

WASH I Report on QIS data analysis:

Findings from the first round 2012 - 2013

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Abbreviations

BM	Benchmark
BMGF	Bill and Melinda Gates Foundation
DGIS	Directorate-General for International Cooperation
EKN	Embassy of the Kingdom of the Netherlands
FO	Field Organiser
HH	Household
JFO	Junior Field Organiser
MIS	Management Information System
NP	Non-poor
P	Poor
PSU	Primary Sampling Unit
QC	Quality Controller
QIS	Qualitative Information System
RSC	Rural Sanitation Centre
SS	School Survey
TW	Tube Well
UP	Ultra-poor
VWC	Village WASH Committee

Executive summary

This report contains the results of the WASH I areas of the WASH II programme after five years of intervention. The data was collected with the Qualitative Information System (QIS) in representative sample studies, in the old WASH I areas.

QIS makes it possible to collect quantitative data on qualitative aspects, such as participation, gender and behavioural change. QIS uses descriptive scales ranging from level 0 (condition/practice not present) to level 4 (four key programme defined criteria present). 15 parameters were measured: household sanitation, hygiene and water safety (7), management by Village WASH Committees (VWCs) (3) school sanitation (4) and Rural Sanitation Centres (1).

The representative study consisted of 3,767 WASH I households in a three-stage cluster sample survey, and 380 schools, 150 VWCs and 229 Rural Sanitation Centres (RSCs) in a two-stage cluster survey. Households have been classified as ultra-poor (UP), poor (P) and non-poor (NP). There were no non-response errors as predicted by the BRAC WASH survey staff. The sample frame “errors” proved higher than expected. These were due to a lack of households in some clusters for certain wealth categories. For example, instead of expecting nine or more ultra-poor households in a village WASH cluster only five could be found. These errors were corrected by weighting the data as intended in the survey design.

After five years the best results are for *toilet use*. Teams observed that 98% of the sample households has access to a latrine with at least one concrete ring and slab, which 93% reported to use at all times including during heavy rain or floods (answers probed for reliability). Use by all able to use latrines came second with 90%, but needs to be corrected for those cases where excreta need to be brought to the latrine, e.g. for babies, infants and sometimes old people and people with a disability. Observed hygiene of the girls' toilets *in schools* was the third best result. Boys' toilets scored much lower at position 12 out of 15. Menstrual hygiene provisions took a middle position (sixth out of 15). 2% of surveyed schools have no toilets and only 3% of schools have no separate toilets for girls. Observed quality and hygiene of *private toilets* was in the lower group at position nine for three reasons: observed faecal soiling, broken water seals and presence of single pits. (The programme promotes double pit toilets to reduce sludge problems and to enhance safe soil productivity). Broken water seals occur amongst others in drought-prone locations where women must walk much farther to collect water for hygiene and flushing (ref. demand and supply study and QIS quality control).

Institutional scores were also at the higher end. Gender equity in VWCs came third and administrative performance (including cooperation with local government) came fifth. The seventh and eighth positions respectively were for the establishment and functioning of student brigades, which promote hygiene behaviour, and the performance of school WASH committees.

Introduction

BRAC WASH II aims for a sustained change – a measurable leap – in personal/family hygiene, sanitation and water safety. However, real changes in practices (such as hand washing with soap, continued use and maintenance of latrines, using safe water sources or

keeping water safe from source to mouth) take time to become habitual and do not move at the same speed everywhere.

The programme focuses on sustainably-improved household and school sanitation and hygiene practices, and safe drinking water use. Improvements are community-based and managed. Support comes from about 8,000 programme workers, of whom more than 99% are field-based. The BRAC WASH II programme is jointly funded by the Embassy of the Kingdom of The Netherlands (EKN)/DGIS and the Bill and Melinda Gates Foundation (BMGF), and has the following objectives:

DGIS:

- Targeting 2 million people (sanitation), 4.2 million people (hygiene), and 0.5 million people (water safety) in 20 upazilas (new and hard to reach);
- Ensuring sustainable access to sanitation of 25.9 million people and safe hygiene behaviour of 38.8 million people in 150 upazilas (BRAC WASH I).

BMGF:

- Targeting an estimated 8.9 million households in 150 + 5 upazilas;
- Specific focus on sanitation and composting business.

In August 2011, it was agreed between DGIS, BMGF, BRAC, and IRC to treat the BRAC WASH II programme as one single project as far as possible, and to develop one single monitoring system covering the entire project. The monitoring system was developed by IRC during 2012.

Monitoring of the WASH II programme performance using QIS is done in two different ways:

1. To get representative programme performance data at the end of each programme year. This data is gathered by an independent monitoring team from 8,000 randomly sampled households and their associated clusters, schools and RSCs. The sample study covers 50 'old' upazilas from the 150 upazilas of WASH I and 50 'new' unions in the 25 upazilas added under WASH II. The collected data will be analysed and, in combination with Management Information System (MIS) data, will be used to reflect on the programme strategies.
2. As part of the implementation by the Programme Assistants (PA) and Village WASH Committee members to check progress in their own location this monitoring is being introduced programme-wide after training the PAs. It served to get insight into performance developments at VWC, union and upazila level.

1 Qualitative Information System (QIS)

1.1 Methodology

The Qualitative Information System (QIS) quantifies qualitative process and outcome indicators, such as participation and inclusiveness (process) and behavioural changes (outcomes), with the help of progressive scales ('ladders'). Each step on the ladder has a

short description, called a mini-scenario, which describes the situation for a particular score. Typically, scores are structured as follows (Table 1):

- Score 0 indicates a situation in which the condition/practice is not present;
- Score 1 gives the initial step;
- Score 2 adds a second key characteristic to indicate the benchmark situation, or minimal scenario that the programme wants to achieve programme-wide;
- Scores 3 and 4 represent the next two levels. 4 stands for the ideal, which the majority can probably hope to achieve only at monitoring round 3, at the end of the programme.

QIS scales are thus programme-specific and must be developed together with staff with extensive experience so as to capture the field realities. In diagram form, a typical QIS scale looks like Table 1 below:

Table 1 Scaling principles of QIS

DESCRIPTION	QIS score
IDEAL: all four (key) characters are present	4
Primary + Secondary + Tertiary characteristic present	3
BENCHMARK: Primary + Secondary characteristic is present	2
Primary characteristic present	1
No characteristic of condition/practice present	0
Reasons why score high/not high (comment):	

The scales for the WASH II programme were jointly developed by BRAC and IRC in a workshop in January 2012. In March they were tested with 40 households. A second testing was done in September with 432 households (144 each for the ultra-poor, poor and non-poor), 36 VWCs, 12 schools and 12 RSCs in four upazilas at the four corners of the country. This resulted in a separate document with the consolidated QIS scales and the verifiable criteria that every characteristic must meet (November 2012). The guidelines were also used in training the implementers of the sample study. Table 2 provides an overview of QIS questions/topics for household (HH), village WASH committee (VWC) and school (SS) surveys with the respective codes.

Table 2 Parameters measured by QIS scales

Code	Topics (parameters)
HH01	Safe and protected main drinking water source
HH02	Drinking water management from source to cup
HH03	Sanitary and hygienic household latrine
HH04	Use of latrine by different household members
HH05	Consistency of latrine use at day/night time and across seasons
HH06	Hand washing provision after defecation
HH07	Sludge management when latrine pit is full
VWC01	Safe and protected drinking water source (provided by BRAC)
VWC02	Performance of VWC
VWC03	Women's participation / Gender balanced management
SS01	Sanitary and hygienic school toilets
SS02	Student brigade
SS03	Menstrual hygiene management
SS04	Performance of School WASH Committee
RCS1	Performance of sanitation centre / enterprise

1.2 Implementation

The first monitoring round was implemented at the end of 2012 and the start of 2013 by 30 teams, each with one male BRAC Quality Controller (QC) and one female Junior Field Organiser/ Field Organiser (JFO/FO). QCs are independent BRAC staff who check the quality of all programmes. Female JFO/FOs made it culturally possible to enter the hand pump enclosure, the latrine and the house together with the lady of the house, for observation and demonstration. Both received theoretical and practical training for QIS implementation.

2 Findings

The findings from the QIS data collection and analysis cover the WASH I area. In the new WASH II area the programme had just started, so a conventional baseline study was carried out. The second QIS round in 2013 will also include the new WASH III locations.

2.1 Sample characteristics and completeness

2.1.1 Sample characteristics

For the Household survey a three-stage sampling was used with the upazila as primary sampling unit (PSU) in WASH I. From the 150 WASH I upazilas, 50 were chosen with a probability proportionate to size. Per sample location, three VWCs were again selected with a probability proportionate to size. In each of the VWCs, nine households were selected randomly per wealth category (nine from the ultra-poor (UP), nine from the poor (P) and nine from the non-poor (NP)) resulting in 27 households per VWC. Due to the stratification at the VWC the sample was self-weighted, so that sample weights need not be applied. The resulting estimated sample size was 4050 for both household surveys. In analysis the data was weighted to represent the real number of UP, P and NP households.

2.1.2 Completeness of data

On June 11, 2013, a real sample dataset of 8000 households, 300 VWCs, 400 schools and 300 RSCs was downloaded. Out of these, data for 3767 households, 150 VWC, 380 schools and 229 RSCs of WASH I were analysed. Because some VWCs had a different distribution of NP, P and UP households, the household statistics were weighted to reflect the local reality. The number of households for which data were analysed and disaggregated by the socio-economic status of the households is presented in Table 3 below.

Table 3 Number of household data by parameter and socio-economic status (Non-Poor, Poor and Ultra-poor)

Code	Parameter (scale)	No. of Households in data analysis			
		NP	P	UP	Total
HH01	Safe & protected drinking water source	1294	1261	1203	3758
HH02	Drinking water management source to cup	1294	1261	1203	3758
HH03	Sanitary and hygienic household latrine	1290	1260	1201	3751
HH04	Use of latrine by household members	1286	1248	1171	3705
HH05	Consistency of latrine use in time/season	1291	1260	1201	3752
HH06	Hand washing provision after defecation	1289	1257	1201	3747
HH07	Sludge management when latrine pit is full	503	505	448	1456*)

*) Only households whose latrine pit did get filled

2.2 Household sanitation and hygiene

This section presents the results from the QIS Household indicator analysis. The QIS ladders are presented and explained in “Guidelines: QIS Data Form HH” (November 2012). This section presents the results from the best to least good scores for household sanitation and hygiene behaviours (Table 4).

Table 4 Household scores in round 1 from highest to lowest for 7 behavioural parameters

Scale	Household behaviour measured	Above benchmark	At benchmark	Below benchmark
HH05	Consistent use of latrine	93%	5%	2%
HH04	Use of latrine by HH members	90%	6%	4%
HH03	Sanitary & hygienic latrine	65%	20%	15%
HH01	Safe & protected drink water source	59%	24%	17%
HH02	Safe drinking water management	46%	28%	26%
HH06	Hand washing provision in/at latrine	33%	45%	22%
HH07	Sludge management when pit is full	22%	64%	14%

2.2.1 Consistent use of latrine at day/night and across seasons

The QIS indicator that scored the best is HH05, “Latrine used when?”, which measures consistency of use. Analysis showed that 93% scored above the Benchmark (Table 5).

Table 5 Performance on consistency of latrine use at day/night and across seasons by socio-economic class

HH05	(1) During the day during dry season + (2) during night during dry season + (3) during rainy season (night and day) + (4) during abnormal situations	(1) During the day during dry season + (2) during night during dry season + (3) during rainy season (night and day)	(1) During the day during dry season + (2) during night during dry season	(1) During the day during dry season	Open defecation (latrine not used)	TOTAL
np	74%	21%	3%	1%	1%	100%
pp	69%	22%	6%	1%	2%	100%
up	72%	19%	6%	2%	1%	100%
Average	72%	21%	5%	1%	1%	100%

Table 5 shows that 72% of all HH used the latrine during the day and at night in dry and the wet season, as well as during abnormal situations (such as when the path to the latrine is flooded). Another 21% did the same but not during abnormal situations. There were no significant differences in QIS scores between the social categories (NP, P and UP, see Figure 1 below).

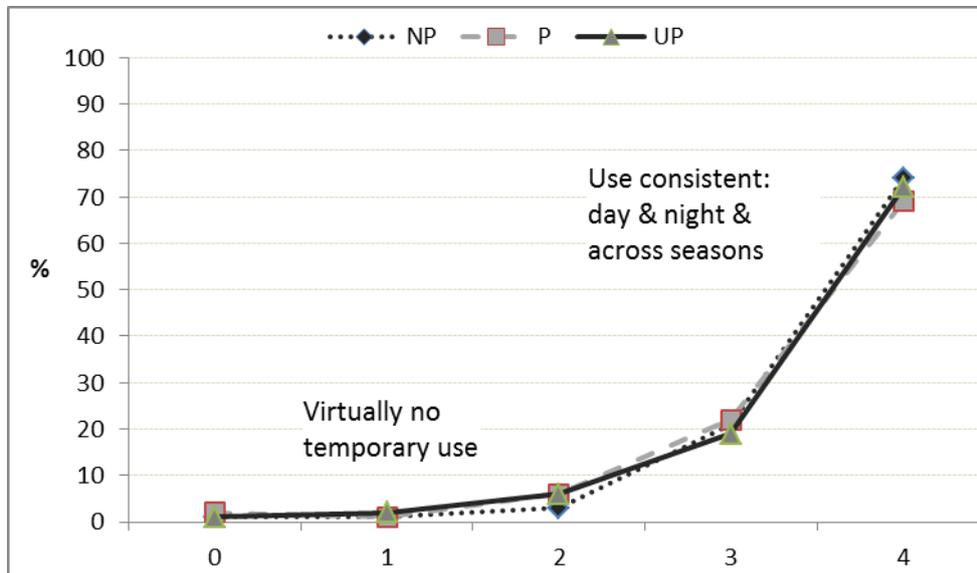


Figure 1 Consistency of latrine use at day/night and across seasons: above, at and below benchmark scores

2.2.2 Patterns of latrine use within the household

QIS Indicator 04: “Latrine used by whom?” also scored high. Table 6 gives the distribution of the scores. According to the analysis, 90% scored above benchmark. This means that all members of the household use the latrine and that part of the faeces of household members unable to use the latrine by themselves end up in the toilet. To get the precise score of the latter a split is needed for households who score second best because they have infants and/or members who do not use the toilet due to disability or age, and households who have no such members and therefore really belong in the top group. The correction for disability is done in the QIS in the WASH III area, but household composition data must be made more precise during the next QIS rounds to filter out the households with infants and/or elderly people whose excreta are not put into the latrine. However, there is no significant difference between different social groups.

Table 6 Latrine use patterns within the household by socio-economic class

	IDEAL: (1) women and adolescent girls + (2) children from age of 4 + (3) men and adolescent boys use the latrine + (4) faeces of any other members end up in toilet	(1) women and adolescent girls + (2) children from age of 6 + (3) men and adolescent boys use the latrine	BENCHMARK: (1) women and adolescent girls + (2) children from age of 6 use the latrine	(1) women and adolescent girls use the latrine	Nobody in the household uses the latrine for defecation and urination	Total
np	55%	37%	5%	2%	1%	100%
pp	54%	34%	8%	2%	2%	100%
up	51%	35%	7%	5%	2%	100%
Average	54%	36%	6%	3%	1%	100%

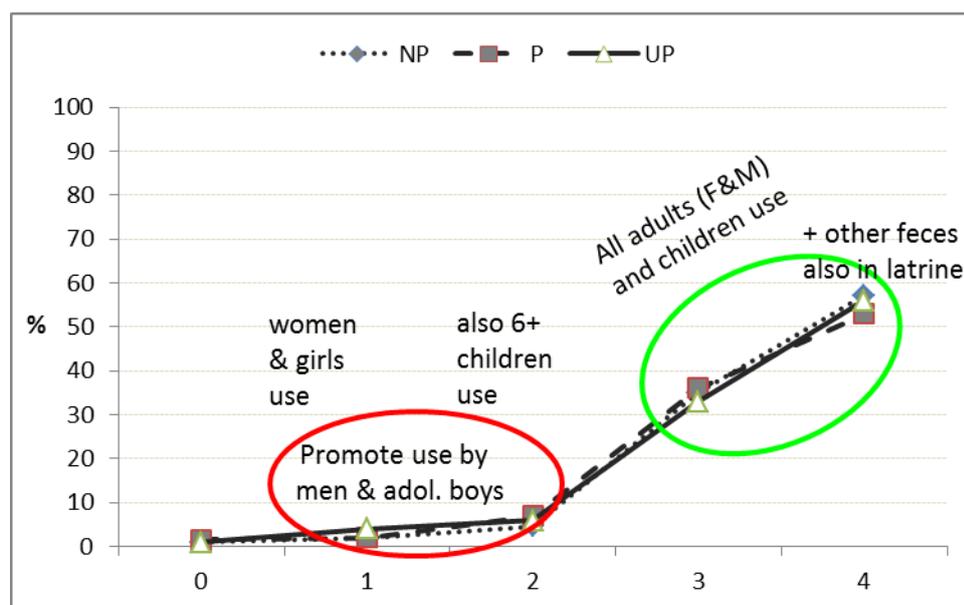


Figure 2 Reported use of latrine by all members of the household

2.2.3 Observed latrine model and faecal cleanliness

For QIS indicator 03: “Sanitary and hygienic household latrine”, the analysis showed that 65% of households score above benchmark, while 20% were at the benchmark. Thanks to the programme grants, more ultra-poor households than non-poor households have sanitary latrines with two pits (composting toilets). When it comes to latrine maintenance the ultra-poor scored significantly lower than the poor and non-poor households.

Table 7 Observed model (sanitary) and hygienic latrine by socio-economic class

HH03	IDEAL: Latrine with (1) ring and slab + (2) has functioning water seal + (3) no faeces visible in pan, slab, water seal and walls + (4) latrine has two pits	Latrine with (1) rings and slab + (2) has functioning water seal + (3) no faeces visible in pan, slab, water seal and walls	BENCHMARK: latrine with (1) rings and slab + (2) has functioning water seal	Latrine with (1) rings and slab, but no or broken water seal	No latrine or latrine without rings and slab	Total
np	9%	61%	17%	11%	2%	100%
pp	7%	57%	19%	15%	2%	100%
up	24%	36%	24%	13%	3%	100%
Average	13%	52%	20%	13%	2%	100%

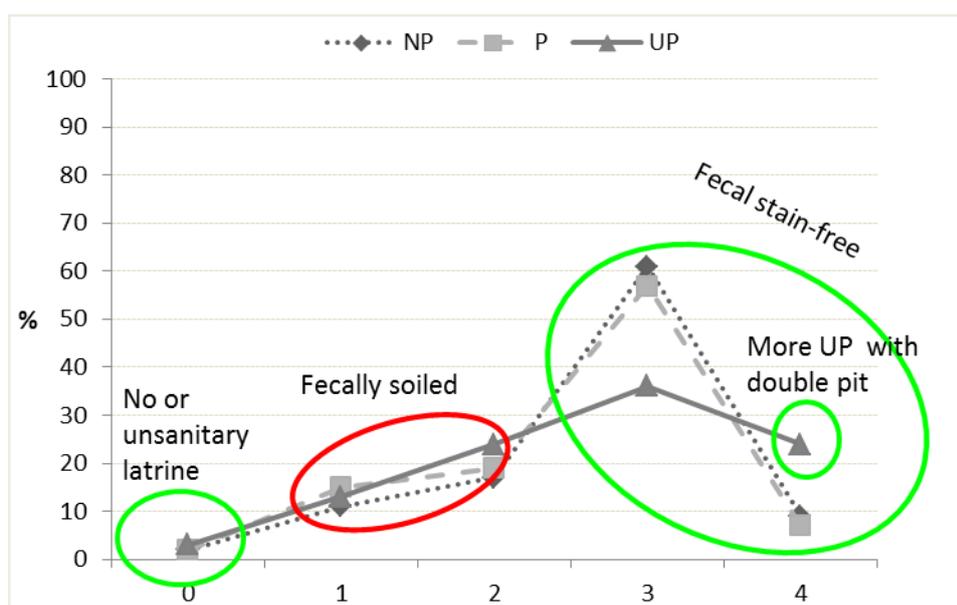


Figure 3 Observed scores for sanitary and hygienic latrine per social category (UP, P and NP)

2.2.4 Arsenic-free and protected source of drinking water

On the safe and protected main drinking water source indicator (scale HH01), it appears that more ultra-poor households than non-poor households have a latrine within 12 steps of their drinking water well, as this wealth group scored the least at top level 4. However, this wealth group scored best at the benchmark level (level 2). Results also show that there is a higher

probability of finding a tube well that has a platform with cracks in ultra-poor households than in other wealth groups. Both findings indicate a higher risk of bacteriological contamination of drinking water wells for UP households. This risk is greater for shallow wells than for deep tube wells when arsenic levels surpass the safety mark.

Table 8 Arsenic safety and observed protection of main drinking water source by socio-economic class

HH01	IDEAL: (1) Water source is tube well that is known to be arsenic free OR is surface water that is filtered and cooked (2) no stagnant water around tube well (3) tube well has a platform without cracks (4) no latrine within 12 steps	(1) Water source is tube well that is known to be arsenic free OR is surface water that is filtered and cooked (2) no stagnant water around tube well (3) tube well has a platform without cracks	BENCHMARK: (1) Water source is tube well that is known to be arsenic free OR is surface water that is filtered and cooked (2) no stagnant water around tube well	(1) Water source is tube well that is known to be arsenic free OR is surface water that is filtered and cooked	Arsenic tube well (TW) or open source without always boiling drinking water	Total
np	46%	21%	19%	10%	4%	100%
pp	42%	19%	24%	12%	4%	100%
up	36%	15%	29%	16%	4%	100%
Average	41%	18%	24%	13%	4%	100%

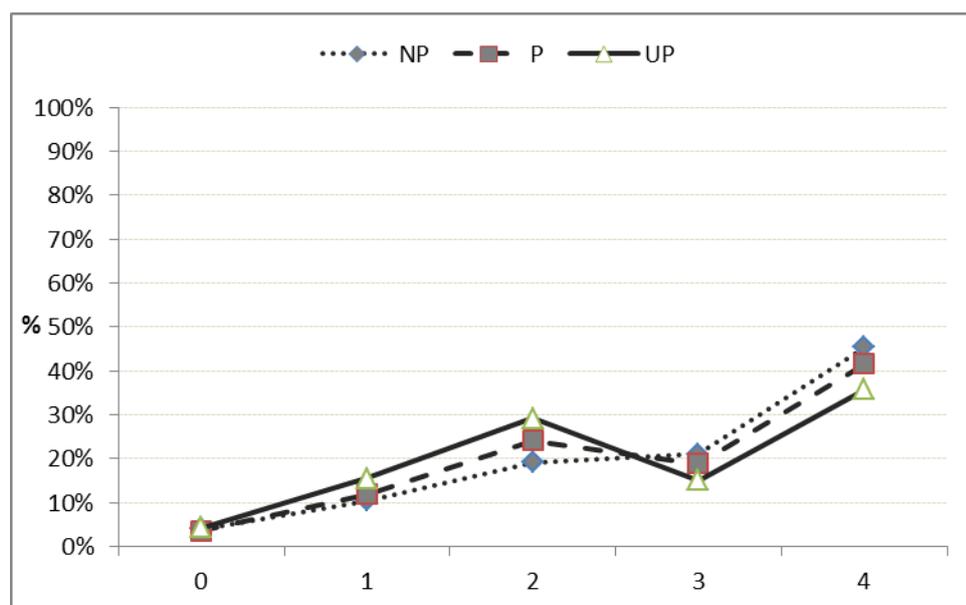


Figure 4 Reported and observed quality of primary source of drinking water per social category (UP, P and NP)

2.2.5 Management of drinking water in the home

For drinking water management from source to cup (scale HH02), 26% of the sample households scored below benchmark. There is no significant difference among the wealth groups for scores below benchmark.

Table 9 Management of drinking water in the home (from source to cup) by socio-economic status

HH02	(1) Water source is tube well that is known to be arsenic free OR is surface water that is filtered and cooked + (2) safe collection + (3) tube well has a platform without cracks + (4) safe home storage	(1) Water source is tube well that is known to be arsenic free OR is surface water that is filtered and cooked + (2) safe collection + (3) tube well has a platform without cracks	BENCHMARK: (1) Water source is tube well that is known to be arsenic free OR is surface water that is filtered and cooked + (2) safe collection	(1) Water source is tube well that is known to be arsenic free OR is surface water that is filtered and cooked	Arsenic TW or open source without always boiling drinking water	Total
np	35%	19%	23%	19%	4%	100%
pp	28%	20%	28%	21%	4%	100%
up	21%	14%	35%	24%	6%	100%
Average	28%	18%	28%	21%	5%	100%

Ultra-poor households scored better than non-poor at the benchmark. However, when it comes to the ideal situation (score 4) the ultra-poor score lower than the non-poor, which indicates that more attention has to be paid to safe home storage of drinking water in this social category.

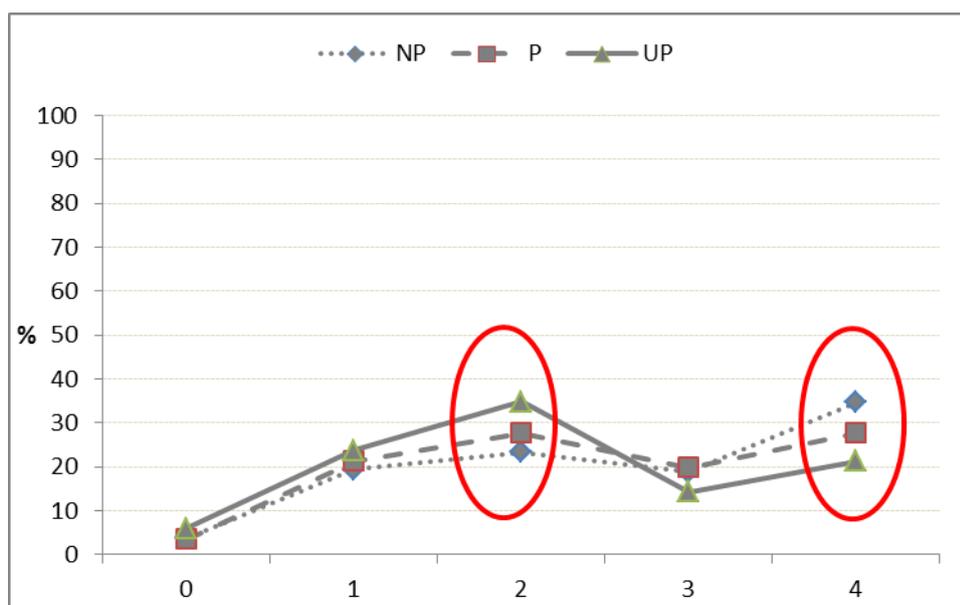


Figure 5 Observed source and demonstrated management of drinking water in home, from source to cup per social category (UP, P and NP)

2.2.6 Provisions for washing hands after latrine use

In total, 33% of households scored above and 45% scored at the benchmark for HH06, “Hand washing provision after defecation”. Thus almost 78% is at or above benchmark. However, 1 in 5 has no provision (9%) or only water (13%) for washing. Very few households have a special hand washing station at or near the latrine, while 23% UP households use water from a safe source for hand washing.

Table 10 Provisions for hand washing after latrine use by socio-economic class

HH06	IDEAL: (1) Enough water to wash hands carried or available in or near latrine + (2) soap/soap solution in plastic bottle at latrine + (3) water for hand washing is from safe source + (4) there is a special hand washing station	(1) Enough water to wash hands carried or available in or near latrine + (2) soap/soap solution in plastic bottle at latrine + (3) water for hand washing is from safe source	BENCHMARK: (1) Enough water to wash hands carried or available in or near latrine + (2) soap/soap solution in plastic bottle at latrine	(1) Enough water to wash hands carried or available in or near latrine	No provisions for hand washing carried or available in or near latrine	Total
np	11%	30%	41%	13%	5%	100%
pp	3%	30%	46%	12%	9%	100%
up	1%	23%	48%	15%	13%	100%
Average	5%	28%	45%	13%	9%	100%

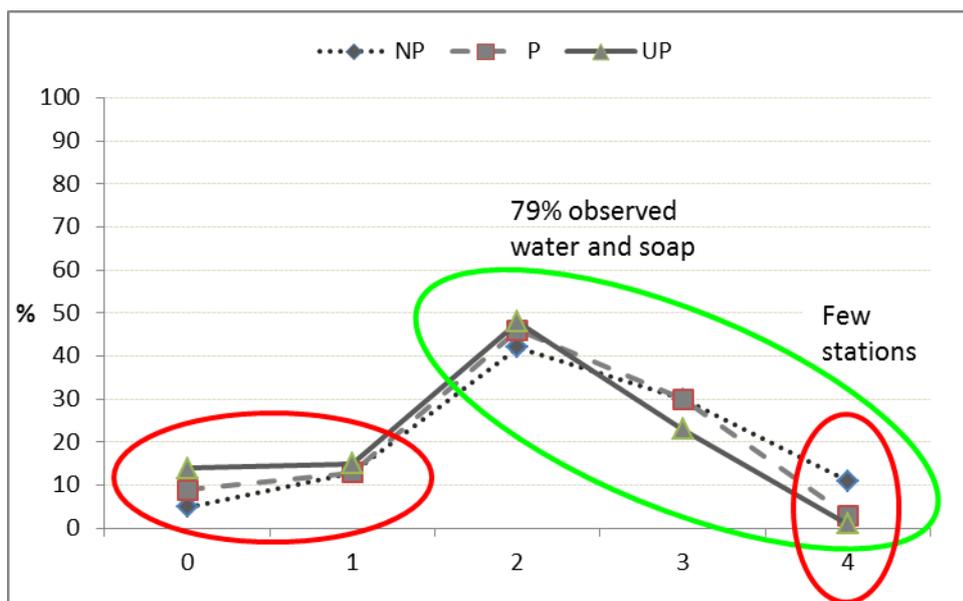


Figure 6 Provisions for hand washing

2.2.7 Sludge management when pit is full

Data analysis was done for 1456 households who already have had their pits filled up. 22% of these households scored above benchmark, while 64% scored at the benchmark. Ultra-poor households scored less at the benchmark than households from other wealth categories. Data on planned management of the pit contents is not reported here because the reliability is probably lower than the actual reported practice.

Table 11 Sludge management when pit is full

HH07	IDEAL: (1) Owners empty full pit or get others to empty it and reuse latrine + (2) after depositing sludge in a hole in garden/field, cover hole (In case of one pit latrine) OR (1) owner makes new latrine over new pit and (2) covers old pit with soil (In case of two pit latrine) + (3) to make compost, sludge is kept at least 12 months inside the pit or a useful tree is planted in the pit after 12 months + (4) compost produced from the sludge after one year was used in the crops/trees	(1) Owners empty full pit or get others to empty it and reuse latrine + (2) after depositing sludge in a hole in garden/field, cover hole (In case of one pit latrine) OR (1) owner makes new latrine over new pit and (2) covers old pit with soil (In case of two pit latrine) + (3) to make compost, sludge is kept at least 12 months inside the pit or a useful tree is planted in the pit after 12 months	BENCHMARK: (1) Owners empty full pit or get others to empty it and reuse latrine + (2) after depositing sludge in a hole in garden/field, cover hole (In case of one pit latrine) OR (1) owner makes new latrine over new pit and (2) covers old pit with soil (In case of two pit latrine)	(1) Owners empty full pit or get others to empty it and reuse latrine, but sludge is disposed in open environment OR (1) owner makes new latrine over new pit, but leaves old pit uncovered	No emptying; household returns to open defecation	Total
np	10%	6%	70%	9%	5%	100%
pp	13%	11%	62%	6%	8%	100%
up	17%	11%	58%	9%	5%	100%
Average	13%	9%	64%	8%	6%	100%

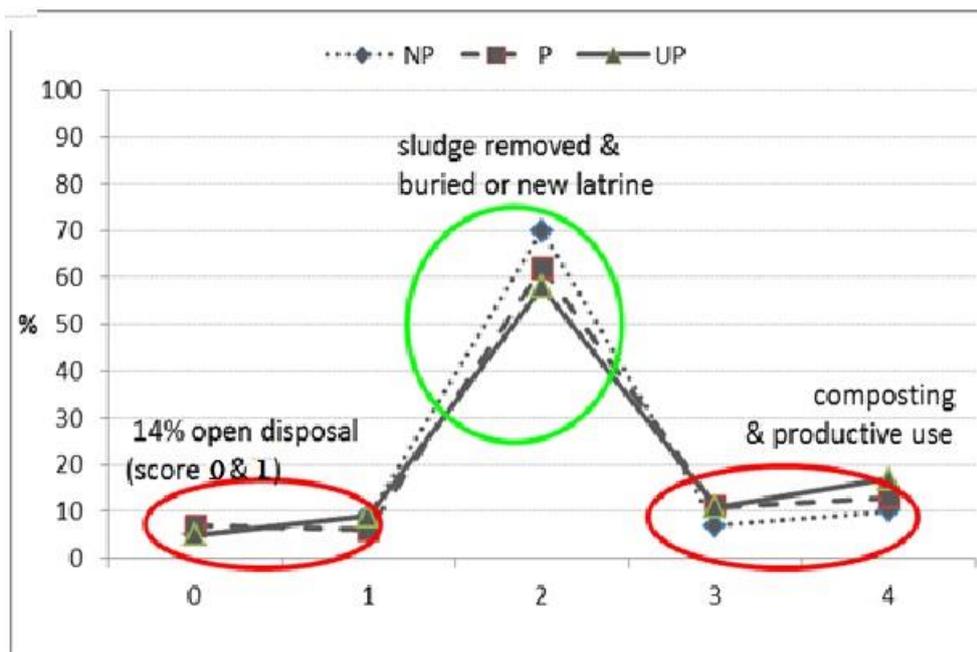


Figure 7 Reported sludge management after pit filled

2.3 Community water source management

150 Village Wash Committees (VWC) from the WASH I programme were surveyed. There were 3 QIS scales¹, which measure the following parameters:

- Safe and protected drinking water source (VWC01);
- Administrative performance including cooperation with local government (VWC02); and
- Gender balance in VWC management (VWC03).

2.3.1 Protected source of drinking water

Through the VWCs, BRAC provided protection to existing sources or a new source if existing sources are arsenic-contaminated. Table 12 and Figure 8 give the findings.

¹ For more information on QIS ladders see: Guidelines: QIS data form VWC (November 2012)

Table 12 Protected sources of drinking water supported by BRAC (VWC01)

VWC01 Scores	Score Description	Frequency	Percentage (%)
4	IDEAL: (1) Water source is tube well, deep tube well with platform without cracks + (2) source is arsenic-free water for drinking and cooking + (3) no stagnant water around tube well + (4) no latrine within 12 steps	51	34
3	(1) Water source is tube well, deep tube well with platform without cracks + (2) source is arsenic-free water for drinking and cooking + (3) no stagnant water around tube well	25	16
2	BENCHMARK: (1) Water source is tube well, deep tube well with platform without cracks + (2) source is arsenic-free water for drinking and cooking	7	5
1	(1) Water source is tube well, deep tube well with platform without cracks, but arsenic unknown	60	40
0	Water source is not functional	7	5
Total		150	100

Overall, 95% of BRAC-supported sources were functional (scores 1 to 4) while 5% were observed to be not functional. However, in 40% of the protected sources the level of arsenic was not known to the VWC. For level 2 to 4, of 55% the VWC knew that testing was done and the source was arsenic free. About half of the sources (50%) were observed to be free from stagnant water around the source, and only one in three had no latrine or latrines within 12 steps. Figure 8 gives a pictorial presentation of the findings.

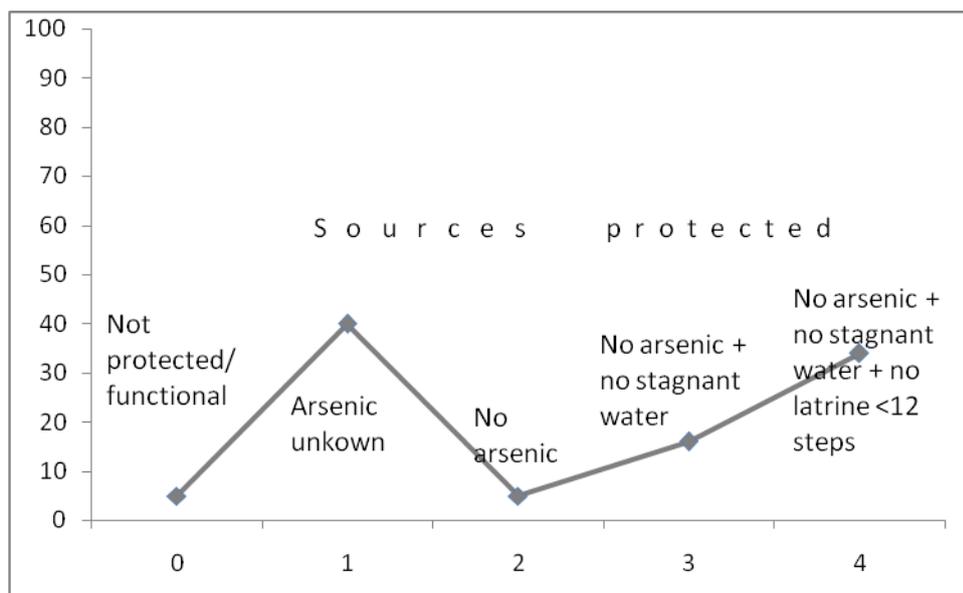


Figure 8 Protection of water sources installed by the programme

2.3.2 Management performance of VWCs

From the data (here not presented in tables) 3% of VWCs in the WASH I area were established in 2006, 64% in 2007 and 33% in 2008. Out of the total of 150, 141 or 94% still have the original composition of six female and five male members. The other 9 VWCs are all located in non-poor areas and 8 VWCs now have more female members (Table 13).

Table 13 Directions of change in 9 VWCs that changed 6 female/5 male members

No. of VWCs with changed composition	No. of current female members	No. of current male members
1	5	6
7	7	4
1	8	3

Table 14 gives the performance of VWCs in terms of keeping scheduled meetings (score 1) plus records (score 2), also solving problems (score 3) and finally also cooperating with local government for mobilisation of latrine grants for the ultra-poor (score 4).

Table 14 Administrative performance of VWCs

VWC02 Scores	Score Description	Frequency	Percent (%)
4	IDEAL: (1) Committee (male and female members) meets every 2 months + (2) maintains list of decisions and meeting minutes + (3) identifies gaps and takes action + (4) mobilizes ADP funds for hard core poor	47	31
3	(1) Committee (male and female members) meets every 2 months + (2) maintains list of decisions and meeting minutes + (3) identifies gaps and takes action	62	41
2	BENCHMARK: (1) Committee (male and female members) meets every 2 months + (2) maintains list of decisions and meeting minutes	40	27
1	(1) Committee (male and female members) meets every 2 months	0	0
0	No full VWC OR VWC exists but does not meet	1	1
Total		150	100

Table 14 shows that 72% of VWCs scored above, while 27% scored at the benchmark (score 2). Only 1% scored below the benchmark (score 0+1). Analysis by year of VWC establishment shows that all VWCs established in 2006, 71% from 2007 and 73% from 2008 perform above benchmark (scores 3+4). However, no relationship between the VWC age and the VWC performance (Table 15) was found.

Table 15 Managerial performance of VWCs by year of establishment

VWC02	Year of VWC establishment					
	2006		2007		2008	
Score	Freq.	%	Freq.	%	Freq.	%
4	5	100	32	34	10	20
3			35	37	26	53
2			27	28	13	27
1			0	0	0	0
0			1	1	0	0
Total	5	100	95	100	49	100

Another finding was that 76, or 51%, of the sampled VWCs are located in areas where households are mostly ultra-poor and poor (Table 16). Figure 9 shows that VWCs in relatively poor areas score best when it comes to internal management plus the mobilisation of local government funds for latrines for the ultra-poor (score 4).

Table 16 VWC performance in areas with mostly poor and ultra-poor households vs non-poor households

VWC02	Mostly poor and ultra-poor households		Mostly non-poor households	
	Frequency	Percentage (%)	Frequency	Percentage (%)
4	28	37	19	26
3	29	38	33	45
2	19	25	21	28
1	0	0	0	0
0	0	0	1	1
Total	76	100	74	100

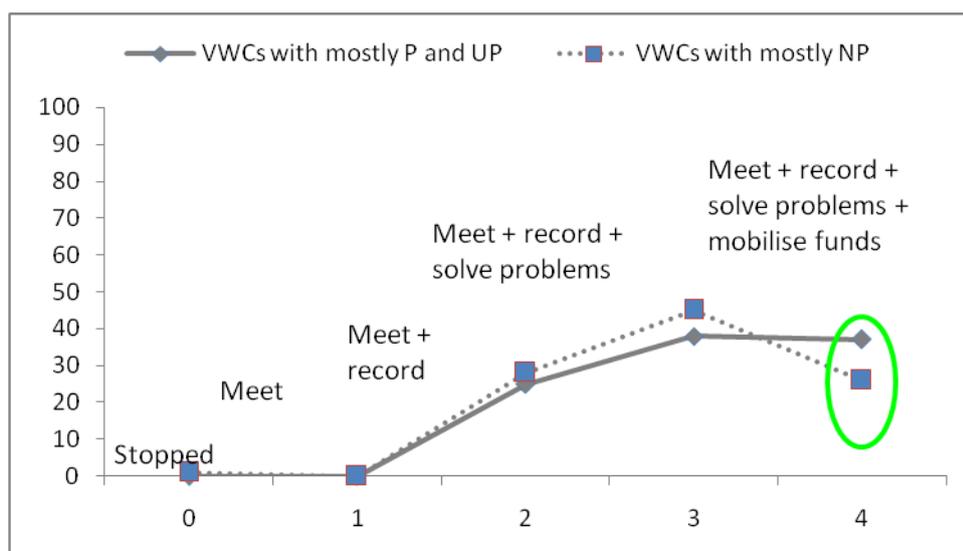


Figure 9 Management performance of VWCs in mostly UP/P and NP areas

2.3.3 Participation of women and gender equity

On women's participation/gender-balanced management (VWC03), 80% of VWCs have already achieved the ideal status: women are registered members, attend the meetings, speak out, make decisions together with male members, and do so as a standard procedure (Table 17).

Table 17 Women's participation and gender equity in decision making by VWCs

VWC03 Score ²	Score Description	Frequency	Percentage (%)
4	IDEAL: Women registered on VWC + (1) come to the meetings + (2) speak out + (3) influence some decisions in last 1 year + (4) all decisions taken jointly	120	80
3	Women registered on VWC + (1) come to the meeting + (2) speak out + (3) influence some decisions in last 1 year	9	6
2	BENCHMARK: Women registered on VWC + (1) come to the meetings + (2) speak out	18	12
1	Women registered on VWC + (1) come to the meetings	3	2
0	No women on VWC/women registered, but don't come to the meetings	0	0
Total		150	100

There is no significant change in results from areas with mostly poor and ultra-poor households. However, it appears that VWC performance in non-poor household areas is slightly weaker, as 4% perform below benchmark.

²as agreed by female and male sub-groups

Table 18 VWC performance in areas with mostly poor and ultra-poor households vs non-poor households

VWC03	Mostly P and UP households		Mostly NP households	
	Frequency	Percentage (%)	Frequency	Percentage (%)
4	60	79	60	82
3	5	7	4	5
2	11	14	7	9
1	0	0	3	4
0	0	0	0	0
Total	76	100	74	100

As shown in Figure 10, 2% of VWCs scored below, 12% at and 86% above benchmark³. No significant difference was found between the scores agreed between male and female VWC members and the separate scores by each group.

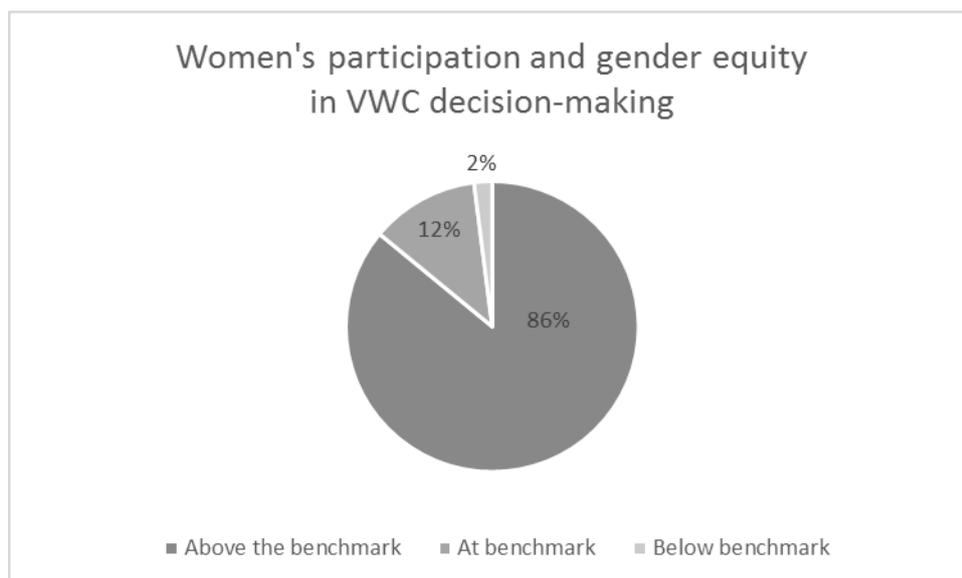


Figure 10 Participation of women and gender equity in VWC decision making

2.4 WASH in Schools

380 out of around 400 surveyed schools, or 94%, were located in BRAC WASH I areas. This section presents the analysis for these schools.

2.4.1 Sanitary and hygienic toilets by gender

Sanitary and hygienic school latrines (SS01) for girls scored the best among all four QIS school indicators. It also scored significantly higher in comparison with the same indicator for boys' latrines. In the same sample size, almost twice as many girls' latrines scored above

³ Benchmark: Women registered on VWC, they come to the meetings AND speak out (source: Guidelines - QIS Data Form Village Water Committee, November 2012)

the benchmark⁴ in comparison to boys' latrines (84% vs 43%). Of the latrines for boys, 37% scored at the benchmark.

Table 19 Sanitary and hygienic school latrines

SS01 Score	Score Description	Boys latrine			Girls latrine		
		Frequency	%	Above, at & below BM	Frequency	%	Above, at & below BM
4	IDEAL: (1) separate toilets for boys and girls are present + (2) boys latrines are used only for boys + (3) have no faecal matter in pan, water seal, floor or walls, and no puddles of urine (4) provisions for cleaning and hand washing available in the latrine	79	21	43	257	68	84
3	(1) separate toilets for boys and girls are present + (2) boys latrines are used only for boys / girls latrines are used only for girls + (3) have no faecal matter in pan, water seal, floor or walls, and no puddles of urine	84	22		62	16	
2	BENCHMARK: (1) separate toilets for boys and girls are present + (2) boys latrines are used only for boys/ girls latrines are used only for girls	139	37	37	44	11	11
1	Toilets are there and are always used by the students, but not separate for boys and girls	14	4	8	10	3	5
0	No latrine at all or No toilets for boys and girls available in the school OR are not used or no latrine other than girl's latrine provided by BRAC WASH	17	4		7	2	
No boys in School		47	12	12	0	0	0
Total		380	100	100	380	100	100

⁴ Benchmark: separate toilets for boys and girls are present AND always used by students (source: Guidelines - QIS Data Form School, November 2012)

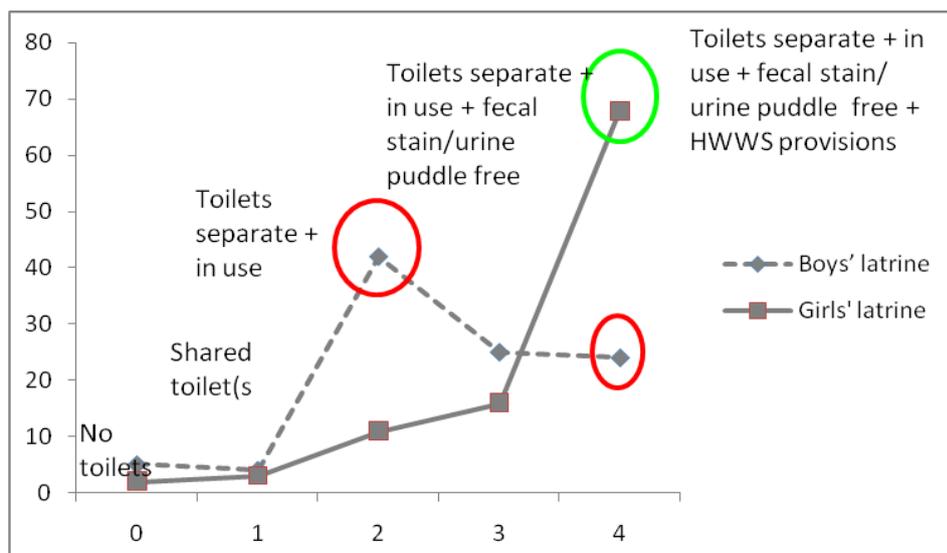


Figure 11 Observed quality and hygiene of boys and girls toilets

2.4.2 Student brigades

The distribution of the scores for the student brigades (scale SS02) is summarized in Table 20. Performance ranges from no brigade (score 0) and brigade with 12 boys and 12 girls (one each per class) (score 1) to brigades have made work plan and monitoring format (score 2), also update the formats (score 3) to have solved at least one problem in last year (score 4). Overall, 68% perform above and 25% at the benchmark (Figure 12).

Table 20 Performance of student brigades

SS02 Score	Score description	Frequency	Percentage (%)
4	IDEAL: (1) student brigade with 12 boys and 12 girls have been formed + (2) work plan and monitoring format present + (3) register and work plan updated regularly + (4) school brigade has implemented at least one action/solved at least one problem in the last year	87	23
3	(1) student brigade with 12 boys and 12 girls have been formed + (2) work plan and monitoring format present + (3) register and work plan updated regularly	169	45
2	BENCHMARK: (1) student brigade with 12 boys and 12 girls have been formed+ (2) work plan and monitoring format present	95	25
1	(1) student brigade with 12 boys and 12 girls have been formed	24	6
0	No student brigade in the school	5	1
	Total	380	100

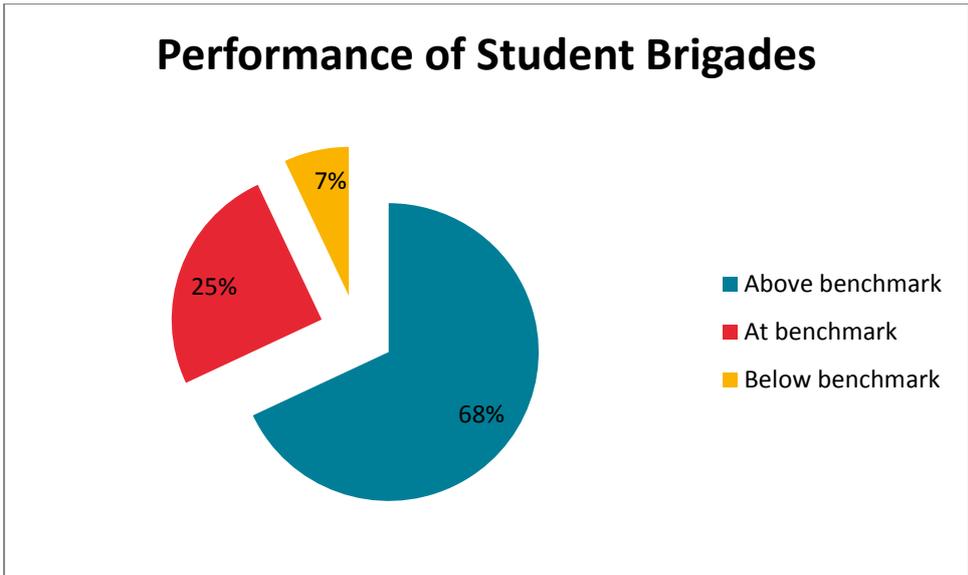


Figure 12 Performance of student brigades

2.4.3 Provisions for menstrual hygiene management

69% of schools scored above and 13% at the benchmark for menstrual hygiene management. 16% of schools have no facilities for menstrual hygiene management.

Table 21 Provisions for menstrual hygiene management in girls school latrines

SS03 Score	Score description	Frequency	Percentage (%)
4	IDEAL (1) dumping facilities in the latrine and end-disposal provisions are available + (2) water is available within the latrine + (3) napkins are available within the school + (4) girls can use the latrine comfortably (without being observed entering the latrine)	240	63%
3	(1) dumping facilities in the latrine and end-disposal provisions are available + (2) water is available within the latrine + (3) napkins are available within the school	22	6%
2	BENCHMARK: (1) dumping facilities in the latrine and end-disposal provisions are available + (2) water is available within the school	50	13%
1	(1) dumping facilities in the latrine and end-disposal provisions are available in the school	7	2%
0	No facilities for menstrual hygiene management are available in the school	61	16%
	Total	380	100%

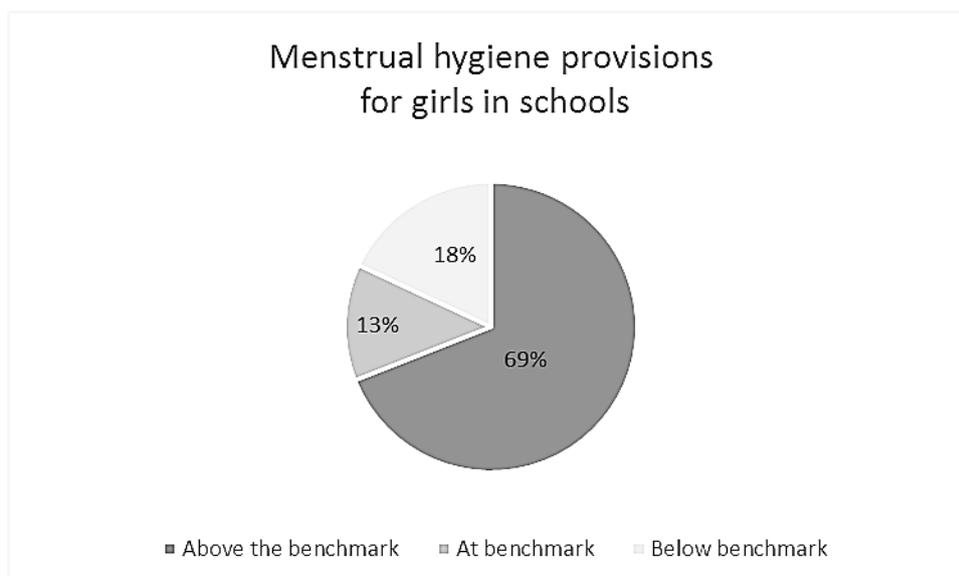


Figure 13 Performance on menstrual hygiene management provisions schools

2.4.4 Performance of School WASH Committees

The data showed that 66% of school WASH committees perform above and 24% perform at the benchmark⁵, while 10% remained below benchmark (Table 22Table). Above benchmark implies that besides meeting and keeping records and accounts they also have some funds to maintain WASH facilities (score 3) and the expenditures are updated in the register (score 4). Below benchmark (BM) are schools that have no WASH committee or committee do not keep records and accounts, which is the programme’s minimal behavioural target or benchmark.

Table 22 Performance of school WASH committees

SS04 score	Score description	Frequency	Percentage (%)
4	IDEAL: (1) Committee (male and female members) is functional + (2) has documents and meeting minutes and financial account list + (3) has funds to maintain school WASH provisions which is used (e.g. toilet cleaner, brush broom etc.) + (4) fund for maintenance of WASH provisions is updated in register	146	37%
3	(1) Committee (male and female members) is functional + (2) has documents and meeting minutes and account list + (3) has funds to maintain school WASH provisions which is used (e.g. toilet cleaner, brush broom etc.)	109	29%
2	BENCHMARK: (1) Committee (male and female members) is functional + (2) has documents, meeting minutes and financial account list	90	24%
1	(1) Committee (male and female members) is present and functional	25	7%
0	No committee or committee exists, but is not functional	10	3%
	Total	380	100%

⁵ Benchmark: Committee (male and female members) is functional AND has documents, meeting minutes and financial account list

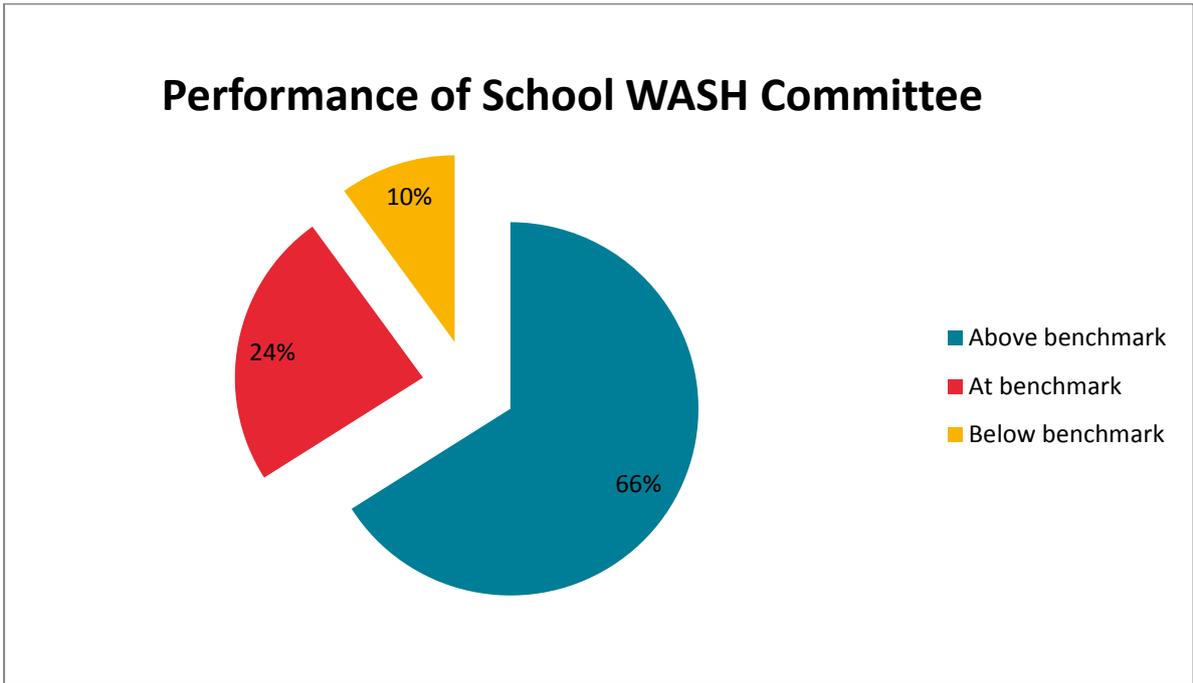


Figure 14 Performance of School WASH Committees

2.5 Rural Sanitation Centres (RSCs)

302 Rural Sanitation Centres (RSC) were surveyed. Out of these 229, or 76%, were located in BRAC WASH I programme areas. Analysis shows that among the RSCs that received support from BRAC WASH, 60% of these received financial and orientation support, 24% received only orientation support and 3% received only financial support. However, 14 RSCs are self-supported. Data could be collected from 44 of 71 RSCs that are not in the business.

When it comes to performance, 56% of RSCs perform above, 6% perform at and 38% below the benchmark⁶. After disaggregating RSCs in accordance with support received from BRAC, the obtained results are summarized in Table 23.

⁶ Benchmark: Rural Sanitation Centre/enterprise within reach of union AND has at least 4 types of sanitary products (source: Guidelines - QIS Data Form Rural Sanitation Centre, November 2012)

Table 23 Performance of RSCs with different levels of BRAC support

RSC01* Score	All RSC		Financial and Orientation Support		Orientation Support (only)		Financial Support (only)	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
4	25	12%	22	17%	2	4%	1	14%
3	95	44%	71	55%	21	40%	3	43%
2	14	6%	10	8%	4	8%	0	0%
1	10	5%	5	4%	4	8%	1	14%
0	71	33%	21	16%	21	40%	2	29%
Total	215	100%	129	100%	52	100%	7	100%

*RSC01: PERFORMANCE OF RURAL SANITATION CENTRE/ENTERPRISE	SCORE
IDEAL: (1) Rural Sanitation Centre/enterprise within reach of union + (2) has at least 3 or 4 types of sanitary products + (3) provides other services to customers on their demand + (4) markets goods and services to customers in surrounding areas	4
(1) Rural Sanitation Centre/enterprise within reach of union + (2) has at least 3 or 4 types of sanitary products + (3) provides other services to customers on their demand	3
BENCHMARK: (1) Rural Sanitation Centre/enterprise within reach of union + (2) has at least 3 or 4 types of sanitary products	2
(1) Rural Sanitation Centre/enterprise within reach of union	1
No Rural Sanitation Centre/enterprise within reach of union	0

The data show that regular commercial enterprises and centres supported with training and finances, or only finances, by BRAC did better than the ones that received only orientation. However, enterprises that received orientation and/or financial support scored higher at level 3, which means that they are not only easy to reach and offer at least 3-4 products, but also provide other services to customers (e.g. transport facilities).

At the top level this difference has disappeared. Table 23 shows that the best performers are small groups of RSCs that have received financial support and orientation from BRAC. They not only provide extra services, but also actively market their products and services to potential customers in surrounding villages.

3. Conclusion and lessons

Comparing the QIS indicators for all categories (households, VWCs, RSCs and schools), we can conclude that in all categories programmes have scored above or at the benchmark, but that the level of performance varies per type of parameter measured (Table 24).

Table 24 Comparative performance of programme according to QIS benchmark scores

QIS Indicator	Topic/scale	Above BM	At BM	Below BM
HH05	Consistency of latrine use at all times	93%	5%	2%
HH04	Use of latrine by all household members	90%	6%	4%
VWC03	Women's participation/gender balanced management	86%	12%	2%
SS01 Girls	Sanitary, used and hygienic school toilet	84%	11%	5%
VWC02	Performance of VWC	72%	27%	1%
SS03	Menstrual hygiene management provisions for girls in school	69%	13%	18%
SS02	Presence & performance of student brigade	68%	25%	7%
SS04	Presence & performance school WASH committee	66%	24%	10%
HH03	Sanitary and hygienic household latrine	65%	20%	15%
HH01	Safe and protected main drinking water source	59%	24%	17%
VWC01	Safe and protected drinking water source by programme	50%	5%	45%
HH02	Drinking water management from source to cup	46%	28%	26%
SS01 Boys	Sanitary, used and hygienic school toilet	43%	37%	20%
HH06	Hand washing provisions post-defecation	33%	45%	22%
HH07	Sludge management when pit is full	22%	64%	14%
RSC01	Depends on type of support, see Table 23 above			

The main programme successes and next challenges are summarised below.

3.1 Households

- Virtually all households in the WASH I sample area have a basic latrine
- There is almost no difference in poverty level for basic latrines: only 2% NP, 2% P and 3% UP have no latrine or an unsanitary latrine (i.e. without slab and ring);
- When present the latrine is used at all times and this pattern is the same in all classes;
- 72% use even under abnormal conditions (heavy rain, flooded paths), but this percentage probably drops when split up for areas with disasters and/or seasonal drought;
- All households use the latrine, but use is least by men and adolescent boys;
- Many women deposit faeces from babies, infants and other non-using household members in the latrine;
- The majority of household latrines (65%) were observed to be free from faecal stains;
- UP do better than P and NP on double pit latrines (score 4). This confirms proper grant targeting;
- 78% of households had provision to wash hands with soap and water;
- At this level there was no difference in class (but UP are more present at lowest 2 levels and less at highest level);
- For drinking water management in the home most scores are at or above benchmark, showing safe source and handling patterns;
- The ultra-poor score well for behaviour related to drinking water safety, i.e. safe handling of drinking water between source and cup, but score lower than NP and P.

3.2 VWCs

- 95% of drinking water sources installed with BRAC funds have a platform and are functional;
- 99% of VWCs continue to function;
- 68% meet regularly, keep records and undertake problem-solving action;
- 1 in 3 also mobilizes local government funds for latrines for the ultra-poor;
- After scoring in two gendered sub-groups, whereby women's scores were used when they differed from the men's, 80% of VWCs' men and women agreed that women attend and speak out and that decisions are made jointly.

3.3 Schools

- 98% of schools have one or more toilets that function;
- Most schools (95%) have separate latrines for girls;
- Girls' toilets score at highest level for provisions (water, soap, bin) and no observed faecal smears/urine puddles;
- Student brigades exist in 99% of the schools;
- 23% have documented to have solved at least one problem and 45% have started to monitor latrines and other WASH facilities;
- Majority of the schools now have provisions for menstrual hygiene management.

3.4 Sanitation enterprises

- Rural Sanitation Centres supported by BRAC with training and finances, or only finances, did better than BRAC centres that received only orientation.

3.5 Lessons

- For dislodging and self-sustaining toilets, i.e. double pit composting toilets, there is still a long way to go.
- The emphasis on toilet use promotion should be on men and adolescent boys, and on mothers for disposal of baby/infant faeces in the latrine.
- For hand washing, going the last mile is needed. Now 1 in 5 households use no soap, and 9% use no water either. UP score is still below that of P and NP.
- Poverty level still affects drinking water safety: UP and P sources have fewer platforms or platforms without cracks.
- The programme should promote regular cleaning of latrines and of drinking water storage vessels in UP households as they score below P and NP on these hygiene indicators.
- The sanitation marketing strategy will need adjustment, possibly by providing the training and financial management support to any centre that meets criteria of accessibility, provision of additional services and active marketing and outreach to customers including those further afield.
- In the design of the QIS instrument the household composition should specify the presence of babies/infants/elderly/members who cannot access the sanitation facilities autonomously and if the household has experienced a disaster (cyclone/flood/drought). The type of hand pump (shallow or deep tube well) may make a difference when analysing the risk of contamination.

