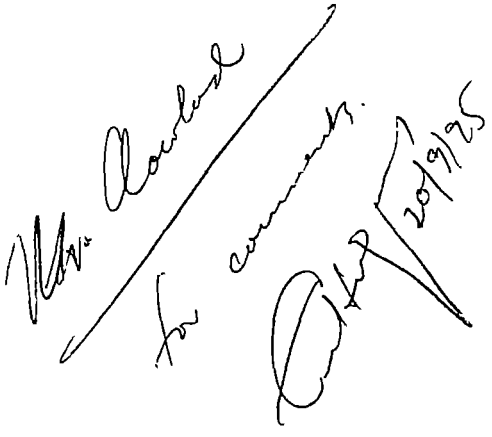
RURAL WATER SUPPLY AND SANITATION PROGRAMME (RWSS)



EVALUATION REPORT

SANPLAT LATRINE PILOT PROJECT

DPHE – UNICEF – WHO

OCTOBER 1994

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LIST OF ABBREVIATION AND ACRONYMS

DPHE	Department of Public Health Engineering
NGO	Non Government Organisation
POP	Plan of Operation
PP	Private Producer (of latrine components)
RCC	Reinforced Cement Concrete
R&D	Research and Development
RWSS	Rural Water Supply and Sanitation Programme
SAC	Sub Assistant Engineer
SDC	Swiss Development Cooperation
UNICEF	United Nations Childrens Fund
VS	Village Sanitation
VSRC	Village Sanitation Research Centre (of DPHE)
WHO	World Health Organisation

Local terms:

Kutcha	Temporary, made of mud, bamboo, thatch etc
Pucca	Permanent, made of bricks, concrete etc

EVALUATION OF SANPLAT LATRINE PILOT PROGRAMME OF UNICEF/DPHE

1. BACKGROUND

With the aim of increased sanitation coverage in Bangladesh and introduction of an intermediate technology for rural sanitation, the SANPLAT came into lime light. Results of both the studies of Interchain Project Consultants AB of Sweden, engaged by the Swiss Development Cooperation (SDC) and Mr. Bjorn Brandberg, an independent consultant engaged by UNICEF in May 1992 have suggested that this type of latrine can be promoted in rural areas.

The name SANPLAT comes from the term Sanitary Platform of a latrine. A SANPLAT is basically a home-made sanitary latrine with pucca platform of concrete slab with a key-shaped squatting hole at the center. The shape of the SANPLAT is usually round and the diameter is 30 inches. The improved in design have fixed foot-rest and wedge shaped lid/ cover made of flat concrete with iron handle for closing the opening. When properly fixed the lid/ cover prevents sighting of excreta and movement of mosquitoes and flies into the pit.

In the joint 'Sanitation Research and Development (R&D) Committee' meeting of DPHE, UNICEF and WHO in July 1992 it was decided to try out SANPLAT latrines in real situation in rural Bangladesh and as such a pilot project was developed.

The programme has been implemented from January 1993 to June 1994 and is still running in 3 selected thanas of Rajshahi, Khulna and Chittagong divisions. At this stage an evaluation is carried out after one and half years jointly by DPHE, UNICEF and WHO.

2. PILOT PROJECT

2.1. The Programme

A pilot program was undertaken by DPHE in August 1992 to study the performance and acceptability of SANPLAT latrines by the users. This is initiated for promotion of SANPLAT latrines as an intermediate technology between water-seal sanitary latrine and home-made sanitary pit latrine. The program was undertaken in collaboration with UNICEF and WHO.

A plan of operation (POP) was chalked out by the Project Director of VS Project of DPHE for the purpose. This Plan of Operation is given in Annexure-1 of this report. It was decided to promote this technology through Private Producers (PP), giving them training and some support in form of supply of moulds for construction of the SANPLAT.

2.2. Project Area

Initially it was decided to train one private producer from each of the 7 territorial circles of DPHE. Response was received from 3 circles only viz. from Rajshahi, Khulna and Chittagong. The private producers were selected jointly by DPHE and UNICEF and were sent to Dhaka for training.

The details of the 3 private producers who were selected from 3 districts of 3 DPHE circles and who attended the training are given below.

1. Md. Shamsher Ali
   "Mamun Sanitary"
   West Banshbari, Taherpur Road
   PS. Puthia
   Dist. Rajshahi

2. Md. Tofazzal Hossain
   "Pappu Sanitary"
   Kumargara, Battala
   PS. Kushtia Sadar,
   Dist: Kushtia

3. Md. Amin Mia
   S/o. Ramjan Ali
   Hajiganj Bazar
   PS. Hajiganj
   Dist: Chandpur

2.3. Training of Private Producers

The participants from the 3 selected private producers were given one week full-time theoretical and practical training in Dhaka from January 9 to 16, 1993. Two masons and one owner and/or manager from each of the producers attended the training. The Sub-Asstt. Engineers of the concerned thanas also attended the training program. On behalf on DPHE, the training was conducted by Interchain Project Consultants AB a Swedish Consulting firm. Engr. Rabiul Islam of Interchain acted as Training Coordinator, and was assisted by other trainers including Mr. Zahural Haque, Head mason of DPHE.

The training was conducted at the Village Sanitation Research Center (VSRC) of DPHE at Mohakhali, Dhaka. Some senior officials of DPHE, UNICEF and WHO also attended the training as observers.

At the end of the training, a contract was signed between the Project Director, DPHE VS Project and individual private producer and the following mould/ equipment for SANPLAT production were supplied free to each of the private producers.

1.	Steel frame for circular slab	-	2 Nos.
2.	Steel foot-rest mould for slab	-	2 Nos.
3.	Foot-rest mould of partex-board	-	2 Nos.
4.	Timber lid with handle for slab-hole	-	2 Nos.

As per contract the private producers are to maintain records of production, sale and installation of SANPLAT latrines. The private producers will have to give access to this information to DPHE, UNICEF and WHO officials and assist them for monitoring and evaluation of performance of SANPLAT latrines.

2.4. Monitoring of Activities

The Sub-Asstt Engineer, DPHE of concerned thana sends a monthly report on production and sales activities of SANPLAT latrines by the private producers to the Village Sanitation Project Office of DPHE at Dhaka. The Executive Engineer of DPHE VS-II (R&D) Division, Dhaka compiles and analyse these reports. The monitoring information is shared with UNICEF, WHO and other related officials.

3. PRESENT SITUATION

3.1. Uptodate Activities

After 18 months of production of SANPLAT by the private producers since February 1993, the present position of production, sale and balance stock position as of end July 1994, in each of the 3 centres is given below.

TABLE - I
PRODUCTION, SALE & STOCK POSITION OF SANPLATS

1.	Mamun Sanitary, Puthia	78	73	5
2.	Pappu Sanitary, Kushtia	23	21	2
3.	Md. Amin Mia, Hajiganj	10	6	4
	Total	111	100	11

3.2. Quarterly Production and Sale Position

The quarterly progressive cumulative figures of production, sale and balance stock of each center and the total figures have been tabulated in TABLE-II. It may be noted that the balance stock is very negligible in each case. The reason being that the private producers do not have a target for production. They also produce a variety of concrete things other than SANPLAT. Their other range of production are normal pan, water seal latrines, concrete pipes, RCC rings, concrete boundary pillars, pre-cast concrete house-posts, ventilators, flower-tubs and host of other articles.

The small number of stock of the SANPLAT does not show that these are in high demand. The producers usually produce the SANPLAT whenever he gets order for the same, or feels that there is demand for the same.

TABLE - II
QUARTERLY PRODUCTION & SALE SITUATION

Centres >>>	Puthia			Kushtia			Hajiganj			Total		
Period	P	S	B	P	S	B	P	S	B	P	S	B
Upto Mar. 93	9	2	7	10	6	4	10	4	6	29	12	17
Upto June 93	15	13	2	17	15	2	10	4	6	42	32	10
Upto Sep. 93	56	43	13	17	15	2	10	5	5	83	63	10
Upto Dec. 93	61	58	3	19	17	2	10	5	5	90	80	10
Upto Mar. 94	67	64	3	19	17	2	10	5	5	96	86	10
Upto June 94	70	67	3	23	21	2	10	6	4	103	94	9
Upto July 94	78	73	5	23	21	2	10	6	4	111	100	11

P = Production (Uptodate)
S = Sale (Uptodate)
B = Balance Stock (Uptodate)

4. EVALUATION OF THE PILOT PROJECT

According to the terms of the Plan of Operation, for the pilot program prepared in August 1992 (given in Annexure-I), and as per decisions taken in 'Sanitation R&D Committee' meeting of July 1994, teams consisting of personnel from DPHE, UNICEF and WHO undertook field visits for survey and evaluation of SANPLAT programme. The teams visited all the 3 thanas for assessment of performance and acceptability of SANPLAT.

4.1. Objectives of Evaluation Study

The objectives of the study was

a) to assess the appropriateness and acceptability of the SANPLAT by the users.

b) to determine whether the SANPLAT latrines are properly constructed and maintained by private producers and users.

c) to know the advantages and disadvantages of this technology.

d) to determine the reactions of the users regarding filled-up pits and their hygiene practice.

4.2. Study Design/Survey Tool

To collect the information for the evaluation purpose a format was drafted by DPHE VS Project which was discussed with WHO and UNICEF officials. After review by the three parties the questionnaire format was finalised. The format which was used during the study is given in Annexure-II.

4.3. Study Period

The data collection was carried out in 3 production centres of private producers in 3 districts jointly by representatives of DPHE, UNICEF and WHO during the period of August and September 1994. It may be mentioned here that this period is rather a wet season of the year, with relatively high ground water level.

4.4. Data Collection Team and Schedule

The following members undertook the field visits for collection of data in the places during the period mentioned below.

a) In Puthia thana of Rajshahi district in Rajshahi division, from 22.8.94 to 24.8.94.

1.	Mr. Rabiul Islam,	Sanitation Consultant, UNICEF
2.	Mr. Aolad Hossain	Project Officer, WHO, Dhaka
3.	Mr. Abdur Rauf	SAE, DPHE Kushtia

b) In Kushtia Sadar thana of Kushtia district in Khulna division. from 25.8.94 to 26.8.94

1.	Mr. Rabiul Islam	Sanitation Consultant, UNICEF
2.	Mr. AFM Khaled Hassan	Project Officer, WHO, Khulna
3.	Mr.Abdur Rauf	SAE, DPHE, Kushtia

c) In Hajiganj thana of Chandpur district in Chittagong division, from 3.9.94 to 4.9.94.

1.	Mr. Ratan Kumar Saha	Project Officer, WHO, Chittagong
2.	The Sub-Asstt. Engineer	DPHE, Hajiganj

The data collection teams has got the full cooperation of Executive Engineers of DPHE at Rajshahi, Kushtia and Chandpur. Full support was also obtained from Chief of UNICEF Divisional Office at Rajshahi, during the field visits.

4.5. Field Visits

The survey teams made field visits and inspected the production centres or workshops of the private producers in all the 3 centres. After interviewing the producer, the teams inspected their productions and record registers and other document. Later, along with the producer, the teams inspected some installed latrines and interviewed the users of SANPLAT.

Following is the abstract of field visits by the teams.

a) Puthia center of Rajshahi district:

Total no. of latrines produced	:	78
No. of latrines sold/ installed	:	73
No. of latrines inspected	:	11
Percentage covered	:	15%

b) In Kushtia center of Kushtia district:

Total no. of latrines produced	:	23
No. of latrines sold/ installed	:	21
No. of latrines inspected	:	10
Percentage covered	:	47.6%

c) In Hajiganj center of Chandpur district:

Total no. of latrines produced	:	10
No. of latrines sold/ installed	:	6
No. of latrines inspected	:	6
Percentage covered	:	100%

d) Overall in 3 Centres:

Total no. of latrines produced	:	111
No. of latrines sold/ installed	:	100
No. of latrines inspected	:	27
Percentage covered	:	27%

During the field visits, the teams inspected a total of 27 nos installed latrines out of total 100 nos latrines sold and installed in all the 3 centers of this pilot programme. This makes an overall coverage of 27% installed latrines for this evaluation study.

4.6. The Evaluation Team

The evaluation study and analysis of data was done at Dhaka by the evaluation team.

The Evaluation Team consisted of the following personnel:

1.	Engr. Rabiul Islam	Sanitation Consultant, UNICEF
2.	Engr. Ms. Ether	Executive Engineer, VS-II, DPHE
3.	Engr. Md. Mofazzal Haque	Field Programme Officer, WHO

The draft report was prepared by Unicef and shared with DPHE and WHO which was finalised jointly.

The Project Director, Village Sanitation Project, DPHE, Dr. Engr. A.M. Shamsul Haque, extended his helping hand and all cooperation during the entire process.

5. FINDINGS OF THE EVALUATION SURVEY

It was observed during the field survey that the rural and semi-urban population behaved in different ways towards acceptability of the SANPLAT. Out of 3 production centres of this pilot programme, the center in Puthia thana in Rajshahi district falls in rural area, which is approximately 10 km away from thana headquarters. The other two centres in Kushtia and Hajiganj thana are in semi-urban areas as they are very near to town and pourashava (municipal) areas.

Since different reactions were found with the users of two-types of locality, the data collected during the field survey have been analysed separately in two groups, viz.

i) Rural area
ii) Semi-urban area.

Latrines surveyed in rural area (Puthia center) = 11 nos.
Latrines in semi-urban area (Kushtia and Hajiganj) = 16 nos.

Total = 27 nos.

The results of the findings of fields survey are given in tabular form in the following pages.

5.1. SANPLAT Owner's Occupation / Social status

TABLE - III
SANPLAT OWNERS BY OCCUPATION

Occupation	Rural	Semi-urban
Service	9%	6.25%
Small business	18%	31.25%
Farmer	64%	25%
Skilled/daily worker	9%	37.5%
Total	100%	100%

5.2. Education Level of Owners

TABLE - IV
LITERACY LEVEL OF OWNERS

Level	Rural	Semi-urban
Illiterate	45.5%	18.75%
Upto Primary	45.5%	62.5%
Upto High School	9%	12.5%
College and above	-	6.25%
Total	100%	100%

5.3. Distance of Production Center to Household

TABLE - V
DISTANCE OF PRODUCTION CENTER FROM HOUSEHOLD

Distance	Rural	Semi-urban
Within 2 Km	45.5%	62.50%
From 3-5 Km	18%	31.25%
From 6-10 Km	36.5%	-
More than 10 Km	-	6.25%
Total	100%	100%

5.4. Mode of Transportation of SANPLAT

TABLE - VI
MODE OF TRANSPORTATION

Mode	Rural	Semi-urban
Head load	9%	6.25%
Rickshaw Van	91%	87.50%
Boat	-	6.25%
Total	100%	100%

5.5. Cost of SANPLAT and RCC Rings

TABLE - VII
COST OF SANPLAT AND RINGS

Material	Rural	Semi-urban
SANPLAT Slab	Tk. 75 - 90	Tk. 75 - 90
One Ring	Tk. 45 - 55	Tk. 45 - 55

On an average the cost of one SANPLAT is Tk. 80 and that of a ring is Tk. 50. Therefore the hardware cost of SANPLAT latrine, on an average is as follows:

SANPLAT without ring	Tk. 80
SANPLAT with 1 ring	Tk. 130
SANPLAT with 2 rings	Tk. 180
SANPLAT with 3 rings	Tk. 230

5.6. Money Spent for Latrine Construction

TABLE - VIII
NUMBER OF LATRINES BY COST

Range	Rural	Semi-urban
Upto Tk. 100	-	-
Tk. 100 - 150	56.50%	6.25%
Tk. 150 - 200	45.50%	12.50%
Tk. 200 - 300	18%	37.50%
More than Tk. 300	-	43.75%
Total	100%	100%

5.7. Depth of Latrine Pits

TABLE - IX
DEPTH OF LATRINE PITS

Pit Depth	Rural	Semi-urban
Upto 3 ft.	9%	12%
3 - 4 ft.	9%	-
4 - 6 ft.	82%	50%
7 - 9 ft.	-	37%
More than 10 ft.	-	6%
Total	100%	100%

5.8. No. of Rings Used for Pit-lining

TABLE - X
NUMBER OF RINGS USED

Number	Rural	Semi-urban
No Ring	9%	-
1	45.5%	-
2	36.5%	6.25%
3	9%	6.25%
4 to 5	-	50%
6 to 7	-	18.75%
8 to 10	-	18.75%
Total	100%	100%

5.9. Acceptability of SANPLAT by Users

In reply to question "Do you think SANPLAT technology is useful?" the following answer was received.

TABLE - XI
ACCEPTABILITY OF SANPLAT

Acceptability	Rural	Semi-urban
YES	82%	25%
NO	18%	75%
Total	100%	100%

6. DISCUSSION WITH AND RESPONSE OF USERS AND PRODUCERS

6.1 The users of the SANPLAT latrines have chosen this technology mainly for cheaper price. In all the cases they have come to know this technology from the private producers and have bought it at the suggestion of the PP.

6.2 The users who responded negative to the question of acceptability, gave the reason of bad smell and splash of water during use. The complaint is more serious for the wet season. In their opinion smell/ odour is less in dry pits, in dry season.

6.3 The users' observation is that the SANPLAT is safer and easier for use, even by children, in comparison to home-made sanitary latrines. The reason is that it has stronger platform and proper foot-rest.

6.4 Some users opined for fitting a "chute" with the SANPLAT to avoid splashing of water during use in high water season. Some people suggested for fixing a pan without water-seal on SANPLAT, for hiding the excreta from visibility, reducing the effects of smell and avoiding splash.

6.5 The users are, in general, satisfied with use of the lid for closing the hole. Some of the users said that the lid is a little heavy to be used by the children. Some complained about excreta sticking to lid bottom in high water.

6.6 The private producer of Puthia requested DPHE and UNICEF office for a megaphone for advertising through mikeing in the market and other places to motivate the rural people. He is using a leaflet printed by his own effort for publicity purpose, and his sale is maximum of the three SANPLAT producers supported and monitored by UNICEF and DPHE.

6.7 The private producer of Kushtia said that people in town area are not interested to buy SANPLAT in place of other types of latrines. He is unable to sell even one SANPLAT in last few months, although he has offered a reduced price of only Tk. 50 per piece.

6.8 It was found during interviews with the user that almost all the users, both in rural and semi-urban areas, use soap, ash or mud/ soil for cleaning of hands after defecation. Information was not gathered on other hygienic practice such as washing hands before eating or preparation of meals etc.

6.9 Most of the users are not aware of the fact that the sludge can be utilised as fertilizer. About 80% of them refused to handle these manually. Most of them said they will plant a sapling on the old filled-up pit area. About 20% users agreed to re-excavate digested excreta and use it in their kitchen garden.

7. OBSERVATIONS AND CONCLUSIONS OF EVALUATION TEAM

7.1 The users of SANPLAT latrines, both in rural and semi-urban areas, show willingness to use improved sanitation technology, i.e, water-seal latrines, in future.

7.2 It is observed that the SANPLAT is accepted by the rural people of low income group, because the cost is lower in comparison to the water seal latrines. The SANPLAT latrines are more acceptable in rural areas than in areas near town or in pourashava (municipal areas) where the people have more options and are more affluent.

7.3 The people of semi-urban areas has not accepted SANPLAT technology as easily as the people of rural areas. In areas near town or pourashava, some people have converted the SANPLAT into pan-latrines by fixing ordinary pan in the opening. Some people are using the slab of SANPLAT for off-set latrine, with pit or trench excavated away from the platform and connected by sloped metal/ tin plate. In Kushtia two SANPLATS are being used as pit cover of offset latrines.

7.4 SANPLAT is more suitable in dry areas with low water-table, than in areas with high water table, because there will be less smell and no water splashing.

7.5 One of the main complaints from the users of SANPLAT is release of bad-smell gas when the lid is opened. A vent-pipe may be provided with SANPLAT slab to reduce the bad-smell and release of gaseous things which accumulates in the pit. This will, however, make it a VIP latrine and add to the cost of the latrine.

7.6 Use of concrete lid for covering the opening of SANPLAT was observed in almost all the latrines visited. Only in two places it was not covered after use by the children. It is felt that the lid of the SANPLAT may be improved by making it lighter and flat, so that it is easily handled by the children and there is less possibility of excreta sticking to it.

7.7 The sale price of SANPLAT is high for poorer section of the population. At present, the sale price by the private producers ranges from Tk. 75 to 90, which is higher than the sale price (with subsidy) of RCC slab with water-seal pan at DPHE VS Centres, which is Tk. 75 only. However, the private producers price for ordinary water-seal pan with slab varies from Tk. 120 to Tk. 250.

7.8 The sale price of SANPLAT was recommended during the training of PPs to be Tk. 80 per piece. It is felt that the PP should fix the price as suits them, like other products produced by them.

7.9 Same as in other types of products of private producers, no publicity material of SANPLAT was found in circulation except one. The private producer of Puthia has printed and circulated one leaflet which is given in Annexure-III. It is evident from Table-I that he has sold maximum number of SANPLAT, in comparison to other PPs under evaluation.

7.10 Some latrines were filled-up because of lesser depth and the users has shifted the SANPLAT to a newly constructed pit. This shows re-useability of SANPLAT slabs.

7.11 It is found that in rural areas the pit depth is 5 ft to 6 ft in almost all cases, irrespective of the number of rings used. In semi-urban areas the tendency is to use more number of rings, which is also one of the reasons for increased cost per latrine.

7.12 The practice of using digested sludge from filled-up latrine pits for agricultural use is extremely low. Information regarding this technology is not available to them.

7.13 The results of a recent survey on private producers has revealed and it is also observed in the field that many private producers in various parts of the country are producing and selling slab latrines with squatting hole which is similar to SANPLAT, (Ref. 'National Survey on Latrine Producers and Market Situation', prepared for DPHE/ UNICEF by House of Consultants Ltd., Dhaka. Draft report-June 1994)

7.14 The above mentioned survey done in early 1994 has recorded the number of PPs in the country at 2,542, out of which 1,071 numbers produce such slab latrines with squatting hole. These PPs have not received any training on SANPLAT, but producing slab latrines similar to that. Therefore, the team is of the opinion that no further promotion of SANPLAT technology is required.

8. RECOMMENDATIONS

8.1 The SANPLAT latrines may be continued to be produced by the private producers in rural areas along with other types of latrines, so that the sellers and the users both have more options.

8.2 Since the technology is already in practice in the country, by about 42% of private producers in latrines business, further institutional promotion may not be required.

8.3 The NGOs may promote SANPLAT, side by side with water-seal latrines, to give the beneficiaries a choice according to their financial ability.

Dhaka, October 1994

ANNEXURES

ANNEXURE - I

Government of the people's Republic of Bangladesh
Department of Public Health Engineering

Introduction of Sanplat Slab Through Private Producers.

Village Sanitation Project, Dhaka.
August 1992.

INTRODUCTION OF SANPLAT SLAB THROUGH PRIVATE PRODUCERS.

1. Background

Currently two types of technology, one water sealed type & the other home made type are being promoted for rural sanitation. Various findings indicate that an intermediate technology is needed in between. SANPLAT is a potential option for such a technology . Both Interchain Project Consultants AB, engaged by S.D.C.(Swiss Development Cooperation) and Mr. Bjorn Brandberg, an independent consultant engaged by UNICEF have suggested to promote this type of latrines. As per GOB-UNICEF country Programme (1992-95), the introduction of this intermediate sanplat technology will be carried on through private producers (PP) in 3 Upazilas in a pilot project. These 3 Upazilas will be selected from Chittagong, Rajshahi and Khulna division, one from each administrative division. With the above in view, this plan of operation has been developed as per decision of meeting on R & D (Sanitation) activities held on 07-06-92 under the chairmanship of P.D. (V.S) with participation of UNICEF and WHO.

2. Objectives.

The objective of this pilot study is

i) To introduce and popularize sanplat technology

ii) To promote and make available of sanplat slabs

iii) To increase sanitation coverage.

3. Methodology

3.1 Design of sanplat slab

Sanplat slab design as developed & tested by Interchain Project Consultants AB will be taken as an initial basis. The performance and acceptance by users of sanplat will be studied and accordingly design will gradually be modified If require.

3.2. Procurement and supply of Mold

Molds will be procured from Interchain Project Consultants and the cost will be borne by UNICEF. The

molds will be supplied by UNICEF to the selected private producers free of cost.

3.3 Identification and selection of Private Producers (PPs)

Producing latrine this sanpiat technology is supposed to be appropriate for the areas where water is scarce. So emphasis must be given to select PP of such area. Potential PP will be identified by local DPHE officials. Final selection will be done by territorial Superintending Engineers of DPHE. Territorial Executive Engineers will send their proposal in detail to the concerned S.E ,within mid of August/92. Final selection will be done within September/92. So that the programme can be started within October /92.

3.4 Criteria for selecting private Producers (PPs)

In selecting the potential PP the followings should be studied in detail for those who are already producing

i) Financial solvency
ii) Production capacity
iii) Goodwill
iv) Initiative and willingness of PP.
v) Potentiality of probable market.

3.5. Training of Private Producer

Preparation of training module and organizing the training programme at V.S.R.C, Mohakhali will be done by V.S. project office through V.S. Division-II in collaboration with Interchain Project Consultants, UNICEF and WHO. UNICEF will bear the cost of training . After the training, the participants will be provided with the sale register and the molds. 6 masons , 2 nos from each PP and 3 S.A.E. of DPHE will be trained. If it is felt necessary, Project office may increase the nos of trainee.

3.6 Supply of Raw Materials and Construction of Sanplat Slabs.

Responsibility for Supplying raw materials and construction of Sanplat slabs as per design entirely lies with selected private producers. DPHE and UNICEF will provide technical assistance only. The private producer will keep proper records of materials. The products will always remain open to DPHE. UNICEF & WHO staff for inspection.

3.7 Sale of Sanplat Slab

DPHE and UNICEF will not bear any responsibility in this regard. Local DPHE and UNICEF officials may assist PP in market development. The private producers will maintain the detail addresses of the buyers of the Sanplat so that the project staff can find out them easily for inspection & interview .

3.8. Sale Price for Sanplat Slab

Respective PP will fixup sale price for sanplat slab.

3.9 Promotion of Sanplat.

Necessary leaflets will be designed, developed and printed by UNICEF in association with DPHE & WHO. These materials will be distributed to sample Upazila through DPHE, NGOS, Extension workers of health and agriculture services and other allies.

4. Implementation .

The programme will be directly supervised by S.A.E. S.D.E, and Executive Engineer. Superintending Engineer will render backup support. Executive Engineer will regularly review the activities and performance of PP.

A formal agreement will be signed between DPHE and PP.

5. Reporting & Evaluation.

Responsibility for reporting will lie entirely with concerned S.D.E. He will report monthly to the XEN, V.S-II with copies to concern XEN, S.E and UNICEF division office. XEN, V.S.- II will compile and analyse the report. V.S. Project office will hold review meeting with UNICEF and WHO quarterly. DPHE, UNICEF,WHO officials will undertake occasional field trips to asses technical soundness and users acceptance. They will inform v.S. Division-II their findings and comments.

In the beginning of 1994 an evaluation will be undertaken by WHO in collaboration with DPHE and UNICEF. A workshop with participation of DPHE,UNICEF, WHO, NGOs, Private Producers and other allies will be held at the end of the programme (i.e. mid of 1994) to draw course of actions in future on the subject matter.

(ABDUR RAHMAN MRIDHA)
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Dept. of Public Health Engineering
Dhaka, Bangladesh.

EVALUATION QUESTIONNAIRE FOR SANPLAT LATRINES

1. LOCATION : District : ----------
   Thana : ----------
   Union : ----------
   Village : ----------

2. BENEFICIARY/USER'S PARTICULARS

   a. Name : _____

   b. Occupation: Farmer ☐
   Service ☐
   Business ☐
   Others/Labour ☐

   c. Education: Upto Primary level ☐
   High School level ☐
   College and above ☐
   Illiterate ☐

3. Distance of Production centre/buying place for household
   Within 2 km ☐
   From 2 - 5 km ☐
   From 6 - 10 km ☐
   More than 10 km ☐

4. Mode of transportation
   Head load/manual ☐
   Rickshaw Van ☐
   Bullock cart ☐
   Boat ☐

5. Total cost of the SANPLAT

   a. Cost of SANPLAT unit : Tk.
   b. Cost of rings : Tk.
   c. Cost of pit digging : Tk.
   d. Cost of super structure : Tk.
   e. Cost of carrying : Tk.

   Total cost : Tk.

How many rings?
What type lining?
Which type superstruct

6. Why choose SANPLAT to other type?

Cheaper ☐

Flushing not required ☐

Influence of seller ☐

7. How do you know SANPLAT?

From DPHE ☐

From NGO ☐

From Private Producer ☐

8. Advantage of SANPLAT over Homemade latrine.

No difference ☐

SANPLAT more durable ☐

SANPLAT more hygienic ☐

Any other (Pl. specify) ☐ _____

9. Disadvantage of SANPLAT over Homemade latrine.

No difference ☐

HML more hygienic ☐

HML materials locally available ☐

HML is Cheaper ☐

Any other (Pl. specify) ☐ _____

10. Do you think SANPLAT technology is useful?

Yes ☐

No. ☐ If no why? _____

11. By using SANPLAT latrine, what change has occurred in traditional habit in disposal of excreta.

Defecation in fixed place ☐

Open defecation decreased ☐

Spread of disease decreased ☐

No change taken place ☐

12. SANPLAT latrine information.

a. Date of installation : _____

b. Who installed : Self/Producer/NGO _____

c. Depth of pit : _____

d. Diameter of pit : _____

e. No. of users : _____ (M/F/Ch/Old)

f. Present condition : Under use/Not under use/Filled up

g. Has the slab sunk for any reason (why and how?) : Yes/No

h. What to do when pit is filled: _____

i. What to do with the old pit: _____

j. Do you want to use the material for fertilizer : _____

13. Users' reactions/recommendations.

a. Reaction/observation in use: _____

b. Suggestion for improvement: _____

c. Problem and solution for maintenance : _____

d. Does your neighbour want to install a SANPLAT : _____

e. With what you wash hands after defecation: _____

INFORMATION FROM PRIVATE PRODUCER.

a. Opinion regarding construction: _____

b. Opinion regarding installation: _____

c. Suggestion for improvement : _____

d. Strategy for sale promotion:

loc: SANPLAT/FHK41
RI/FHK

Interviewers
1. DPHE 2. WHO 3 UNICEF

ANNEXURE — III
SANPLAT PUBLICITY LEAFLET

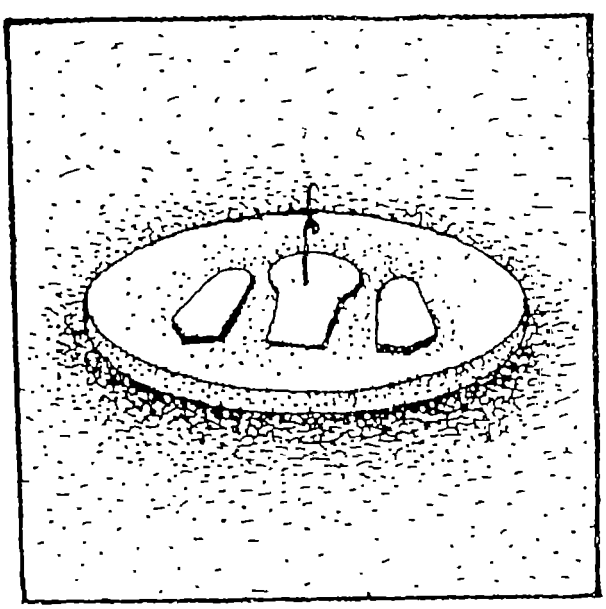
গ্রামবাসীদের জন্য একটি সুখবর

কমদামে স্বাস্থ্য-সম্মত (স্যানপ্লাট) পায়খানা

- এই পায়খানা গ্রামের উপযোগী এবং দেখতে সুন্দর।
- এই পায়খানা পরিবহণে সুবিধা এবং ভাঙ্গিয়া যাওয়ার কোন ঝুঁকি নাই।
- এই পায়খানা ব্যবহার করিবার পর অতিরিক্ত পানি ঢালিয়া পরিষ্কার (ক্লাস) করিবার দরকার হয় না।
- এই পায়খানা হইতে কোন দুর্গন্ধ আসে না।
- ইহা একটি নতুন ধরনের প্রযুক্তি।
- এই স্যানপ্লাট পায়খানার মূল্য মাত্র ৮০/- (আশি) টাকা

[illegible]
[illegible]
[illegible]
পাহী

চিত্রে স্যানপ্লাট পায়খানার নমুনা



প্রাপ্তিস্থান

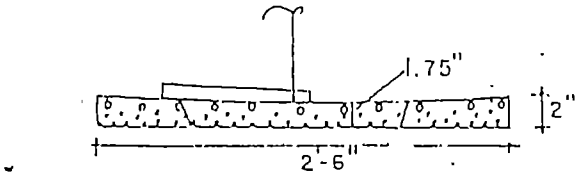
মো: সমসের আলী
পিতা : মৃত সাবির আলী
গ্রাম : বাঁশবাড়ী পশ্চিম ভাগ
ইউনিয়ন : ডালুকগাছি
থানা: পুঠিয়া, রাজশাহী।

বি: দ্র:—পায়খানা কিনিবার সময় প্রশিক্ষণ প্রাপ্ত লোক দিয়া বসাইবার নিয়ম দেখাইয়া দেওয়া হয়।

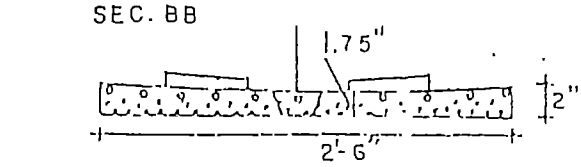
বিনীত
মো: সমসের আলী

সহযোগীতায় : জনস্বাস্থ্য প্রকৌশল অধিদপ্তর, পুঠিয়া, রাজশাহী।

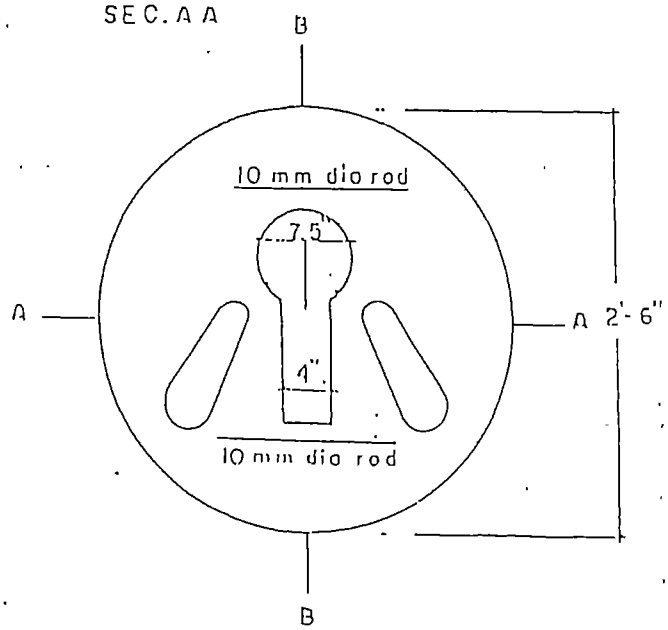
ANNEXURE – IV
SKETCH OF SANPLAT LATRINE



SEC. BB

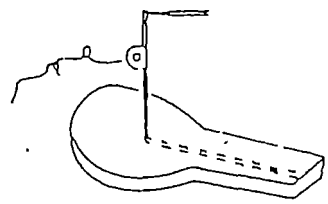


SEC. A A



PLAN

MALAWI TYPE SANPLAT LATRINE



Note :– The loop is for attachment of a string to the lid to prevent it form being lost in the latrine

ANNEXURE – V
PHOTOGRAPHS OF SANPLAT LATRINES

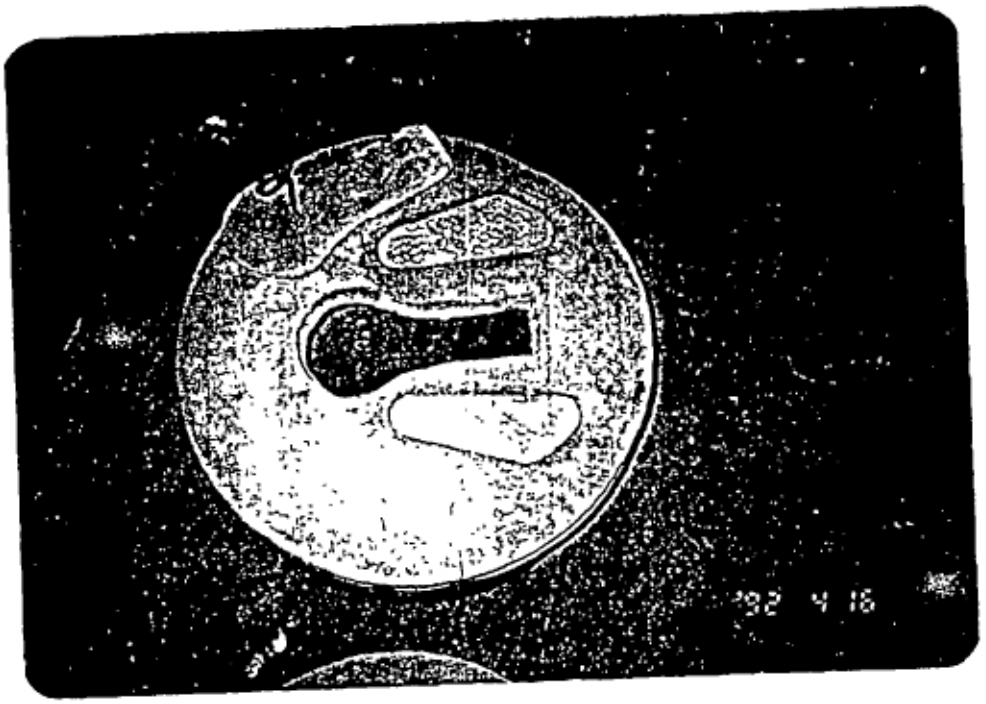


PHOTO 1
SANPLAT produced in DPHE VS Research centre at Mohakhali Dhaka

PHOTO 2
SANPLAT produced by Private Producer in the field