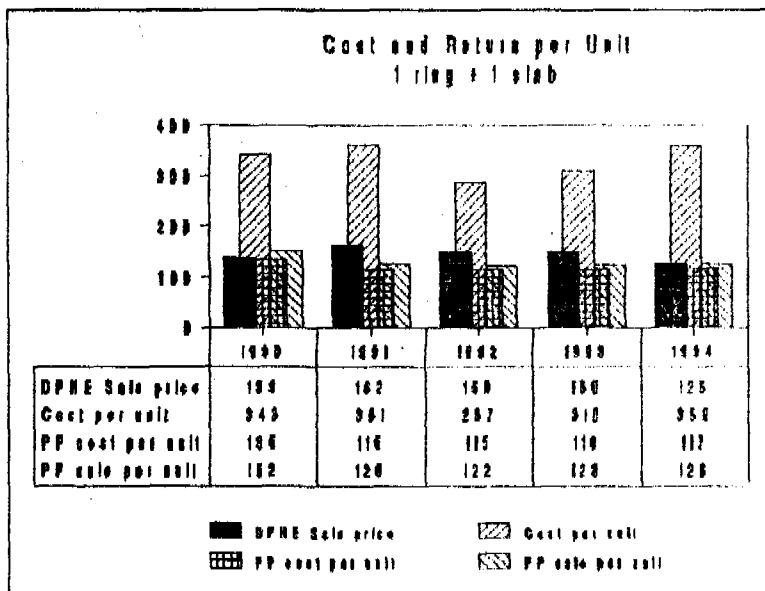
It is very difficult to understand that if all the subsidy does not go to the people, where it does go.

The information generated through Focus group discussions suggests that most of the subsidy is eaten up by the complex production and delivery and marketing system prevailing with DPHE. DPHE and UNICEF is to collect quality materials from far way, the mesh, cements, khoa, etc. some of which are collected through contractors and others are supplied by UNICEF. The contractors agree that they make a 10% to 25% profit out of delivery. The masons wonder whether supplies are quality goods at all. DPHE masons work during office hours and they earn about 60% more than the private masons. The fact that they get paid even if there is no work, further raises the cost element of the produced latrines. The cumbersome process of submitting applications, depositing money at the treasury counter, obtaining delivery at a suitable date also raises the cost and inconvenience of the buyers. About three man-days are lost for completing those formalities contributing to the cost for buyers.



The following Figures show that DPHE has always sold the product at a loss. On the contrary, they could always manage to get higher average sale price compared to private producers by selling lesser and lesser quantity of goods. On the other hand the private producers have always held a fixed profit and constant share of the market while gradually expanding their business in a shrinking latrine market. There are also some other problems connected with DPHE sales.

1. Communication is a major problem for DPHE as well as for the buyers. The Lead centre of DPHE is located far away from the river bank and the cost of carrying of finished products is very high.



2. DPHE people feel that they are considered as outsiders in the area and therefore information about subsidies and the quality of DPHE products is not known by the people. As a result of this the stocks are not sold.

3. Location of the Centres is another problem. The centres are known only to nearby villages and the people of far away villages don't know the location of the DPHE centres.

### 7.9 Strategy to Sustain the Demand:

Sustaining the demand of latrine production raises difficult issues. These issues lie in both the demand and the supply side.

#### 7.9.1 Demand side:

According to the data generated by the study 74.4% of households of the sample have sanitary latrines, 8% have hanging latrines while 17.0% do not have latrines at all. If we extrapolate the results of the sample survey to the whole of Banaripara a total of about 8000 household is yet to have latrine. If five percent of the HH is assumed to need replacement, about one thousand more HH will be added which

will bring the total to about 9000 potential customers. But how many would really buy latrines is an open question and it is very hard to predict what they would do. This is because, they did not buy it during the peak years of SocMob and have remained a statistical constant over last few years.

Awareness building among the people to adopt the concept of Sanitation may be begun. It has neither been attempted, planned nor addressed. Along with development of messages, this can be done collectively through Thana health workers, NGOs, BRDB, GB and through the formation of village health Committees. UNICEF or WHO may sponsor this programme and a suitable organisational framework may be worked out. It could be done through an organisational set up, institutionalization and systematic attempt of follow up. Nothing else can contribute to the sustainability of the programmes. At HH level it was a costly social overhead with no economic importance. The economic worth of such expenses especially at poor households are minimal. Subsidies should probably go to those who need them. But the subsidy which was given by DPHE was for all classes of people irrespective of financial status. The social benefit of such project could be optimal if subsidies had gone only to the poor. Identification of the poorest of the poor may be left with the NGOs, local bodies and DPHE.

#### 7.9.2 Supply side:

The DPHE has not been doing well in competition with the private producers. To encourage increased demand of DPHE products, the subsidized price should be lowered which entails increased subsidy. As DPHE is the sole national agency and has the expertise and established institution all over the country, the services of the DPHE should be exploited. Therefore the First Alternative is to provide the DPHE with more subsidy to cater the latrine components along with the private producers.

THE SECOND ALTERNATIVE is to withdraw subsidies from DPHE and let them compete in the open market like the private producers.

The reasons are the following:

- a. DPHE was in production because no one else was there. Because there were few buyers, production costs were subsidized. Since both the producers and buyers are flooding the market, DPHE will be left to compete on its own merits.



- b. DPHE was not created for commerce nor is it technically geared for run the business. It has already lost a tremendous amount of money and has become a white elephant for the donors. Further subsidization would be nurturing and sheltering inefficiency for artificial survival.
- c. Under existing set up and capital involvement if DPHE think that they can run the business without subsidy, they should do it on their own. This is not a reason, it is a recommendation.

But the general perception of the DPHE people is that in the event of withdrawal of subsidies, the programm/project will collapse in no time.

THE THIRD ALTERNATIVE is that DPHE stops commercial production and marketing of latrine and concentrates on design, demonstrations, SocMob, publicity, training masons and giving other support to producers. A part of the subsidy money would be diverted to provide material and institutional support to private producers.

- a. If DPHE stops producing private producers will benefit in several ways. Demand will shift in favour of private producers. They will get rid of competition with agency selling componets on subsidy. They can avoid unethical government propaganda that the private producers are inefficient and their products are bad.
- b. If DPHE stops producing the market as well as the profit level of the private producers will widen and they might grow into commercially viable production centres on which they can depend for a living.

The following can be done:

- (1) DPHE should stop commercial production of latrines and leave it to private producers who should be patronized by the actors working in sanitation.
- (2) DPHE should concentrate on the following:
  - (a) maintain the demonstration centre with sample latrines of different designs for private producers. It should do further research on cheaper latrines.

- (b) Provide one ring one slab latrines free of cost to the poorest. One slab costs Tk. 100 with no ring. Latrine is built on a hole. This can be bought by the poor on credit. Credit may come through NGOs. GB or BRAC. Caritas is already giving loans which can be widened and formalised. If one ring is added the cost increases by Tk.50. The cost of the ring can be subsidized, or given free to the identified poor. NGOs, DPHE and local government officials may be made responsible for identifying deserving poor. They could purchase from private sources and payments to them could be made through DPHE on the production of vouchers.
- (c) "Give subsidy to the poor through private producers and give information and motivate all" should be the strategy of DPHE.
- (d) Private producers who are already in business could be provided with Mould and other production equipment free of cost. These producers should report production and sale statistics to DPHE periodically.
- (e) DPHE should spend money on training masons for private producers at their existing production centres. These masons could be deputed to private production centres.
- (f) A Thana Water and Sanitation Committee could be formed with representatives from the NGOs, Local government, Thana officials, teachers and social leaders who would be responsible for organising periodic SocMob and coordinating other activities.
- (g) There is no formal association among private producers. DPHE could facilitate creating such an association. Although there is no formal association, private producers now cooperate with each other in sharing ideas, in confronting the propaganda of DPHE and in sharing masons.
- (h) DPHE should also give marketing support to private producers and open a marketing outlet elsewhere.

## 8.0 CONCLUDING REMARKS:

The following are the established premises of the study:

1. A coordinated campaign for social mobilisation for sanitation is possible and practicable taking all in the society encompassing general mass, leaders, school teachers and officials and NGOs.
2. Such a campaign if successfully carried it can have a tremendously significant impact on improving the sanitation.
3. Commercial production of sanitary latrines is possible, profitable and practicable once increased demand conditions exist.
4. The private sector performs better in terms of cost, marketing and profit than the public sector.

Banaripara is an example of sanitation being improved without excessive cost provided there is an will and leadership. A national policy may perhaps be worked out having learned from the mistakes and experiences of Banaripara. But what would perhaps be difficult would be ensuring the zeal and leadership found in the SocMob at Banaripara.

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### Findings from Focus Group Discussion

Four focus groups discussions were held: one for DPHE staff, one for private producers, and two for community leaders, Imams, teachers, Union Parishad chairmen and members and the general public. Of the latter two, one was held in Udaykathi and the other in Iluhar. Each of the Focus Group meetings was attended by 8-12 people. The participants were encouraged to exercise their free expression on any relevant topic. It was meticulously observed that no one should dominate the discussion in his/her own way. Although there were cautious efforts to contain aberrant views, all were given an equal opportunity to elucidate their own opinions. Relevant information was recorded immediately.

### Views of Private Producers:

Growth of the private sector in latrine production is a very recent phenomenon. As recently as 1988 it didn't exist anywhere in Banaripara. During the first half of 1989, latrine production at Thana DPHE Centre remained stopped. So, those who desired to install ring-slab latrines had difficulty in procuring it, as there existed no alternative source. Then one enthusiastic man made ring-slabs for his own in his homestead and others showed great interest in buying ring-slabs from him. This gave him the needed impetus to enter the trade with firm confidence, dominating the market in the private sector for two and half years.

Previously, it had been difficult to find masons for the workshop. Nor were moulds available in the open market. However, to meet the public demand increasing the private producers hired masons from DPHE to work for shorter periods. They were utilized to train new masons. Thus gradually private enterprise gained the know-how and work-force for the continuation of the trade. They realized that if there had been training facilities for masons and moulds available that would have been a great help for the sector and also for the consumers. According to their figures a shortage of masons in Banaripara still exists.

The private producers have confidence in the quality of their products. To demonstrate the strength of their slabs, they asked two adult men to stand on it, thus attracting potential buyers.

Most of the private producers make larger square - slabs instead of the small round slabs which are produced by the DPHE. This gives sufficient space to erect a rectangular super-structure. The slab also gives enough space to keep a water pot and other things on its concrete platform. They felt that this factor alone helped attract customers to a great extent. Moreover, unlike DPHE, they also make rings of different sizes, thus presenting wider options to the consumers.

In 1991, plastic syphons were introduced. This innovation helped increase the demand for private products. They are of opinion that this device improves water sealing, especially for septic tank latrines.

Some producers have added other items to their production list. In most cases, these are mosaic slabs, plates for washing clothes and drainage pipes. These household accessories have helped generate enough credibility for them as efficient latrine producers.

There exists a seasonal variation in the sale of latrines. In the period from December to May the sale is usually higher than that in other months.

Optimistic views are held regarding increased NGO activities in the area. Like other trades, competition and cooperation exist in this trade, too. According to the Grameen Bank, it has increased demand by giving credit to their beneficiaries. Caritas buys slabs and rings from private producers. Asked about the causes of their sales higher than that of DPHE, several reasons were given. These are i) Provision of loan to potential buyers, ii) Closer proximity to consumers, iii) Familiarity with people, iv) Good communication, v) Business like dealing with buyers, vi) Reduced price for the needy and the poor, vii) Good finishing of the products and viii) Warranty.

Reasons for stock piling of the DPHE products were also given. These are i) Official place of the production site, ii) People's fear of officers iii) No warranty, vi) Deposit of money at bank account v) Lack of better communication and vi) Fixed time of transaction.

Private producers are very optimistic about the future of the trade. As public awareness has been increasing day by day, so its demand will go on increasing also. Moreover, those who have become accustomed to sanitary latrines, will find it difficult to return to open or hanging latrines in the future.

They do not consider DPHE as their worthy competitor, because they feel the government can not run a business. In their view, the government could help the trade and the people in various ways; they could distribute latrines to the poor free of cost, train masons, supply construction materials at subsidized rates and ensure loans to genuine producers.

#### Views of community leaders, teachers and social workers

Two focus group discussions were held with local community leaders, teachers, businessmen, imams and social worker. One was held in Udaykathi and other in Iluhar. The Social Mobilization Campaign, carried out in 1990, is still remembered by almost all. They acknowledged that the campaign has helped them change their century - old sanitary practices; most of them now use sanitary latrines. They feel very proud that the coverage rate in their area is highest in the whole of Bangladesh.

The program, according to them owes much to the students for its success. They launched the campaign by going from house to house and from village to village with intense enthusiasm and commitment. Students of the local schools were divided in groups and met household heads, housewives and other family members to persuade them to install sanitary latrines - either ring slab or pit latrine - as an indispensable part of community health care measures. People were also made aware of the menace of hanging or open latrines.

The teachers, community leaders, village elders and religious leaders gave full support to the students in their campaign. In some places, the students burnt few open or hanging latrines as a token of disapproval against their non-healthy sanitary norm.

In local schools, public gatherings were arranged to increase hygienic awareness in the community. Students, parents, social workers, local leaders and common citizens were invited to attend those meetings. Illuminating deliberations in those meetings helped generate a sense of participatory community responsibility to set up the most desired public health infrastructure at the household level. Health workers, students and headmasters of the local schools and the DPHE played important role in this regard.

As part of this venture, ring-slab latrines were installed in schools, bazaars and other community premises. Emphasizing the issue, speeches were also delivered in Friday gatherings at local mosques. Government staff, both at District and Thana level, are credited for their keen interest in leading the campaign to its desired objective.

Though the private sector in latrine production was virtually non-existent in the area before 1989 at present, they have attained great popularity, as people have begun to show faith in the quality of their products.

It is thought that those who are accustomed to ring-slab latrines will find it difficult to return to their old non-sanitary practices. Moreover, as their economic lot improves they will search for better quality latrines.

It has been the common observation of participants that the incidence of diarrhoea and other water-borne diseases have decreased noticeably in the area. Credit for this is given to the use of sanitary latrines in most households. Moreover, it has been emphasized that the unsanitary latrines still existing in the area pose serious environmental threats. Presently most people feel uneasy and displeased over this issue, because they feel that a qualitative change has taken place in the area. Those who were once users of open latrines, are no longer prepared to tolerate their presence in their neighborhood. Pressure is persistently put on possessors of open or hanging latrines to switch over to a sanitary type.

They feel that government bodies should undertake further campaigns for eradicating the remaining few in the area. They hold the opinion that those who are extremely poor and therefore unable to buy ring-slab latrines should be provided with free latrines from the DPHE.



**A) Private Producer in the sanitation sector - A Case Study**

Mr. Alamgir Hussain, an energetic young man of 30, entered the profession of sanitary latrine production as a ring-slab producer in 1990. His production site is located in the tiny township of Banaripara - a Thana headquarters that stands on the bank of a well navigated river called Sandhya. The river snakes across the area and offers an important means of communication to the people for transportation of goods and services. Alamgir grew up in a large but well-off business family of fourteen brothers and four sisters. His father married three times - the first wife died and he is living with the last two wives. Alamgir is the fourth son of his father and the first of his real mother.

His father as well as his grandfather, had good days in Banaripara with their business in timber and corrugated tin. His father now passes his retired life on the income from his ancestral agricultural land of about twenty acres and rent from tenants of his two residential houses in Banaripara town.

Alamgir passed his H.S.C. examination with commerce in 1985 and left home to try his luck abroad in the Middle East. He spent Taka twenty thousand in such a venture but unfortunately met with no success. Thereafter he tried to find some success in business in Dhaka. First, he opened a restaurant but failed. Then he started a stock business in fish, that too proved to be unsuccessful. In 1987, he returned to Banaripara and started a new career as a contractor. But this move brought no success either, rather incurred a loss of more than Taka fifty thousand.

In 1988, he started a stock business of vegetables, but continued for only six months. Amidst all these failures he never applied for a government or non-government job. He had possessed a strong dislike for service since his early life - claimed it was an inherent part of traditional family attitudes. Most of his brothers - as he explained possess the same attitude, they too started various businesses in the same township. His second brother is an electrician and the third one is a decorator.

His father now lives with his third wife and eight children in a separate house of his own. Mr. Alamgir stays in another with his real mother, brothers and sisters. His father still maintains a good relationship with all his children. He makes frequent visits to them and bears the household expenses. The family earns Taka ten thousand per month from the tenants of their two residential houses and his father regularly gives his share to Mr. Alamgir.

After noticing his repeated failures in various enterprises in the past, one of his near relatives gave him a new incentive to join the present trade as ring-slab producer. That relative lives in Kaokhali - a Thana in Barisal. He has been engaged in the same trade for about two years. He helped him start the business by giving him a mould and an experienced mason of his own workshop. Mr. Alamgir started the business with only Taka three thousand and five hundred which enabled him to continue the production for only two months because he had to return the mould to its owner.

Later on, he managed to procure a mould of his own from a local lathe workshop. He hired new masons from Kaokhali - the place where he hired the previous one. But this time the mason started working on a pre-fixed time-frame. He used to work continuously for 7-10 days, go back for a week and start working again. The schedule worked for a period of two years till 1992. In 1993, Mr. Alamgir appointed a permanent mason, recruited after a search outside his own thana. However he experienced some unwarranted set-backs with the mason. He proved less than reliable. At times they would suddenly and without notice leave his job and begin working at other production sites. Presently Mr. Alamgir has learnt the art and skill of this profession himself. So whenever a mason leaves or becomes absent from the job, he is able to do the job himself.

Mr. Alamgir regularly sits in his work station from 8 A.M. till 2 P.M. He supervises the work of the mason and other workers and personally deals with the buyers. In the afternoon, he usually sits in his brother's confectionery shop while his production site is kept open till evening. There is a foreman who keeps close vigilance almost all the time at the production site, and whenever his help is needed, he is immediately informed. Along with the production of rings and slabs, he has now started producing drainage pipes and some other sanitary equipment. He also works on contract, making drainage lines for public and private premises.

Mr. Alamgir is innovative. He searches for newer and better models, travelling to different places like Shwarupkathi, Barisal and Dhaka. At present he makes rings of different sizes to provide more options to customers. He also tries to produce slabs of various types and quality. He gives a warranty to the buyers; if any slab or ring is broken during transport they are readily replaced. In order to ensure the good quality of his products he reduces the salary of his mason if any ring or a slab is broken during transportation.

He is very optimistic about the future of the trade. After repeated failures in his early initiatives, he thinks he has at last arrived at a firm business ground. Now he hopes to prosper and seems to be doing so. He was able to save about Taka thirty thousand from the business to spend on his own marriage ceremony a year ago. He pays a premium of Taka three hundred per month for his pension scheme. About Taka seven thousand floats as credit to buyers which they repay in instalments.

He hopes to introduce white cement slab and better pan in the near future. However he emphasizes that people should get financial help from the government. So far he has received nothing, neither technical assistance nor training. He reiterates that the government can do a lot more to promote their productivity and the business as a whole. As people are becoming more aware of hygienic sanitary practices, the prospect of the trade is becoming brighter. He is not satisfied with the efforts of DPHE. He received neither technical assistance nor material help from them. Even at the time of the Social Mobilization Campaign he was not informed, though he considers it directly relevant to his profession. He foresees that the DPHE will not be a viable competitor in his trade.

In his view, business is not the job of the government - the GOB production/sale centre will not be potential contender. However, he believes that if some technical and financial support were provided to private producers then that sector would benefit to a great extent. He claims that he produces ring-slabs of better quality than DPHE. According to him the government can contribute a lot by educating and mobilizing people in generating hygienic habits thus creating a demand for sanitary latrines in the market. He hopes his business will expand and become more sustainable.

## B) Mr. Rafique Uddin: Pioneer in the private sector

Mr. Rafique Uddin comes from a nearby village in Banaripara thana. His father was a cultivator. About 15 years ago, the family was evicted from their ancestral home by river erosion and thereafter settled in Banaripara town. Mr. Rafique's father started a business in rice. He was the only son of his parents. Passing his Secondary School Certificate (SSC) examination in 1965. First, he started his career as an apprentice in his father's trade. As the job seemed very tough, he joined the local union parishad as secretary and continues in that position to this day. Mr. Rafique is married and his wife also received her S.S.C diploma.

Mr. Rafique Uddin has three sons and three daughters. His eldest daughter received her B.A. and at present works as a teacher in a primary school. She is still unmarried. His other children go to school. he has no agricultural land. Before the current trade in latrine production, the family was wholly dependent on his petty job. So, in the past, it was difficult for Mr. Rafique to support his family. He had pit a latrine in his own house and in 1989, he decided to install a ring-slab type. He made several attempts to get it from the local DPHE production centre but failed because of the acute shortage.

The mason of the DPHE production centre at Banaripara was friendly with Mr. Rafique. His intense interest in ring-slab latrines and repeated failures in getting one concerned the mason and he was moved to help him. He made a pledge to make a latrine for him provided all the essential materials like cement, rod, sand and brick pieces were provided. All these things were gathered accordingly, and the mason started his work in Mr. Rafique's homestead premise. The initiative invoked a lot of enthusiasm. The mason's work was observed by the neighbours with deep interest. Mr. Rafique's long wanted latrine was thus installed in his house.

After the latrine was installed, the people from the neighbourhood examined it with a great deal of curiosity. They were satisfied with its functioning and requested Mr. Rafique to make a latrine for them too. Mr. Rafique felt a moral obligation to help his neighbours install latrines and set about doing so.

But there were problems. The mason of the DPHE had his limitations. As he was an employee of a government organisation, he refused to work for the neighbours. Moreover, using the mould of the DPHE production centre was not possible either. To overcome these problems, Mr. Rafique request the mason to train someone to do the job. The mason agreed and a mason was trained accordingly. But the

problem did not end there. Mr. Rafique could not find a mould and very few people were familiar with it. However, he managed to find one at last. He showed the DPHE ring-mould to a local metal workshop and thereafter a similar one was made from plain metal sheet. In this way he was able to start making rings and slabs for his friends and neighbours.

As soon as the latrines were installed in his friends' houses, the situation took a different turn. The demand of the latrines increased rapidly. Mr. Rafique now realized that the production of previous latrines had not caused him to incur any loss, rather gave some profit that proved very helpful for this family. The new demand prompted him to continue it as a business enterprise. Since then, demand as well as production of latrine have risen, increasing his profit level.

Mr. Rafique was personally involved in the Social Mobilisation Campaign in Banaripara. According to him, the campaign has decisively contributed to raising the demand of sanitary latrine among local people but DPHE production centres were unable to meet the demand, but newly generated market force encouraged manufacturers to the trade. Mr. Rafique, as a pioneer in this business was able to help the newcomers in many ways. Now there are six traders in latrine components in Banaripara town alone.

His success in latrine production gave him some surplus money which he invested in a dairy farm. The farm earned much fame for him: he got a prize from the government for outstanding performance in the sector.

He received every possible support and encouragement from his family for his latrine production business. The profession has helped raise his status in the community. He has been instrumental in helping the poor people for instalation of sanitary latrines in many ways: he gives them credit for the purchase, sells latrines on instalment and provides necessary advice for proper installation. He even distributes some free latrines to the extremely poor. He feels that in this way he has fulfilled some of his religious duties as well.

The major problems that he encountered in this trade were: (a) high price of raw materials, (b) lack of trained masons, (c) shortage of good quality ring-moulds, and (d) lack of capital. If the private producers are provided with easy bank loans, raw materials at subsidized rate, suitable and durable mould, and training for masons, the sector may expand in the near future. Then, as he foresees, the price can be reduced so that the poor can afford to buy latrines.

According to Mr. Rafique, the Deputy Commissioner of Barisal played an important role in increasing the sanitary latrine in Banaripara. At Thana level, the TNO and the Sub-Assistant Engineer of DPHE, played a key role.

He remarked that at present the DPHE latrine production centre has become a big liability to the government. The ring slabs of DPHE are not sold at the rate of production, so get stock-piled. He thinks that these find-slabs should be freely disbursed to the needy poor. The local TNO, Sub-Assistant Engineer of the DPHE, the Union Parishad Chairman and the members should jointly make a list of deserving poor families.

He is optimistic about the future of the trade. He foresees that the demand will not fall in the near future. He suggests that the government, the NGOs and other organizations should launch a collaborative campaign to raise the coverage rate further, so that sanitary latrines will be installed in each and every household in the area.

APPENDIX - III

Impact Assessment of the Social Mobilisation Campaign for  
Sanitation  
on the Private Producers :

Household Survey questionnaire

HH Serial.....

Name of the HHH.....

---

Name of the Interviewer.....

Date of Interview.....

Spot Checked.....

Editing.....

Coding.....

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WHO PROJECT, 12/L Dilkusha Commercial Area, Dhaka

Impact Assessment of Social Mobilisation Campaign for  
Sanitation on Private Producer  
Household survey Questionnaire  
(For those who had no latrine before 1990)

Name of the village:..... Union.....  
Thana..... District.....

1. Name of the household head :.....

2. Age:.....

3. Occupation of the family head

4. His/Her Education

1. Farmer

1.

Illiterate

2. Labourer

2. Private

3. Service

3. Primary

4. Business

4. Secondary

5. Housewifery

5. Above

6. Other \_\_\_\_\_

Specify

5. Household member:

Age group/HH Member	Male	Female	Total
Less 5 Yrs			
5-14 years			
Above 14 yrs			

6. Monthly Household Income: \_\_\_\_\_

7. Monthly Household Expenditure: \_\_\_\_\_

8. Do you have any agricultural land which owned by your household members?

1 Yes

2 No

9. How much? \_\_\_\_\_ decimals



10. Does your household or any member of your household have the following items?

- |   |                   |   |             |
|---|-------------------|---|-------------|
| 1 | Almirah           | 5 | Bi-cycle    |
| 2 | Cot               | 6 | Radio       |
| 3 | Table/Chair/Bench | 7 | Motor Cycle |
| 4 | Watch/Clock       | 8 | Two-in-one  |

11. Housing ( Make circle around the appropriate word according to the construction materials of the main dwelling structure under the given categories).

Categories	Concrete /bricks	Tin	Bamboo	Thatch	Others
Roof					
Wall					
Floor					

12. Does your household have the following animals?

If yes how many?

- \* Cow no. \_\_\_\_\_
- \* Buffalo no. \_\_\_\_\_
- \* Goat no. \_\_\_\_\_
- \* Chicken no. \_\_\_\_\_
- \* Duck no. \_\_\_\_\_
- \* Pigeon no. \_\_\_\_\_

13. From where do you obtain drinking water?

- |   |                          |   |                       |
|---|--------------------------|---|-----------------------|
| 1 | Own tubewell             | 5 | Deep tubewell         |
| 2 | Neighbour's tubewell     | 6 | River                 |
| 3 | Tubewell of another para | 7 | Canal                 |
| 4 | Shallow tubewell         | 8 | Other (specify) _____ |

14.1 When did you have your First latrine.....

14.2. Why did not you have a latrine before that: (Prioritise)

- 1.
- 2.
- 3.

14.4 Who asked/inspired you to have latrine.....

1. ....2. ....3. ....

15. Do you have more than one latrine?

1 Yes                      2 No  
   skip to

16. Do you have separate latrine for men and women?

1 Yes                      2 No

17. How far away is the latrine located from?

(If more than one latrine then for the nearest one)

Water Source/Place	Distance
Dwelling House	
Tubewell	
Pond	
Other	

18. What is the type of latrine you have?

1 Water sealed latrine/Slab          4 Septic tank latrine  
 2 Pit latrine/do it yourself          5 Hanging latrine  
 3 Open latrine                              6 Other (specify) \_\_\_\_\_

19.1. From where did you get the parts of the latrine?

1 DPHE                                      2 NGO  
 2 Open market                              4 Other (Specify) \_\_\_\_\_

19.2 Have you faced any specific advantages or disadvantages in procuring the latrine? mention

those according to importance

- 1.
- 2.
- 3.

19.3 Please mention the reasons for selecting the source you used for the purchase of the latrine

- 1.
- 2.
- 3.

20.1. How much money did you spend to have the latrine?

- 1 Latrine/Materials \_\_\_\_\_ Tk. (at production site)
- 2 Transport charge \_\_\_\_\_ Tk.
- 3 Labour charge for installation \_\_\_\_\_ Tk.
- 4 Other (specify) \_\_\_\_\_ Tk.

20.2. What are the main reasons for your building the latrine

- 1.
- 2.
- 3.

21. Is there anything that you do not like with the latrine?  
(Prove)

- |                       |   |                          |
|-----------------------|---|--------------------------|
| 1. Nothing to dislike | 4 | Flies sit over the body. |
| 2. Foul smell/stench  | 5 | Unclean/hard to clean    |
| 3. Stools visible     | 6 | Uncomfortable to sit.    |
| 7. Need much water    |   |                          |

22. How many months ago did you build the latrine?  
\_\_\_\_\_ months ago.

23. Are you aware of any other types of latrine that are in use?  
If yes, Please tell me their names.

those according to importance

- 1.
- 2.
- 3.

19.3 Please mention the reasons for selecting the source you used for the purchase of the latrine

- 1.
- 2.
- 3.

20.1. How much money did you spend to have the latrine?

- 1 Latrine/Materials \_\_\_\_\_ Tk. (at production site)
- 2 Transport charge \_\_\_\_\_ Tk.
- 3 Labour charge for installation \_\_\_\_\_ Tk.
- 4 Other (specify) \_\_\_\_\_ Tk.

20.2. What are the main reasons for your building the latrine

- 1.
- 2.
- 3.

21. Is there anything that you do not like with the latrine?  
(Prove)

- |                       |   |                          |
|-----------------------|---|--------------------------|
| 1. Nothing to dislike | 4 | Flies sit over the body. |
| 2. Foul smell/stench  | 5 | Unclean/hard to clean    |
| 3. Stools visible     | 6 | Uncomfortable to sit.    |
| 7. Need much water    |   |                          |

22. How many months ago did you build the latrine?  
\_\_\_\_\_ months ago.

23. Are you aware of any other types of latrine that are in use?  
If yes, Please tell me their names.

- |   |                           |    |                      |
|---|---------------------------|----|----------------------|
| 1 | Water sealed/slab latrine | 4  | Hanging latrine      |
| 2 | Septic tank latrine       | 5  | Other(specify) _____ |
| 3 | Pit latrine               | 6  | Don't know           |
|   |                           | 7. | VIP Latrine          |

Your original latrine Type.....

Your present latrine type.....

The reasons for change a) Changed for better b) Pit filled up

24.1. In your opinion, which is the best-type?  
 \_\_\_\_\_ type.

24.2 What do you do if your latrine is filled up

25. Why you don't have the above reported best type of latrine?

- |   |  |   |                      |
|---|--|---|----------------------|
| 1 | Poor/No money                          | 3 | Rented house         |
| 2 | Don't have sufficient space to make it | 4 | Other(specify) _____ |

26. Which source you would prefer to have a latrine if you are given a choice.....

Why

- 1.
- 2.
- 3.

27. If you have enough money then which type of latrine you will like to install?

- |   |                           |   |                      |
|---|---------------------------|---|----------------------|
| 1 | Septic tank latrine       | 4 | Other(specify) _____ |
| 2 | Water sealed/slab latrine | 5 | Don't know           |
| 3 | Pit latrine               |   |                      |

28. Suppose you have decided to change your latrine, from where would you like have it?

- |   |      |   |             |
|---|------|---|-------------|
| 1 | DPHE | 2 | Open market |
| 3 | NGO  | 4 | Self made   |

29. If any body with enough money decided to change his latrine and seeks your opinion regarding the type then what type would you suggest?

- |   |                   |   |                       |
|---|-------------------|---|-----------------------|
| 1 | Septic tank type  | 3 | Pit latrine           |
| 2 | Water sealed type | 4 | Other (specify) _____ |
| 5 | Don't know        |   |                       |

30. Will you kindly tell me from where the best type of latrine can be purchased?

- |   |                      |   |             |
|---|----------------------|---|-------------|
| 1 | DPHE                 | 2 | Open market |
| 3 | NGO                  | 4 | Don't know  |
| 5 | Other(specify) _____ |   |             |

31. Do you know from where the cheapest type of latrine can be purchased?

- |   |                      |   |             |
|---|----------------------|---|-------------|
| 1 | DPHE                 | 2 | Open market |
| 3 | NGO                  | 4 | Don't know  |
| 5 | Other(specify) _____ |   |             |

32. Will you kindly tell me how much it cost to install a sanitary latrine? \_\_\_\_\_ Taka.

33. Defecation and cleansing practice.

Category of members	Usual Place of defecation		Method of Cleansing Hand
Children (1-5y)			
Boys (6-15 yrs)			
Girls (6-15yrs)			
Adult Male			
Adult Female			

Code -value of method of cleansing:

- |   |                       |   |                 |
|---|-----------------------|---|-----------------|
| 1 | Use water             | 3 | Use water & mud |
| 2 | Use water and soap    | 4 | Water & ash     |
| 5 | Other (specify) _____ |   |                 |

34. How do you wash your hands before taking foods?

- |   |            |   |              |
|---|------------|---|--------------|
| 1 | Just water | 2 | Water & soap |
|---|------------|---|--------------|

35. How is disposal of your household rubbish done?

- |   |                       |   |                                 |
|---|-----------------------|---|---------------------------------|
| 1 | Rubbish pit           | 2 | Thrown outside (no fixed place) |
| 3 | Other (Specify) _____ |   |                                 |

36. Do you know of any disease caused by impure water?

- |   |              |    |                            |   |          |
|---|--------------|----|----------------------------|---|----------|
| 1 | Don't know   | 2  | Does not cause any disease |   |          |
| 3 | Polio        | 4  | Diarrhoea                  | 5 | Malaria  |
| 6 | Typhoid      | 7  | Dysentery                  | 8 | Jaundice |
| 9 | Skin disease | 10 | Other (specify) _____      |   |          |

37. How do you know if a person has diarrhoea?

- |   |                       |   |                                 |
|---|-----------------------|---|---------------------------------|
| 1 | Can't as certain      | 2 | Loose motions more than 3 times |
| 3 | Watery stool          |   |                                 |
| 4 | Mucus in stool        | 5 | Blood in stool                  |
| 5 | Other (specify) _____ |   |                                 |

38. Had anyone of your household, including yourself, been sick last one week from \_\_\_\_\_ day to \_\_\_\_\_ day.

1 Yes 2 No

39. During the last 7 days, from \_\_\_\_\_ day to \_\_\_\_\_ day, did anybody of your household have such diseases as diarrhoea?

1 Yes 2 No

40. In the last one year, did you hear anything about sanitary latrine?

1 Yes 2 No

41. Who told you about the sanitary latrine?

1 Radio/TV 2 Mobilisation  
3 NGO worker 4 Govt. health worker  
5 Village elder/Neighbour 6 Other(specify) \_\_\_\_\_

42. Do you know any Govt. centre where latrine are made and sold?

1 Yes 2 No

43. If yes, Where?.....

44. what do you think about this latrine?

1 Poor quality 2 Costly  
3 Other(specify) \_\_\_\_\_



Impact Assessment of the Social Mobilisation Campaign for  
Sanitation

on the Private Producers :

Producers Survey questionnaire

HH Serial.....

Name of the HHH.....

---

Name of the Interviewer.....

Date of Interview.....

Spot Checked.....

Editing.....

Coding.....

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WHO PROJECT, 12/L Dilkusha Commercial Area, Dhaka

Impact Assessment of the Social Mobilisation Campaign for  
Sanitation on the Private Producers :  
Producers Survey questionnaire

1. Name of the owner.....:..... 2.Age :

3. Site of the production centre :

Village :.....Union :.....Thana:.....

District :.....

Distance from the nearest DPHE Centre..... KM

No of PP within 1KM Radius.....

4. Education :.....Class Passed

5. Occupation : a) At present .....

b) Before .....

c) Secondary occupation at present.....

6. When started :( latrine production ) ( / ) month/year  
Estimated No sold in the first year..... Second Yr.....  
Third Year.....Fourth Yr.....

7. Capital invested at the beginning ? Tk.....

Loan :Tk.....Source.....

Rate of interest (%) .....

Total Output in the first year:

Estimated QTY.....

Estimated Value.....

Total Output in the Present year:

Estimated QTY.....

Estimated Value.....

8. Socio Economic Background of the Producer:

A) .Description of own land of household :(Decimal)

Homestead Land	Under own cultivation	Sharecropped out	Mortgaged out	Total

B) . Description Operational Land (Decimal)

Own Land	Sharecropped in	Mortgaged in	Leased in	Total

9. Income, and Expenditure and Consumption :

Information of income and expenditure of last 3 months:

		Revenue		Cost
1.	Income from sale of all crops		1. Food	
2.	Interest/Profit from loan		2. Cloths	
3.	Day labour/service		3. Housing	
4.	Income from business		4. Education	
5.	Income from Cottage industries		5. Marriage	
6.	Income from livestock and poultry		6. Religious & Social function	
7.	Income from fishery		7. Credit	
8.	Remittance		8. Transport & fare	
9.	Donation & Gift		9. Judicial	
10.	Ration/Relief/subsidy		10. Donation and Gift	
11.	Self employed non-agri. activity		11. Repayment of loans	
12.	Others (specify)		12. Amount given as loan	
			13. Investment	
			14. Savings	
			15. Others (specify)	

10. Information on Latrine Production Project:

Total Current investment ..... Loan :.....  
 Own Equity : ..... Rate of interest (%).....  
 Loan used for Project :.....Loan Source.....  
 Used for others income earning activities : .....  
 Used for relending : .....

Used for Consumption : .....  
 Other (Specify) : .....

Scheme Profit	Revenue	C. Investment (Fixed) Other Expense	Cost
A. Value of Latrine sale Slab Ring			
1. Return per unit Slab Ring		D. Operating cost Slab Ring	
2. Total output Slab Ring		E. Labour Cost Slab Ring	
3. Market price		F. Interest of Loan	
4. Total value		1. Over Capital	
5. Stock in hand		2. Over loan	
6 Value of stock			
7. Total return		G. Subsidy obtained	
B Salvage Value Total Benefit			

11.1. Who inspired you to start this business (Prioritize):

- 1.
- 2.
- 3.

11.2 Why did you start the business (Prioritize)

- 1.
- 2.
- 3.

12. If you are happy/Unhappy with the present with this

business Give reasons( Prioritise):

- 1.
- 2.
- 3.

13. If you had more money what would you have done ?

1. Expansion of the present business
2. Switch over to others business
3. Don't know
4. Other's (Specify)

14. In your locality when production of latrine was first started at private level ?

Month.....Year.....

15.1. Can you recollect the estimated production figure in last few years ?

	First year	Second Year	third Year	Last Year
Slab				
Ring				

15.2 What special services do you offer to customers in the form of carriage, installation, reolacement etc?

1.....2.....3.....4.....

15.3 What do you do for publicity of your product(Prioritize)

- 1.
- 2.

3.

15.4 If you want the poor to buy your product what do you think you should do

16. Will you kindly tell me about the price situation in the last few years

	First year	Second year	Third year	Last year
Price of Slab				
Price of Ring				

17. Did you ever hear any publicity about Sanitary latrine ?

Yes/ No

If Yes , When ? ..... Years

By Whom ? 1. GOB 2. NGO 3. SMC

18. If any campaign is again launched in favour of sanitary latrine, What do you think will be the impact on your business ? (prioritise)

- 1.
- 2.
- 3.
- 4.

19. Physical observation :

19.1. I) Publicity/Bill board of the production site :

- a) Does it exist ? Yes/ No
- b) Price list of Slab and ring Yes/ No
- c) Health message Yes/ No
- d) Is it visible from main road closeby Yes/No

19.2. II) Demonstration latrine :

- a) Is there any demonstration latrine ? Yes/ No
- b) If yes, details of demonstration latrine :

Sl. No.	Year of making	No. of Slab	No. of Ring	Others (specify)	super structure contents

19.3 (3) Production Floor information :

- a) Shed size..... b) Roof Material.....
- c) Size Concrete/brick area .....
- d) Usable open land in decimal:

19.4 (4) Store :

- a) Size .....ft (L) \* .....ft (B) .....ft (H)
- b) Contents :
  - 1.
  - 2.
  - 3.



19.5 Material found at work side :

Materials	Quantity	Quality	Estimated Value
Cement			
Bricks			
Moulds			
Sands			
Khoa			
Wire			
Other's (Specify			

19.6 Stock Situation :

Components	Stock position	Quality/Composition	Estimated Value
Ring			
Slab+Pan			
Pan			

19.7. Accessability to Centre :

Season	Mode of transport	Condition of Accessibility (Good/Fair/Poor)
Rainy Season	Rickshaw/Van/ Local Boat/Motor boat/Pull cart/ Bullock/Buffalo cart	
Dry Season	Rickshaw/Van/ Local Boat/Motor boat/Pull cart/ Bullock/Buffalo cart	

19.8. Production skill

Length of experience of Mason: Year.....Month.....

Daily working hours:.....

No. of masons :.....

20. No. of workers over the years.

1990	First year	Second	Third	Last Year

21. Would you kindly tell the Major constraints you faced in the first year of your business (prioritize):

- 1.
- 2.
- 3.
- 4.

22. Would you kindly tell the Major constraints of your present business (prioritize):

- 1.
- 2.
- 3.
- 4.

23. what do you feel are the differences between the products of private Centres and those of DPHE, If any : (Prioritise)

- 1.
- 2.
- 3.
- 4.

24. What do you think are the reasons of your success (Prioritize)

- 1.
- 2.
- 3.
- 4.

25. What do you think are the reasons of less demand of DPHE Latrine (Prioritize):

- 1.
- 2.
- 3.
- 4.

26. How do you think you can expand your business (Prioritize)

- 1.
- 2.

- 3.
- 4.

27. What are the measures to you have taken to promote your business (Prioritize)

- 1.
- 2.
- 3.
- 4.

28. If available what are the support you would like to have for further expanding your business (Prioritize)

- 1.
- 2.
- 3.
- 4.

29. Sale Centre : Total sale of latrine during Last 12 months:

1 Slab	0 Ring:.....Sets,	Price Per Unit Tk. ....
1 Slab	2 Ring:.....Sets,	Price Per Unit Tk. ....
1 Slab	3 Ring:.....Sets,	Price Per Unit Tk. ....
1 Slab	4 Ring:.....Sets,	Price Per Unit Tk. ....
1 Slab	5 Ring:.....Sets,	Price Per Unit Tk. ....
1 Slab	6 Ring:.....Sets,	Price Per Unit Tk. ....

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WORLD HEALTH ORGANIZATION  
BAN/CWS/001 PROJECT TEAM

Mr. Alex Redekopp	Sanitary Engineer & Team Leader
Mr. Azizur Rahman	Secretary/Office Manager
Mr. M. Mofazzal Hoque	National Field Programme Officer
Mr. Deb Prosad Halder	Management Information System (MIS) Officer
Mr. Gul Bahar Sarkar	Chemist/Lab. Coordinator
Mr. Aowlad Hossain	Project Officer
Mr. Ratan Kumar Saha	Project Officer
Mr. Shahidul Islam	Project Officer
Mr. A.F.M. Khalid Hassan	Project Officer
Mr. Shahidul Alam	Project Officer

Consultant:

Mr. Zafar Ahmed	Socio Economic Consultant
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