

SHIFTING MILLIONS FROM OPEN
DEFECATION TO HYGIENIC LATRINES

(PROCESS DOCUMENTATION OF 100% SANITATION
APPROACH)



VILLAGE EDUCATION RESOURCE CENTER

Published by

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ISBN :984-875-000-2

First Edition
February 2002

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Price
Tk. 150.00
US \$ 5.00

Printed by
Dhanshiri Printing & Publishing Co. Ltd.
25/3 Green Road, Dhaka-1205, Phone : 8611346

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FOREWORD

VERC has been working on WatSan since its inception. The program approaches underwent a number of shifts during the period. Main objectives of the shifts were to find out a more effective working process in the sector. Now, the program in phase - III has evolved an approach that is far more effective than the past and can be treated as a model approach.

WatSan and hygiene education is a 100% quality assurance issue manifested in actions and achievements. Total coverage is obviously dependent on participation of all segments of community people. VERC as a people's participation promotion organization has tried out this approach in its project areas and has gained experience that proper facilitation can achieve its target. Now, it is no more a hypothesis that 100% sanitation coverage is an achievable target on part of communities who follow the participatory process of mobilization.

Main goal of the project is to ensure sustainable development of quality of life and health of rural poor in Bangladesh following a participatory work strategy. VERC believes that this is achievable through 100% sanitation, introducing use of safe water for all purposes and initiating appropriate hygiene behavior practice among the community people. It requires proper facilitation in a participatory manner to empower the community to undertake activities on its own. VERC also categorically believes that high subsidy in sanitation will reduce the high potential of the community to achieve self-sustenance. The program requires external support to explore the huge potentiality of community to act on its own resources and initiative to move ahead.

VERC has mainly two types of interventions to materialize the objectives one being offering technology support in respect of latrine and water point installation and the second one being hygiene education for behavior change. In the previous phases VERC offered subsidy support on both the types of hardware installations. The approach was mostly family coverage oriented and VERC program personnel as laid down in the project proposal set the project target, which is now a community led process with external facilitation support. Worth-mentioning here is that Mr. Kamal Kar, an Indian development consultant undertook a laudable initiative to formulate the approach of achieving 100% sanitized village by community people on their own initiative and resources.

The documented internal evaluation of the approach has encouraged us to be proactive and look forward in promotion of the process in the country for wider coverage with quality and achieving an improved sustainable WatSan situation. The initiative would obviously need interest, cooperation and concerted effort of all the stakeholders of the sector across the country.

I appreciate the efforts made by the project staff members of VERC for the study and documentation of the lessons learnt. Above all, we acknowledge deeply the continued assistance and support that offered by WaterAid Bangladesh in achieving the project objectives. We expect that the cooperation would go a long way to make the sectoral approach more output oriented in the days to come. We hope that the lessons learnt might be encouraging to other stakeholders of the sector.

Shaikh A. Halim

Project Coordinator's Note

Bangladesh is a country where many people suffer from diseases due to improper use of water and poor sanitation. VERC has been working in the country since 1977 to bring about a qualitative improvement in the health and hygiene situation through a participatory community empowerment approach. Community awareness and initiative in a participatory manner could prevent most of the miseries.

VERC WatSan program has undergone a number of learning and adaptation stages since inception. VERC - WaterAid partnership gave a new dimension to the program when it began in 1986. WaterAid funding to VERC project activities in the sector is still continuing. After initial year-to-year basis funding the partnership turned to phase-wise comprehensive project packages like 1993-1996 as Phase-I, 1996-1999 Phase-II and the ongoing one as Phase-III project. The new agreement enabled VERC to respond to intervention needs of more diversified nature of working areas in the country including the northern low water table regions as well as southern salinity prone and sub-surface rocky soil areas. The diversified nature of working area opened up wider avenues of learning and doing to VERC in WatSan program. Low-water table areas in the north needed deep-tubewells and in the southern rocky and saline water areas ringwell was found more effective as technology option. Similarly, community attitude to sanitation options also experienced diversified technology choice. Due to variation in geo-physical environment and soil texture, well-being status of users in the community, latrine pits have been designed with different cost-options.

The third phase of VERC's WATSAN Project is the outcome of working with communities for more than a decade. The lessons learnt include that WATSAN is a whole community issue and to achieve a real improvement in the health and hygiene situation in rural areas the whole community must be motivated to change. On the basis of review recommendations made by Mr. Kamal Kar - a participatory development consultant from India engaged by WaterAid in early 2000, VERC brought about a strategic change in the implementation process. It was decided that the former subsidy backed interventions should be replaced by a no subsidy approach capitalizing on social commitment. Accordingly, the approach was tried out in project areas and found that the community being empowered with the basics of sanitation technology has successfully innovated a number of latrine models to fit it with the diversified well-being status of community people. Flexibility of the approach has enabled the community to achieve 100% latrine coverage in some areas with diversified latrine options of different cost levels suited to individual families. Also they have evolved action oriented hygiene behavior change program. Different categories of community catalysts has come up with supportive role to carry forward the activities in a comprehensive manner and attain sustainability and replicating the learnt lessons in the adjoining areas. The study has tried to explore the efficiency of empowering community to work on its own and achieve the goal of wider sanitation coverage. As part of the third phase of the project new program components have been tried and found to be effective in achieving 100% sanitized community and worth continuing in the country.

This report outlines the program components and the impact they have had in order to disseminate the lessons learnt with other actors in the country. VERC would welcome suggestions/feedback on the experiences of others in order to strengthen its WATSAN program.

Yakub Hossain
Deputy Director and Project Coordinator

Executive Summary

VERC was established in 1977 as a project of Save the Children-USA. In 1981 it was indigenized as a private voluntary development organization. Its vision is A self reliant society based on justice equity and sustainability where every human being has the equal opportunity to maximize their potentialities . It has had a WATSAN program since inception and WaterAid has funded this since 1986. In Phase III, which started in 1999, the focus is on involvement of the community in all stages of the project cycle so as to encourage ownership, the use of local innovations and sustainability.

In February 2000 a study was undertaken to develop a total community empowerment approach towards achieving 100% sanitized villages. The idea being that a community can resolve its own problems if motivated and supported. The study concluded that communities could be motivated to jointly work towards 100% sanitation so it was decided to incorporate the approach in the ongoing work of Phase III.

The role of VERC in the 100% sanitation approach is that of facilitator working with the community to recognise their current situation and the need for improvement. Once the community wants to change, work continues to help them identify areas for improvement, plan how to improve them and then implement these plans.

VERC believes it is important that 100% sanitation goes beyond the installation of latrines and tubewells so field staff drew up a behaviour focused working definition of 100% sanitation.

- 100% use of hygienic latrines i.e. no open defecation or open/hanging latrine use
- Effective hand washing after defecation and before taking or handling food
- Food and water covered
- Good personal hygienic practices
- Latrines well managed
- Using sandals when defecating
- Clean courtyards and roadsides
- Garbage disposal in a fixed place and dung disposed of in a hygienic way

- Safe water use for all domestic purposes
- Water points well managed
- W aste water disposal in hygienic way
- No spitting in public places

There are ten key activities involved in the approach.

1. Entry PRA

The main purposes being the collection of baseline data and the motivation of the community to change their WATSAN situation. A team of 3 or 4 Health Motivators and the APC uses transects & rapport building, social mapping, flow diagram, calculation of feces, wellbeing ranking, defecation site visit and other PRA tools to establish the current situation in the community over a period of 2-3 days. To help motivate the community to take action to change their WATSAN situation the affect of open defecation and hygienic latrine use is highlighted.

2 Formation of a WATSAN Committee

The key to the success of the approach is the involvement of the community members themselves in all aspects of planning, implementation and monitoring. The WATSAN Committee is a community group that takes the lead. It usually involves both males and females from all economic groups in the community. This is important, as the emphasis is on the community as a whole making changes and the richer members supporting those less well off

3. Meetings With The WATSAN Committee

One of the first actions of the WATSAN Committee is to produce an action plan. The community members themselves are the main implementers of the action plan however; VERC has a key role to play in facilitating them.

4 Meetings with the Community

As the community is encouraged to find collective responses to problems and help each other, meetings with groups of members of the community are important. They serve a variety of purposes such as to discuss progress, suggest solutions, explain technology and see where VERC s input is needed. Meetings are also held with the elite to engage their support and encourage their involvement.

5. Meetings with Primary Group

The approach involves no subsidy for latrines and a fixed participatory cost for water points so to provide a mechanism for saving towards hardware, communities can form Primary Groups. These are groups of women who usually meet weekly to deposit an amount of savings agreed by themselves.

6. Children's Group Formation

The role of children in bringing about a sustainable improvement in WATSAN situations is believed to be important so in some communities Children's groups are formed to act as key motivators to the rest of the community. The children get involved in rallies and community cleaning exercises as well as individual motivational activities through friendship networks.

7. Community Cleaning Exercise

When progress is being made at individual household level the community will often hold a cleaning exercise to clean up a public place.

8. Construction and Installation of Hardware

People are free to select the latrine model that suits them best and get it from where ever they want. In total twenty models of latrine are promoted (including eleven homemade ones) along with any local designs that satisfy the criteria for being hygienic i.e.

- Preventing contamination of other things by faeces
- Free from odour
- Free from flies.

VERC sets up VSCs, construction and sales centres, with local masons. VERC provides the models and materials and trains the mason who is paid an agreed rate for the items constructed. The community then pays VERC a set cost for the items purchased.

The subsidy for water points is set slightly higher than the government level. The participatory costs being Shallow Tubewell TK. 1000, TARA II TK. 2500, TARA DEV TK. 3000, Deep Tubewell TK. 6000 and Ring Well TK. 7000. VERC staff advise communities on the appropriate technology for their area. Construction of water points is done in association with the community with specialist contractors being used as necessary. VERC has a key role in ensuring safety procedures are

followed during construction and that the quality of installation is high.

9. Health and Hygiene Education Sessions

The whole approach depends on the promotion of good behavioural habits so Health and Hygiene education is crucial. Virtually all of the activities have some health and hygiene dimension but in addition four types of specific Health and Hygiene Education sessions are held; Courtyard Meetings, Film Shows, Health Campaigns and Child to Child Communication.

10. Monitoring Behavioural Changes

Community monitoring is supported through the use of community held monitoring charts. Individuals take on responsibility for monitoring several households. The WATSAN committee also monitors progress against the action plan.

As expected there is a range of progress across the 332 communities that are currently involved in this approach but most have shown a good improvement in their WATSAN situation. The outcomes identified in four communities (Bankim Das Bari, Lordhardinj, Lalmohan, Bhola; Charal Kande, South-Mahmudabad, Sitakunda, Chittagong; Mochmoil Roypara, Shuvadanga Union, Bagmara, Rajshahi and Mochmoil Sheikpara, Shuvadanga Union, Bagmara, Rajshahi) have shown that the 100% sanitation approach can bring about a significant improvement in the WATSAN situation in a community within 9 to 10 months. The approach works in a range of geographical and cultural areas and can be introduced in places where a Household level approach was previously being used.

By working at community level, collective action, self help and local innovations can be encouraged. Although the time involvement is high people are willing to get involved as they see how they and the community as a whole will benefit from their actions. Individuals see themselves as key to bringing about change acting as motivators and promoters as well as taking action for themselves. The role of children is important and they are keen to get involved. Unfortunately managing the demands of several communities at the same time can be difficult for field staff as can accommodating evening meetings.

Whilst the initial motivational exercise places the emphasis on hygienic latrines it is on use rather than just installation. The other aspects of 100% sanitation are introduced as the community plans and implements change. Communities are willing to empower WATSAN Committees to take the lead on improving the WATSAN situation. Accepting the changes and contributing time, money or materials as required. Committees are able to access external resources such as Union Parishad funds on behalf of the community. The precise membership of the committee has to be flexible so as to suit the needs of the community. Training and guidance is needed when setting up institutions in order to ensure good practice.

Primary Groups are not always necessary to the process but when needed are useful as they support regular savings.

Achieving the balance between supply and demand of hardware is difficult but promoting a range of latrines some of which are very low cost and can be installed by individuals with technical advice helps. The lack of subsidy encourages people to use existing sources of hardware rather than just waiting for a new source. This suggests NGOs do not necessarily have to arrange construction centres if there are local sources of good quality hardware nearby. With water points as contractors are involved VERC has to take more of a leading role in planning and construction.

There is a real sense of ownership and responsibility for the changes made in a community. The changes are seen as sustainable not only continuing after VERC leaves but also bringing other benefits in the longer term.

Communities are also willing to act as promoters for other communities and so spread the message. This is important for the widening of the approach across communities as it is a more sustainable method of promoting 100% sanitation in the long term and helps when NGO resources are limited in the short term.

1. Introduction

Village Education Resource Center (VERC) was established in 1977 as a project of Save the Children-USA with funding from the UNICEF. In 1981 it was indigenized as a private voluntary development organization. Its vision for Bangladesh is A self reliant society based on justice equity and sustainability where every human being has the equal opportunity to maximize their potentialities . In all its work, VERC, is committed to the principle of "Self actualization", a process of lifting peoples' consciousness to a level at which they can realize their potentialities and are motivated to reorder their lives.

VERC s mission is To establish and promote a dynamic participatory sustainable process towards human development . So it develops new processes in the field and then passes on the learning to others working in development. This document describes one such new process that of achieving 100% Sanitized Villages and Unions in Bangladesh.

The purpose of this document is to explain how VERC has enabled people to make a significant impact on their health and wellbeing by achieving 100% sanitation in their community. By sharing the approach VERC hopes to enable others to utilize the 100% approach so that in the future the program will be replicated districtwise and ultimately Bangladesh will become 100% sanitized. In addition to this document a Bangla version will be designed to detail the approach for field workers. Training modules have also been developed for field workers and community people and these can be delivered by VERC.

2. Background to VERC s Water and Sanitation Program

VERC has had a Water and Sanitation (WATSAN) program since inception and WaterAid has supported it since 1986. The main vision was to introduce comparatively new, cost efficient and appropriate WATSAN technology into the community. The focus being to address the WATSAN needs of people living in highly vulnerable and remote areas of the country. Between 1986 and 1993 a series of short projects were undertaken. In 1993 Phase I of the current project started. It was very target and technology driven with subsidies provided in both latrines and tubewells. When Phase II started in 1996 it was soon realised that although considerable WATSAN support was being given to villages only a small

proportion of people were benefiting and the incident of WATSAN related disease was still high. It was therefore decided to widen the focus of interventions to incorporate hygiene promotion. The need to develop greater community participation was also recognized and in Phase III, which started in 1999, involvement of the community is seen as being key to sustainability. By involving the community in all stages of the project cycle not only is ownership increased but also the use of local innovations can be encouraged.

In February 2000 Kamal Kar, a Participatory Development Consultant, led a two week long study to develop a strategy for reducing subsidy without disadvantaging particular groups in society. During this study a total community empowerment approach towards achieving 100% sanitized villages was developed. The idea being that a community can resolve its own problems if motivated and supported. The study concluded that communities could be motivated to jointly work towards a 100% sanitized community therefore it was decided to incorporate the approach in the ongoing work of Phase III.

As the approach has been implemented and reviewed across seven Districts (Bhola, Cox s Bazar, Chittagong, Rajshahi, Naogaon and Chapai Nawabganj) further refinements have been made and as a testament to the significant improvements that have been achieved through the approach it has been expanded to a 100% Sanitized Union approach.

3. The 100% Sanitized Union Approach

The approach is based on the assumption that communities have their own strength and willingness to overcome their own WATSAN problems. It recognizes that often outsiders are needed to help a community identify their current situation and the need for improvement but that given support a community that wants to change can plan and implement solutions that meet their own needs. Therefore the role of field workers is that of facilitator enabling communities to analyze their current situation, identify areas for improvement, plan how to improve them and then implement these plans. It focuses on social development using a process of institution building and community empowerment rather than concentrating on the delivery of WATSAN services.

The approach also recognizes that in the area of WATSAN the behaviour of an individual has a direct impact on the health and well being of others.

Therefore to bring about sustainable improvement in the quality of life and health of the rural people of Bangladesh a whole community and ultimately Union view has to be taken. The term 100% Sanitation is used to reflect this view.

3.1 What Is 100% Sanitation?

A working definition of 100% sanitation was drawn up by Health Motivators and APCs to ensure all VERC staff involved in the project had a common vision of what 100% sanitation is. It was believed to be important that 100% sanitation goes beyond the installation of latrines and tubewells. The main focus being breaking the faecal-oral chain through using and maintaining hygienic latrines, washing hands, keeping food and water covered, using safe water for all domestic purposes and maintaining clean houses and environment.

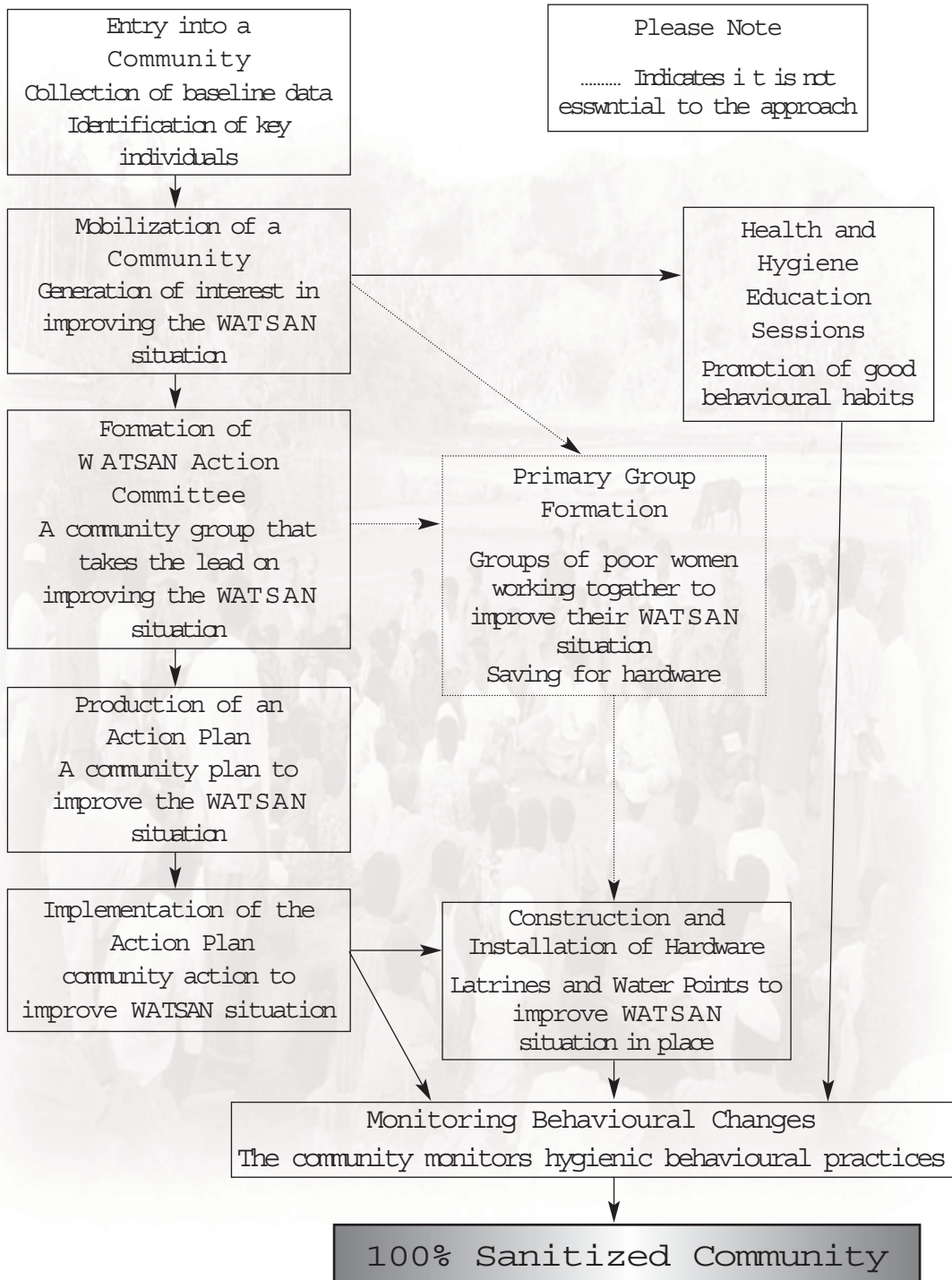
The working definition, below, is therefore behaviour focused.

- 100% use of hygienic latrines i.e. no open defecation or open/hanging latrine use
- Effective hand washing after defecation and before taking or handling food
- Food and water covered
- Good personal hygienic practices
- Latrines well maintained
- Using sandals when defecating
- Clean courtyards and roadsides
- Garbage disposal in a fixed place and dung disposed of in a hygienic way
- Safe water use for all domestic purposes
- Water points well managed
- W aste water disposal in hygienic way
- No spitting in public places

The definition is used as a guideline when working with communities rather than an absolute imposed standard that communities have to achieve. People are encouraged to consider what their communities/Union will be like when it is 100% Sanitized.

The process of achieving 100% Sanitized Unions starts at community level where a community may be a village or para (sub village). The important thing is the people see themselves as a community whose members affect and support each other. Figure 1 outlines the key stages to the approach as it operates at individual community level.

Figure 1. Approach to Achieving A 100% Sanitized Community



3.2. Activities Involved In The Approach

The success of the approach depends on the level of involvement of individuals within the communities so the activities carried out need to maximize the involvement of all community members. Initially the input of the external facilitators may be high as they work to encourage members of the community to get involved. As the process develops the need for external facilitation will decrease and eventually end. There is no standard time period or amount of support that external facilitators will have to provide as it depends totally on the community and the amount of Union level support that is offered. However 100% latrine usage can be achieved in as little as six months.

This section outlines the various activities that are used in the approach to ensure community member involvement.

3.2.1 Entry PRA

Entry PRA is held in a community to collect information on the existing WATSAN situation, encourage the community to analyze the information and motivate them to take action to improve the situation. Effective Entry PRA is dependent on field workers building a good rapport with the community. Only then can field workers really develop their own understanding of the community making sure they understand the situation and issues faced. Once they understand the community they can work effectively with its members to mobilize them to take action for sustainable change.

Generally a PRA session covers between 100 and 125 households. The time involvement will vary depending on how many people participate but usually it takes 2 or 3 days. This may however be over a period of weeks. Priority must be given to the availability of time on the part of the community members not just on the field workers.

A team of four or five field workers (Health Motivators and the Assistant Project Coordinator (APC)) agrees what role each individual will have before going into the community. Ideally the individual who leads the team when working with the community will be the Health Motivator who will continue to have a working relationship with that community. Detailed notes need to be taken during the process so it may be useful to have more than one person taking notes.

A range of PRA tools are used during the process as the key is to help the community identify and analyze their current situation. Figure 2 shows those tools that are routinely used during Entry PRA. It is very important that field workers fully understand the purpose of the tools and are familiar with their use prior to their entry into a community.

Figure 2 Tools used in Entry PRA

Tool	Purpose
Transect Walk	To observe the current situation and build rapport with the community
Social Mapping	To establish the number of households, population, latrines and water points
Problem Tree/Cause Affect Analysis	To identify the affects of the current latrine use pattern
Defecation Site Visits	To observe the current situation with regards to faeces dispersal due to open defecation
Seasonality Trend Analysis	To analyze the availability of water and sources used throughout the year
Wellbeing Ranking	To establish the economic status of the households
Venn Diagrams	To identify the key people who have influence in the community

Whilst each tool helps to clarify a particular aspect of the WATSAN situation the information gathered should be cross checked and if necessary information should be rechecked with the community. To do this the team must spend time consolidating the information soon after they have collected it, usually at the end of each day or session. The important thing is that at the end of the process the community and field workers have a clear understanding of the situation so that an effective plan of action can be drawn up.

The first stage of entry into a community involves a Transect Walk and rapport building. This builds relations between field workers and the community members. It is very important to identify some community level catalysts during the process. These are people who are accepted in the community, are willing and able to support field workers in working with the community and who will take the initiative to get the process on the move.

□ Transect walk

When the team enters the community a group of people will naturally gather around. Having introduced themselves the team can then ask this group if they will show them around the community. When walking around the history of the community is discussed along with the religious groups, number of households, population and main income sources. The pattern of housing, crops and sanitation aspects are observed with questions being asked about particular issues as they arise. The Transect walk takes between 3 and 5 hours and should cover the whole community.



Community Transect Walk

Invariably by the end of it some of the community members involved have said that they want to see a change in the WATSAN situation. So the team asks these community catalysts to hold a meeting, including both men and women, so that this awareness of the situation and desire for change can be shared with others in the community. If a community is in an extremely conservative Muslim area, sessions with males and females can be held separately. The other key purposes of the next meeting are to triangulate

the information given and to get maximum participation in the identification and assessment of the existing situation and feasible solutions for improvement. The time and place for the meeting is agreed through discussion with the community so that it is acceptable to all. Some of the community catalysts are asked to assist in holding the session on the scheduled date.

Before the meeting the team distributes assignments among themselves i.e. who will take notes and who will act as the facilitator for the various tools. On the day, the team should arrive at the community at least one hour before the community-agreed time and make contact with the identified organizers from the community side. It is important the team checks the preparations, seating arrangement etc. and makes any modifications needed beforehand. Circular seating on the floor is best to ensure everyone can participate in the session. By arriving early the organizers can remind people so that everybody attends the session on time.

The purpose of this next stage of the PRA process is to collect information on the WATSAN and socio-economic aspects of the community in the maximum participatory manner. The tools used are social mapping, problem tree/cause affect analysis, Seasonality trend, Venn diagram, focus group discussion and wellbeing analysis. Before starting to ask the community about themselves it is important to first use an ice-breaking exercise to put people at their ease and to give a brief orientation on VERC.

□ Social mapping



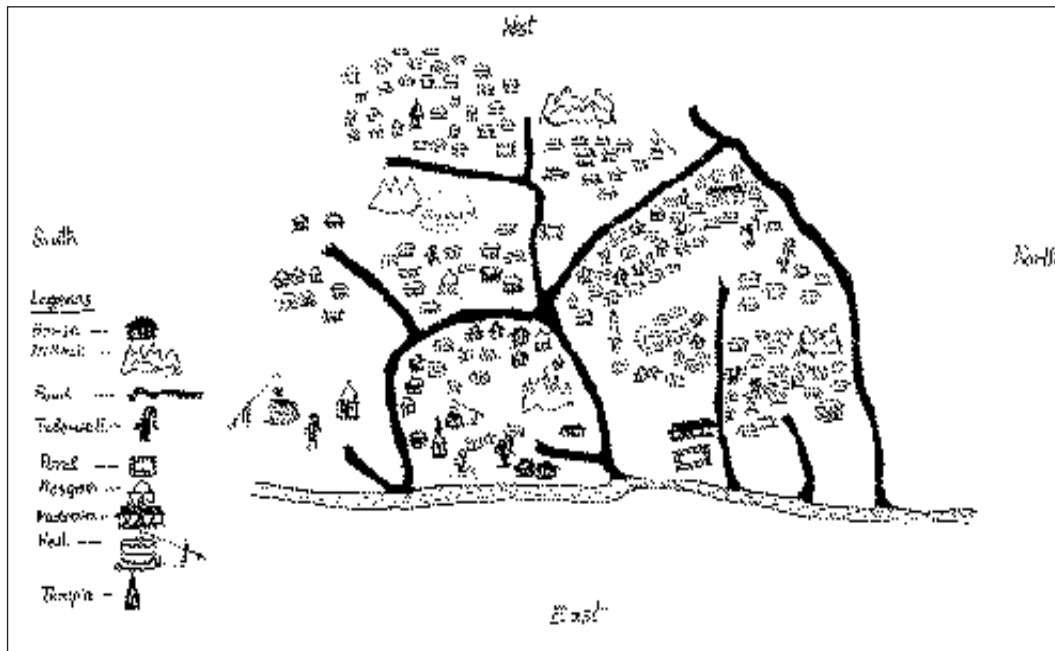
Drawing a Social map

The participants are asked to introduce the community by reflecting it in a map, featuring the roads and lanes within the community, common places all households, water points and latrines etc. The map is

drawn on a large sheet of brown paper using various colored marker pens. The participants decide who will actually draw it and direct those drawing in the process.

The location of the venue is marked on the map and then road/lanes are drawn. Then households are drawn using a symbol for each family so that the map can show the number of families in the community. The name of the head of each household is recorded in one corner of the map or an associated sheet of paper. Once this is complete then they are asked to draw the water points and latrines on the map indicating the various different types. Any environmental pollution hazards are also indicated. When the drawing is complete, the participants check the map to see whether everything has been properly drawn or if there are bits missing. Once everyone accepts the map as a community document containing all the information compilation of other supportive information begins. During or at the end of the process the map is accurately copied by one of the field workers.

Using the map participants are encouraged to compare the number of families/households with the number of latrines and tubewells. The gap between them becomes visible and people usually start passing comments



that the situation in the community is really bad, unhealthy and

unacceptable. The facilitator then encourages the participants to consider the affects of the gap using a problem tree or cause affect analysis.

Community Social Map

□ Problem Tree/Cause Affect Analysis

Using a piece of poster paper and markers participants list the affects and name the diseases caused by the mismanagement and spreading around of human faeces. When focusing on the lack of latrines, participants identify the practice of defecation with the families with no latrines. The facilitator then asks the participants to visit the defecation sites in the community so they can make a collective assessment of the situation. Often this is the first time they have seen the situation and reflected on its community wide affect so they become embarrassed and keen to do something about it. On return to the group exercise the participants calculate the amount of faeces being added to the community. First the number of people defecating in the open is calculated. Then an estimate is made as to the amount of faeces a person produces daily. These two figures are then multiplied together to give a total amount of faeces added to the community each day i.e.

Amount of faeces added to the community daily	=	Number of people defecating in the open	X	Amount of faeces a person produces daily
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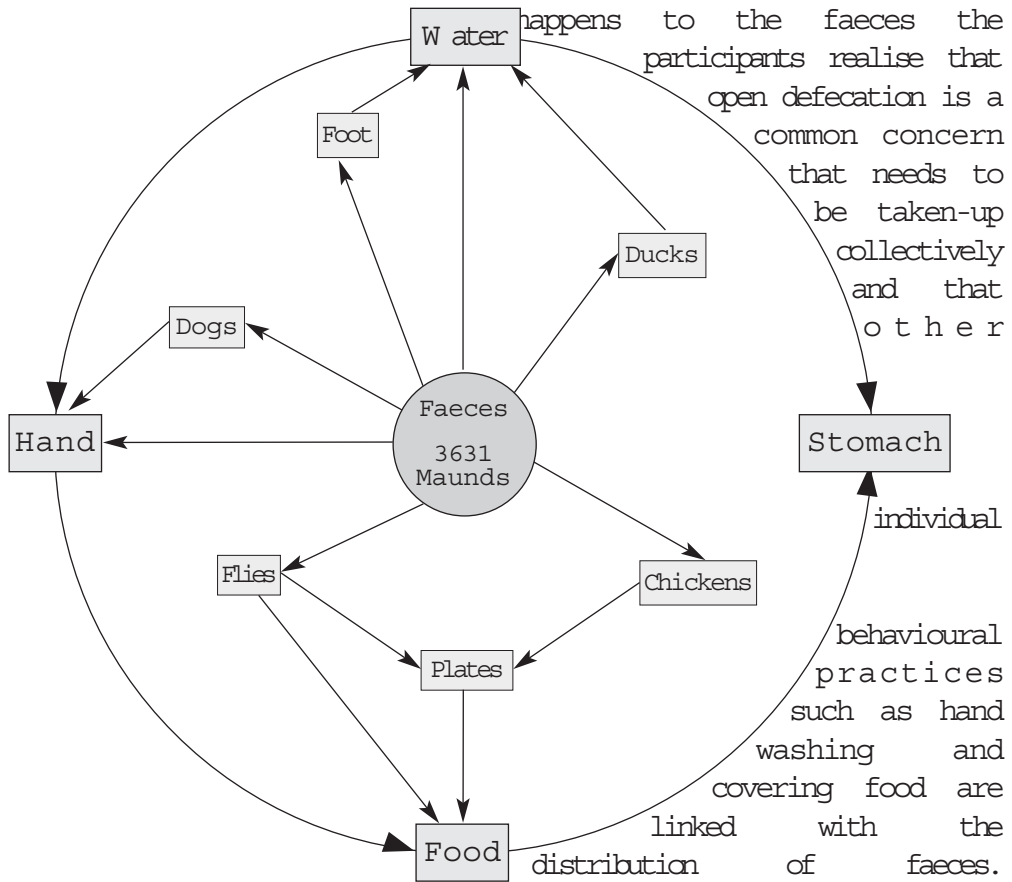
This figure is then multiplied by 7 to give a weekly figure and/or by 30 to give a monthly figure and by 365 to give an annual figure. Participants describe this in terms of truckloads or the size of a hill to create a visual picture.

Total Number of Housholds in the Community :	145
Hygienic latrines User Household :	15
Open space/hannging latrine User Households :	130
Number of people Open space/hanging latrinne Users :	485
Participants decide on average each individual passes 800g of stool a day	
Daily adding	485 x 800g = 388,000g or 388 kg
W eekly adding	7 x 388 = 2716 kg

Monthly adding 30 x 388 = 11,640 kg
 Annually adding 365 x 388 = 141,620 kg
 This is 3,631 maunds or 26 trucks

Community Faeces Calculation

The facilitator then asks what happens to the faeces and what affect this has on all members of the community. By drawing a diagram to show what happens to the faeces the participants realise that open defecation is a common concern that needs to be taken-up collectively and that other



Participants then indicate the level of particular behaviours within the community.

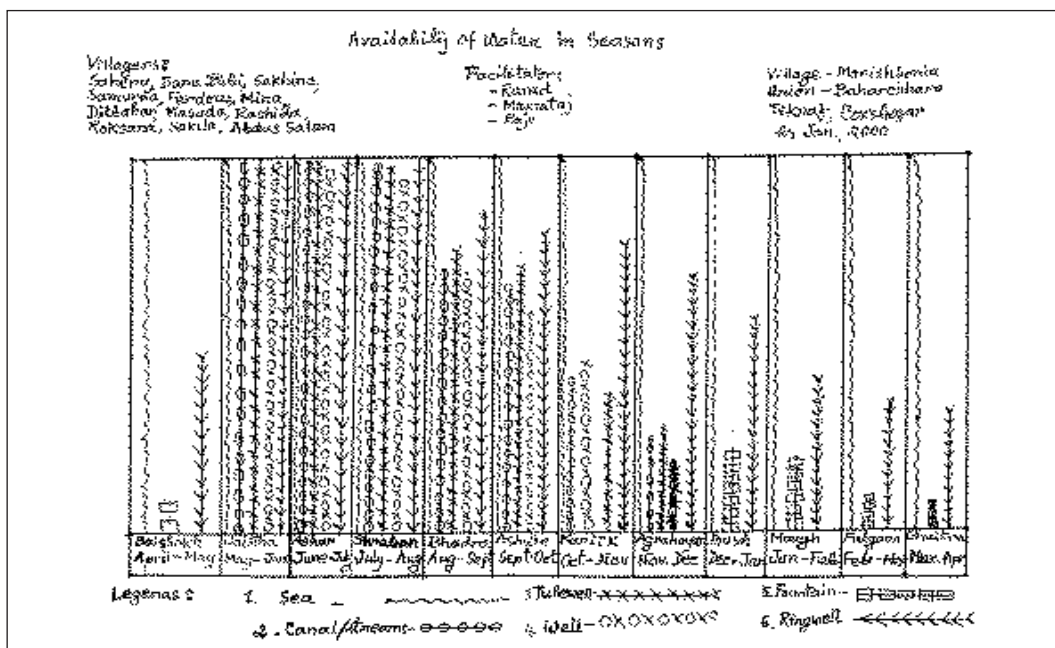


Diagram Showing What Happens to Faeces

Participants usually identify the need to install latrines for all families in the community as the remedy so at this point a discussion is facilitated on this.

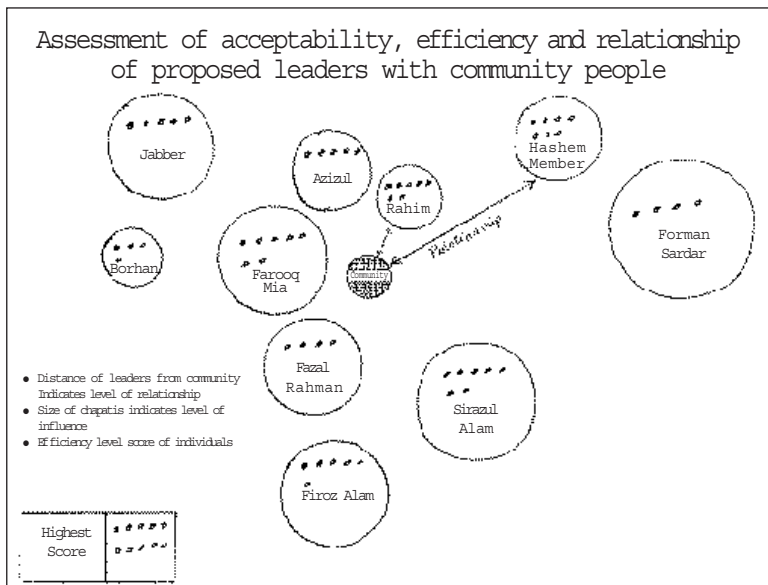
water pollution and the affects of unsafe water are also discussed. The calendar is copied and notes of the discussion are recorded.

Seasonality Trend Analysis Availability of Water

Wellbeing Ranking

Both sanitation and water point provision improvement bring up the issue of cost and affordability. This highlights the need to know the wellbeing status of the households. Wellbeing ranking is used to identify this. First of all the participants agree and define the categories according to possession of wealth and riches. The categories and definitions are recorded on poster paper. Then, taking each household s possessions and situation into account, the number of households in each category are

identified and recorded. A member of the team copies this information as well as recording any useful information that was discussed during the exercise.



Venn Diagram - Leadership Analysis

□ Focus Group Discussions

Female field workers also join the community women in their courtyards to hold focus groups of about 10 people to discuss the issues the women face with regard to latrine use, water sources and behavioural habits. Notes are taken on these discussions.

□ Venn Diagrams

The community is encouraged to form a WATSAN Action Committee to plan activities and take a lead on the actions already highlighted as soon as possible. So to identify who in the community has influence and is likely to be accepted in a leadership role either as a member of the WATSAN Action Committee or as a motivator of change a Venn diagram is used. Names are proposed and written on disc of paper the size of which reflects their amount of influence. Once all the names have been recorded the discs can be arranged in a pattern to show how acceptable each individual is to the community as a whole. Then stones or twigs or other markers can be used to show who has the capacity to do the most for the community.

From this analysis possible members for the committee can be selected. The date, time and venue of a meeting to actually form the WATSAN Action Committee is then agreed. The team record the diagrams and key points of the discussion along with the date time and venue of the meeting agreeing who will attend on behalf of VERC.

After all the exercises have been completed a community meeting is held where members of the community present to the whole group what the key findings of the PRA are. At this meeting agreement is reached on the fact the community will take action to improve their WATSAN situation. The original analysis charts such as the Social Map, Seasonality Trends etc should ideally be left with the community, as they will be used in the planning process. If necessary the team can return them at a later date once they have copied them.

Having returned from the community the team consolidates the information checking for triangulation through the different tools or from different groups. The information is then recorded in a community profile so that as well as informing how VERC will work with the community it can be used as baseline data when evaluating the outcomes of the work.

3.2.2 Formation of the WATSAN Action Committee

The key to the success of the approach is the involvement of the community members themselves in all aspects of planning, implementation and monitoring. The WATSAN Committee is a community group that takes the lead on improving the WATSAN situation. It is therefore critical to the approach. When forming the committee Health Motivators try to ensure that both males and females are involved and that all economic groups are represented. This is important, as the emphasis is on the community as a whole making changes and the better off members supporting those less well off. Health Motivators also try to ensure that whilst key influencers are involved no particular individual dominates the committee to the detriment of others.

The role of the committee is to plan, lead the implementation and monitor the achievement of 100% sanitation in the community. It is expected to do this in a participatory way involving all sections of the community.

The individuals identified during the PRA exercise as potential WATSAN Action Committee members are invited to the meeting to finalize the formation of the WATSAN Action Committee arranged at the PRA exercise. In some cases formation may actually occur during the entry PRA but more usually a meeting is planned. At this meeting their involvement is confirmed and a chair, secretary and possibly treasurer are selected. Arrangements for regular meetings are also agreed. At the first meeting the field worker may take notes on behalf of the committee but they are encouraged to record their own meetings in a specific book in future. To support the WATSAN Action Committee VERC provides two formal training workshops and committees nominate 2 individuals for each.

- Leadership Development and Group Management to enable the WATSAN Action Committee to function effectively as an organisation.
- Basic Health and Hygiene Education to enable members to promote good Health and Hygiene practices within the community.

It also arranges hands on orientation on the process of Entry PRA as the members of the WATSAN Action Committee in turn become facilitators of the 100% Sanitized Union approach in other communities. This reduces the reliance on NGO staff in achieving 100% Sanitized Unions and increases sustainability.

3.2.3 Meetings With The WATSAN Action Committee

In order to fulfil its role the WATSAN Action Committee meets on a regular basis. The committee itself decides on the frequency but it generally tends to be monthly. Health Motivators attend the meetings to provide technical support and help the committee to focus on the key issues regarding 100% sanitation. Whilst the Health Motivator does not chair the meetings they must prevent problems of unequal participation or over dominance by individuals at an early stage.

The first meeting of the WATSAN Action Committee concentrates on drawing up an action plan to improve the WATSAN situation. Health Motivators introduce the idea of the 100% Sanitized Community encouraging the committee to consider their own definition whilst ensuring that the fundamental idea of breaking the faecal oral chain is retained. Through this the goal they are aiming to achieve is clarified. Many of the ideas for improving the situation will have been discussed during the Entry PRA but these are formalised and recorded in a draft plan. The plan needs to include what it will achieve, how it will achieve it, who will achieve it and when they will achieve it by. The plan usually concentrates initially on latrine installation, as that is often the first step to long term improvement. The Health Motivator facilitates the committee's planning to include other aspects depending on the situation at the time. It is important that the committee draws up a realistic plan that they and the community will implement and monitor. Once the plan is written it is shared with the wider community.

3.2.4 Meetings with the Community

The approach is a community level one with community members themselves being the main implementers of the action plan. Meetings are therefore held with the community to support the implementation of the plans of the WATSAN Action Committee. Through these members help each other and find collective responses to problems.

A member of the WATSAN Action Committee will call a meeting inviting all households and the Health Motivator and the concerned Community Volunteer (C.V.) will attend along with members of the community. The aim is to ensure at least two thirds of the households are represented at meetings, as it is difficult to promote community action when less of the

community is represented. Where possible the meetings are facilitated by a member of the WATSAN Action Committee or community but the Health Motivator may have a key role in providing information. Meetings serve a variety of purposes such as to discuss progress, suggest solutions, explain technology and see where VERC's input is needed to implement the action plan. The community members should always take the decisions and if these affect the WATSAN Action Committee's work a member of the committee should record them. Whilst the Health Motivator may take notes for themselves this should not replace the need for the community to keep their own records. The C.V. concerned being recruited by VERC from within the union maintains continuous linkage with the committee in all its activities with the Health Motivator and APC office.

There are occasions when meetings have one specific purpose such as the selection of a water point site. Often at these only a subsection of the community will participate.

3.2.5 Formation Of The Union Steering Committee

In order to promote a coordinated achievement of a 100% Sanitized Union it is important to involve the elected Union level representatives along with other elite members of society such as teachers, Imams or other religious leaders and other respected leaders. Once individual communities have started to make progress a workshop is held involving the Union Parishad Chairman, a female elected member and a male elected member from several Unions. At this the idea of a 100% Sanitized Union is discussed along with the approach to achieving it. A key institution in the approach is the Union Steering Committee as it encourages individuals and communities within the Union to work towards achieving a 100% Sanitized Union and monitors the activities of the community level WATSAN Action Committees within the Union.

After the workshop the Union representatives arrange a local meeting in their Union Parishad centre to share the idea of the 100% Sanitized Union approach with other elected members and the elite. Usually the APC and Health Motivators attend this meeting and may even facilitate it. From this meeting a Union Steering Committee is formed consisting of 25 to 30 members. The Union Parishad Chairman acts as an ex officio President and a Vice-chairman; secretary and treasurer are elected.

3.2.6 Meeting of the Union Steering Committee

The Union Steering Committee draws up an action plan to support the achievement of a 100% Sanitized Union. In the same way as the WATSAN Action Committee's plan is implemented by others outside of the committee so is this plan. The Union Steering Committee encourages the institutions such as WATSAN Action Committees and Cultural Groups formed through the approach, other existing groups such as School Committees and Bazaar Committees to promote and work towards 100% sanitation. Some members themselves such as Imams have a clear role to play in encouraging individuals to change their behaviour and contribute to the 100% Sanitized Union. Initially committees meet monthly to review progress and plan however this may change to quarterly in time.

Union Steering Committees are encouraged to hold an annual formal workshop with WATSAN Action Committees to discuss progress and share ideas.

3.2.7 Meetings with Primary Groups

The approach involves no subsidy for latrines and a fixed participatory cost for water points that depends on the technology. To provide a mechanism for saving towards hardware, communities can choose to form Primary Groups. These are groups of women who collect savings for health and hygiene purposes.

Often they are formed through Health and Hygiene Education sessions because as the women decide they wish to change their behaviours and those of their families they realise there is a monetary cost involved. The women who attend the sessions are usually the poor and poorest of the poor and they ask the field worker



Community Cleaning Exercise

to help them set up a formal method of saving. Once the primary group is formed the members set the own amount of savings to be deposited and the frequency. This tends to be the same for everyone to make things easier. The women select one member who is responsible for collecting and keeping the savings and depositing them in a bank when they reach a certain amount. The Health Motivator may help the group to set up the bank account but they have no responsibility for ensuring people save or for the money collected. Every week or agreed interval the Primary Group meets to collect the savings.

Although the initial purpose of saving is usually to purchase latrines or water points as the members make their purchases their need to save changes to more general health and hygiene issues. Some members continue to save so that they can upgrade their latrines as time goes on. The group controls the savings and so may extend the uses of their savings they may even chose to use the capital as a loan fund for income generation activities.

3.2.8 Formation of Cultural Groups

Song and drama are important features of Bangladeshi culture and so the use of cultural groups in promoting 100% Sanitation is very powerful. Health Motivators and the APC discuss the formation of a cultural group with people within the Upazila who have a background or interest in folk culture.

Once formed the role of the cultural group is to write songs or dramas on WATSAN issues that they can perform in communities to create interest and promote action towards achieving a 100% sanitized community. Groups usually perform on public occasions and at WATSAN campaigns. Requests for performances may come from Union Steering Committees, WATSAN Action Committees or individuals. Whilst the group members give their time on a voluntary basis their travel expenses are paid by VERC and they are awarded with a certificate of honour.

3.2.9 Community Cleaning Exercise

As far as environmental health is concerned community action is the only way to bring about effective and long-lasting improvements. When a

community is making a change at household level then the WATSAN Action Committee may suggest that the public places such as the market place, school compound, bus stop and the lanes need attention. They analyze which areas are potential risks to the health of the community and the causes of the problem. They then agree within the community what specific areas need to be cleaned and how it will be done up. Often they use a Community Cleaning Exercise to carry out the work. A group is encouraged to get together to clean the specific area at a particular time. The cleaning exercise is usually done with great pride and celebration and the difference is clearly visible to all the participants of the exercise. Following the exercise action may be agreed to ensure that the standard of cleanliness is maintained.

3.2.10 Construction and Installation of Hardware

Once people are convinced about the need to change their behaviour then the necessary hardware needs to be installed to enable the change. Initially the focus is on latrines.

□ Latrines

The no subsidy policy with latrines means people are free to select the latrine model that suits them best and to get it from where ever they want. VERC promotes four basic types of latrine:

- Homemade Pit
- Direct Pit
- Waterseal
- Offset Pit

However there are variations in these types and local innovation is actively encouraged to expand the range of options available to people. Currently 20 options (7 Homemade Pit, 2 Direct Pit, 2 Waterseal and 9 Offset Pit four of which are homemade) have been documented (Appendix A) in order to provide design outlines and costings for communities.

The key consideration when promoting options is that they satisfy the criteria for being hygienic i.e.

- Preventing contamination of other things by faeces
- Free from odour
- Free from flies.

Health Motivators, Assistant Project Engineers (APEs) and APCs are trained in the design of the various types of latrines, selection of appropriate options and in siting of latrines. They then support community

members in selecting the latrine option that best suits their individual needs including affordability and in installation of the latrine.

3.2.11 Rural Sanitation Engineering Groups

The field workers also help to form Rural Sanitation Engineering Groups. These groups consist of community members who have successfully innovated their own latrine options and are willing to share their option, ideas and knowledge with others. Groups may be formed within or between communities and usually involve 5 members. Their role is to help promote effective sanitation options by demonstrating options, providing advice and supporting people during latrine selection and installation. During formation of the group discussion takes place to ensure a common understanding of the criteria of hygienic latrines and the key factors to consider when installing latrines. The group then meets with field staff and sometimes the Project Engineer to discuss innovations they have seen or developed and where their help is needed.

In addition to the technological support VERC provides supply support by setting up Village Sanitation Centres (VSCs). These are the construction and sales centres for latrines. Except for in difficult to reach areas there is one VSC in each Union in the working area. The communities in the Union are involved in setting up the VSCs. First they are asked to identify experienced masons who may wish to work in a VSC. One mason per Union is then selected for training. Once the masons have been selected the Project Engineer provides a six-day training workshop for all the



Village Sanitation Center

masons covering both theoretical and practical aspects of good quality latrine construction.

Representatives of the communities that are likely to use the VSC, the APC and Health

Motivators jointly select a site for the VSC. Two of the key criteria are accessibility to members of all the communities and security. One community takes responsibility for ensuring security. When setting up the VSC the site is fenced to offer some protection, a signboard is installed, VERC provides latrine models and construction materials and a set of five demonstration latrine options (concrete ring slab) is constructed. The options being, the Standard Homemade, VERC Keyhole Pit, Water-Seal Concrete Pan, Water-Seal Plastic Pan and Offset Pit Plastic Pan. The demonstration options have an identical superstructure and include posters giving details of the latrines and cost. Then members of communities can visit the VSC to see the latrine options.

The responsibility for the latrine production lies jointly with VERC and community representatives. One of the first issues to resolve is the cost of the latrines. The APC calculates the cost of materials and the community decides on a fair fee to be given to the mason for their work. Then a final cost per item is agreed. VERC then ensures the supply of materials for construction and pays the mason the agreed rate for the items constructed and members of the community pay VERC the set cost for the items purchased. The masons initially construct enough rings and ring slabs to generate a small stock and then construct rings to maintain the stock whilst constructing ring slabs to order. Community representatives (usually members of the WAC), the APC, APE and Health Motivators are trained in the theory of latrine construction so that they can understand the quality issues. Community representatives visit the VSC regularly to oversee construction and ensure quality is maintained. Field workers and the Project Engineer also periodically visit VSCs to discuss any problems the masons or community may be having.

Members of communities directly pay the Health Motivators or APCs for the items they wish to purchase and then the mason is instructed to supply the items. The members of the community collect the items and install them themselves asking for help from field staff or others if necessary. Usually the Health Motivator, APE or APC will visit the members of the community to follow up the latrine installation.

Purchase of items from a VSC is not restricted to communities where work on 100% Sanitation is taking place. Most VSCs also supply latrines to

other communities that have heard about the quality of the construction and have been encouraged to install latrines.

Water Points

Some after a community has started the process of improving the latrine usage the WATSAN Action Committee usually starts the discussion of access to safe water. Health Motivators discuss the issue of water points at a community meeting. The subsidy for water points is set slightly higher than the government level with different technologies having different participatory costs as shown in the table below.

Technology	Total Cost (Tk)	Project Cost (Tk)	Beneficiary Contribution (Tk)
Shallow Tubewell*	6000	3000	3000
TARA II	11000	8500	2500
TARA DEV	18000	15000	3000
Deep Tubewell	45000	39000	6000
Ring Well	100000	93000	7000

* Shallow Tubewells whilst available as an option are only offered when there is no known arsenic contamination in the area and other problems with water availability make it a necessary option.

The Health Motivator, APE, APC and Project Engineer advise the community as to the appropriate technology for their area and explain the participatory cost involved.

They also explain the criteria that must be followed for water point installation. This is that

- The Poor and Poorest of the Poor must be the beneficiaries.
- The water point must be easily accessible to an agreed number of households. The ideal number depends on the technology but is not less than 10.
- Every household benefiting must contribute to the participatory cost.

If a community decides it wants a water point then the next stage is site

selection. This is very important; as if it is not done correctly there may be problems with the purity of the supply or the willingness of people to use it. Therefore VERC ensures that the beneficiaries in the community are fully involved in the process of water point site selection.

The following criteria are considered when selecting a site.

- The site should be higher than the surrounding compound.
- The site should be easily accessible and as close to equal distance from all beneficiary families as possible.
- There must be no actual or perceived barriers to access by the beneficiaries.
- The site must never have been an abandoned pond, foul water body or abandoned well or dumping garbage site.
- The space around should be open and airy with no overhanging trees.
- There should be a ditch or other appropriate place to drain wastewater into.
- There should be no latrines within ideally a 15m and at least a 10m radius.
- There should be no evidence of arsenic above the Bangladesh permissible limit (>50 ppb) in the 5 sites tested within a 500m radius.
- There must be a deed of agreement between VERC and the person who owns the land containing a non-judicial stamp so that the water point will be open to the beneficiaries and the land cannot be reclaimed.

How much each household benefiting will contribute to the overall beneficiary contribution is agreed within the community. Different amounts may be set for different households according to their ability to pay. Once field workers are happy the site selected is suitable they collect the participatory cost and arrange construction of the water point. Prior to installation the UNICEF protocol test procedure (Maximum 5 points around 500-metre radius of proposed site) is carried out to check for Arsenic.

Construction of water points is done in association with the community with specialist contractors being used as necessary. An open tendering process is used to engage experienced contractors with a board of VERC staff awarding the contracts. For Ring wells and Deep tubewells contractors construct the water point whereas for Shallow, TARA II and TARA DEV tubewells they only provide the materials and local engineers and masons are used for construction. Field workers and the APE or Project Engineer oversee the construction to ensure that all safety measures are followed and monitor the quality of installation to ensure it is high. With Ring wells the safety issue is of particular concern and contractors are expected to follow the Chicago Shuttering Method and wear safety clothing as necessary.

At the start of construction the community is encouraged to inaugurate the site in whatever way they want and sometimes a ceremony is held involving prayers by religious leaders and the WATSAN Action Committee Chairman digging the first sod.

To ensure the continuous supply of water through proper care and maintenance of the water point the beneficiaries select two (1 male and 1 female) caretakers. These receive two days of training on maintenance and repair of water points from VERC.

The responsibilities of the caretaker are:

- Cleaning the platform daily
- Ensuring the drainage system is functioning properly
- Ensuring there are no cracks at the junction between the platform and pipe that will allow water to seep back into the ground
- Maintain the smooth functioning of the pump head through appropriate greasing (i.e. nut bolt, fulcrum pin and nose pin)
- Replacing minor parts and making simple repairs
- Contacting professional mechanics (local or DPHE) for major repairs
- Teaching people how to operate the water point smoothly and safely

- Preventing children from damaging the water point

3.2.12 Formation of Water Point Management Committee

Each water point also has a management committee made up of representatives from the beneficiaries. The committee is formed after installation in consultation between VERC and all of the beneficiary families. Their role is to oversee the work of the caretakers and collect contributions towards the cost of the upkeep of the water point.

To support the management committees VERC provides training on records and account keeping. Often it is the caretakers who are the most appropriate people to receive this training as it is they who actually collect the money from the beneficiaries.

Research into appropriate hardware is ongoing both through the Rural Sanitation Engineering groups and other mechanisms, national and international, to continue to develop appropriate technologies that offer choice to communities.

3.2.13 Health and Hygiene Education Sessions

The whole approach depends on the promotion of good behavioural habits so Health and Hygiene education is crucial. Virtually all of the activities have some health and hygiene dimension but in addition four types of specific sessions are held. The aim of these being to promote good behavioural habits. The four types of session are designed to reach different audiences and so cover the whole community.

□ Courtyard Meetings

These are as the name suggests based around a courtyard with members of the nearby households attending. Ideally they involve small groups of 10 to 15 people but it can be difficult to restrict numbers as interest increases. The participants are frequently women often from the poor and poorest of the poor sections of the community as in many communities the richer women are unwilling to join the poorer ones in their courtyards or to invite them to their own. There may be several different courtyard meetings taking place in one community each covering a different group of people.

Meetings are held at monthly or fortnightly intervals depending on the

availability of the Health Motivator. The Health Motivators are assisted by the Community Volunteers in maintaining schedules and organizing the meetings with groups. They are held at a time agreeable to the group and tend to last for an hour or an hour and a half. The Health Motivator promotes discussion around particular hygiene behaviours using flashcards, pictures, games, demonstrations and or discovery learning techniques. Participants explore their knowledge and experience and build their awareness, which leads to a desire to change to the positive behaviour. Commitment is made to change their behaviour and this is monitored in future sessions. Community Volunteers continuously support the groups in this respect.

The participants are encouraged to share their learning with others within their households and the rest of the community in order to increase the impact of an individual session.

□ Film Shows

These involve larger groups and usually attract the men, women and children. The Health Motivator agrees with the WATSAN Action Committee when and where they will show the film and then the committee informs the community. The transportation of equipment is usually the factor that dictates when the film show can be held. When equipment is locally available it is hired to avoid having to transport the office held set.

Four films three video dramas (Moyna 1 and 2) and one tape drama are available. All highlight the need for good sanitation and water. After the film has been shown discussion takes place to reinforce the messages.

□ Health Campaigns

There are two types of health campaign, those held with a specific group of people like the elite or students to promote their involvement in a particular issue and those across the community as a whole to mark a particular event such as World Health or Water Day or stimulate particular action.

When organising a health campaign with students the Health Motivator contacts the teacher to agree a time and date for the campaign. When organising them with the elite the point of contact is usually the Union Steering Committee and for community-wide health campaigns discussions take place with the WATSAN Action Committee.

The purpose of the sessions is to help the children to understand how to improve their own health and the health of others such as other children, their families and their communities. In all sessions the emphasis is on having fun and learning whilst enjoying themselves so stories, role-play, songs, games, flash cards, flip charts, pictures and activities are a key feature. Child-to-Child communication is also one of the techniques used. The children usually range in age from 9 to 15 and sessions generally last 2 hours.

One way of promoting good practice amongst children is through friendship networks with individuals encouraging their friends to change their behaviour. So often at the end of a session the children not only commit to changing their own behaviour they also agree to share what they have learnt with others and encourage a friend to also change their behaviour. They also take part in bringing about change among adult family members at home as child to adult communication activity. Monitoring of the change usually takes place at the next session.

The children also take on responsibility for specific activities such as ensuring soap or ash is available by latrines or digging pits for garbage dumping and are key enthusiasts in rallies and community cleaning exercises.

Through the Entry PRA process people realise the need for Health and Hygiene Education so it is usually discussed with the WATSAN Action Committee when drawing up the action plan. Often the committee identifies places where sessions can be held then the Health Motivator holds a first session to explain why they are there and start to identify what behaviour practices need to be covered in future sessions. Also sometimes a group of women will ask the Health Motivator directly if they will come and talk to them about health and hygiene and so start sessions that way.

3.2.14 Monitoring Behavioural Changes

The 100% Sanitized Union approach is behaviour focussed so the behaviours promoted need monitoring. The community is responsible for planning and implementing actions to bring about behavioural change so it is important that they also monitor the resulting behaviours. To support the process of Community Participatory Monitoring community held monitoring charts are used. The chart is printed out on a large sheet of brown paper

Figure 2 Institutions formed within the 100% Sanitized Union

with colour pictures of males and females used to reduce the need for literacy. Pictures are used to display the various behaviours are used and members of the community record progress using tally marks or whatever they feel comfortable.

Monitoring is promoted through Health and Hygiene Education sessions with the Health Motivator first introducing the chart having discussed a particular behaviour. The participants are asked how many are currently practicing the behaviour and how many people in the families represented need to change their behaviour. Some of the participants then volunteer to monitor a group of households so that all the households represented are covered. The volunteers then carry out the monitoring a time convenient to them. They report on progress in the following Health and Hygiene Education sessions. Discussions with those representatives of households where the behaviour is not being practiced can then take place. Community Volunteers extend cooperation to the groups in monitoring of hygiene behaviour and keeping count of them on monitoring chart.

If not all the households in the community are represented at the Health and Hygiene Education sessions held within the community then Health Motivators discuss with the WATSAN committee or other community members how the missing households can be monitored and where necessary behavioural change brought about.

The WATSAN Action committee takes responsibility for monitoring progress against the action plan. It decides how the monitoring will take place and what response they will take should things not have changed. It also collates the information from the separate monitoring charts on a community-wide monitoring chart.

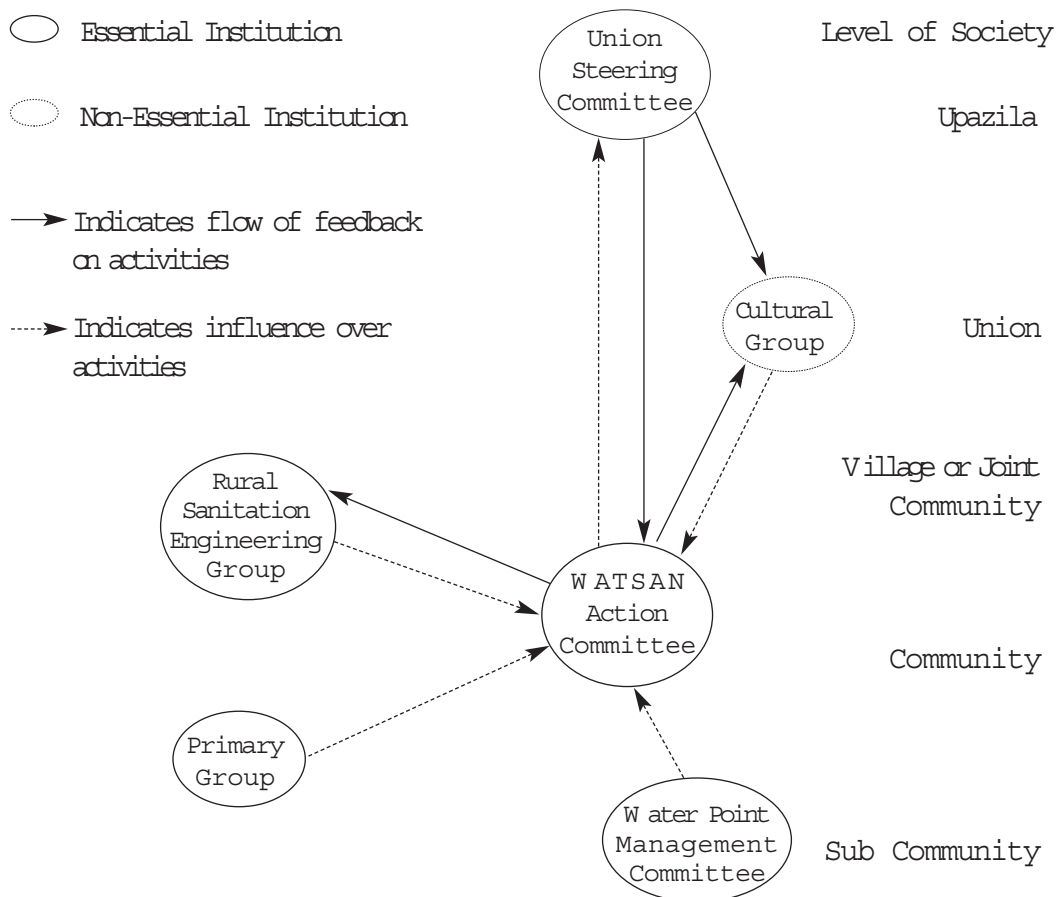
WATSAN Action Committee members, Health Motivators and the APC periodically carry out latrine observation exercises to check whether latrines are being correctly maintained and cleaned. Feedback is given to the household and the WATSAN Action Committee.

3.3. Implementing The Approach

With the exception of the Entry PRA process the actual formation of some of the institutions the activities work together to support each other. The key factor is that feedback from monitoring is used to revise action plans and activities so that the goal of a 100% sanitized Union can be achieved.

The sequence of activities is flexible as some communities or Unions may choose to initially concentrate on health and hygiene education whereas other may concentrate on hardware installation. The institutions may also be formed at different stages. For example whilst WATSAN Action Committees are vital to drive the process if a community is unwilling to finalize one immediately after Entry PRA, if field workers sense a willingness to make changes they may work with the community in order to encourage them until they agree on the committee members.

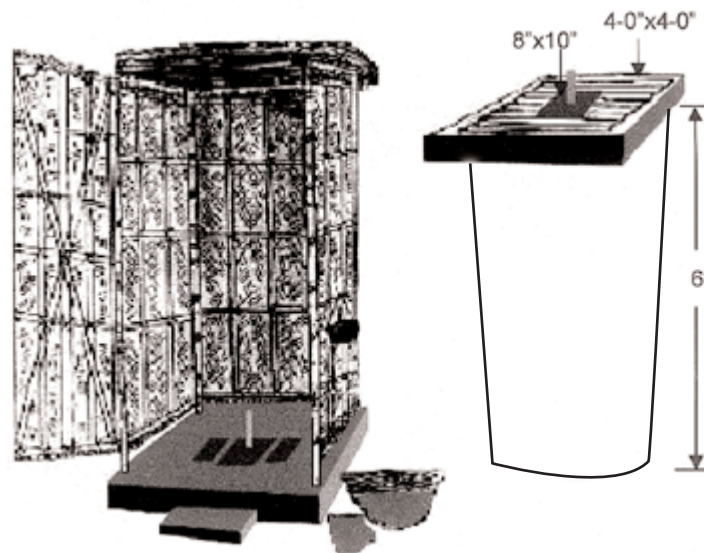
When building the institutions there may not be any formal mechanism for ensuring representatives from one institution are involved in another but clear relationships for feedback and joint working are present as shown in figure 2.



The approach has been shown to significantly improve sanitation in Unions

DIFFERENT LATRINE OPTIONS ON USE IN COMMUNITIES

Option - H1 General Homemade Latrine



Required materials and costing (without super structure): -

● Bamboo (Medium) 2 nos.	- Tk. 100.00
● Wooden Plank 12 x15	- Tk. 10.00
● Binding Wire and Polythene Lining	- Tk. 15.00
● Labour	- Tk. 50.00
Total	<u>Tk. 175.00</u>

Advantages: -

- Cost is very low compared to other options
- Materials are available within locality
- Easy replacement (if land is available)

Disadvantages: -

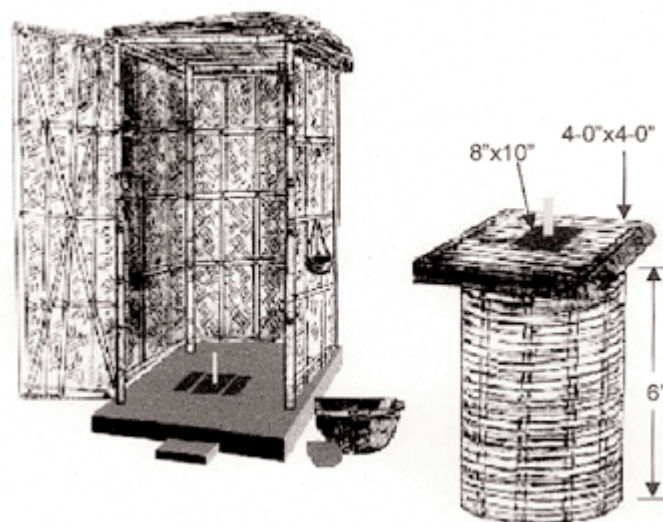
- More possibility of damage to the base without super structure
- Less durable
- With heavy rainfall the side of the pit may collapse
- Foul odour comes out when the hole cover is opened

Longevity: -

(This is calculated on the basis of a family size 6 and a 6ft deep pit)

- Approximately 10-12 months

Option H2 Homemade Latrine with Bamboo Lining



Required materials and costing (without super structure): -

● Bamboo (Medium) 2 nos.	- Tk.	100.00
● Bamboo (Small) 4 nos.	- Tk.	120.00
● Wooden Plank 12 x15	- Tk.	10.00
● Binding Wire and Polythene Lining	- Tk.	15.00
● Labour	- Tk.	100.00
Total	Tk.	<u>345.00</u>

Advantages: -

- Cost is low compared to concrete latrine
- Materials are available within locality
- More durable than option-1
- No possibility of collapse of the side of the pit
- Easy replacement (if land is available)

Disadvantages: -

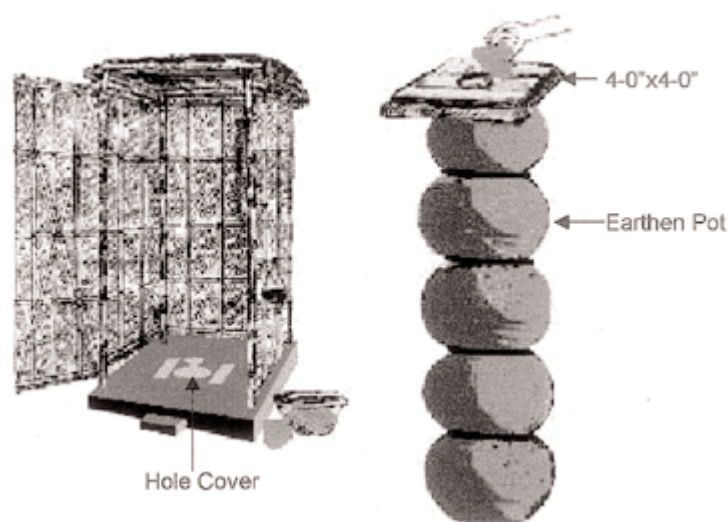
- Cost is mid range of homemade latrines
- More possibility of damage to the base without super structure
- Foul odour comes out when the hole cover is opened

Longevity: -

(This is calculated on the basis of a family size 6 and a 6ft deep pit)

- Approximately 1-2 years

Option H3 Homemade Latrine Using Earthen Pot



Required materials and costing (without super structure): -

● Bamboo (Large/Medium) 2 nos.	- Tk.	150.00
● Earthen Pot (Motka) 5 nos.	- Tk.	125.00
● Earthen Cover 1 no.	- Tk.	10.00
● Binding Wire and Polythene Lining	- Tk.	15.00
● Labour	- Tk.	50.00
Total	Tk.	350.00

Advantages: -

- Cost is low compared to concrete latrine
- Materials are available within locality
- More durable than option-1&2
- No possibility of collapse of the side of the pit
- Easy replacement (if land is available)

Disadvantages: -

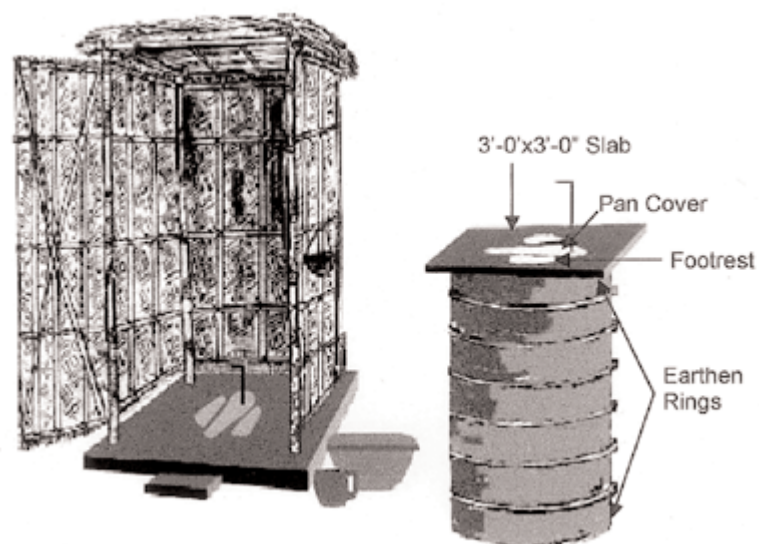
- More possibility of damage to the base without super structure
- Foul odour comes out when the hole cover is opened
- Low wastewater soaking will take place if the no. of holes are not sufficient

Longevity: -

(This is calculated on the basis of a family size 6 and a 6ft deep pit)

- Approximately 1.5-2 years

Option H4 Homemade Latrine Using Pottery Rings



Required materials and costing (without super structure) : -

● R.C.C. Slab	- Tk.	125.00
● Earthen Rings 5 nos.	- Tk.	150.00
● Transportation Cost	- Tk.	50.00
● Labour	- Tk.	50.00
Total	Tk.	375.00

Advantages: -

- Cost is low compared to concrete latrine
- Materials are available within locality
- More durable compared to other homemade options
- No possibility of collapse of the side of the pit

Disadvantages: -

- Stooling causes rebound of water in monsoons
- Foul odour comes out when the hole cover is opened
- Low wastewater soaking will take place if the no. of holes are not sufficient

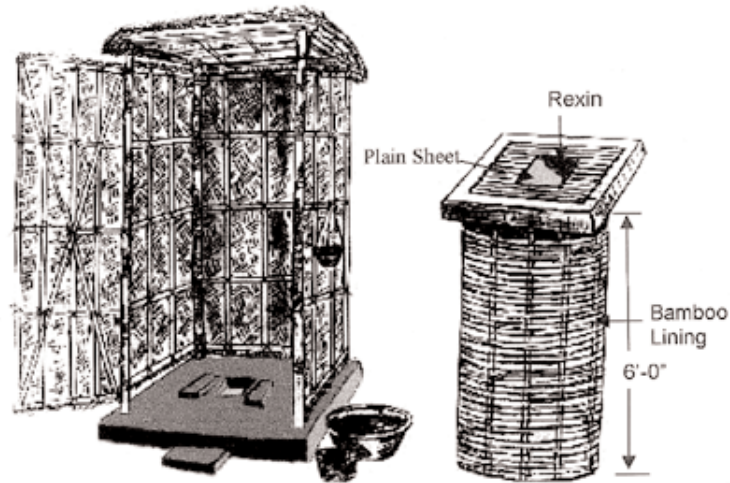
Longevity: -

(This is calculated on the basis of family size 6 peoples)

Depends on the number of rings

- Approximately 2-3 years

Option H5 Homemade Latrine with Rexin Seal



Required materials and costing (without super structure) : -

● Bamboo (Medium) 2 nos.	- Tk.	100.00
● Bamboo (Small) 4 nos.	- Tk.	120.00
● C.I. Sheet	- Tk.	50.00
● Rexin	- Tk.	15.00
● Binding Wire and Polythene Lining	- Tk.	15.00
● Labour	- Tk.	100.00
Total	Tk.	400.00

Advantages: -

- Cost is low compared to concrete latrine
- Materials are available within locality
- More durable than option-H1, H2 & H3
- No possibility of collapse of the side of the pit
- It needs no extra cover on the hole
- Easy replacement (if land is available)

Disadvantages: -

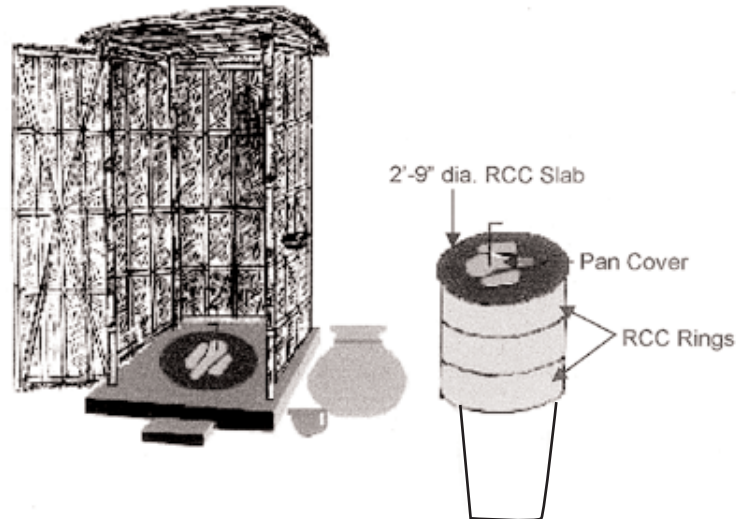
- Cost is the highest of homemade options
- More possibility of damage to the base without super structure

Longevity: -

(This is calculated on the basis of a family size 6 and a 6ft deep pit)

- Approximately 2-2.5 years

Option C1 VERC Key Hole Pit Latrine with Pan Cover



Required materials and costing (without super structure): -

● Cement 22 Kg x 6/-	= Tk.	132.00
● Coarse Sand 2.5 cft x10/-	= Tk.	25.00
● Brick Chips 3.5 cft. x 30/-	= Tk.	105.00
● 10 No. M.S. Wire 2.5 Kg x 25/-	= Tk.	62.50
● 24 No. G.I. Wire 0.2 Kg x 60/-	= Tk.	12.00
● 0.25 dia. M.S. Rod 0.25 Kg x 24/-	= Tk.	6.00
● Burnt Mobil 1 Liter x 16/-	= Tk.	16.00
● Making charge	= Tk.	70.00
Total	= Tk.	<u>428.50</u>

Advantages: -

- No possibility of collapse of the side of the pit
- Easy sliding down of faeces for which less water needed for flushing
- A low cost option compared to other concrete latrine
- Easy to construct and requires less time
- Long lasting compared to home made direct pit options

Disadvantages: -

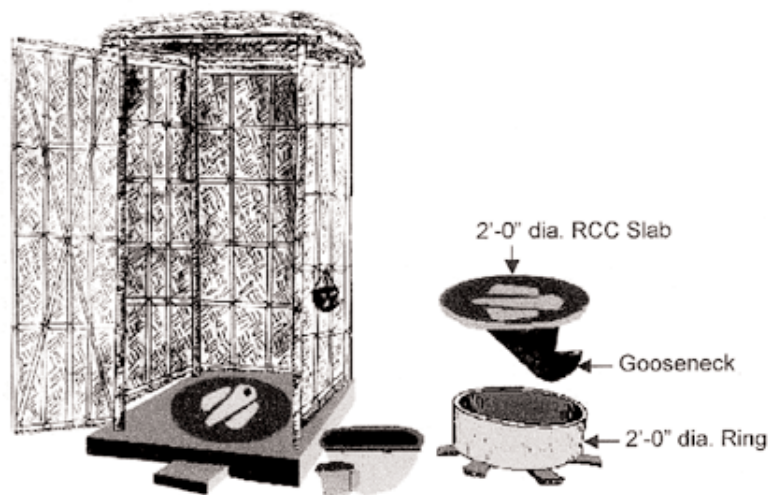
- Flies, mosquitoes and other insects can easily enter the pit if the pan cover is not properly used
- Foul odour comes out when the pan cover is opened
- Also the visibility of faeces inside reduces the users tendency
- Stooling causes rebound of water in monsoons

Longevity: -

(This is based on a family size of 6 and 3 concrete rings being used in the pit)

- Approximately 2-3 years

Option C2 Water Seal Latrine



Required materials and costing (without super structure): -

● Cement 27Kg x 6/-	= Tk.	162.00
● Coarse Sand 3 cft x10/-	= Tk.	30.00
● Brick Chips 3.4 cft. x 30/-	= Tk.	102.00
● 10 No. M.S. Wire 2.5 Kg x 25/-	= Tk.	62.50
● 24 No. G.I. Wire 0.2 Kg x 60/-	= Tk.	12.00
● Wire Mash 3 x12	= Tk.	5.50
● Burnt Mobil 1 Liter x 16/-	= Tk.	6.00
● Making charge	= Tk.	80.00
Total	= Tk.	470.00

Advantages: -

- No possibility of collapse of the side of the pit
- Flies, mosquitoes and other insects cannot enter the pit
- A low cost option compared to plastic pan & of fset pit latrine
- Low emittance of foul odour
- Long lasting compared to home made direct pit options
- It can be installed close to the living room

Disadvantages: -

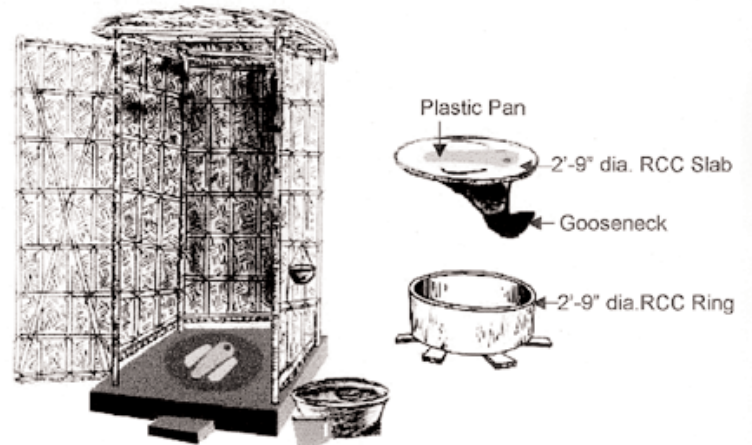
- More technicalities and amount of time involved
- Risk of damage/breakage of the goose neck during transportation
- More water needed for flushing

Longevity: -

(This is based on a family size of 6 and 3 concrete rings being used in the pit)

- Approximately 2-3 years

Option C3 Water Seal Latrine with Plastic Pan



Required materials and costing (without super structure): -

● Cement 22 Kg x 6/-	= Tk.	132.00
● Coarse Sand 2.5 cft x10/-	= Tk.	25.00
● Brick Chips 3.4 cft. x 30/-	= Tk.	102.00
● 10 No. M.S. Wire 2.5 Kg x 25/-	= Tk.	62.50
● 24 No. G.I. Wire 0.2 Kg x 60/-	= Tk.	12.00
● Plastic Pan & Gooseneck	= Tk.	85.00
● Burnt Mobil 1 Liter x 16/-	= Tk.	16.00
● Making charge	= Tk.	70.00
Total	= Tk.	505.00

Advantages: -

- No possibility of collapse of the side of the pit
- Flies, mosquitoes and other insects cannot enter the pit
- A low cost option compared to of fset pit latrine
- Low emittance of foul odour
- Long lasting compared to other options except of fset pit latrine
- It can be installed close to the living room
- Decent looking pan and easy to maintain

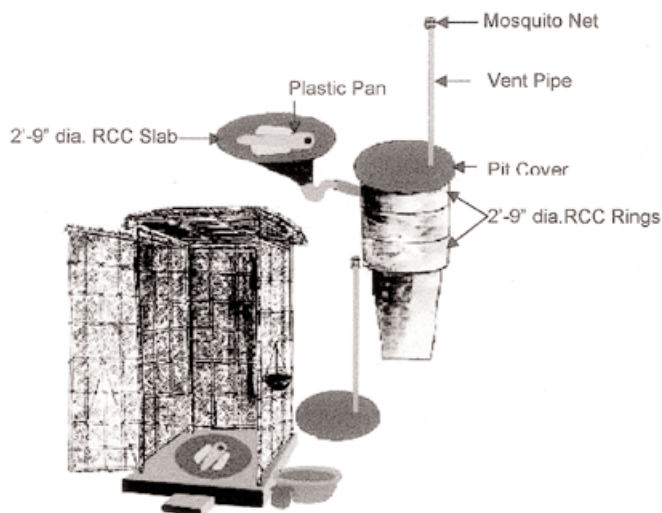
Disadvantages: -

- More costly so it is not affordable to majority of the population
- More technicalities and amount of time involved
- Risk of damage/breakage of the goose neck during transportation
- More water needed for flushing

Longevity: -

(This is based on a family size of 6 and 3 concrete rings being used in the pit)

Option C4 Offset Pit Latrine



Required materials and costing (without super structure): -

● Cement 28 Kg x 6/-	= Tk. 168.00
● Coarse Sand 3 cft x10/-	= Tk. 30.00
● Brick Chips 4.3 cft. x 30/-	= Tk. 127.00
● 10 No. M.S. Wire 3.2 Kg x 25/-	= Tk. 80.00
● 24 No. G.I. Wire 0.2 Kg x 60/-	= Tk. 12.00
● 3 P.V.C. Pipe 3' -0 x30/-	= Tk. 0.00
● 3 P.V.C. Syphon 1 no. x 60/-	= Tk. 60.00
● Burnt Mobil 1 Liter x 16/-	= Tk. 16.00
● Making charge	= Tk. 87.00
Total	= Tk. 670.00

Advantages: -

- No possibility of collapse of the side of the pit
- Flies, mosquitoes and other insects cannot enter the pit
- Low emittance of foul odour
- Long lasting compared to other options
- It can be installed close to the living room
- Comparatively nice looking and more acceptable

Disadvantages: -

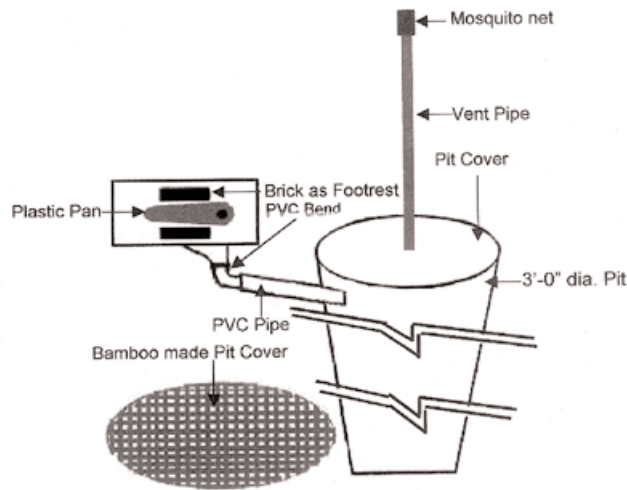
- More costly so it is not affordable to majority of the population
- More space needed for installation
- More water needed for flushing

Longevity: -

(This is based on a family size of 6 and 3 concrete rings being used in the pit)

- Approximately 2.5-3 years

Offset Pit Homemade Latrine



Required materials and costing (without super structure): -

● Plastic Pan 1 No.	= Tk.	35.00
● 4 dia. PVC Bend 1 No.	= Tk.	20.00
● 4 dia. PVC Pipe 3	= Tk.	60.00
● Bamboo 2 Nos.	= Tk.	100.00
● Brick 2 Nos.	= Tk.	5.00
	<hr/>	
Total	= Tk.	220.00

Advantages: -

- A low cost option compared to other latrine
- Easy sliding down of faeces for which less water needed for flushing
- Flies, mosquitoes and other insects cannot enter the pit
- Low emittance of foul odour
- Long lasting compared to other homemade options
- It can be installed close to the living room
- Comparatively nice looking and more acceptable

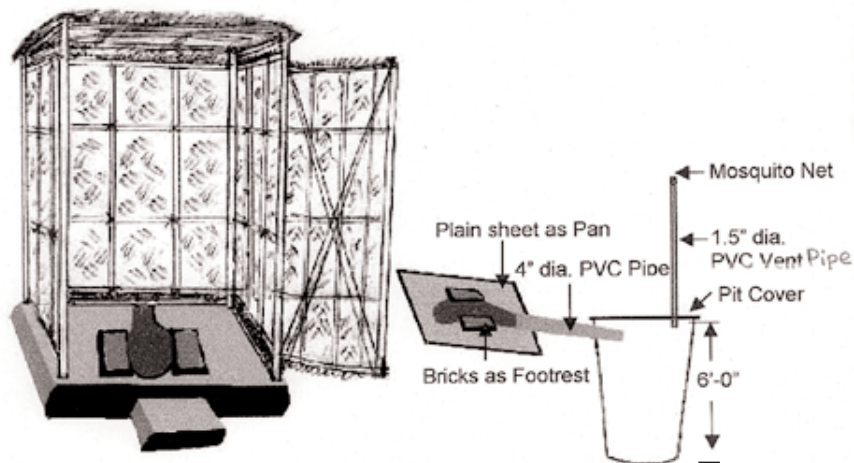
Disadvantages: -

- With heavy rainfall the side of the pit may collapse
- More space needed for installation

Longevity: -

(This is based on a family size of 6 and a 6ft deep pit)

- Approximately 2.5-3 years



Innovator: Rural Sanitation Engineer Md. Habibur Rahman
 Shaikh Para, Vill.- Mochmoil, Union Shuvadanga
 Upazila Bagmara, Dist. Rajshahi
 Innovation Period July 2000

Required materials and costing (without super structure): -

● Brick 2 Nos.	= Tk.	5.00
● Plain C.I. Sheet 1 Pc.	= Tk.	20.00
● 4 dia. PVC Pipe 1.5	= Tk.	30.00
● R.C.C. Ring 1 No.	= Tk.	80.00
● Pit Cover 1 No.	= Tk.	80.00
● Vent Pipe 7	= Tk.	63.00
Total	= Tk.	278.00

Advantages: -

- Cost is low compared to other options
- Materials are available within locality
- Little water can flush
- More durable compared to direct pit latrine options

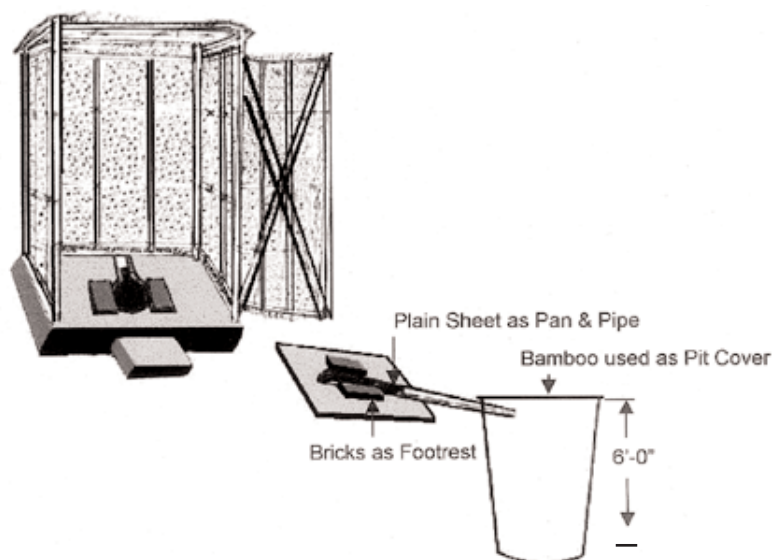
Disadvantages: -

- With heavy rainfall the side of the pit may collapse
- More space needed for installation

Longevity: -

(This is calculated on the basis of a family size 6 and a 6ft deep pit)

- Approximately 2 - 3 Years



Innovator: Rural Sanitation Engineer Md. Zahir Uddin & Md. Ashraf
 Vill. Shankarpai, Union Shuvadanga
 Upazila Bagmara, Dist. Rajshahi
 Innovation Period October 2000

Required materials and costing (without super structure): -

● Brick 4 Nos.	= Tk.	10.00
● Plain C.I. Sheet 1 Pc.	= Tk.	20.00
● Bamboo 2 Nos.	= Tk.	100.00
Total	= Tk.	130.00

Advantages: -

- Cost is very low compared to other options
- Materials are available within locality
- Little water can flush
- More durable to direct pit homemade options

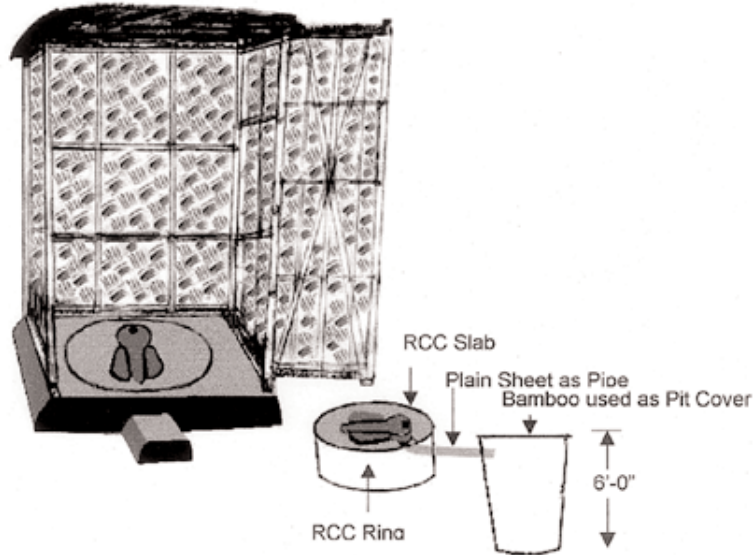
Disadvantages: -

- With heavy rainfall the side of the pit may collapse
- More space needed for installation

Longevity: -

(This is calculated on the basis of a family size 6 and a 6ft deep pit)

- Approximately 1.5 - 2 Years



Innovator: Rural Sanitation Engineer Md. Osman
 Ray Para, Vill. - Mochmoil, Union Shuvadanga
 Upazila Bagmara, Dist. Rajshahi
 Innovation Period October 2000

Required materials and costing (without super structure): -

● VERC Key Hole Slab 1 No.	= Tk.	120.00
● R.C.C. Ring 1 No.	= Tk.	80.00
● Plain C.I. Sheet 1 Pc.	= Tk.	20.00
● Bamboo 2 Nos.	= Tk.	100.00
Total	= Tk.	320.00

Advantages: -

- Cost is low compared to other options
- Materials are available within locality
- Little water can flush
- More durable to other options

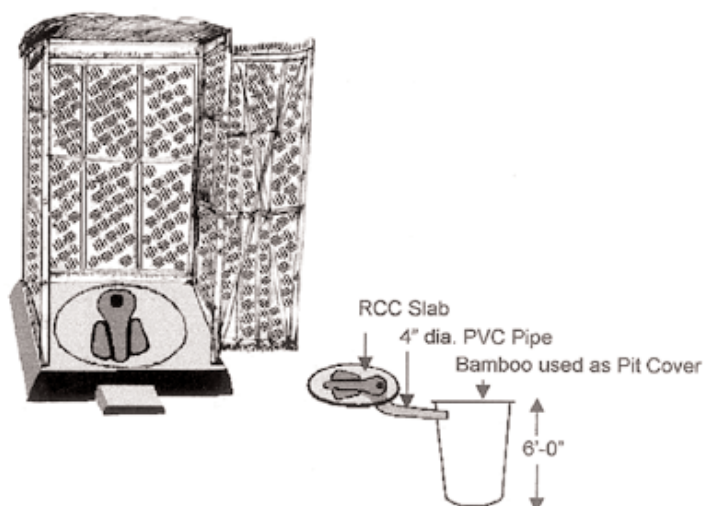
Disadvantages: -

- With heavy rainfall the side of the pit may collapse
- Foul odour may come out at the time of use
- More space needed for installation

Longevity: -

(This is calculated on the basis of a family size 6 and a 6ft deep pit)

- Approximately 2 2.5 Years



Innovator: Rural Sanitation Engineer Md. Majibur Rahman
 Vill. Battali, Union Daldali, Upazila Bholahat
 Dist. Chapai Nawabgonj
 Innovation Period July 2001

Required materials and costing (without super structure): -

● VERC Key Hole Slab 1 No.	= Tk.	120.00
● 4 dia. PVC Pipe 3	= Tk.	45.00
● Vent Pipe 7	= Tk.	63.00
● Bamboo 2 Nos.	= Tk.	100.00
Total	= Tk.	328.00

Advantages: -

- Cost is low compared to other options
- Materials are available within locality
- Little water can flash
- More durable to direct pit homemade options

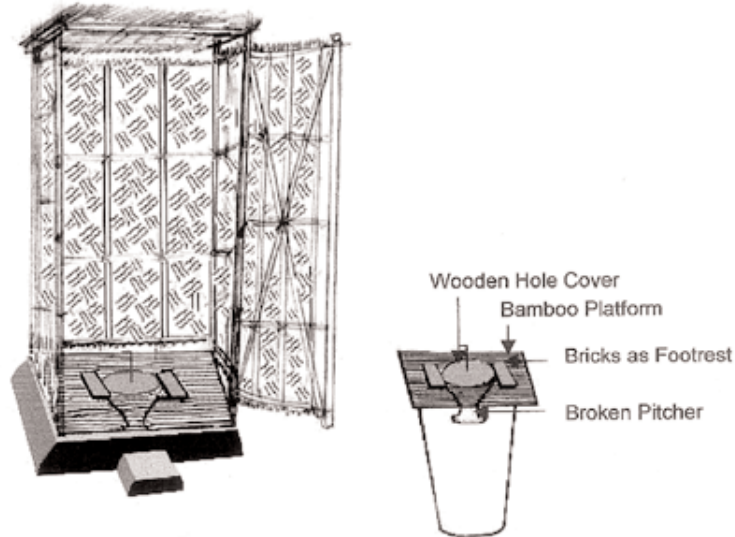
Disadvantages: -

- With heavy rainfall the side of the pit may collapse
- Foul odour may come out at the time of use
- More space needed for installation

Longevity: -

(This is calculated on the basis of a family size 6 and a 6ft deep pit)

- Approximately 2 - 3 Years



Innovator: Rural Sanitation Engineer Md. Babul Shaikh
 Vill. Hariabari, Union Jarbaria
 Upazila Bholahat, Dist. Chapai Nawabgonj
 Innovation Period June 2001

Required materials and costing (without super structure): -

● Upper Portion of the broken Pitcher 1 No.		
● Bricks 2 Nos.	= Tk.	5.00
● Bamboo 2 Nos.	= Tk.	100.00
Total	= Tk.	105.00

Advantages: -

- Cost is very low compared to other options (lowest cost)
- Materials are available within locality
- Easy replacement (if land is available)
- Little water can flush

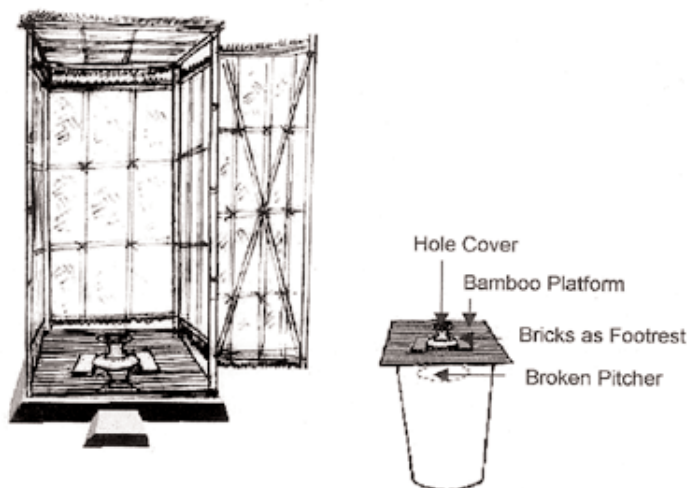
Disadvantages: -

- With heavy rainfall the side of the pit may collapse
- Foul odour will come out at the time of use
- Stooling causes rebound of water in monsoons

Longevity: -

(This is calculated on the basis of a family size 6 and a 6ft deep pit)

- Approximately 1 1.5 Years



Innovator: Rural Sanitation Engineer Md. Golam Mostafa
 Vill. Bajendrapur, Union Fatepur
 Upazila Nachol, Dist. Chapai Nawabgonj
 Innovation Period July 2001

Required materials and costing (without super structure): -

● Upper half of the broken Pitcher 1 No.		
● Cover of Earthen Pot 1 No.		
● Bricks 2 Nos.	= Tk.	5.00
● Bamboo 2 Nos.	= Tk.	100.00
Total	= Tk.	105.00

Advantages: -

- Cost is very low compared to other options (lowest cost)
- Materials are available within locality
- Easy replacement (if land is available)
- Little water can flush

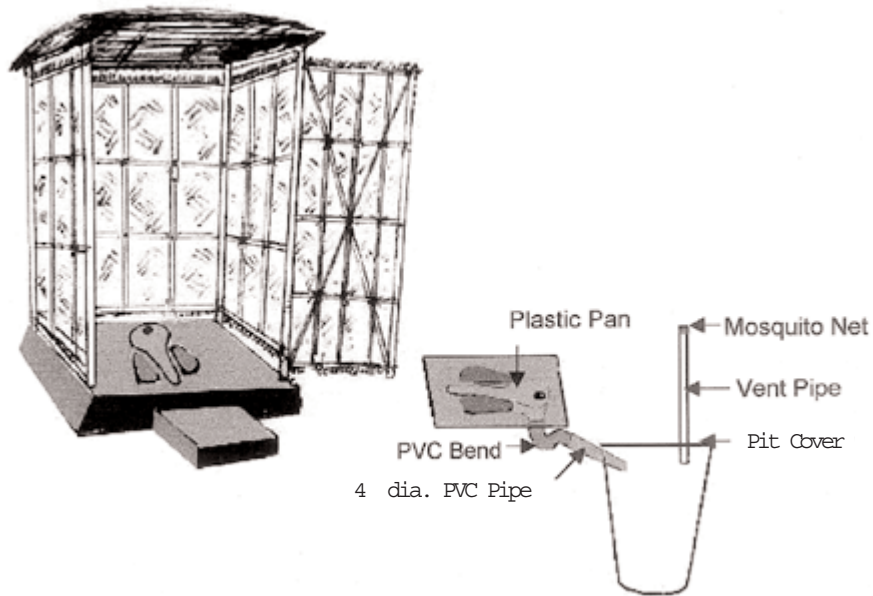
Disadvantages: -

- With heavy rainfall the side of the pit may collapse
- Foul odour will come out at the time of use
- Stooling causes rebound of water in monsoons

Longevity: -

(This is calculated on the basis of a family size 6 and a 6ft deep pit)

- Approximately 1 1.5 Years



Innovator: Rural Sanitation Engineer Md. Shaheen
 Vill. Chudala, Union Varsho
 Upazilla Manda, Dist. Naogaon
 Innovation Period May 2001

Required materials and costing (without super structure): -

● Plastic Pan 1 No.	= Tk.	35.00
● Plastic Syphone 1 No.	= Tk.	50.00
● 4 dia. PVC Pipe 3	= Tk.	60.00
● Bamboo 2 Nos.	= Tk.	100.00
● 1.5 dia PVC Pipe 6	= Tk.	54.00
Total	= Tk.	299.00

Advantages: -

- Cost is low compared to other options
- Materials are available within locality
- More durable to other homemade options

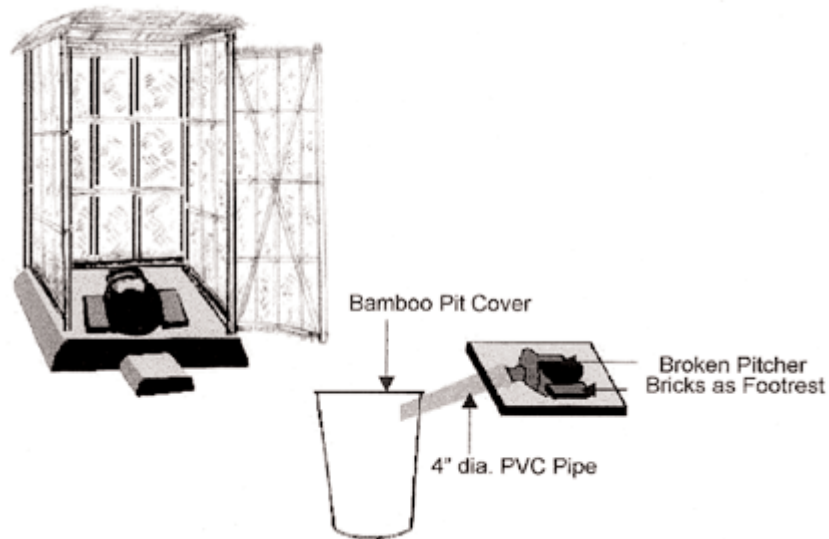
Disadvantages: -

- With heavy rainfall the side of the pit may collapse
- More water needed for flushing
- More space needed for installation

Longevity: -

(This is calculated on the basis of a family size 6 and a 6ft deep pit)

- Approximately 2 2.5 Years



Innovator: Rural Sanitation Engineer Prabhas
 Vill. Harkishore, Union Varsho
 Upazila Manda, Dist. Naogaon
 Innovation Period June 2001

Required materials and costing (without super structure): -

● Broken Pitcher 1 No.	
● 4 dia. PVC Pipe 3	= Tk. 60.00
● Bamboo 2 Nos.	= Tk. 100.00
Total	= Tk. 160.00

Advantages: -

- Cost is very low compared to other options
- Materials are available within locality
- Little water needed for flushing
- More durable to other direct pit homemade options

Disadvantages: -

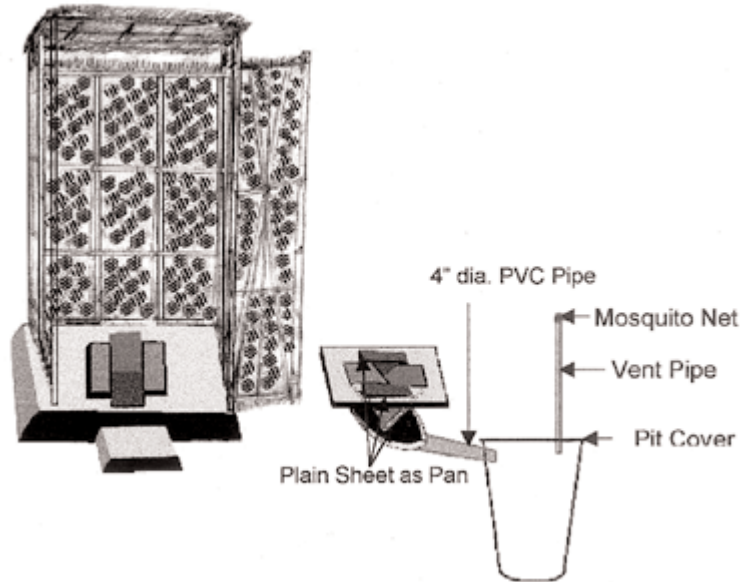
- With heavy rainfall the side of the pit may collapse
- Foul odour may come out at the time of use
- More space needed for installation

Longevity: -

(This is calculated on the basis of a family size 6 and a 6ft deep pit)

- Approximately 2 2.5 Years

CIM - 09



Innovator: Rural Sanitation Engineer Md. Karim
 Vill. Machya Alikhali, Union Nilla
 Upazila Teknaf, Dist. Cox s Bazar
 Innovation Period June 2001

Required materials and costing (without super structure): -

● Brick 4 Nos.	= Tk.	10.00
● Plain C.I. Sheet 1 Pc.	= Tk.	20.00
● 4 dia. PVC Pipe 4	= Tk.	80.00
Total	= Tk.	130.00

Advantages: -

- Cost is very low compared to other options
- Materials are available within locality
- Little water needed for flushing
- More durable to other direct pit homemade options

Disadvantages: -

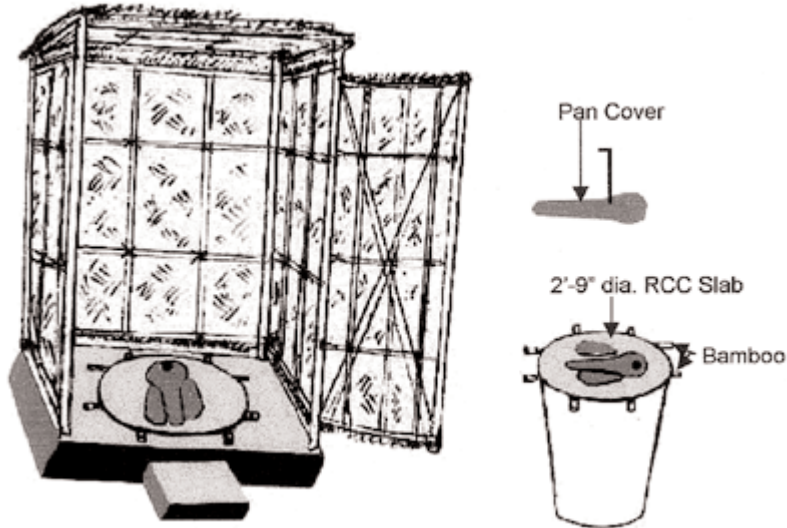
- With heavy rainfall the side of the pit may collapse
- Foul odour may come out at the time of use
- More space needed for installation

Longevity: -

(This is calculated on the basis of a family size 6 and a 6ft deep pit)

- Approximately 2 2.5 Years

CIM - 10



Innovator: Rural Sanitation Engineer Matija Begum and her Husband
 Para: Charal Kandi, Vill. South Mahmudabad
 Union Bansbaria, Upazila Sitakunda, Dist. Chittagong
 Innovation Period July 2001

Required materials and costing (without super structure): -

● R.C.C. Slab	= Tk.	120.00
● Bamboo 1 No.	= Tk.	80.00
Total	= Tk.	200.00

Advantages: -

- Cost is low compared to other options
- Materials are available within locality
- Easy replacement (if land is available)
- Little water needed for flushing

Disadvantages: -

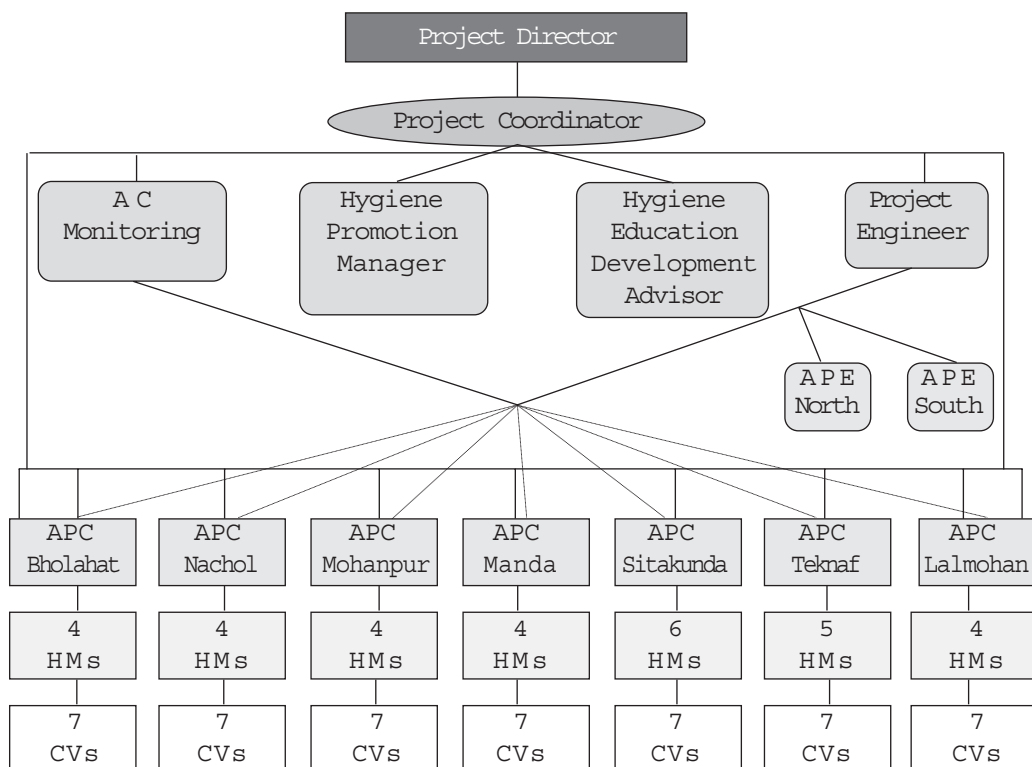
- With heavy rainfall the side of the pit may collapse
- Foul odour will come out at the time of use
- Stooling causes rebound of water in monsoons

Longevity: -

(This is calculated on the basis of a family size 6 and a 6ft deep

APPENDIX: B

VERC PROJECT STAFF ORGANOGRAM



Sl No	Designation	No. of Post	Placement
01.	Project Director	01	Head Quarter
02.	Project Coordinator	01	Head Quarter
03.	Hygiene Promotion Manager	01	Head Quarter
04.	VSO (HEDA)	01	Head Quarter
05.	Associate Coordinator	01	Head Quarter
06.	Project Engineer	01	Head Quarter
07.	Asstt. Project Engineer	02	Regional Level
08.	Project Accountant	01	Head Quarter
09.	Asstt. Project Coordinator	07	Thana level
10.	Health Motivator	31	Union level
11.	Community Volunteer	47	Village level
12.	Messenger/Caretaker	07	Thana level and H/Q

Abbreviations

APC	Assistant Project Coordinator (Field area Manager)
APE	Assistant Project Engineer
CV	Community Volunteer
PRA	Participatory Rural Appraisal
PE	Project Engineer
UP	Union Parishad
VERC	Village Education Resource Center
VSC	Village Sanitation Centre
WATSAN	Water and Sanitation

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essential to the approach

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