2 Functionality and sustainability of community latrines under the Advancing Sustainable Environmental Health urban programme

Tanveer Ahsan, Shahidul Islam and Peter Ryan

Based on a report by Tanveer Ahsan et al of DevConsultant in May 2007, abridged and edited by Shahidul Islam, WaterAid Bangladesh and Peter Ryan

Abstract

Under WaterAid Bangladesh's Advancing Sustainable Environmental Health (ASEH) programme new methods of providing sanitation in densely populated urban slums have had to be implemented. Community latrines are the principle development. At the mid point of ASEH, the consultants were contracted to show what could be learned about community latrines from a usage, technical and programmatic/institutional standpoint. All aspects were considered largely successful and key recommendations made on some design aspects, on better hygiene and behavioural integration, and on helping CBOs to develop.

Introduction

ASEH urban programme and community latrines

Under WaterAid's ASEH Urban Programme, WAB is working with NGO partners in the slums of Dhaka, Chittagong, Khulna and Narayanganj cities, to implement a range of technological options for urban sanitation programmes. About halfway through the ASEH project, DevConsultants began a review of pit and community latrine implementation and produced its report in May 2007. This case study is based on that report and is concerned solely with community latrines.

The urban slums in the major cities are characterised by a high density of population and habitation with severe water and sanitation problems. The population density in Dhaka slums is about 220,000 people per km^2, compared to about 30,000 people per km^2 in the rest of Dhaka city (Centre for Urban Studies, 2005). The slum population density in Chittagong and Khulna is about 255,000 and 133,000 people per km^2 against the rest of those cities' density of 24,000 and 20,000 people per

km^2, respectively. The lack of good hygiene practice and poor conditions are endemic in the slums. The cities lack adequate water supply, sewer networks or other services, and the slum dwellers are the most deprived of these services.

An important issue is the insecurity in tenure and recent slum eviction drive, which has shaken the basis of sustainable investments in slums – both in terms of financial and social investments. This issue needs to be addressed at a higher level.

Since space is one of the major problems, latrines for individual households are not always possible to install, indeed there are many reasons why they are not necessarily the desirable option in such contexts, instead, community latrines are appropriate as they require less space (chambers over the septic tanks) and allow as many as ten households to use one latrine chamber.

Experience in other locations has shown that community latrines can provide a solution to the problem of generating sufficient latrine facilities for large numbers of people, avoiding the many failings associated with public latrines. This study provides the basis for equivalent learning about community facilities in a Bangladesh urban context, to build on the WaterAid experience in Trichy, southern India.

The method adopted to characterise community latrines was as follows:

a) **Cluster latrine:** A house containing a number of latrine chambers, normally ranging for three to seven chambers. There is a separation between enclosures for women and men, and children's latrines are based in the women's enclosure. There is a menstrual hygiene management facility in the women's enclosure, either created by constructing a separate chamber or, as in the later design, by constructing a larger latrine chamber. There is no water source inside the house, but it is intended that there is a water source nearby the community latrine.
b) **Sanitation block:** Similar to community latrines, except there is water source within the house and space for separate male and female bathing.
c) **Renovated latrines:** Community latrines constructed by other parties that were previously damaged or abandoned. The ASEH project is renovating these for community use.

For better operation and maintenance, and to create a sense of ownership of the installed facilities, WAB and its partner NGOs mobilized people in the community. The partners conducted a Community Situation Analysis (CSA), developed the community action plan, formed community-based organisations and different committees, imparted hygiene education and provided caretaker training. The users themselves chose the technological options based on their context, particularly the number of households and availability of space, etc. Among the users group, a purchase committee was formed where the respective facilitators of partner NGOs are included. The purchase committee are fully responsible for construction works of latrine, including procurement of materials, selection of masons and labourers, and supervision and maintenance of accounts. A management committee comprising user representatives is fully responsible for proper operation and maintenance. Necessary support is provided by the assisting NGOs to develop their capacity for proper operation and maintenance.

Objectives and method of the study

The overall objective of this assignment was to study the effectiveness of community latrines for functionality and sustainability. The specific objectives of the study were:

Technology aspects

- To identify appropriateness of existing and different latrine designs considering the geographical contexts, number of people served, cost-effectiveness, functionality and sustainability, and to suggest necessary modifications
- To assess the functionality and O&M status of different latrine options
- To identify the existing practice of sludge disposal and determine sustainable sludge management practices.

Social aspects

- To assess accessibility and suitability of the direct beneficiaries with respect to social context of the sites/slums
- To assess acceptability and convenience of the users including male, female, elderly, children and differently-able people
- To determine the pattern of use by different age and sex groups among community-managed latrines
- To assess how issues such as menstrual hygiene management, comfort of pregnant women, children, elderly and differently-able people are addressed
- To determine appropriateness of management and maintenance mechanisms, including gender aspects
- To assess whether there is any social or economical changes (change in incidences rate of waterborne diseases, hygiene practice, etc) as a result of implemented community-managed latrines.

Institutional aspects

- To review the institutional aspects for overall sustainability of sanitation interventions at urban slums

To meet the objectives of the study, the TOR suggested adopting the following methodologies:

- Review relevant programme documents (eg ASEH guiding principles, cluster latrine implementation strategy, design and drawing of cluster latrine/sanitation blocks, O&M guidelines, caretaker manual, cost-sharing policy, WAB's quality testing protocol, baseline reports, etc)
- Discussion with relevant staff of WaterAid Bangladesh and partner NGOs
- Discussion with direct users, members of management committees, caretakers, etc
- Interviews with key informants, relevant stakeholders, etc
- Physical verification of community-managed and individual household latrines
- Presentation and discussion of the review findings and recommendations.

Findings - use and technical

The findings are summarised here and in the next section. They have been grouped into use and technical issues (in this chapter), and programmatic and institutional issues (in the next).

Use

A total of 49 community latrines of different types were surveyed of which 25 were community cluster latrines (CCL), nine were community sanitation block (CSB) and the remaining 14 were renovated community latrines (RCL) located in four cities.

In total, the evidence shows that just short of 3,000 households with a population of some 14,000 are served by these community latrines. It indicates that the community latrines are used by all type of users: male, female, children and differently-able people. During the study, no evidence was found that any particular section of the community is discouraged to use the community latrines, meaning that their use is socially well accepted by all categories of users.

The design number of users per chamber is 50. If the number of assumed users is accurate (calculated by dividing the estimated population by the number of installed seats), then the number of users is with one exception within the design value.

A set of 12 parameters was used in the assessment of **physical appearance** of the latrines and the facilities provided within. The field surveyors observed the physical condition of the latrines by visiting them and talking to their users when necessary. The table below shows the appearance of the physical parameters of cluster latrines, sanitation blocks and renovated latrines, respectively.

As seen from the table, the building's structural conditions (space, ventilation, light, door locks, etc) are satisfactory. However, the operations and maintenance conditions (of floor, pan and surroundings) need improvement. Menstrual facilities are available in less than half of the latrines, mainly because the earlier designs did not include such facilities.

However, it is important to note that, other than Narayanganj, no evidence was found of soap or ash use after defecation. Therefore, extensive hygiene promotion is suggested for those areas.

TABLE 1 Appearance of community latrines

	Cluster Latrines				Sanitation Block		Renovated Latrines		
	Dhaka	N'Ganj	Chittagong	Khulna	Dhaka	N'Ganj	Dhaka	Chittagong	TOTAL
Total Number of Latrines	16	2	5	2	7	3	10	4	49
Parameters									
Floor	50	50	60	100	29	0	40	0	41
Pan	75	100	80	100	43	67	20	25	57
Surrounding	100	100	80	100	43	67	40	25	69
Door with lock	94	100	100	100	100	100	90	75	94
Space	88	50	80	100	57	100	90	75	82
Ventilation	94	100	100	100	100	100	90	50	92
Inside light	44	50	60	0	57	100	70	50	55
Hand & feet washing	38	0	40	0	29	67	10	0	27
Bathing	56	0	40	100	71	67	0	0	41
Menstrual facilities	38	50	60	100	86	100	0	0	43
Water available nearby	44	100	80	100	100	100	40	100	67
Availaility of soap or ash	0	50	0	0	0	0	0	0	2

The DevConsultant's team assessed further factors, as presented in Table 2.

Only 29% of cases were satisfactory in keeping a safe distance between the community latrines and the nearest drinking water sources. This reflects the high population density and habitation patterns in the slums. The level of satisfaction for waste/ used water management is very high (94%), some 73% of latrines are odour-free and 90% were found to be without leakage in the pipe networks or in the pits/septic tanks.

The findings relating to **hygiene behaviour practices** are presented in Table 3. The consultants indicate that they show that 71% of users used soap or ash after defecation, some 95% of them used sandals in the latrine. They also showed that 84% of children used the latrine, but that, infant excreta was safely disposed of in only 37% of cases.

It is worth noting that while 71% used ash or soap, the table shows that only two out of 49 latrines had such materials available. This is explained by the following factors because, in most cases, people brought soap with them. They did so because either the soap was lost, they wash their hands at the water source elsewhere, people don't enjoy using soap already used by other people to wash their hands after defection, etc.

The consultants presented some figures showing the incidence of waterborne diseases among the community served by the community latrines, as shown in Table 4.

In relation to specific issues of **use by women and girls,** most women feel much safer and enjoy the convenience of using community latrines during pregnancy. Privacy is highly protected, latrine facilities have increased, water is available nearby and there is no bad odour in the latrine vicinity. Privacy ratings for women were high at 90% satisfaction, although (as shown below) overall satisfaction was actually lower for women than for men.

The project introduced menstrual hygiene management facilities in their community latrine design. This is highly commendable. There are two types of design. In the initial latrine design a separate chamber was constructed for this purpose. Subsequently, the project changed its design and instead of a separate chamber the size of the latrine chambers were increased.

TABLE 2 Environmental parameters

	Cluster Latrines				Sanitation Block		Renovated Latrines		Total	%
	Dhaka	N'Ganj	Chittagong	Khulna	Dhaka	N'Ganj	Dhaka	Chittagong		satisfactory
Total Latrine number	16	2	5	2	7	3	10	4	49	
Distance from drinking water source	5	0	2	1	0	0	6	0	14	29
Used water spilled inside	16	2	5	2	7	1	9	4	46	94
Odor	13	2	5	2	4	3	4	3	36	73
Pit or slab leaking	13	2	5	2	7	3	9	3	44	90

TABLE 3 Hygiene behaviour practices amongst users

	Percentage of latrines					
	None	< 25%	25 - 50%	50 - 75%	75 - 99%	100%
Use soap or ash after defecation			4.1	24.5	30.6	40.8
Sandal use in the latrine			2.0	2.0	28.6	67.3
Children use latrines		4.1		12.2	16.3	67.3
Infant excreta disposed into latrine	26.5	4.1	8.2	24.5	4.1	32.7
Hanging or open latrine stopped				2.0	12.2	85.7

When asked by the surveyors about their preferences of each design of the menstrual hygiene management facilities, adult females overwhelmingly preferred the larger latrine chamber design. They were happy with the facilities that were provided and most of their problems are now solved by the community latrines. There were a few suggestions for further improvements. These included making water available inside the larine chambers; further enlarging the space inside each latrine chamber; arranging for washing and drying menstrual cloths in air, preferably in a separate place; creating awareness among men and women for necessary social support and recognition of this female problem, etc.

Generally speaking, adolescent girls had a different opinion and supported the ideas of the separate chamber design for menstrual hygiene management. They recommended that the chambers be large enough to enable a peer to be present when they need to change. After further discussion, the consultant's view on this subject is that this perception of the adolescent girls is more of a social, knowledge and philological problem. Thus, there is a need for proper education and targeting the menstrual hygiene management topic to adolescent girls under the project's hygiene promotion component.

TABLE 4 Incidence of waterborne diseases among community latrine users

		Prevalence (%)	
Diseases	No. of incidence	Among 42 incidence	Among total 14,045 pop
Diarrhoea	15	35.7	0.1
Jaundice	14	33.3	0.1
Dysentery	6	14.3	0.04
Typhoid	5	11.9	0.03
Scabies	2	4.8	0.01
Total	**42**	**100.0**	**0.3**

About 84% of respondents perceived that contamination of drinking water sources by the latrines has reduced and 78% considered that the bad smell had reduced – these had created visible positive impact in their environmental situation.

The study addressed five parameters of **cultural sensitivity and users' convenience,** finding that the distance from their house was satisfactory in 78% of cases; the direction of the pans universally did not contravene religious sensitivities. The approach way was found satisfactory in 61% of cases; the reason given for this relatively low satisfaction level is because of the very dense habitation pattern. The height of latrine platform was acceptable in 73% of cases.

Overall, the community latrine users were highly satisfied with the latrine technology, comfort in use and social dignity. It is notable though, that the satisfaction level of female users was lower than their male counterparts on all parameters except social dignity. This comparatively low level

of satisfaction among females is because comfort, when using community latrines, matters most to females.

Technological issues

The consultants looked in detail at a range of technological issues that are not considered in this report because they were less relevant to the content of the workshop. Please refer to the consultant's final report for such details; while the relevant comments they made are retained here in summary form:

- The sludge management of community latrines is more convenient than pit latrines, because, instead of withdrawing sludge from a number of household latrine pits, the sludge can be withdrawn and disposed from a single point, ie the septic tank.
- The community latrines were of very good quality: the civil works appeared to be nicely done; the doors were of good quality materials and the pipes were well laid. The painting and the CI roofs were also well made.
- Some recommendations were made about detailed design issues. This included issues relating to construction in low-lying areas.
- They also indicated that the separation between male and female chambers was felt to be adequate.

The consultants indicated that ready availability of water is the single most important factor for sustained functioning of community latrines. The sanitation blocks have provision of water inside the latrine enclosure whereas cluster latrines and pit latrines have not. WAB design suggests that there should be a water source nearby the community latrines. During their field visit, the consultants found that when water sources (piped water or handpump tubewell) are not in the immediate vicinity of the community latrines (say within 10 meters) the latrines are not cleaned properly (eg in Ambagan railway colony, Chittagong). Experience elsewhere in Bangladesh has also shown that in the absence of water provision, the latrine pans are gradually blocked and eventually abandoned.

A management committee has been formed for each community latrine to maintain cleanliness and necessary orientation on operation and maintenance is being provided to them. In most cases, the management committee members take turns to clean the latrine. Users do not usually employ a separate cleaner because the wage would increase their financial burden.

TABLE 5 Male user satisfaction (91 respondents)

Parameters	Fully satisfied	Moderately satisfied	Unsatisfied
Technical Option	92	8	0
Capital cost	87	13	0
Ease O&M	89	10	1
Comfort in use	92	8	0
Social dignity	95	5	0

TABLE 6 Female user satisfaction (179 respondents)

Parameters	Fully satisfied	Moderately satisfied	Unsatisfied
Technical Option	79	20	1
Capital cost	65	31	4
Ease O&M	70	25	5
Comfort in use	85	13	1
Social dignity	97	3	0

Providing a water source in the immediate vicinity of a community latrine should be given high priority and a deciding factor for constructing any cluster latrine. The consultants are aware of the fact that providing a water source in many places is not economically feasible because the cost to be shared among community members would be too high. They suggest that in exceptional cases the project may provide required subsidy for installation of a water source.

Total sanitation

The community latrines (and pit latrines) have definitely improved the surrounding environment of latrine points. However, this improvement alone is not enough to create a substantial health impact; the environmental sanitation situation of the whole locality (slums in this case) has to be improved. The demand for a "total sanitation approach" needs to be adopted for entire areas. Under the ASEH Urban Programme, the partner NGOs plan to cover the whole slum through its latrine coverage programme. Other planned programmes are community development, hygiene education and limited amount of solid waste management and drainage. These activities need to be ensured, coordinated and strengthened to ensure that the area becomes open defecation free.

Cleaning

Of the total of 49 community latrines surveyed, 15 were cleaned once a day and another 15 once a week. It was found that 41% of the latrine floors inspected were clean, as were only 57% of the latrine pans (see Table 1 above). So there is a problem with cleanliness. Experience (from Pune and elsewhere) shows that this is a vital issue for the ongoing sustainability of such facilities.

Findings – programmatic and institutional

Planning, design and installation

Involving urban communities in the urban programme process, ie involving them in planning, design and implementation stages is a key programme strategy. A wide variety of participatory tools and methodologies were used at the community level. Communities were encouraged to actively participate in the need assessment, planning, formation of user level committees, cost-sharing, procurements, construction supervision, operations and maintenance, and leadership and management development activities.

Building on the social capital

Different training and orientation activities are being conducted by the partner NGOs for CBOs and others. Caretakers for the community latrines are given orientation on the O&M, hygiene promotion and other aspects. Community volunteers are selected from the local communities and trained on hygiene promotion and CBO strengthening activities. Training is being conducted on organisational development, gender and hygiene promotion for the CBO leaders at various levels. Programme staff train community volunteers to conduct courtyard sessions on various sanitation and hygiene messages. It was found that women head most CBOs, and the majority of their members are female. Thus, the social foundation created can be used to build other social and economic developments.

Discussions with the community volunteers and CBO members found that most are capable of explaining hygiene- and sanitation-related issues. Development of this knowledge base and dissemination skills among community people can be a prime mover for social and economic development activities at the local level.

Extending the outreach of hygiene promotion messages

WAB has an informal guideline for hygiene promotion that is followed by partner NGOs. WAB attached due importance to the issue of behavioural change. The guideline outlines the strategies for implementing the hygiene education activities among specific target groups such as female, adolescent girls and boys, children, etc.

But a gap was identified in reaching these messages to the target groups because the present hygiene education programme covers only a small section of the community, leaving the majority target group out of the reach of the project efforts. It may be mentioned that, for this reason, the majority of males are not the participating in the CBO structure and in its activities. So it is strongly recommended to extend the outreach of the hygiene education activities, particularly among the working and school going population.

Affordability and repayment

Cost recovery from community members depends on the following two factors:

1. Composition of the group – the higher the number of poor, the lower the amount to be recovered from the group;

BOX 1 Example of cost recovery

A cluster latrine with three chambers is usually used by around 30 households. The cost of the latrines is around Tk 110,000. The average capital cost per household is therefore Tk 3,367.

As per cost-sharing strategy:

- well-off hh pay Tk 3,367 (100%),
- poor, but relatively better off – Tk 1,833 – Tk 2,693;
- moderate poor hh Tk 673 – 1,364;
- hardcore poor hh – Tk 168 – Tk 367.

If households decide to pay in 18 monthly instalments, then the respective amounts per month are: Tk 187; Tk 100-150; Tk 37-75; Tk 9-20.

2. Poverty category of the beneficiary households – it is felt that those who have the ability to pay will be motivated to contribute more; the poorer the member the less they have to contribute. It is noted that the community people themselves decide the category of each households based on criteria chosen by themselves.

To calculate the average shared/recovered amount applicable to each household, the full cost of the hardware is divided by the number of beneficiary households. Depending on the poverty category of the beneficiary household, (eg better off – 100%; poor but relatively better off – 50-80%; moderate poor – 20-40% and hardcore poor - 5-10%) different percentage will be applied to this average shared amount to determine the actual amount to be borne by the beneficiary household.

If any person from the hardcore category is identified as not being able to afford even the above-mentioned percentage, the community can

further reduce the percentage to ensure his/her inclusion. The balance of the shared/recovered amount will be borne by the ASEH programme. The capital costs can be contributed upfront or in instalments. In the urban situation, the community usually pays the amount in instalments. The beneficiary group decide the number of instalments and months. Since the poverty category may be different from community to community, the collected amount at community level will vary for the same hardware component.

Initially, the capital cost was collected by assisting NGOs as custodian, now the CBOs open a bank account in their name and having collected the cost-sharing amount, deposit the sum themselves. The money will be used for development of new watsan facilities within the community or for major repairs. In addition to this, the community collects separate money from the users for regular operation and maintenance.

An assessment was made on the status of repayments by the users at the community levels and verified at the partner NGO level. In almost all cases, users are found to be very regular in their repayments. Out of a total 82 respondents, 31 (38%) perceived the cost as a burden; only 5% said the amount of the total "payback money" was a burden, while the remainder replied that the amount was acceptable, though the monthly instalment was a bit high. With this in mind, a suggestion was put forward to increase the number of repayment instalments to reduce the monthly instalment amount.

Appointment of latrine caretakers and gender equity

The functional status of the 48 community latrines (one latrine was not handed over during time of the field survey) is presented in Table 7. It was found that the caretakers were already appointed in 38 (76%) community latrines. Superstructures of 33 (67%) community latrines were found clean and the approach way of 35 (71%) latrines were clean and smooth. Regarding cleaning of community latrines, males were found responsible in 16 latrines (33%), females were responsible in 14 (29%) while male and female are jointly responsible in 18 (37%) latrines.

TABLE 7 Functional status of community latrines (48 number)

Paramters	Positive	Negative	Remarks
Caretaker Appointment	38	10	
Clean Superstructure	33	15	
Clean Approach Way	35	13	
Regular small repair	6	3	40 no repair required yet
Male responsible for cleaning	16	14	18 by both male and female

The partner NGOs reported that appointments of the remaining caretakers were in progress. The indicators of physical operation and maintenance (clean superstructure, approach way and petty repair) showed that the operation and maintenance of the community latrines needed improvements.

The gender equity was reasonable, which demonstrated positive results of community mobilisation.

Status of CBOs

A well-run CBO is an essential element for sustained operations of the latrines and other facilities (water supply, drainage, etc) and also maintaining good hygiene practice. The status of CBO formation and their capacity building were assessed and showed

that only 53% of cluster-based committees and 69% of infrastructure management committees (IMC) are established. Comprehensive actions are already taken for orienting CBOs, IMCs and latrine caretakers. In the discussion sessions with the senior staff of WAB and partner NGOs, it was found that all cluster-based committees and IMCs are formed and activated. The efforts for formation of CBOs are ongoing. The difference of information given by the community people and that of the partner NGOs demonstrates that not all community people are clearly aware of the functions of the partner NGOs and CBOs, which justifies the need for improvement of the community development process. There is a need for concerted effort for further organisational development of the CBOs.

As yet, there is no standard guideline for the structure of CBOs or its 'constitution'. In practice, the partner NGOs prepared working procedures for CBO formation and development and the consultant reviewed some of these working procedures. With the partner NGOs well experienced with community development activities, the working procedures had some similarity in content. However, the working procedures are not yet formalised or uniform and would benefit from more elements. Thus, it is strongly suggested that the project should prepare a guideline for organisational development of CBOs including a CBO constitution.

The existence and performance of CBOs are recognised by the partner NGOs, but they are not yet recognised by other external stakeholders, including the Ward Commissioner's office. No steps have yet been taken for formalisation of the CBOs, eg through registration. Establishing the function of the Ward Sanitation Task Force (WSTF) and its link with the CBOs is fundamental for effectiveness and sustainability. During the study, only half of the established WSTF had received orientation from the project.

Role of users and committee members in O&M and in decision making

The survey findings revealed that no specific caretakers were appointed or selected for the maintenance of pit latrines. Usually the housewives maintain the latrines. In the case of community latrines, the IMC or the CBOs engage the community latrine caretakers and their roles are either informally or formally defined. In most cases, the caretakers were selected from among the users too.

About 80% of users played an active role in site selection for the construction of latrines, 78% had participated in selection of technological options, and 67% in the selection of CBO members. These figures indicate a high degree of users' participation in the programme cycle.

Fund mobilisation for sustainable O&M

The programme has developed guidelines for the operation and maintenance of the latrines. It was also found that different CBOs under different partner NGOs are practicing or planning to prepare separate mechanisms for operations and maintenance activities including money collection. Some of them are:

- IMCs or cluster committees fix and collect user subscriptions, which vary among user categories. The cleaning materials are procured and lump sum remuneration is given to the caretakers. This is done informally, on an ad hoc basis.

- IMCs and CBOs fix category wise members' subscription for O&M and make plan for its collection. It is the responsibility of caretaker to collect user subscriptions and keep the latrine clean. Caretaker procures cleaning materials at his or her discretion and maintains latrines on an irregular basis.

This again suggests the need for an organisational development guideline for the CBOs.

Conclusions and recommendations

Conclusions of the study were drawn from the field investigations, observations and experiences of the consultant, and importantly from the various discussions with users and other stakeholders. External factors such as national policies, country and programme contexts and lessons from other countries were also considered. The study recommendations focused on the requirements of the ASEH Urban Programme, especially from the functionality and sustainability points of view. As such, these can be reflected in the remaining implementation period of the ASEH Urban programme.

The recommendations are categorised into four aspects: programme approach, social, technical and institutional aspects of the different types of latrines.

Programme approach

- The programme approach of integrating the latrine installation with hygiene promotion and water supply is judged to be highly appropriate.
- Sustainable behavioural change is the key for long-term sustainability of the latrines installed. As behavioural changes are a long-term process, the social mobilisation should continue even after the latrines are installed. It is strongly advised that after the implementation of the latrines, social mobilisation should continue with more attention to their proper use and maintenance.

Extending the outreach and impact of hygiene promotion messages

- The present hygiene education programme, being conducted in the slums during daytime, covers only a small section of the community, leaving the majority target groups out of the reach of the programme efforts. So, it is strongly recommended to extend the outreach of the hygiene education activities.
- There are some critical elements that require follow-up and regular monitoring. These include:

i. Hand washing after defecation – the proxy indicator may be the availability of soap in the community latrines
ii. Protection of the water-seal in pit and community latrines. Broken water-seal causes bad odour and discourages latrine use,
iii. Presence of an electric light in the community latrines. This may increase the latrine use during the night.

- It is suggested to involve CBOs in different monitoring and impact assessments, to encourage and enable them to take corrective measures.

Social aspects

Building on social capital

- The social capital developed by the project intervention (training, hygiene promotion, community development, etc) should be

retained and used to take the communities forward. The social dignity had increased in all instances for using latrines. This willingness to continue with the elevated sense of dignity may be positively used to maintain proper use, maintenance and good hygiene practice.

Menstrual Hygiene Management

- The study clearly found that the separate menstrual chamber is not preferred and in most cases not used. The model of the larger female latrine chamber, which can also be used for menstrual management purpose, is preferred and thus recommended.
- It is recommended to review the experiences of the WAB Rural Programme, where a separate box was attached to the latrine wall for safe disposal of menstrual materials. The emptying and safe disposal of the material is an issue that needs to be thought out. It is also suggested to review the impact of such a box to de-stigmatise some related social issues. Based on these findings the decision of setting of a separate box in the latrines in an urban context may be considered.
- One of the major problems of the females was drying of menstrual cloths in a private space after washing. The study could not come up with a workable technical solution given the limited space available in the community latrines. It is thus suggested to encourage females through the hygiene promotion programme to address this issue at a personal level in a more hygienic way.
- It is suggested to undertake a separate awareness campaign on menstrual hygiene management for adult women and adolescent girls because of the different level of knowledge, culture and beliefs.

Gender and governance

- The study finds a reasonable balance between the roles and responsibilities of men and women in the context of the society where males dominate decision making. (Currently some males tend to avoid O&M responsibilities.) To improve the balance in sharing social responsibility, it is important to sensitise both men and women on, for instance, social responsibilities and menstrual hygiene management.
- Normally the enclosure for females (including children) is larger than the male enclosure. The programme (and CBOs) should be vigilant so the male does not take over the female enclosure as many may find it more convenient for them.
- Periodic users' satisfaction survey and dissemination of results among communities and other stakeholders are recommended for transparency and accountability of project authorities.

Addressing the needs of elderly and differently-able people

- The study found that the elderly and differently-able people use the community latrines. However, a few of them mentioned that the height of the approach way and the height of the foot rest in the latrine chamber was a bit uncomfortable for them.
- It is recommended to add a railing in staircase of latrines and a handle attached to the inside wall of the latrine chamber. This

will be convenient and safe for these groups of people.

Technical aspects

See consultant's report (Ahsan, 2007).

Institutional aspects

- Proper operation and maintenance of the latrines is the single most important factor for sustainability of the latrines. Appropriate institutional arrangement for this function is fundamental. Although the consultants recommended contracting out the management to private parties or individuals, it is felt that this is not a recommendation that should be supported. Instead, WaterAid is encouraging the formation of a management committee and the selection of caretakers (paid or non-paid) among the users to take responsibility for maintenance.
- A well-run CBO is an essential element for sustained operations of the latrines and other facilities (water supply, drainage, etc). It is also important for maintaining good hygiene practice. However, the working procedures are not yet formalised or uniform and would benefit from more elements.
- Therefore, it is strongly suggested that WAB prepare a guideline for organisational development of CBOs including a provision for a CBO constitution, which should be duly endorsed (and modified if required) by the community.
- The CBOs are recognised by the programme. Advocacy may be undertaken to make the CBOs recognised by and increase their access to other stakeholders such as the Ward Commissioner's office, WASA zonal offices and other NGOs.
- CBOs should be more involved in site selection, technology choice and selection of CBO members.
- It is recommended to carry out a training need assessment (TNA) of the CBOs and to design training programmes accordingly.
- CBOs are established for project specific activities. When this local level institution is established and functioning, it can be better used by extending its scope for addressing other social and development activities.
- There should be a clear strategy of gradual phasing-in of CBO responsibilities and – at the same time – phasing-out of the partner NGO involvement. This strategy should be made known to all parties from the start of the programme.

References

Centre for Urban Studies (2005) *Mapping and Slum Census 2005*

Ahsan T et al (2007) *Assessment of functionality and sustainability of community latrines under ASEH Urban Programme,* Devconsultants