

Sustainability and equity aspects of total sanitation programmes

A study of recent WaterAid-supported programmes in Bangladesh



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The analysis and conclusions in this report are based on the author's own assessment of the research findings and do not necessarily reflect the views of WaterAid in Bangladesh or their partners.

A WaterAid report

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Contents

Executive summary	3
1 Introduction	10
1.1 Sanitation sector strategy and goals	10
1.2 Coverage status	11
2 Sanitation in WaterAid in Bangladesh	12
2.1 Programme objectives and scope	12
2.2 Partners participating in the study	13
3 Methodology	15
3.1 Sampling	15
3.2 Scope of the research	17
4 Findings	19
4.1 Respondent profiles	19
4.2 Water supply services	20
4.3 Achievement of ODF status	24
4.4 Latrine coverage and use	24
4.5 Latrine design and construction quality	28
4.6 Construction costs	32
4.7 Environmental sanitation	32
4.8 Equity	33
4.9 Sustainability	34
4.10 Costs of achieving ODF	37
4.11 Role of the implementing NGO	39
4.12 Role of the Union Parishad	39
5 Discussion	41
References	43
Annex	44

Abbreviations

ASEH	Accelerating Sustainable Environmental Health
CLTS	Community-led total sanitation
GoB	Government of Bangladesh
NGO	Non-Government Organisation
ODF	Open defecation-free
SACOSAN	South Asian Conference on Sanitation
WAB	WaterAid in Bangladesh
UST	Unnayan Shahojogy Team
VERC	Village Education Resource Centre
WSP	Water and Sanitation Program

Executive summary

1 Introduction

The Government of Bangladesh is making a concerted effort to accelerate progress in rural sanitation and in 2003 made a commitment to achieve ‘Sanitation for all by 2010’. In 2005 it adopted policy and institutional arrangements in support of this commitment. Since 2003 the use of sanitary latrines has grown substantially; estimates vary enormously, but the Government believes that rural coverage is now in excess of 80% (GoB, 2008)

Bangladesh has shown itself to be a leader in the adoption of innovative approaches to sanitation promotion and was the birthplace of Community-Led Total Sanitation (CLTS), some principles of which have been adopted within national strategy. NGOs are encouraged to participate in meeting national targets using their own implementation approaches, and not all of these are CLTS-based. The extensive coverage of NGO projects is a striking feature of the development landscape in Bangladesh. A wide array of latrine types is also found; the Government does not insist on particular designs.

Sanitation in the WaterAid in Bangladesh

WaterAid in Bangladesh (WAB) provides support to the national sanitation campaign via the DFID-funded ASEH (Advancing Sustainable Environmental Health) programme. Launched in 2003, and due to end in March 2009, this is the largest WaterAid project in the world, and is implemented through 22 partner organisations: 12 rural and 10 urban. The project purpose, as set out in the log frame as revised in December 2007, is as follows:

“Sustainable improvements in hygiene behaviour and reduction in exposure to water and environmental sanitation risks for whole, poor rural and urban communities in challenging geographical, socio-economic and technical contexts in Bangladesh.”

The programme aims to reach roughly 5.3 million rural people and 0.5 million urban. Under the sanitation component, WaterAid partners use the CLTS approach of triggering shame and disgust as a motivational tool to encourage communities to end open defecation. They also offer technical assistance on latrine design and construction, but without imposing specific requirements or supervising works directly. Latrine components are widely available in project areas, as are skilled masons. This is a legacy of earlier projects, though training is provided where necessary.

The achievement of ODF status is regarded as an entry point, not the final objective. Once this milestone has been reached, the project design envisages further hygiene promotion inputs and support (with subsidy) for school and community toilets and water supply improvements. This implies that project intervention continues for a considerable period after ODF status has been achieved. Projects ambitions are to impact on entire upazilas (sub-districts) and partner NGOs maintain a presence in each one until ASEH ends, though the amount of interaction in each community gradually reduces.

Partners participating in the study

1. Village Education Resource Centre (VERC)

The NGO Village Education Resource Centre (VERC) has been involved in water and sanitation services since 1981 and first developed what is now known as CLTS. VERC encourage communities to take stock of the amount of faeces they dispose of into the environment and the amount they ingest every day. Once sensitised, people begin considering how to deal with the issue. This approach also helps people to realise that latrine users continue to be at risk of disease so long as others in the community defecate in the open. This helps to generate participation across all sectors of the community.

2. Unnayan Shahojogy Team (UST)

UST has worked with WaterAid in Bangladesh since 1999 and currently serves more than one million people in 40 unions and municipalities, in seven upazilas of three riverside districts. The operational approach followed by UST is similar that implemented by VERC

Sampling

Since the implementing NGOs follow up the achievement of ODF status with a range of other interventions, it was not possible to study communities where project intervention had ended with the achievement of ODF status. For the same reason, it was difficult to identify communities where a substantial period had elapsed since project intervention ended – in most cases interventions were ongoing. In the event, twelve communities were selected including six where the NGO had withdrawn; the average period since withdrawal was 15.7 months. The sample included four communities from Tangail district, which is prone to flooding, and incorporated an equal mix of higher and lower performing communities, based on the assessment of the implementing NGOs. Some of these had been included in earlier sanitation projects, and two already had high levels of latrine coverage (75% and 78%) when ASEH began.

Scope of the research

The research methodology was based on the framework set out in the research design. It did not involve verification of reported latrine coverage and while the researchers looked for evidence of open defecation, this was not an exhaustive search of the cluster and its surroundings. Instead, the focus was on investigating issues of equity and sustainability, and this was achieved via key informant interviews; a community meeting; a transect walk; focus group discussions with selected groups including children; and a series of household visits involving interviews and observation of toilet facilities.

2 Findings

Achievement of ODF status

No visible evidence of open defecation was found in the twelve clusters. However, both partner NGOs and community members acknowledged that a small amount of open defecation was still taking place.

The reported time taken to achieve ODF status varied enormously, from 22 days to 54 months, with an average of 19 months. This variation arose partly from the deliberate selection of higher- and lower-performing communities, and partly from the fact that, in some cases, another sanitation project preceded ASEH and communities took the start of the earlier project as their baseline.

The research did not reveal any factors relating to the quality of facilitation by the NGO which may have affected the pace of progress. Over the lifetime of ASEH, however, the time taken to eradicate open defecation has reduced significantly, and in new projects can be as little as three months, though WaterAid regard six months as typical.

Latrine coverage and use

Reported latrine coverage ranged from 60% to 95%, the average being 73%. This was surprisingly low, given the evident willingness to use toilets and the availability of very cheap designs. It emerged that the 27% without a private toilet were sharing with others, though this occurred exclusively within families. Reasons for not having a toilet included lack of space, affordability and ease of access to another family member's toilet. It was not only the poorest households that shared; some better off families were also happy to use a shared toilet.

To explore the issue of sharing further, more extensive investigations were carried out in two clusters, each of them supported by VERC. This revealed that, following the achievement of ODF status, latrine coverage had risen significantly: by 43% in one case, 51% in the other. The level of sharing stood at 32% and 41% – an average of 37% – and the reasons given were much the same as in the larger survey. The number of people sharing each toilet varied widely, but the upper limit was 2.5 to 3 households (20 to 25 people).

Latrine design and construction quality

The range of latrine types was extensive, and for the purposes the study these were classified into five types; see below. All had a single pit and the most common type comprised a slab with water seal and offset pit. Typical pit depths were reported to be in the range 9-12 feet, though this could not generally be checked as the latrines were in use and many were concealed.

Latrine types

Latrine types	Project status		Total
	On-going	Withdrawn	
Offset pit			
Polythene seal, slab	17.3%	25.4%	21.1%
Water seal, slab	44.0%	49.3%	46.5%
Polythene seal no slab		4.5%	2.1%
Direct pit			
Ring slab, water seal	25.3%	11.9%	19.0%
No water seal	13.3%	9.0%	11.3%
Total	100.0%	100.0%	100.0%

Construction quality was generally medium to low, but most of the latrines effectively controlled flies and smells, and contained excreta safely. Roughly 60% of sub-structures were assessed as durable, and 56% of superstructures, though most did not have a roof. Nearly all respondents said that their toilet was easy to clean. There was no significant difference between shared and single-household latrines in terms of design, cost, construction quality or hygienic status

Construction costs

The majority of respondents had built their toilets at very low cost: 59% had spent Tk 100 (£0.92) or less and just 27% had spent more than Tk 500 (£4.60). Only 5% had spent more than Tk 1,000. This expenditure was additional to any material support from the Union Parishad or any other source.

Only 13 out of 142 households had received any material support in construction of their first toilet. Of these, just 7 had been assisted by the Union Parishad; the others had received support under another donor-supported project operating in the same upazila (sub-district).

Equity

Affordability

While some respondents without a toilet cited affordability as a constraint, many very poor households had built one and the availability of some very cheap and simple designs (less than £1) suggested that cost need not be a constraint even when – as in most cases – assistance from the Union Parishad was not available.

Physical constraints

Just 6% of respondent households included a family member with a disability. Of those who faced a physical challenge in using the toilet, more were concerned with the proximity of the latrine to the house than with its design.

Gender dimensions

Routine cleaning of the toilet, and fetching water for flushing, was regarded as women's work in the study communities, though none reported that having a toilet had imposed an additional burden on them. Most households had easy access to water at the time of the survey.

Inclusion

The study did not find serious cases of exclusion from project benefits.

Coercion

None of the respondents indicated that the switch to fixed point defecation had been enforced; there were reports that the Union Parishad had in a few cases linked access to welfare benefits such as rice rations to progress in latrine construction, but this was generally understood as a motivational tactic rather than a real threat of sanctions.

Sustainability

Pit emptying

Two fifths of respondents had experienced a full pit. This is a significant number though a higher figure would not have been surprising, given that 27% of households shared a toilet. Of those experiencing a full pit, half had emptied it while nearly one third had relocated the toilet to a new pit (as recommended by WaterAid).

Other maintenance and repairs

One quarter of respondents had carried out some form of maintenance or repairs. Nearly one third of these had done so at zero cost, while another third had spent 100 Tk (£0.92) or less. Only 12% had spent more than Tk 200 (£1.84).

Latrine use by new community members

Some of the study communities had grown since ODF was achieved, as a result of both new arrivals and household expansion. There was no evidence that open defecation was being practised by these additional households; some were sharing an existing toilet, while others had built their own.

Climbing the sanitation ladder

There were numerous examples of latrines being repaired, improved or replaced. Of those who had replaced their first toilet, the majority had done so within the last three years – in other words, during the ASEH project. As with new toilets, the majority of respondents had spent Tk 100 (£0.92) or less on improving or replacing their latrine.

Costs of achieving ODF

The following estimates were made:

Summary of project costs per community (US\$, 2008)

	VERC	UST
Programme costs (training and support)		
Local NGO support and overheads	369	282
WaterAid national support	152	152
Software (Hygiene/ IEC)	33	52
Software (CLTS, training and follow up)	56	20
Hardware	0	0
Total WaterAid	610	506
Local Government/UNICEF contributions	31	31
Household contributions	200	200
Total	829	724

Average per household costs proved to be relatively low (see below). This is not surprising given the size of the project, which enables significant economies of scale, and the fact that ASEH operates under the umbrella of an established national programme which has created an enabling environment for progress.

Cost-effectiveness of WaterAid investments in study communities (US\$, 2008)

	VERC	UST
Per household	7	6
Per latrine	12	42
Per latrine in use	n/a	n/a

3 Discussion

The findings reveal that the projects have had a far reaching impact on sanitation, and there is substantial evidence that fixed point defecation is being sustained both in communities where the NGO is still present and those where it has withdrawn. It is clear that where project intervention extends beyond the ODF milestone, a great deal can be achieved.

On the question of whether communities ‘climb the sanitation ladder, the findings are more ambiguous; there has been a substantial amount of maintenance, repair and replacement, but people maintain a similar level of expenditure for both their first and second/improved latrine. It is nonetheless impressive that latrines which dispose of excreta safely can be made so easily and at such low cost. The huge array of designs developed in recent years confirms both that CLTS is effective in encouraging innovation, and that most poor households are capable of building – and replacing – latrines without direct external assistance.

The study also identified potential risks to the sustainability of latrine use. Firstly, where 20 to 25 people share a toilet this raises concerns that queuing could lead some people revert to open defecation, and that the cleaning and maintenance implications could result in some latrines falling into disuse. On both points, no evidence of serious problems was found, nevertheless the potential risks should be borne in mind and the impacts of sharing warrant close monitoring.

A second area of concern relates to seasonal water shortages. While water supply improvements had been carried out in several of the communities, either under ASEH or an earlier project, less than half of respondents reported that they had enough water for flushing in the dry season (January to April), while just 58% said they had enough had enough for anal cleansing. Some of the innovation in latrine design – particularly the adoption of the polythene seal – has helped communities cope with a limited water supply, nevertheless the extent of the reported shortages suggests that latrine operation and maintenance, and personal hygiene, may be compromised at times. Both could provide a reason for some people to revert to open defecation.

Thirdly, pit emptying presents a challenge. Manual emptying has long been the practice in urban areas and is therefore nothing new, nevertheless as Bangladesh approaches its 2010 sanitation target, the number of full single-pit latrines will become ever larger, presenting a huge public health challenge.

Section 1

Introduction

1.1 Sanitation sector strategy and goals

The Government of Bangladesh is making a concerted effort to accelerate progress in rural sanitation. In 2003, a national survey found that less than one third of rural households were using sanitary latrines, but in the same year the government adopted the Dhaka Declaration of ‘Sanitation for all by 2010’ at the first SACOSAN conference. In doing so, it made a commitment to reach the sanitation MDG target well ahead of time. In 2005 it adopted policy and institutional arrangements in support of this commitment, including a Sector Development Programme, a National Sanitation Strategy and a Pro-Poor Strategy for Water and Sanitation.

Bangladesh has shown itself to be a leader in the adoption of innovative approaches to sanitation promotion and was the birthplace of Community-Led Total Sanitation (CLTS). Some of the principles underlying CLTS have been incorporated into sector strategy, though the outcomes sought go beyond the eradication of open defecation; the National Sanitation Strategy of 2005 envisages ‘100% sanitation’ which it defines as:

- No open defecation
- Hygienic latrines available to all (at home, at school and in public places)
- Use of hygienic latrines by all
- Proper maintenance of latrines for continual use
- Improved hygiene practice
- Proper management of solid waste
- Proper disposal of household wastewater and storm water

In practice, the last two parameters have received less attention than the others, though government and development partners are now seeking to address this (WAB, personal communication).

NGOs are encouraged to participate in the ambitious national campaign using their own implementation approaches and today at least six operational models have been established, not all of which are CLTS-based (WSP, 2007). A wide array of latrine types is also found; projects encourage households to make toilets that meet basic criteria such as the safe containment of faeces and the control of smells and flies, but do not insist on particular designs.

The national sanitation programme is driven by the Local Government Division of the Ministry of Local Government, Rural Development and Co-operatives. A National Sanitation Secretariat is in place; there are Sanitation Task Forces at each level of government; October is celebrated annually as national Sanitation Month; regular promotional campaigns are conducted; and monitoring and evaluation is institutionalised at each tier of government (GoB, 2005). Since 2004 the government has given cash rewards to each local government unit verified as having achieved open defecation-free (ODF) status: Tk. 0.2 million (£1,840) for Union Parishads (clusters of villages and the lowest tier of local government); Tk. 0.5 million (£4,600) for upazilas (sub-districts) and municipalities. By 2006, roughly 1,000 Union Parishads had claimed the reward out of a total of 4,451. At the time of writing the distribution of awards had been postponed, though not cancelled, following the appointment of a caretaker government.

The government channels funds directly to the local government and in recent years this has amounted to roughly Tk. 0.4 million (£3,680) per union per year. While national strategy does not support the widespread use of subsidies for household toilets, Union Parishads are required to reserve 20% of their annual development budgets for infrastructure assistance to the hardcore poor. Out of this 20% amount, 75% is to be used for procuring latrine components, the remaining 25% for promotional activities. In practice this means that some, but not all, of the poorest households in a community receive practical assistance from the Union Parishad. This comes in the form of a squatting pan with water seal plus three concrete rings for lining a pit. Ward members identify the beneficiaries and while these are generally households holding government-issued cards confirming their ‘vulnerable group’ status (VGD and VGF cards), there is anecdotal evidence that some others who are not amongst the poorest also receive assistances; inevitably personal and political favouritism plays a part (WAB, personal communication).

The government regards social mobilisation as fundamental to the national programme and local sanitation task forces use social pressure to motivate hard-to-change individuals, though overt coercion is discouraged. In most cases, however, it is not difficult to motivate people to use toilets. Widespread awareness of the national campaign may be a factor here.

While an ambitious government strategy and a well-defined operational framework are in place, it is external support agencies – especially NGOs – that are most visible in the sector at local level. The extensive coverage of NGO projects is a striking feature of the development landscape in Bangladesh and markedly different from the situation in neighbouring India, which also has a national sanitation programme but with local government playing the lead role.

1.2 Coverage status

Since 2003 the use of sanitary latrines has grown substantially; estimates vary enormously, but government believes that rural coverage is now in excess of 80% (GoB, 2008)

Section 2

Sanitation in WaterAid in Bangladesh

2.1 Programme objectives and scope

WaterAid in Bangladesh (WAB) provides support to the national sanitation campaign via the DFID-funded ASEH (Advancing Sustainable Environmental Health) programme. Launched in 2003, and due to end in March 2009, this is the largest WaterAid programme in the world, and is implemented through 22 partner organisations: 12 rural and 10 urban. The project purpose, as set out in the log frame as revised in December 2007, is as follows:

“Sustainable improvements in hygiene behaviour and reduction in exposure to water and environmental sanitation risks for whole, poor rural and urban communities in challenging geographical, socio-economic and technical contexts in Bangladesh.”

The programme aims to reach roughly 5.3 million rural people and 0.5 million urban. Of the four outputs, the one most relevant to this study is Output 1:

“Whole, poor and vulnerable communities in selected rural areas i) use improved hygiene practices; ii) have access to, and control over, safe and adequate water; and iii) environmental sanitation facilities.” (*sic*)

Under the sanitation component, WaterAid partners use the CLTS approach of triggering shame and disgust as a motivational tool to encourage communities to end open defecation. They also offer technical assistance on latrine design and construction, but without imposing specific requirements or supervising works directly. Latrine components are widely available in project areas, as are skilled masons. This is a legacy of earlier projects, though training is provided where necessary.

While the achievement of ODF status is integral to ASEH projects, it is regarded as an entry point, not the final objective. Once this milestone has been reached, the project design envisages further hygiene promotion inputs and support (with subsidy) for school and community toilets and water supply improvements. This implies that project intervention continues for a considerable period after ODF status has been achieved. Projects ambitions are to impact on entire upazilas (sub-districts) and partner NGOs maintain a presence in each one until ASEH ends, though the amount of interaction in each community gradually reduces. Only in a few communities has NGO intervention now ended; in others health motivators visit monthly to promote monitor progress, promote hygienic behaviour and encourage the effective use and maintenance of water and sanitation facilities.

Rather than working with an entire village as a single entity, WaterAid partners work with sub-village groups known as clusters, each one having roughly 100-120 households, and facilitate the formation and strengthening of a Community-Based Organisation (CBO) in each one. The CBO serves as the vehicle for implementation of CLTS and other project components.

2.2 Partners participating in the study

1. Village Education Resource Centre (VERC)

The NGO Village Education Resource Centre (VERC) is concerned with community health and well-being and has been involved in water and sanitation services since 1981. Earlier its projects were focused on hardware targets, achieved with the help of subsidies for household latrines. When it became clear that these interventions were not having the intended impact on diarrhoeal disease, VERC began looking for a new approach that focused more on user behaviour than on the numbers of toilets built. This led to the piloting of sanitation promotion without subsidy, entailing extensive use of PRA tools, and eventually to the development of what is now known as CLTS. The VERC approach encourages communities to take stock of the amount of faeces they dispose of into the environment and the amount they ingest every day. Once sensitised, people begin considering how to deal with the issue. This approach also helps people to realise that latrine users continue to be at risk of disease so long as others in the community defecate in the open. This helps to generate participation across all sectors of the community.

VERC worked with rural communities to formulate criteria for acceptable sanitary latrines. The criteria adopted were simply that:

- Faeces should not be visible
- The latrine should not smell
- The latrine should prevent insects from entering the pit
- Faeces should be confined to a pit

To date VERC has identified and documented some 32 low cost latrine designs that meet these criteria. Many of these were innovations by community members and of particular note is the use of a simple polythene seal at the outlet of the toilet waste pipe, instead of a water seal at the pan. This controls smells and is considerably cheaper and easier to install than a standard water seal, plus there is no requirement for the pan to contain water at all times.

In the early CLTs pilots it took 12-14 months to achieve 100% sanitation in a village, but with experience VERC was able to reduce this to as little as one month.

To bring about behavioural change VERC relies on twelve key messages communicated via methods such as courtyard meetings, tea stall sessions and the use of posters and flip charts. The emphasis is on covering food and washing hands at critical times (before handling food or feeding babies, and after eating or defecation).

Union Parishad Chairmen, members and associated staff now play an active role in project implementation and monitoring. Their working relationship with VERC is close and in some locations VERC uses the UP offices and some its personnel.

Under ASEH, VERC implements water and sanitation projects in a variety of locations, serving some 1.6 million people in total.

2. *Unnayan Shahojgy Team (UST)*

UST provides support to disadvantaged and vulnerable people, particularly communities living in the char areas (the river delta), where villages are prone to extensive annual flooding. It has worked with WaterAid in Bangladesh since 1999 and currently serves more than one million people in 40 unions and municipalities, in seven upazilas of three riverside districts: Gaibandha, Shariatpur and Tangail.

The operational approach followed by UST is similar that implemented by VERC, and again project support includes not only sanitation but hygiene promotion and water supply.

Section 3

Methodology

3.1 Sampling

In designing the research for Bangladesh, three important factors were taken into account.

Firstly, while CLTS has to some extent been mainstreamed within government strategy and donor-assisted projects, all of the implementing organisations follow up the achievement of ODF status with a range of other interventions including some or all of the following: hygiene promotion, technical assistance with latrine construction, provision of school and public toilets, capacity building support, and subsidised water supply improvements. It was not possible, therefore, to study communities where project intervention had ended with the achievement of ODF status.

Secondly, the fact that NGO projects under ASEH continue long after ODF has been achieved meant that it was difficult to identify communities where a substantial period had elapsed since project intervention ended, as envisaged in the research design.

Thirdly, coverage with donor-assisted sanitation and/or water projects is very high in Bangladesh, and even where there is no intensive project the government's own sanitation programme is operating via the Department of Public Health Engineering, which is supported by UNICEF in many districts. There is, therefore, a high degree of awareness within local government and rural communities of the drive to eradicate open defecation, irrespective of ASEH. The existence of this enabling environment is of course a great benefit, but also complicates the issue of attribution of project benefits, and makes it very difficult to identify 'control' communities where no sanitation promotion has taken place.

In the event, the twelve communities selected included six where the NGO had withdrawn; see Table 10. The average period since withdrawal was 15.7 months. In the other six, the NGO was still working in the cluster, though not intensively. The sample included four communities from Tangail district, which is prone to flooding, and this enabled the study to investigate whether communities rebuild toilets damaged by floods.

The selection also incorporated an equal mix of higher and lower performing communities, based on the assessment of the implementing NGOs. Higher performing communities had some or all of the following characteristics:

- The community took the initiative to invite the NGO into the village
- Strong community spirit and willingness to work together
- Men and women participated equally in the achievement of ODF status
- People were open to new ideas
- Latrines are well maintained; and/or
- Hygiene practices and awareness are good

Lower performing communities were defined thus:

- Difficult to motivate
- Lack of initiative to solve community problems
- Some reluctance regarding behaviour change
- Slower progress in latrine construction, with medium to low construction quality; and/or
- Children's group not active

Some of the communities had been included in earlier sanitation projects, and two already had high levels of latrine coverage (75% and 78%) when ASEH began (see Table 4). Their inclusion in ASEH reflects the programme objective of achieving fully sanitised upazilas. While latrine coverage was high in these communities, they were not yet open defecation-free. WAB report that the earlier interventions were female-led and involved demand creation through hygiene promotion, with subsidised latrine components provided to ultra poor households. Other households were linked to other government or non-government funding sources where these were available.

Table 1: Selected districts

NGO	District	Number of communities			
		Project ongoing		NGO withdrawn	
		H	L	H	L
VERC	Nagaon, Chapai Nawab Ganj, Chittagong	1	1	3	3
UST	Tangail	2	2		
	Total	3	3	3	3

H = Higher performing community, L= Lower performing community, as judged by implementing NGO.

Table 2: Intervention dates by cluster

Name of community/cluster	Project start	ODF declared	Months since Withdrawal
Hindu Pakutia	10/07	04/08	Ongoing
Barta Purba Para	06/06	07/07	Ongoing
Baldi Sikder Para	03/07	06/07	Ongoing
Kurshabenu	10/05	09/08	Ongoing
Shahpur Karigar Para	07/05	07/05	Ongoing
Koya Para	07/05	03/07	Ongoing
Bara Poi Kha Para	11/01	12/02	17
Bara Poi Master Para	10/02	03/03	17
Hedayet Ukil Para	09/01	08/04	18
Mohajan Para	07/04	10/04	12
Chota Jambaria	08/00	10/04	12
Bara Jambaria	09/00	03/05	18

Note: This table uses the dates at which the projects reported the communities to be ODF, not the dates of official recognition by government.

3.2 Scope of the research

The methodology followed in each community reflected the framework set out in the research design. It is important to clarify that the research did not involve verification of total latrine coverage as reported by the NGO or community, and while the researchers looked for evidence of open defecation, this was not an exhaustive search of the cluster and its surroundings. Instead, the focus was on investigating issues of equity and sustainability in the projects, and this was achieved via key informant interviews with NGO partners, Union Parishad representatives and DPHE officials; a community meeting; a transect walk; focus group discussions with selected groups including children; and a series of household visits involving interviews and observation of toilet facilities. The full set of research questions and proformas is provided in **Annex One**.

Community meetings

Research at community level began with a community meeting. This did not include mapping (as envisaged in the global research design) since all the communities had prepared maps earlier as part of the project process, and these were still available, along with a number of charts recording key data on the cluster. Instead, the existing community map was used as the framework for discussion on what had happened in the community under the water and sanitation project. Amongst other things, respondents were asked to recount the story of how the village attained ODF status, and to explain the changes that had taken place since the project began. All of the communities visited had information on the cluster population pre- and post-ODF, the numbers and location of higher and lower income households, and changes in latrine coverage over the project period.

Household visits

In each cluster, 10% of households were visited, subject to a minimum requirement of 10 per community. In total, 142 households were visited in 10 clusters. Purposive sampling was used, based on information gathered in the community meeting, to ensure that a high proportion of lower-income households was investigated. This said, the team also included a number of richer households for comparison. Where a cluster had female-headed households, minority groups or disabled people, these were also visited and interviewed.

Each household visit comprised two components: an interview with a household representative and a physical inspection of the toilet facilities. A summary of the investigations is provided in Box 1.

Box 1: Scope of household interviews and latrine observations

A: Interview

Economic status of the household as defined by the CBO (ultra poor, poor, medium poor, rich)
Religion /ethnicity.

If the household has a toilet:

1. When was it built (pre-ASEH?), and why?
2. What were the costs to the household of the new/upgraded facility, was there any external support and what components did they pay for themselves?
3. Is this their first toilet? If not, when was the first one built and why was it replaced?
4. Do all family members use it? If not, why and where else do they go?
5. Who cleans it, and is it easy to clean?
6. Has the pit filled up yet and if so, what was done about it?
7. Any other repairs or maintenance carried out, at what cost, and any external support for this.

If no toilet:

8. Why not, and what is the alternative arrangement?

B: Latrine observation

1. Latrine type (Based on 5 categories)
2. Construction quality including durability of sub-structure and superstructure
3. Distance from house and year-round accessibility
4. Availability of water for anal cleansing, flushing, hand washing
5. Availability of soap or ash
6. Hygienic condition:
 - Presence/absence of flies.
 - Presence/absence of smell..
 - Effective separation of excreta from human contact..
 - Risk of contaminating surface water?
7. In working order?
8. Any health risks associated with maintenance?
9. Safe to use?
10. Sufficient privacy?
11. Evidence of use.
12. Cleanliness and ease of cleaning.

Section 4

Findings

The findings from each community were summarised in a short narrative report and the data from interviews and observations synthesised into a series of summary tables covering all ten clusters. This section presents and discusses the most important findings from the research and data analysis, but does not present the data in full. Further details are available, if required, from WaterAid.

In considering the findings, it is important to bear in mind that ASEH is a huge project covering some 17,000 villages. The implementing NGOs have an established organisational presence in the project areas and had already been working with their constituent communities for a number of years before ASEH began. It was unsurprising, therefore, that uncertainty arose on occasion as to what point in time to take as the baseline, and that some respondents were unable to provide much detail on water and sanitation improvements carried out in specific clusters under pre-ASEH initiatives. The scale of the ASEH project, with similar processes happening across entire upazilas, may also explain why the research did not produce a wealth of anecdotes about transformation in the study communities; CLTS is now well established and the changes that have taken place have become part of the project routine.

4.1 Respondent profiles

The socio-economic profile of the study communities – based on data supplied by the communities – is provided in Table 2.

Table 3: Socio-economic profile of study communities (2008)

Name of community	Households by economic status				Location
	Rich	Medium poor	Poor	Ultra poor	
1. Hindu Pakutia	9	18	21	57	Kalihati, Tangail
2. Barta Purba Para	3	12	29	48	
3. Baldi Shikder Para	15	12	1	18	
4. Kursha Benu	37	16	16	48	
5. Bara Poi Kha Para	06	19	19	16	Manda, Naogaon
6. BaraPoi Master Para	02	22	28	22	
7. Shahpur Karigar Para	03	18	20	32	
8. Koya Para	10	97	44	82	
9. Hedayet Ukil Para	7	41	13	3	Sitakunda, Chittagonog
10. Mahajan Para	2	8	6	29	
11. Chota Jambaria	7	12	18	57	Bholahat, Nawabganj
12. Bara Jambaria	13	2	23	77	

80% of the respondents were female. This was due partly to the absence of men at the time of visiting, but also to the high level of women's participation in the CBOs.

The great majority of respondents (82%) were muslim, while 18% were Hindus. Two out of the twelve communities were Hindu-only, and three had a Hindu minority.

Amongst the respondents, there was a roughly equal distribution of medium poor, poor and ultra-poor households, based on the communities' own classification. Only one household visited was classified as rich. Two villages had no ultra-poor residents.

4.2 Water supply services

The study communities relied overwhelmingly on shallow tube wells for their drinking water supply, with ponds providing additional water for non-drinking purposes. All twelve communities had experienced water supply improvements during the project period. In five cases the number of water points had roughly doubled, in others only a small number of additional water points had been installed.

Table 4: Overview of water supply services in the study communities

Name of community	Baseline		At time ODF		2008		Location
	DHTW	SHTW	DHTW	SHTW	DHTW	SHTW	
1. Hindu Pakutia	0	46	0	48	0	48	Kalihati, Tangail
2. Barta Purba Para	0	49	0	49	0	49	
3. Baldi Shikder Para	0	23	0	27	0	27	
4. Kursha Benu	0	74	0	82	0	82	
5. Bara Poi Kha Para	0	11	0	19	0	27	Manda, Naogaon
6. BaraPoi Master Para	0	20	0	25	0	35	
7. Shahpur Karigar Para	0	22	0	36	0	41	
8. Koya Para	0	68	0	117	0	141	Sitakunda, Chittagonog
9. Hedayet Ukil Para	0	18	0	25	0	25	
10. Mahajan Para	0	11	0	31	0	35	Bholahat, Nawabganj
11. Chota Jambaria	0	7	0	16	0	17	
12. Bara Jambaria	0	1	0	6	1+*	12	

SHTW: Shallow Hand Tube Well **DHTW:** Deep Hand Tube Well *Full details unavailable

ASEH projects included water supply improvements where necessary, but these were implemented only after substantial progress had been made with sanitation. User contributions towards capital costs were required, and communities were thereafter responsible for all operation and maintenance costs. The scale of community contributions varied according to the improvements made, but as examples the following information was obtained for two VERC communities:

Table 5: Water supply improvements in two clusters

Village	Water supply improvements	Capital cost including installation Tk.	Total community contribution Tk. (%)	Project contribution TK. (%)
Bara Jambaria	1 x deep tubewell with platform	23,750	1,349 (6%)	22,401 (94%)
Koya Para.	8 x platforms	1,600 – 2,200 each	30-66 per facility (2-3%)	1,570-2,136 (98-97%)

The cost of the community contributions was shared among the beneficiary households, using a sliding scale so that poorer households paid much less than better off ones. Given that the total community contribution was already quite modest, the burden on poor households appears to have been very light.

No information was available from WAB on water supply improvements, and associated community contributions, under pre-ASEH projects in the study communities.

By the time of the study, only four out of twelve communities (in Nagaon and Chapai Nawabgunj Districts) reported that they experienced significant water shortages in the dry season, due to ponds and tubewells drying up. Nevertheless, just 47% of respondents overall reported that they had enough water for flushing in the dry season (January to April), while 58% had enough for anal cleansing. 88% said they had enough for hand washing during this period.

These data suggest that water supply constraints may be impacting on sanitation and hygiene practices, though many poor households use a toilet with a polythene seal, which requires very little water for flushing (see 4.5), while richer households tend to have access to slightly more water.

Water for latrine operation and maintenance

Water for anal cleansing and hand washing was available in, or very close to, the toilet in most cases at the time of the study (September); two thirds also had soap or ash available. Only 54% of households had water for flushing in or close to the toilet, though in many cases water was available from nearby handpumps.

Table 6: Is water available at the toilet for flushing?

	Project status		Total
	On-going	Withdrawn	
Yes	54.7%	53.7%	54.2%
No		3.0%	1.4%
NA	45.3%	43.3%	44.4%
Total	100.0%	100.0%	100.0%

Table 7: Is water available at the toilet for anal cleansing?

	Project status		Total
	On-going	Withdrawn	
Yes	96.0%	86.6%	91.5%
No	4.0%	13.4%	8.5%
Total	100.0%	100.0%	100.0%

Table 8: Is water available at the toilet for hand washing?

	Project status		Total
	On-going	Withdrawn	
Yes	97.3%	85.1%	91.5%
No	2.7%	14.9%	8.5%
Total	100.0%	100.0%	100.0%

Table 9: Is soap or ash available at the toilet?

	Project status		Total
	On-going	Withdrawn	
Yes	68.0%	64.2%	66.2%
No	32.0%	35.8%	33.8%
Total	100.0%	100.0%	100.0%

Table 10: Impact on latrine coverage and use (as reported by communities)

Name of Cluster	O/W	H/L Perf	Baseline (date varies)			At time ODF declared (date varies)			At time of study (Sept 2008)			Time to ODF (months)
			No. of HH	No. of toilets	Coverage (%)	No. of HH	No. of toilets	Coverage (%)	No. of HH	No. of toilets	Coverage (%)	
Kalihati, Tangali	O	H	102	57	56	105	73	70	105	92	88	17
	O	H	92	69	75	92	86	93	92	81	88	12
	O	L	46	19	41	46	30	65	46	36	90	8
Manda, Naogaon	O	L	108	84	78	117	88	75	117	86	74	25
	W	L	42	5	12	60	43	72	60	43	72	14
	W	H	53	5	9	74	60	81	74	60	81	4
	O	H	48	5	10	73	68	93	73	68	93	22 days
Manda, Naogaon	O	L	124	24	19	168	84	50	233	127	55	21
	W	L	59	14	24	64	61	95	64	64	100	36
Bholahati, Chittagong	W	H	43	6	14	45	38	84	45	38	84	3
	W	L	67	11	16	73	53	73	94	73	78	36
Bholahati, Chittagong	W	H	97	4	4	115	69	60	115	83	72	54
	Average		73	25	30	86	63	73	81	81	72	19

O = Project ongoing
W = NGO withdrawn

H = High performing
L = Low performing

4.3 Achievement of ODF status

No visible evidence of open defecation was found in any of the twelve communities visited. However, both partner NGOs and community members acknowledged that a small amount of open defecation was still taking place. Children in particular were aware of the few defaulters, having played an important role in promotional campaigns.

Since the implementing NGOs were working across the whole upazila, it was not generally possible to compare the status of the study communities with that of neighbouring, non-intervention ones. The exception was at Hedayat Ukilpara, one of the Chittagong communities. It fell within a municipal boundary but was close to a village that was also a popular pilgrimage site. There was widespread evidence of open defecation at the site, though the influx of visitors no doubt added to the severity of the problem.

The reported time taken to achieve ODF status in the twelve clusters varied enormously, from 22 days to 54 months, with an average of 19 months; see Table 2. The huge variation arises partly from the deliberate selection of higher- and lower-performing communities, and partly from the fact that, in some cases, another sanitation project preceded ASEH and communities took the start of the earlier project as their baseline. While these earlier projects promoted latrine use, they did not specifically target the eradication of open defecation.

Notwithstanding the use of different criteria for setting the baseline date, it is not clear why some communities took much longer than others to reach ODF status, bearing in mind that there is popular support for the drive to eradicate open defecation. The research did not identify any factors relating to the quality of facilitation by the NGO; it may be simply be that some communities were more responsive than others.

Over the lifetime of the ASEH programme project the time taken to eradicate open defecation in a community has reduced significantly, and in new projects can be as little as three months, though WaterAid regard six months as the typical timescale.

In group discussion, roughly half of CBO respondents said that it had been easy to change their habits. None of them indicated that the government reward scheme had been a significant motivating factor in the achievement of ODF status.

4.4 Latrine coverage and use

Of the 142 households visited, 90% had toilets but this was not a random sample, hence the coverage figures provided by communities, taken from their maps and related records (see Table 3), were used as the key point of reference.

While ODF status had been reported in all 12 of the communities surveyed, reported latrine coverage was substantially less than 100%: it ranged from 60% to 95%, the average being 73% (see Table 3). This was surprising, given the evident willingness to use toilets and the availability of very cheap designs. It emerged that the 27% who did not have their own toilet were sharing with others, though this sharing was exclusively within families. This in turn implied that a significant number of the toilets installed were in shared use, even if they belonged to single households.

The precise level of sharing could not be determined from the first round of survey data, but respondents indicated that they were happy to share and that the number users per toilet was not so great as to cause serious inconvenience. In one community, Koya Para, latrine coverage had reached only 50% when ODF was declared, implying a particularly high incidence of sharing, though this was acknowledged to be a low performing community.

Of the respondents who did not have a private toilet, three reasons were cited: lack of space on the household's own plot; affordability; and ease of access to another family member's toilet. Interestingly, it was not only the poorest households that shared; some better off families were also happy to use a shared toilet if it was available.

Though lack of land for building a toilet was a constraint for some households, there were cases where richer households had allowed others to use some of their spare land for this purpose. As a result there were several instances where a family's toilet was sited closer to another family's house than to their own, though the majority were within 5m of the primary users' home. In one village – an exceptional case – many households had attached their toilet directly to the house.

Table 11: Distance of latrine from home

	Project status		Total
	On-going	Withdrawn	
5m or less	57.3%	82.1%	69.0%
5m-10m	28.0%	10.4%	19.7%
More than 10m	14.7%	7.5%	11.3%
Total	100.0%	100.0%	100.0%

Additional findings on sharing

To investigate the issue of sharing further, the research team returned to the study area and conducted a more extensive survey in two villages: Bara Jambaria (Nawabganj District) and Koya Para (Naogaon District), both of them in VERC project areas. In each community, all of the shared latrines (as identified by the community) were observed, plus a number of single-household latrines, so that in total half of the toilets were viewed. A much larger percentage of households was interviewed: 84% in Bara Jambaria and 71% in Koya Para.

Table 12: Selected clusters for additional survey

Community	Number of Households		Number of Latrines		Number of Tubewells	
	At ODF	December 2009	At ODF	December 2009	At ODF	December 2009
Bara Jambaria	115	115	58	83	N/A	12
Koya Para	168	233	84	127	117	141
Total	283	348	142	210		153

The table shows that, following the achievement of ODF status, latrine coverage had risen significantly in both clusters: by 43% in Bara Jambaria and 51% in Koya Para.

The additional survey revealed that 32% of the toilets (22/83) were shared in Bara Jambaria, and 41% (52/127) in Koya Para: an average of 37% sharing. The great majority of latrines in shared use had been built – and were maintained – by the owning household without contributions from other users. The number of people sharing each toilet varied widely, but the upper limit was higher than had been suggested by the first survey:

Bara Jambaria

54 households shared 22 latrines in (average 2.5 households per latrine)
Numbers sharing ranged from 2 households (5 people) to 6 households (25 people)

Koya Para

153 households shared 52 latrines (average 3 households per latrine).
Numbers sharing ranged from 2 households (3 people) to 5 households (20 people).

Households without their own latrine were asked why they did not have one and the same three reasons emerged as in the first round of investigation. All said they had access to a shared toilet, though not all gave this as the reason for not building their own (see Table 7). Among poor families, just over half reported that they already had access to a toilet elsewhere, just over one quarter cited cost as the reason, and another 15% said they had no land on which to build one. A further 3% gave the fact that they were renting as the reason. Interestingly, 17% of richer households explained that they were tenants, though the sample size was very small.

Table 13: Reason of not building a latrine for those who use a shared latrine

Why don't build own latrine?	Economic Status				Total
	Ultra poor %	Poor %	Medium poor %	Rich %	
No money	47.8	27.8	6.7		26.3
No land	26.1	13.9	2.2		13.5
Already have access	23.9	52.8	53.3	83.3	44.4
I live on rented house		2.8	37.8	16.7	14.3
No money and no land	2.2	2.8			1.5
Total	100.0	100.0	100.0	100.0	100.0

Where a large number of users are sharing a toilet, this inevitably raises concerns that the latrines may fill very quickly and/or that the inconvenience of queuing will result in some people reverting to open defecation. Having said this, no such concerns were raised by respondents. Findings on the condition of shared latrines are reviewed in section 4.5.

Returning to the findings from all ten communities, almost all of the toilets installed were being used, reportedly by all family members. (The lack of visible evidence of open defecation tended to confirm this). The exception was small children (the under-fives) but in this case many respondents said that they disposed of the child's faeces in the latrine.

For one third of respondents, this was not their first toilet, and nearly two thirds of the toilets inspected were built five or more years earlier – in other words, before the ASEH programme. Only one quarter of respondents had built their toilet within the preceding three years.

Table 14: When did you build your first toilet?

Years ago	Project status		Total
	On-going %	Withdrawn %	
1<	25.0	4.0	15.1
2-3	11.9	6.7	9.4
3-4	7.1	1.3	4.4
4-5	7.1	8.0	7.5
5-6	3.6	9.3	6.3
>6	45.2	70.7	57.2
Total	100.0	100.0	100.0

A wide range of reasons were given for constructing the toilet. Many of these were unsurprising, with health and privacy the most commonly cited factors. Less than 10% said that social pressure was a factor, and none gave social status as a reason.

Table 15: Why did you build a toilet?

	Project status		Total
	On-going %	Withdrawn %	
Health benefit	23.5	17.5	20.9
Privacy	15.7	2.5	9.9
Environmental benefit	3.9	22.5	12.1
CBO/Social pressure		7.5	3.3
NGO suggestion		2.5	1.1
Health benefit + privacy	29.4	17.5	24.2
Health + Environmental benefit	11.8	7.5	9.9
Health benefit and social pressure		5.0	2.2
Privacy and environmental benefit	11.8	12.5	12.1
Health benefit + privacy + environmental+ social pressure	3.9	2.5	3.3
All the above reasons		2.5	1.1
Total	100.0	100.0	100.0

There were very few schools in the clusters visited but where they were found, toilets were available to students and appeared to be used and reasonably well maintained. There were no markets in the study communities and the only public toilet seen was at a mosque. This was available to men only, but had not been provided by the project.

4.5 Latrine design and construction quality

The range of latrine types was extensive, and for the purposes the study these were classified into five types; see Figure 1. All had a single pit and the most common type (47%) comprised a slab with water seal and offset pit. Typical pit depths were reported to be in the range 9-12 feet, though this could not generally be checked as the latrines were in use and many were concealed, though in flood-prone areas it was common to raise the pit lining above ground, if lining was used.

Table 16: Latrine types

Latrine types	Project status		Total
	On-going	Withdrawn	
Offset pit			
Polythene seal, slab	17.3%	25.4%	21.1%
Water seal, slab	44.0%	49.3%	46.5%
Polythene seal no slab		4.5%	2.1%
Direct pit			
Ring slab, water seal	25.3%	11.9%	19.0%
No water seal	13.3%	9.0%	11.3%
Total	100%	100%	100%

The additional research in Bara Jambaria and Koya Para found that 65% of ultra poor, and 48% of poor, households visited used a latrine with polythene seal, while all rich households used a water seal latrine.

For the ten clusters overall, construction quality was generally medium to low, but most of the latrines effectively controlled flies and smells, and contained excreta safely; see Tables 7-12. Inevitably, assessments of parameters such as quality and durability were subjective to a large extent, but the emerging trends are quite clear. Roughly 60% of sub-structures were assessed as durable, and 56% of superstructures, though most did not have a roof (see photos). The durability of superstructures was not in any case of great importance since a privacy screen could be installed and replaced when necessary at minimal cost, and in locations subject to annual flooding there was little point in spending a lot of money on non-essential components.

Nearly all respondents said that their toilet was easy to clean.

It was evident that some households had spent money on items that were not strictly necessary, for example vent pipes on water seal latrines. It was not clear whether their use reflected a common perception in the community that vents were needed, or resulted from recommendations by masons or NGOs, perhaps under earlier projects.

Figure 1: Latrine types found in the study area



Offset pit, polythene seal

Plastic pipe split at exposed end serving as pan and waste pipe, polythene seal, single pit, slab.

Merits: Very cheap, safe disposal, pan easy to clean. Little water required for flushing.

Demerits: Limited lifespan, difficult to clean slab if made from brick.

Offset pit, water seal

Plastic, ceramic or RCC pan, brick footrests, plastic waste pipe, polythene seal, single pit.

Merits: Very cheap, safe disposal.

Demerits: Limited lifespan, needs more water for flushing than first option.

Offset pit, polythene seal, no slab

Plastic, ceramic or RCC pan; brick footrests, plastic waste pipe, polythene seal, single pit.

Merits: Very cheap, safe disposal.

Demerits: Limited lifespan, difficult to clean floor, needs more water for flushing than first option.



Direct pit, ring slab

RCC slab with footrests, plastic, RCC or ceramic pan, water seal, single pit lined with RCC rings.

Merits: Cheap, durable, easy to clean, everything can be reused, will not collapse in flood.

Demerits: Needs more water for flushing than first option.



Offset pit, polythene seal

Plastic pipe split at exposed end serving as pan and waste pipe, polythene seal, single pit, slab.

Merits: Very cheap, safe disposal, pan easy to clean. Little water required for flushing.

Demerits: Limited lifespan, difficult to clean slab if made from brick.

Table 17: Sub-structure: Construction quality

	Project status		Total
	On-going	Withdrawn	
High	5.3%	10.4%	7.7%
Medium	54.7%	41.8%	48.6%
Low	40.0%	47.8%	43.7%
Total	100.0%	100.0%	100.0%

Table 18: Is the sub-structure durable?

	Project status		Total
	On-going	Withdrawn	
Yes	65.3%	53.7%	59.9%
No	34.7%	46.3%	40.1%
Total	100.0%	100.0%	100.0%

Table 19: Is the superstructure durable?

Durable superstructure	Project status		Total
	On-going	Withdrawn	
Yes	50.7%	61.2%	55.6%
No	49.3%	38.8%	44.4%
Total	100.0%	100.0%	100.0%

Table 20: Is excreta separated from human contact?

	Project status		Total
	On-going	Withdrawn	
Yes	88.0%	91.0%	89.4%
No	12.0%	9.0%	10.6%
Total	100.0%	100.0%	100.0%

Table 21: Does the toilet smell?

	Project status		Total
	On-going	Withdrawn	
Yes	29.3%	22.4%	26.1%
No	70.7%	77.6%	73.9%
Total	100.0%	100.0%	100.0%

Table 22: Are there flies?

	Project status		Total
	On-going	Withdrawn	
Yes	21.3%	20.9%	21.1%
No	78.7%	79.1%	78.9%
Total	100.0%	100.0%	100.0%

Table 23: Is it easy to clean?

	Project status		Total
	On-going	Withdrawn	
Yes	94.7%	97.0%	95.8%
No	5.3%	3.0%	4.2%
Total	100.0%	100.0%	100.0%

Condition of shared latrines

The additional research in Koya Para and Bara Jambaria found no significant difference (reported or observed) between shared and single-household latrines in terms of design, cost, construction quality or hygienic status. It was evident, however, that latrines built by poor households (both superstructure and sub-structure) tended to be of lower quality than those built by more wealthy families. For both shared and single use latrines, latrines were mostly built close to the house (5-10m away).

Four fifths of the toilets inspected (the bulk of which were shared) appeared relatively easy to clean, and were clean at the time of inspection. This said, a significant incidence of defects was noted:

- 31% showed evidence of flies;
- 35% did not separate faeces from human contact due to broken water or polythene seals (38% among medium poor to ultra poor, 11% among rich households);
- 20-29% had smell in medium poor to ultra poor categories, none among the rich; and
- 15% in the poor/ultra-poor category posed risk of contamination of surface water, none among the rich.

It cannot be concluded from these data that shared latrines are generally less hygienic than those used by single households. What is clear is that latrines belonging to better off households tend to be of a superior quality, and in a more hygienic condition, than those of the poor.

4.6 Construction costs

The majority of respondents had built their toilets at very low cost: 59% had spent Tk 100 (£0.92) or less and just 27% had spent more than Tk 500 (£4.60). Only 5% had spent more than Tk 1,000. This expenditure was additional to any material support from the Union Parishad or any other source.

Table 24: Cost to build the toilet

Cost (Tk)	Project status		Total
	On-going	Withdrawn	
0	1.2%		.6%
1-100	50.0%	68.0%	58.5%
101-200		2.7%	1.3%
201-300	1.2%	2.7%	1.9%
301-400	3.6%	4.0%	3.8%
401-500	10.7%	2.7%	6.9%
501-1000	26.2%	17.3%	22.0%
10001+	7.1%	2.7%	5.0%
Total	100.0%	100.0%	100.0%

Only 13 out of 142 households had received any material support in construction of their first toilet. Of these, just 7 had been assisted by the Union Parishad; the others had received support under another donor-supported project operating in the same upazila (sub-district).

4.7 Environmental sanitation

In addition to their ODF status, nine out of twelve clusters visited were generally clean. Kursha Benu, in Tangail, stood out as the cleanest, even though it has been identified by the implementing NGO as a one of the lower performing communities and was subjected to annual flooding. Both richer and poorer households maintained a high standard of domestic hygiene but it was not possible to identify why this particular village performed so well, or to correlate the level of cleanliness with other favourable water- and sanitation-related factors.

It should be borne in mind here that the ASEH project design includes the promotion of general cleanliness as well as an end to open defecation, hence the general hygienic status of the study communities could not be attributed specifically to the CLTS ignition process.

4.8 Equity

The issue of equity in programme implementation and outcomes was explored through discussion and interviews with NGO personnel, government officials, CBO members, focus groups and individual households. Particular concerns were whether:

- Affordability or physical constraints prevented some households from building and/or maintaining toilets
- Assistance from the UP reached the ultra-poor and was not diverted to others
- Coercion was applied to households that were slow or reluctant to build toilets
- Some sectors of the community were excluded from project benefits or declined to participate

Affordability

While some respondents without a toilet cited affordability as a constraint, including one female household head who had taken a loan, many very poor households had built one and the availability of some very cheap and simple designs (less than £1) suggested that cost need not be a constraint even when – as in most cases – assistance from the Union Parishad was not available. Furthermore, it seems unlikely that the small community contributions required for water supply improvements would have constrained the ability or willingness of households to invest in latrines (see 2.4 above). This being the case, it remains unclear why a significant number of households in each cluster had not built toilets: 50% in one case, though this was a low performing community. It should also be borne in mind that in many of the communities, latrine coverage had continued to rise after the achievement of ODF status.

Physical constraints

Just 6% of respondent households included a family member with a disability. Of those who faced a physical challenge in using the toilet, more were concerned with the proximity of the latrine to the house than with its design.

Gender dimensions

Routine cleaning of the toilet, and fetching water for flushing, was regarded as women's work in the study communities, though none reported that having a toilet had imposed an additional burden on them. Most households had easy access to water.

Table 25: Who cleans the toilet?

	Project status		Total
	On-going	Withdrawn	
Female	85.3%	91.2%	88.1%
Male	1.3%	1.5%	1.4%
Both	13.3%	7.4%	10.5%
Total	100.0%	100.0%	100.0%

Allocation of Union Parishad assistance

Ward members were free to allocate UP assistance for toilets as they saw fit. Not all of this assistance went to the ultra poor, and not all ultra poor households received help. Only 14 households out of 142 households were assisted, half for their first toilet and the other half for replacement or upgrading.

Inclusion

The study did not find serious cases of exclusion from project benefits. Three out of ten clusters included a small minority of Hindu households, and in one case a focus group reported that this minority had been excluded from the CBO. The minority households were not ultra-poor, however, and had toilets.

Coercion

In one case only, the UP Chairman reported that the implementing NGO had made support to water supply improvements conditional on progress in building toilets. Notwithstanding this, neither this community nor any other respondents indicated that the switch to fixed point defecation had been enforced. Similarly, there were reports that the Union Parishad had in a few cases linked access to welfare benefits such as rice rations to progress in latrine construction, but this was generally understood as a motivational tactic rather than a real threat of sanctions. The fact that most toilets were being used tended to suggest that people really had changed their behaviour and had not built their toilets simply to comply with project or peer pressure.

The NGOs had encouraged children to play an active role in the process of eradicating open defecation. They had, for example, distributed whistles and encouraged children to blow them whenever they saw someone defecating in the open. This shaming process was apparently quite effective.

A third, somewhat unusual instance of persuasion was cited by one Union Parishad Chairman. He reported that he had intervened to encourage a reluctant rich family to build a toilet. It may be that richer families are less susceptible to social pressure than their poorer neighbours.

4.9 Sustainability

Assessing the sustainability project impacts was difficult given the short time frame since many of the study communities had achieved open defecation-free status. Moreover, the implementing NGO was still active in half of the clusters visited and had left only recently in the others. In the light of this, four proxies for long term change were used. These were evidence that:

- Full pits were emptied and/or replaced
- Breakages, pit collapses and latrines damaged by natural disasters were replaced
- New members of the community (in-migrants or new adults) built and used latrines
- Some individuals and households were moving up the sanitation ladder

Findings on each indicator are discussed below. In general, though, there was no evidence of people reverting to open defecation; almost all of the latrines were being used; none had been abandoned without good reason and faeces were not seen in the village surroundings.

1. Pit emptying

Two fifths of respondents had experienced a full pit. This is a significant number though a higher figure would not have been surprising, given that 27% of households shared a toilet. Of those experiencing a full pit, half had emptied it while nearly one third had relocated the toilet to a new pit (as recommended by WaterAid). There were also two very surprising responses:

- In one community, some residents added salt and kerosene to full pits in the belief that this would cause the contents to dissolve or at least reduce substantially
- In another, flood-prone community, residents reported that during the monsoon they removed the slabs and/or pit covers so that the contents were flushed out by the rain

These were exceptional cases, but a widespread practice was for households to pay sweepers to empty their pits manually, at a typical cost of Tk 200 (1.84) – more than most had paid for the toilet itself. This was done by digging another pit nearby, emptying the contents into it and covering it. Since all of the toilets had a single pit, this meant handling fresh faeces.

Table 26: If the pit filled, what did the family do?

	Types		Total
	On-going	Withdrawn	
Emptied it	40.9%	57.6%	50.9%
Will make it empty	4.5%	6.1%	5.5%
Shifted to new pit	36.4%	24.2%	29.1%
Opened the slab in rain	18.2%		7.3%
Added salt and kerosene		12.1%	7.3%
Total	100.0%	100.0%	100.0%

2. Other maintenance and repairs

One quarter of respondents had carried out some form of maintenance or repairs. Nearly one third of these had done so at zero cost, while another third had spent 100 Tk (£0.92) or less. Only 12% had spent more than Tk 200 (£1.84). Only 1 in 20 respondents had received any external assistance with maintenance or repairs. In the two flood-affected communities studied, people had rebuilt their toilets following flood damage.

Table 27: Cost of maintenance

Expenditure (Tk)	Project status		Total
	On-going	Withdrawn	
0	30.8%	28.6%	29.4%
1-100	30.8%	28.6%	29.4%
101-200	23.0%	33.2%	29.4%
201-300	7.7%	4.8%	5.9%
301-2000	7.7%	4.8%	5.9%
Total	100.0%	100.0%	100.0%

3. Latrine use by new community members

Some of the study communities had grown since ODF was achieved, as a result of both new arrivals and household expansion. There was no evidence that open defecation was being practised by these additional households; some were sharing an existing toilet, while others had built their own.

4. Climbing the sanitation ladder.

There were numerous examples of latrines being repaired, improved or replaced. 36% of household respondents said that the toilet was not their first, while elsewhere the data shows that just 24% had upgraded or replaced their latrine. The discrepancy between these two figures is hard to explain, but even using the lower figure it seems clear that a significant amount of improvement or replacement had taken place. Of those who had replaced their first toilet, the majority had done so within the last three years – in other words, during the ASEH project. 73% of households had upgraded in one community (Mahajan Para) and only one community reported that there had been no upgrading at all.

The most common reason given for replacing a toilet was that the old one was 'broken', though exactly what this meant is not clear. Another 20% said they did it to bring the toilet nearer to the house.

Table 28: Why upgraded/replaced?

	Types		Total
	On-going	Withdrawn	
First one was broken	29.2%	34.5%	32.1%
Land was sold	8.3%		3.8%
Earlier one was shared with others	4.2%		1.9%
To have it near to house	4.2%	34.5%	20.8%
Previous one was unhygienic	12.5%	17.2%	15.1%
Latrine was flooded	8.3%		3.8%
Construction of the previous one was faulty	4.2%		1.9%
Previous one filled up	16.7%	13.8%	15.1%
Close to the tube-well	12.5%		5.7%
Total	100.0%	100.0%	100.0%

In three quarters of cases the new toilet was different from the old one; typical improvements are listed below.

Table 29: Typical improvements

Sub-structure (67% of improvements)	Superstructure (33% of improvements)
Water seal	<i>Walls:</i>
Pit lining (earthen/RCC rings)	Brick
Plastic pipe	Corrugated iron sheet
Plastic pan	Earth
Concrete floor	Wood
	<i>Roof:</i>
	Corrugated iron sheet

As with new toilets, the majority of respondents had spent Tk 100 (£0.92) or less on improving or replacing their latrine, though there were exceptional cases in Chittagong, where a few households had spent considerable amounts: as much as Tk 30,000 (£276) in one case.

Table 30: Cost of replacement/upgrading

Cost (Tk)	Project status		Total
	On-going	Withdrawn	
0	6.0%	1.3%	3.8%
1-100	77.4%	69.3%	73.6%
101-500	8.4%	9.43.2%	8.8%
501-1000	4.8%	4.0%	4.4%
1001+	3.6%	16.0%	9.4%
Total	100.0%	100.0%	100.0%

One in six of these had received some external support with upgrading, either from the Union Parishad or another donor-supported project operating in the locality – but not from ASEH.

4.10 Costs of achieving ODF

Identifying total project costs per community proved challenging as the available programme data was hard to disaggregate, particularly at community level. Moreover, WaterAid and partner financial reporting systems tend to focus on inputs within a certain geographical area rather than on work related to sanitation specifically. Nevertheless it was possible to make reasonable estimates; see Table 25.

Table 31: Summary of project costs per community (US\$, 2008)

	VERC	UST
Programme costs (training and support)		
Local NGO support and overheads	369	282
WaterAid national support	152	152
Software (Hygiene/ IEC)	33	52
Software (CLTS, training and follow up)	56	20
Hardware	0	0
Total WaterAid	610	506
Local Government/UNICEF contributions	31	31
Household contributions	200	200
Total	829	724

The full cost of local NGO staff time for all community-level activities is included here under the NGO support head.

It should be noted that the local government contributions reported by project staff are somewhat lower than the figures recently reported from a WSP-supported study of another CLTS programme in Bangladesh (Dishari). Further investigations would be needed to clarify these data.

The available field data were also used to examine the cost-effectiveness of WaterAid investments in terms of outcomes (households benefited and latrines constructed). The average per-community costs shown in Table 26 (but excluding local government and household contributions) were applied to the field data (numbers of households and numbers of latrines) obtained from the study communities to generate average values for all study communities.

Cost-effectiveness

Average per household costs proved to be relatively low (see Table 26) which is not surprising given the size of the project, which enables significant economies of scale, and the fact that ASEH operates under the umbrella of an established national programme, which has created an enabling environment for progress.

Table 32: Cost-effectiveness of WaterAid investments in Study Communities (US\$, 2008)

	VERC	UST
Per household	7	6
Per latrine	12	42
Per latrine in use	n/a	n/a

4.11 Role of the implementing NGO

It was beyond the remit of the study to investigate the project implementation process in detail. Nevertheless it was noted that both of the implementing NGOs had established a good working relationship with the Union Parishad and there was a good deal of collaboration with them.

On the matter of conditionality (progress in sanitation being a precondition for NGO support to water supply improvements), both NGOs maintain that this is not their standard practice – the reported incidence of conditionality was an aberration.

It was not possible to establish any causal link between higher and lower performing communities and the quality of facilitation by the NGO. The fact that all of the villages had achieved, and were maintaining, ODF status tends to suggest that outcomes were not dependent on the efforts of a few exceptional leaders from the NGO, the community or local government.

4.12 Role of the Union Parishad

UP Chairmen were able to talk about the projects in some detail, confirming that they were involved to a significant degree. They confirmed that the NGO projects had pivotal to the outcome in the communities studied, though the government programme was also operating in these upazilas and they used their influence as Chairman to promote and accelerate progress. This included occasional direct intervention, for example to motivate richer households to participate in the programme and/or to encourage them to let others build toilets on their land. Ward members also promoted the programme, for example via annual ward level motivational campaigns.

Regarding government rewards for ODF status, discussion with UP representatives confirmed that these had not been a great motivating factor. (Subsequent discussion with the consultative group indicated that the reward scheme is not widely known except in places where NGOs or more dynamic local leaders have promoted it.)

The extent to which sanitation was a local political priority seemed to vary from place to place, but some Chairmen indicated that they were held accountable for progress by the district leadership.

On the issue of material assistance to poor households, six UP Chairmen reported that they had each issued roughly 10,000 sets of ring slabs, with an average of 20-25 sets per community. Most of these had been used for upgrading existing toilets. They also said that resource constraints (including delays in releases) prevented them from assisting as many households as they would like in each village. Furthermore, they acknowledged that there had been some inappropriate targeting of UP assistance.

Turning to progress monitoring, UP representatives and engineers from the Department of Public Health Engineering deployed in local government reported that they were involved in monitoring during the drive to eradicate open defecation, but did not continue monitoring thereafter.

Section 5

Discussion

The findings reveal that the projects have had a far reaching impact on sanitation, and there is substantial evidence that fixed point defecation is being sustained both in communities where the NGO is still present, and those where it has withdrawn. At the same time it must be borne in mind that CLTS was not launched on a ‘blank canvas;’ in several of the communities it followed on from an earlier sanitation project, and many of the toilets observed were built prior to the ASEH project. The earlier projects did not focus on ending open defecation, nevertheless their contribution to latrine promotion and coverage should be kept in mind.

Regarding the central hypothesis of the research, it is impossible to conclude that achieving ODF status is ‘necessary but not sufficient’ for sustainable use and maintenance of latrines, since no communities were found where intervention ended with the eradication of open defecation. It is abundantly clear, however, that where project intervention goes far beyond ODF, a great deal can be achieved. The fact that ASEH projects are so long and comprehensive in fact raises different questions: At what point should a project be considered finished? Is it possible that latrine use would be sustained even if the NGOs pulled out earlier? Do motivational visits by the NGO eventually lose their potency, when water supply and sanitation improvements were completed some time ago?

On the question of whether communities ‘climb the sanitation ladder, the findings were more ambiguous; there has been a substantial amount of maintenance, repair and replacement, but people maintain a similar level of expenditure for both their first and second/improved latrine. It is nonetheless impressive that latrines which dispose of excreta safely can be made so easily and at such low cost. The huge array of designs developed in recent years confirms both that CLTS is effective in encouraging innovation, and that most poor households are capable of building – and replacing – latrines without direct external assistance. Only a very small percentage of respondents indicated that they could not afford a latrine in these circumstances.

While these are encouraging findings, the study also identified potential risks to the sustainability of latrine use. The first concerns relate to the level of latrine sharing. In the communities visited, people said they were happy to share within the extended family, nevertheless when a latrine could be made for Tk 100, and without the need for a skilled mason, it is surprising that the average level of latrine coverage was not higher. In addition, the number of people sharing a single toilet – 20 to 25 in some cases – raises concerns that access may become constrained due to queuing, leading some people revert to open defecation, and that the cleaning and maintenance implications of heavy usage may result in some latrines falling into disuse. On both points, no evidence of serious problems was found, nevertheless

the potential risks should be borne in mind and the impacts of sharing warrant close monitoring. To counter this concern, it is also noted that, in at least some of the ten clusters, latrine coverage has continued to rise since ODF was declared, suggesting that the level of sharing may be decreasing. If coverage levels continued to rise in the years following NGO withdrawal, this would be compelling evidence of sustained impact.

A second area of concern relates to seasonal water shortages. While water supply improvements had been carried out in several of the communities, either under ASEH or an earlier project, less than half of respondents reported that they had enough water for flushing in the dry season (January to April), while just 58% said they had enough had enough for anal cleansing. Some of the innovation in latrine design – particularly the adoption of the polythene seal – has helped communities cope with a limited water supply, nevertheless the extent of the reported shortages suggests that latrine operation and maintenance, and personal hygiene, may be compromised at times. Both could provide a reason for some people to revert to open defecation.

Thirdly, pit emptying presents a challenge. Manual emptying has long been the practice in urban areas and is therefore nothing new, nevertheless as Bangladesh approaches its 2010 sanitation target, the number of full single-pit latrines will become ever larger, presenting a huge public health challenge. From a technical point of view, a number of solutions could be proposed (conversion to twin-pit models or the introduction of mechanical emptying where practicable, for example) but much will depend on finding practical options that are both affordable and acceptable to rural communities. Since pit emptying costs more than the toilet itself in many cases, the challenge should not be under-estimated. WaterAid and partners are aware of the need to address this issue and it is informing the planning of the new country programme, post-ASEH. One obvious area of attention is the scope of follow-up visits to CBOs by the NGO Health Motivators. It is not clear whether these currently include practical advice and encouragement on pit emptying.

A question often raised in relation to CLTS is whether communities replicate the approach without external assistance. The research could not answer this question because coverage by government and donor-assisted sanitation projects is so high; in the areas visited the expanding number of ODF communities is overwhelmingly due to external facilitation. This does not mean that spontaneous replication could not occur, only that it has not been seen. The only reported incidence of replication in the study area was in Kushumba, where the community had invited VERC into their village after a local school teacher (and later CBO leader) joined a study tour to another village and was enthused by the progress there.

Lastly, when comparing the findings from Bangladesh with those from Nepal and Nigeria, it is important to bear in mind the scale of the ASEH project, and the fact that it takes place within a framework of government commitment to achieving the sanitation-related MDGs ahead of time. Easy access to a ready supply of cheap latrine components in local markets is another dimension to the enabling environment, making it both cheap and easy to construct a hygienic latrine.

References

WSP (2007) *A National Sanitation Strategy based on Community Led Total Sanitation (CLTS): Lessons from Performance of Implementation Approaches in Rural Bangladesh*, Draft, World Bank.

Government of Bangladesh (2005) *National Sanitation Strategy*.

Government of Bangladesh (2008) *Bangladesh Country Paper, Sanitation in Bangladesh, Draft, paper prepared for the Third South Asian Conference on Sanitation, SACOSAN-III*, Local Government Division, Ministry of Local Government, Rural Development and Co-operatives.

Annex

Summary findings (Cluster)

Cluster	Boropoi Paschim Para	Implementing partner	VERC
Ward	4	Intervention start (M/Y)	3/02
UP	Kushamba	ODF declared (M/Y)	2/03
Upazila	Manda	Project withdrawal (M/Y)	7/07
Total HH	76	Date of survey	13/9/08
High/low Performer			

Sustainability

Latrine construction	<p><i>Most common types installed</i></p> <p><i>Quality and durability</i></p> <p><i>Evidence of upgrading</i></p> <p><i>Damaged/abandoned latrines</i></p>
Latrine use and maintenance	<p><i>ODF?</i></p> <p><i>Amount of sharing</i></p>

Equity

Any barriers to participation/ latrine construction	
Assistance for ultra-poor	
Exclusion of minorities	

Transect findings

Sanitation	<p><i>ODF status, common latrine types</i></p> <p><i>Availability of public and school toilets</i></p> <p><i>General cleanliness</i></p> <p><i>Any sanitary improvements beyond toilets</i></p>
Water resources and supply	<p><i>Drinking water coverage and sources by type</i></p> <p><i>Arsenic contamination?</i></p> <p><i>Rivers, water bodies in or close to cluster</i></p> <p><i>Incidence of flooding</i></p> <p><i>Water table depth (and seasonal changes)</i></p>
Community	<p><i>Main economic activities</i></p> <p><i>Presence of defined ethnic/religious groups</i></p>

Feedback from community meeting

Before		After	
Total HH		Total HH	
HH with toilet		HH with toilet	
HH no toilet		HH sharing	
School toilets in cluster		School toilets in cluster	
Public toilets in cluster		Public toilets in cluster	

- 1. What was done to encourage people to change their habits? Was it easy to achieve change?**
- 2. Did any households face difficulties (practical or financial) in making a toilet? How was this resolved? (e.g. sharing, external assistance, support from richer households)**
- 3. What changes have occurred since NGO withdrew from the village? OR What changes have occurred since ODF was achieved (if NGO is still there):**

Changes	Findings
Rebuilding after floods	
Upgrading	
Return to open defecation	
New arrivals, expanded households – toilets?	
Other	

Feedback from interview with UP Chairman (or other LG representative)

- 1. Local government involvement in sanitation improvements in the study communities*
- 2. How many households were assisted with subsidy?*
- 3. Any constraints on government assistance*
- 4. Is there local political pressure (from District) to meet government sanitation targets? Any coercion or incentives for communities?*

Overview from NGO on the study community

High or low performing? (explain)

Importance of external assistance (e.g. need for subsidies to ultra poor, why NGO is needed after ODF achieved)

Effectiveness of CBO

Extent of local government involvement

Upazila/UP level Interviews

UP Chairman/ward member (and/or DPHE engineer)

- How were sanitation improvements in these villages achieved?
 - mobilisation, motivation, assistance to the poor, rewards
- Frequency of local government interaction with communities on sanitation
- How is progress monitored?
 - including assessment for ODF reward
- Any constraints faced in meeting government sanitation commitments
 - resources for assistance to hardcore poor
- What has been the contribution of the NGO to the outcome?

Implementing NGO staff

Note staff interviewed and their roles.

1. Basic project information

- Project coverage (number of communities/Districts)
- Number and type of staff deployed at District, Upazila, UP, CBO level
- Start and end date (overall and in research locations)
- Nature and scope of project assistance
- Specific objectives regarding sanitation and hygiene
- Identify key reports/documents for reference

2. Operational approach

- Community selection criteria
- Implementation process and phasing
 - How important is good facilitation?
- Any changes in approach since the project started?
- How are equity issues addressed?
- Role of local government, their impact on progress

3. Results

- Overview of progress generally and in study communities
- Is the approach more successful in some communities than others? Why?
- What is known about the sustainability of sanitation improvements?
- Typical length of intervention per CBO (by phase)
- How long does it take to reach ODF status?

4. Costs

- What information does the NGO have on costs of achieving
 - ODF status
 - Full project objectives?

(Could be cost per CBO, cost per beneficiary, annual project cost etc.)

5. Study communities

- Collect available data (baseline and outcomes) on study communities
- Anything unusual about the study communities?
- Any deviations from the standard process?
- When was last visit made?
- If project still active in community, explain nature of ongoing support and frequency of visits

Also interview **health/other government extension workers** if active in the study communities

Community level investigations

Community meeting

1. Introduction, purpose of visit, etc.
2. Invite participants to tell the story of sanitation and hygiene improvements in the village
3. Review community map, other data
 - Situation before project
 - Changes following project intervention
 - Any change in population
4. What was done to encourage people to change their habits? (By the NGO, the community itself and/or local government)
 - What is the role of the CBO?
5. Any for whom construction and use of toilet was difficult? (e.g. affordability problems, disability, men are absent)
 - How was this resolved? (intra-community subsidies?)
 - Any sharing of toilets?
 - Typical toilet costs to the household
6. Are toilet facilities available outside the home? (school, market etc.)
 - Who provided them?
 - Who maintains them?
7. Any changes since the NGO withdrew, or since ODF status was achieved? (If NGO is still there.)
 - Rebuilding after floods?
 - Upgrading?
 - Reversion to open defecation?
 - Abandoned toilets?
 - Do new arrivals/expanded households build toilets?

Identify participants/interviewees for

Transect walk

Focus Group Discussions

- Women-headed households
- Children/adolescent girls
- Ethnic/religious minority groups

Key informant interviews

- Households without a toilet
- Disabled people
- New or expanded households

Household interviews/inspections

- Mix of medium, low-income and ultra-poor households. Visit 10% of cluster households, with a minimum of 10 inspections in total per cluster.

Focus group discussions

1. Women-headed households/Ethnic + religious groups

Location

State/LGA/Community name

Participants: Number and category

- Story of their participation in the project
 - Involvement in CBO (presence and decision making)
 - Ask who has/does not have a latrine
 - Reasons why/why not
 - Any sharing of latrines?
 - Participation in latrine construction
 - Kind, cash
 - Access to physical assistance
 - Access to subsidy
 - Any difficulties experienced
 - Any coercion?
- Toilet use and sustainability
 - Do all family members use it?
 - Any constraints on use or maintenance? (e.g. lack of water)
 - Reconstruction, rehabilitation or upgrading:
 - Has any been done?
 - Would anyone like to improve/upgrade? (discuss opportunities, constraints)
 - Access to public toilets

2. Children/adolescent girls

- Do they use a toilet at home
 - if no, reasons
- If toilet at home, do all other family members use it
- Access to toilet in school
- Where do they learn about sanitation and hygiene
 - Involvement in school hygiene club, brigade

Household interviews – checklist of questions

A. Household profile

1. Name of respondent..... Male/Female.....
2. Village..... Ward #..... Union.....
Upazilla..... District.....
3. Religion/ethnicity: (give **✓** as appropriate) Muslim Hindu Christian
Buddhist other..... (please specify)
4. Economic status: (give **✓** as appropriate) Ultra poor Poor
Medium poor other..... (please specify)
5. HH classification: (give **✓** as appropriate) Male Headed Female Headed
Disabled Headed Disabled in H/H other..... (please specify)

IF THERE IS **NO TOILET**, GO STRAIGHT TO SECTION F

B. Construction

1. For new toilets

- 1.1 Is this the first toilet you have had in this home? (Give **✓** as appropriate)
Yes No Skip to question 2.1
- 1.2 When was this latrine built?.....Year ago.
- 1.3 Why did you build it?
.....
.....
.....
- 1.4 Was there any external support? (Give **✓** as appropriate) Yes No
- 1.5 What was the cost to your family? in Taka Don't know
- 1.6 What items did you pay for? (Please specify name of item if you paid for)
a b c d
e f g h
- 1.7 Would you like to upgrade or replace the toilet? (Give **✓** as appropriate)
Yes **SKIP TO QUESTION 2.1** No
Why, give reasons
.....
.....

- 1.4 If yes, in what way? (Give **✓** as appropriate)
Improvement of superstructure Improvement of substructure
Others (Please specify)

2. If replaced/upgraded (IF **NOT REPLACED**, GO STRAIGHT TO SECTION C)

- 2.1 Did you have one before this? (Give **✓** as appropriate) Yes No
- 2.2 If yes was it different? (Give **✓** as appropriate) Yes No
- 2.3 Why was it replaced? (Give reasons)
.....
.....
.....
- 2.4 What was the cost of replacement/upgrading?in Taka/don't know
- 2.5 Any external support? (Give **✓** as appropriate) Yes No
If yes, please specify
.....
.....

C. Latrine use

3. When at home, do all family members use the latrine regularly?

(Give **✓** as appropriate)

Yes **SKIP TO QUESTION 3.2** No

If not, what are the reasons?
.....
.....
.....

Where do they defecate if not in the latrine? (Give **✓** as appropriate)

Shared latrine OD container other..... (Please specify)

3.2 Do some family members need support or help to use the latrine?

(Give **✓** as appropriate)

Yes No **SKIP TO SECTION D**

If yes, what kind of help needed
.....
.....
.....

If yes, from whom? (Give ✓ as appropriate)

Parents brother sister spouse son daughter

other.....(Please specify)

3.3 What changes/ improvements would make the latrine more usable?

.....
.....
.....

D. Cleaning

4. Who cleans the latrine? (Give ✓ as appropriate)

Female member male member both other.....(Please specify)

5. Is it easy to clean? (Give ✓ as appropriate) Yes No

If no, give reasons

.....
.....
.....

E. Maintenance

6. Has your pit filled up yet? (Give ✓ as appropriate) Yes No

If yes, what did the family do about it?

.....
.....
.....

7. Have you carried out any other repairs or maintenance?

(IF ANSWER IS **NO** THEN **END INTERVIEW**)

(Give ✓ as appropriate) Yes No

If yes, give details

.....
.....
.....

7.2 Cost of maintenance repairs carried outin Taka/don't know

7.3 Any external assistance for this? (Give ✓ as appropriate) Yes No

(IF ANSWER IS **NO** THEN **END INTERVIEW**)

If yes, explain

.....
.....
.....

7.4 Who did it? (Give ✓ as appropriate) Family member outsider

F. If no household latrine

8. If no latrine, where do family members defecate? (Give ✓ as appropriate)

OD shared latrine other.....(Please specify)

Why do you not have a latrine?

.....
.....
.....

Any other comments about the programme

WaterAid: Three-country Total Sanitation Study

No.....

Project name.....

Latrine observation checklist

A. Household profile

1. Name of respondent..... Male/Female.....
2. Village..... Ward #..... Union.....
Upazilla..... District.....
3. Religion/ethnicity: (give **✓** as appropriate) Muslim Hindu Christian
Buddhist other..... (please specify)
4. Economic status: (give **✓** as appropriate) Ultra poor Poor
Medium poor other..... (please specify)
5. HH classification: (give **✓** as appropriate) Male Headed Female Headed
Disabled Headed Disabled in H/H other..... (please specify)

B. Physical Descripton of Latrine

6. Type of latrine (please give **✓** as appropriate)

Offset pit			Twin pit pour flush	Ring slab	Other (pls specify)
Polythene seal	Water seal	Polythene seal no slab			

7. Sub-structure
Construction quality High Medium Low
Is the sub-structure durable? (give **✓** as appropriate) Yes No
8. Superstructure
Is the superstructure durable? (give **✓** as appropriate) Yes No
9. Distance from home (give **✓** as appropriate)
Attached or within 5m 5m - 10m More than 10m

10. Accessible/usable all year round? (Give **✓** as appropriate) Yes No
If no, give reasons

.....
.....
.....

11. Is water available/close by for? (Give **✓** as appropriate)
 - 11a. Anal cleansing Yes No
 - 11b. Flushing Yes No Not Applicable
 - 11c. Hand-washing Yes No
 - 11d. Soap/ash available Yes No

C. Hygienic Condition

12. Evidence of flies (Give **✓** as appropriate) Yes No
If yes, give reasons

.....
.....
.....

13. Excreta separated from human contact (Give **✓** as appropriate) Yes No
If no, give reasons

.....
.....
.....

14. Smell (Give **✓** as appropriate) Yes No
If yes, give reasons

.....
.....
.....

15. Risk of contamination of surface water (Give **✓** as appropriate) Yes No
If yes, describe problem (e.g. leaking, overflowing sludge)

.....
.....
.....

D. Usable condition

16. Is the latrine in working, usable condition? i.e. not blocked/ broken
 (give **V** as appropriate) Yes No
 If no, describe

17. Any health risks associated with maintenance (e.g. emptying pits)
 (give **V** as appropriate) Yes No
 If yes, describe

18. Is the latrine safe to use (e.g. Firm slab/ floor)
 (give **V** as appropriate) Yes No
 If no, describe

19. Is there sufficient privacy (e.g. walls without holes, door /screen closes)
 (give **V** as appropriate) Yes No
 If no, describe

E. Evidence of Use

20. Evidence of Use
 (Record the observation e.g. slab cleaned, water available, provision of light,
 path cleared, pit filling up)

F. Cleanliness

21. Is the latrine clean? (give **V** as appropriate) Yes No
 22. Does it appear easy to clean? (give **V** as appropriate) Yes No Somewhat
 If somewhat, describe

Name of observer.....
 Signature of verification.....
 Date of observation.....

Notes



WaterAid's vision is of a world where everyone has access to safe water and sanitation.

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