

# **WASH I Report on QIS data analysis:**

## **Findings from the second round 2014**

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# Contents

<b>EXECUTIVE SUMMARY .....</b>	<b>6</b>
<b>INTRODUCTION .....</b>	<b>7</b>
<b>1 METHODOLOGY .....</b>	<b>8</b>
1.1 Qualitative Information System (QIS).....	8
1.2 Implementation .....	9
1.3 Representative sampling .....	9
1.3.1 Household surveys .....	9
1.3.2 Village WASH Committees surveys.....	10
1.3.3 Schools and Rural Sanitation Centres surveys .....	10
1.4 Some issues to consider.....	10
<b>2 FINDINGS .....</b>	<b>11</b>
<b>3 VILLAGE WASH COMMITTEE .....</b>	<b>12</b>
3.1 Condition of drinking water source supported by BRAC (VWC01) .....	13
3.2 Management performance of VWCs (VWC02) .....	14
3.3 Women's participation / Gender balance in VWC management (VWC03).....	15
<b>4 HOUSEHOLD INDICATORS.....</b>	<b>16</b>
4.1 Condition of main drinking water source (HH01).....	17
4.2 Drinking water management (HH02).....	17
4.3 Condition of latrine at household level by socio-economic status (HH03) .....	19
4.4 Use of latrine among different household members (HH04).....	19
4.5 Consistency of latrine use at day/night by time and seasonality (HH05) .....	20
4.6 Hand washing provisions after latrine use by socio-economic status .....	21
4.7 Sludge management when latrine pit is full (actual practice).....	21
<b>5 WASH IN SCHOOLS .....</b>	<b>22</b>
5.1 Condition of latrines at school (SS01).....	22
5.2 Performance of Student Brigades (SS02) .....	25
5.3 Menstrual Hygiene Management at school (SS03) .....	26
5.4 Performance of School WASH Committees .....	27
<b>6 PERFORMANCE OF RURAL SANITATION CENTRES .....</b>	<b>28</b>
<b>7 CONCLUSION AND LESSONS LEARNT.....</b>	<b>31</b>
7.1 Conclusion.....	31
7.2 Lesson learnt .....	32
7.2.1 On QIS .....	32
<b>ANNEX 1 .....</b>	<b>34</b>

## Tables

Table 1 Scaling principles of QIS .....	8
Table 2 QIS indicators.....	9
Table 3 Findings from WASH I area .....	11
Table 4 Selection of key indicators.....	12
Table 5 Condition of main drinking water source by socio-economic status (HH01) .....	17
Table 6 Drinking water management by socio-economic status (HH02) .....	18

Table 7	Condition of latrine at household level by socio-economic status.....	19
Table 8	Latrine use among household members by socio-economic status .....	20
Table 9	Consistency of latrine use at day/night by time and seasonality by socio– economic status (HH05) .....	20
Table 10	Provisions for hand washing after latrine use by socio-economic status (HH06)...	21
Table 11	Sludge management when latrine pit is full (actual practice) by socio-economic status (HH07) .....	22
Table 12	Condition of latrines at school.....	23
Table 13	Performance of RSCs with different levels of BRAC support .....	30

## Table of figures

Figure 1	Performance of key indicators .....	12
Figure 2	Condition of drinking water source (VWC01) .....	14
Figure 3	Performance of VWC (VWC02) .....	15
Figure 4	Women participation in VWCs (VWC03).....	16
Figure 5	Condition of school latrine .....	25
Figure 6	Performance of student brigade.....	26
Figure 7	Menstrual hygiene management.....	27
Figure 8	Performance of School WASH Committee .....	28

## Abbreviations

BM	Benchmark
HH	Household
MDGs	Millennium Development Goals
NP	Non-poor
PA	Programme Assistant
PP	Poor
PPS	Probability Proportional to Size
PRA	Participatory Rural Appraisal
QC	Quality Controller
QIS	Qualitative Information System
RSC	Rural Sanitation Centre
UP	Ultra-poor
VWC	Village WASH Committee
WASH	Water Sanitation Hygiene

## Executive summary

The BRAC WASH programme was launched in May 2006 in 152 upazilas (WASH I area) of Bangladesh to contribute to the attainment of the Millennium Development Goals (MDGs) by providing integrated water services, sanitation and hygiene promotion in collaboration with government and other stakeholders. Today BRAC WASH works with whole communities in 250 upazilas with a special emphasis on poor and ultra-poor households that do not have access to safe water supply and sanitary latrines.

From its conception monitoring played a crucial role and new additions and adaptations were made several times for the improvement of the programme. Programme inputs and outputs were measured routinely from the beginning, but there was a need to measure the performance of the programme as well as changes in the behaviour of the individuals and households. That's why the Qualitative Information System (QIS) was introduced in the programme which measures the programme's performance using progressive scales. The data was collected from representative sample upazilas.

The first performance monitoring round for 177 upazilas took place in 2012-13 and the 2nd round took place in 2014-15. This report contains the results of two outcome monitoring rounds in the WASH I areas of the BRAC WASH programme where the programme has been working for the past eight years.

The results from the Village WASH Committee (VWC) indicators show that a large number of the drinking water sources supported by BRAC are functional (87%). As in the previous round almost all the VWCs are active and women are actively participating in the meetings.

Household indicator results are mixed. 95% of households drink water that is arsenic free and only 29% of the households properly managed water from source to cup. 78% of the households have access to a hygienic latrine and almost all the members of the households that have a latrine are regularly using it. Not much has changed for these two indicators compared with the previous round though the provision of hand washing in and around the latrine reduced substantially in this round (78% vs. 62%). Rigorous hygiene promotion activities are needed to improve this situation.

Sludge management after latrines were filled up shows a trend for burying the contents (78%) and a small percentage (3%) across all wealth categories have begun to use the compost productively. Non-poor households scored less at and above benchmark than households from other wealth categories indicating this group needs more attention in hygiene promotion activities on sludge management. Scores above benchmark were higher in the previous round. It seems that respondents stated the ideal rather than the reality in the first round and that scores are more realistic in the second round.

Almost twice as many girls' latrines provided jointly by BRAC WASH and the school authority scored higher in cleanliness in comparison to boys' latrines (70% vs. 34%). 91% of the latrines provided by BRAC and the school authority are regularly being used by the girls. However, 3% of latrines provided by BRAC and the school authority were found not in use due to new construction or renovation at the school premises and 6% of school latrines were found not to be separate. 71% of schools have disposal facilities and water available in the latrines while 60% of schools have adequate funds for operation and maintenance. The percentages were 82% and 66% for the previous round.

The findings on the Rural Sanitation Centres show that centres which received loan and training from BRAC are doing better than those which received only training (52% vs. 38% at benchmark). The percentages were 80% and 52% in the previous round. However, 26% of the BRAC supported centres (receiving loan and orientation) are not in business anymore. A reason may be that due to the increase in sanitation coverage demand for their work has dropped.

## Introduction

The BRAC WASH programme was launched in May 2006 in 152 upazilas (WASH I area) of Bangladesh to contribute to the attainment of the Millennium Development Goals (MDGs) by providing integrated water services, sanitation and hygiene promotion and expanding to hard-to-reach areas and to under-served populations in collaboration with government and other stakeholders.

Today BRAC WASH works with the whole community in 250 upazilas with a special emphasis on poor and ultra-poor households that do not have access to safe water supply and hygienic latrines.

Hygiene and behavioural change are the backbone of the programme as BRAC WASH focuses on breaking the cycle of contamination. The programme focuses on sustainably improved household and school sanitation and hygiene practices, and safe drinking water use. Improvements are managed by community volunteers (members of the Village WASH Committee and other members of the community). Support comes from about 8,000 programme workers, of whom more than 99% are field-based.

By the end of 2014 the following has been achieved:

- Hygiene promotion is being delivered to 51 million people (32 million in 152 upazilas), with an emphasis on a “selling not telling” approach.
- 37 million people (more than 30 million in WASH I) were supported in obtaining hygienic household sanitation facilities, both directly through grants, loans and repairs and indirectly by promoting demand through Village WASH Committees (VWCs) and other stakeholders.
- Access to safe water was extended to 2.3 million people (1.8 million in WASH I areas), by providing new connections and repairing existing options. Separate latrines with menstrual hygiene facilities were constructed in 5186 (3960 in WASH I) schools by the end of 2014.
- 2443 rural sanitation entrepreneurs (1546 in WASH I) have received a loan and 5603 (4624 in WASH I) have received orientation.

From its conception monitoring played a crucial role and new additions and adaptations were made several times for the improvement of the programme. Programme inputs and outputs were measured by a management information system. Then an independent quality control unit was set up to ensure accountability and transparency at the field level. Beside these, BRAC’s Monitoring Department as well as the BRAC Research and Evaluation Division were involved in monitoring and independent studies respectively. However, there was a need to measure the outcome of the programme and the services provided as well as changes in the

behaviour of the individuals and households. Issues such as how well and when latrines are used, whether all household members are using it, how well VWCs continue to perform, to what extent women are involved in planning and management, etc. have been measured. To satisfy that need the Qualitative Information System (QIS) was introduced by IRC to the BRAC WASH programme to measure the performance of the programme in 2012. The first performance monitoring round for 177 upazilas took place in 2012-13 and the second round took place in 2014-15. This report contains the findings from the second round in the WASH I sub-districts where the programme has been working for the past eight years.

## 1 Methodology

### 1.1 Qualitative Information System (QIS)

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 given in Table 1 and have the following meaning:

- 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 the end of the programme.

QIS scales are programme-specific and must be developed together with staff with extensive experience so as to capture the field realities.

**Table 1 Scaling principles of QIS**

DESCRIPTION	QIS score
<b>IDEAL:</b> all four (key) characters are present	4
Primary + Secondary + Tertiary characteristic present	3
<b>BENCHMARK:</b> 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 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<sup>1</sup>).

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), school (SS) and Rural Sanitation Centre (RSC) with the respective codes. This table gives the 15 parameters measured by QIS scales:

**Table 2 QIS indicators**

Code	Topics (parameters)
VWC01	Condition of drinking water source (provided by BRAC)
VWC02	Performance of VWC
VWC03	Women's participation / Gender balance in VWC management
HH01	Condition of main drinking water source
HH02	Drinking water management from source to cup
HH03	Condition of 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
SS01	Condition of school latrines
SS02	Performance of Student Brigade
SS03	Menstrual hygiene management
SS04	Performance of School WASH Committee
RCS1	Performance of sanitation centre / enterprise

## 1.2 Implementation

The second QIS monitoring round was implemented at the end of 2014. A group of 40 teams, each with one male BRAC Quality Controller (QC) and one female Programme Assistant (PA). QCs are members of the monitoring and quality control unit (independent unit) of BRAC WASH. Female PAs made it culturally possible to enter the house to check the hand pump enclosure and the latrine together with the lady of the house, for observation and demonstration. Both received theoretical and practical training for QIS implementation.

## 1.3 Representative sampling

### 1.3.1 Household surveys

Before the start of the programme BRAC WASH conducted a household census in 2006-07. It would, however, not be possible to do one every year. So in 2012 a sample frame was constructed from the census data to draw a representative sample. As not all household and population information was aggregated in Dhaka a multi-stage sampling strategy was applied in the first round. 50 upazilas were selected out of 152 with primary sampling units

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<sup>1</sup>QIS monitoring guidelines for the sample study 2012: <http://www.ircwash.org/resources/qis-monitoring-guidelines-sample-study-2012>.

with a probability proportional to size (PPS) using Sampford's method<sup>2</sup>. In these 50 upazilas information on the size of each VWC was collected in order to select three VWCs using PPS. In each of the VWCs nine households were taken from each of the three wealth strata (ultra-poor, poor and non-poor) using a simple random sample. The selection probabilities for the stratification in the last step are corrected by weighting the sample in the analysis. This resulted in a three stage sampling process with a total sample size of 50 upazilas times three VWCs times nine households times three wealth categories or 4050 households.

In 2014 a more detailed sample frame was available which contains the size of all VWCs in the intervention area which allowed the selection of 100 VWCs as primary sampling units using PPS. In each VWC, six households were randomly selected for each of the three wealth categories reducing the total number to 1800 (100 VWC times six households times three wealth categories).

### **1.3.2 Village WASH Committees surveys**

All the VWCs selected from the sample frame were included in the survey as they need to be visited for the household survey.

### **1.3.3 Schools and Rural Sanitation Centres surveys**

As not all VWCs have a school or a Rural Sanitation Centre (RSC) in their area all schools and RSCs in the next administrative level up from the VWC, i.e. union, were included in the sample to ensure an adequate sample size.

## **1.4 Some issues to consider**

As part of continuous improvement and to better represent the situation on the ground some household ladders have been adopted which are described in detail in the Annex. For instance, the position of the quality of the platform and the drainage were interchanged on the ladder for the indicator 'Condition of drinking water source'. For the indicator 'Drinking water management' safe collection and the quality of platform were interchanged. As a result the percentages at and above benchmark were found to be 64% in both cases.

The following adaptations were made to the ladder of the 3rd household indicator 'Condition of latrine':

- A new score was included as F representing the households with no latrines or nobody in the household uses the latrine. It was found that overall 2% of the households do not have a latrine.
- The disposal site was taken into consideration to see whether the faeces are exposed in an open environment. Score E, if the faeces are exposed in the open environment, no matter how good the other conditions are. With this change sanitation coverage was found to be 78%.
- The two pits were replaced by proper superstructures at the ideal position resulting in more latrines at the ideal position than the previous ladder and non-poor households scored higher than others. There was a need to understand the challenges that are still remaining for the households that have access to hygienic latrines. So the analysis on use, hand washing provision and sludge management was done for those households.

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<sup>2</sup>Sampford, M. (1967), On sampling without replacement with unequal probabilities of selection, *Biometrika*, 54:499-513 Jack G. Gambino, (2015), R-Package 'PPS' Version 0.94.

In the second round skip logic<sup>3</sup> was used for 2% of the households that do not have a latrine while for the first round all the sample households were analysed.

Concerning the condition of school latrines data of all the latrines are presented in the 2nd round while in the previous round data are presented by school.

## 2 Findings

Table 3 gives an overview of the 15 indicators on which progress and performance were measured in two rounds: 1st round (2012) and 2nd round (2014). The green indicates areas where achievements have been sustained and the red percentages are areas where slippage took place. The percentages are for the benchmark level and above.

**Table 3 Findings from WASH I area**

Indicators		1 <sup>st</sup> Round	2 <sup>nd</sup> Round
VWC	VWC01: Condition of water source supported by BRAC	55%	77%
	VWC02: Performance	99%	99%
	VWC03: Women Participation	98%	100%
HH Water	HH01: Water source	83%	75%
	HH02: Water management	74%	58%
HH Latrine	HH03: Latrine condition	85%	81%
	HH04: Latrine use-members	96%	98%
	HH05: Latrine use-time & season	98%	99%
	HH06: Hand washing provision after defecation	78%	62%
	HH07: Sludge Management	86%	78%
School	SS01: Girls latrine-provided jointly by BRAC & School authority	95%	91%
	SS02: Student brigade	93%	86%
	SS03: Menstrual Hygiene Management at school	82%	71%
	SS04: School WASH Committee	90%	78%
Rural Sanitation Centre	RSC1: Performance of Sanitation entrepreneurs	80%	52%

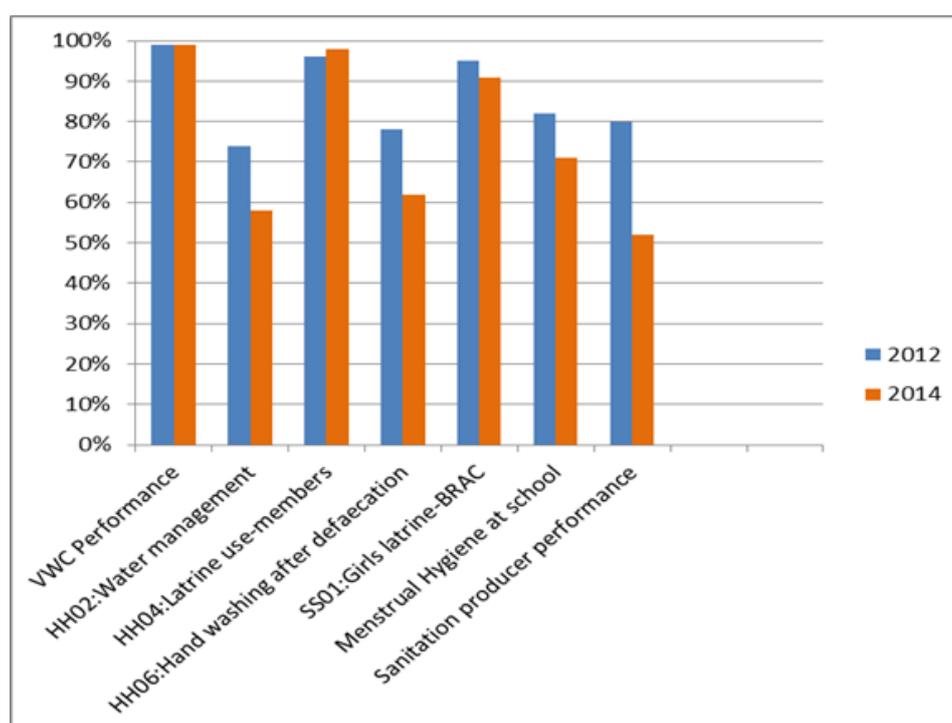
<sup>3</sup> Using skip logic in a survey: <https://www.surveymonkey.com/mp/tour/skiplogic/>

**Table 4 Selection of key indicators**

Indicators	1 <sup>st</sup> Round	2 <sup>nd</sup> Round
VWC01: Performance	99%	99%
HH02: Water management	74%	58%
HH04: Latrine use-members	96%	98%
HH06: Hand washing after defecation	78%	62%
SS01: Girls latrine-BRAC	95%	91%
SS03: Menstrual Hygiene Management at school	82%	71%
RSC1: Sanitation entrepreneurs	80%	52%

Looking at a few key indicators we see that the programme has done well on sustaining latrines and their use as well as on a functioning village WASH committee structure. Areas where slippage has taken place seem to be mainly related to behaviour change: issues around hand washing, drinking water management from source to cup; menstrual hygiene management. The slippage seems to indicate that hygiene promotion should continue. The other area where we can see a drop is with the sanitation producers. This seems in line with experiences elsewhere: when sanitation coverage increases in an area, entrepreneurs move into other business activities.

**Figure 1 Performance of key indicators**



### 3 Village WASH Committee

BRAC WASH starts working in each programme village by undertaking a needs assessment through participatory exercises and social mapping (Participatory Rural Appraisal). After that a Village WASH Committee (VWC) is formed in each programme village and receives a formal orientation. The 11 members (six females and five males) of the committee come from every walk of life, ranging from local elites, religious leaders to ultra-poor women and

adolescent girls. Apart from the eleven members there are two local community leaders, who are selected as advisers. The VWC conducts bimonthly meetings to assess the WASH situations in the community and identifies issues that need urgent action. They are also responsible for allocating funds to the poor and ultra-poor for water and sanitation facilities.

. By following a community participatory process, the BRAC WASH programme has formed more than 65,000 VWCs (39,780 in WASH I/old 152 upazilas) throughout the programme area. They place a strong emphasis upon women's participation in the decision-making process. The VWCs are considered the nucleus of all WASH activities in the locality and act as a catalyst for the community by involving all the different stakeholders.

Findings show that the majority of VWCs were formed in 2007 (64%), 12% in 2006 and 24% in 2008.

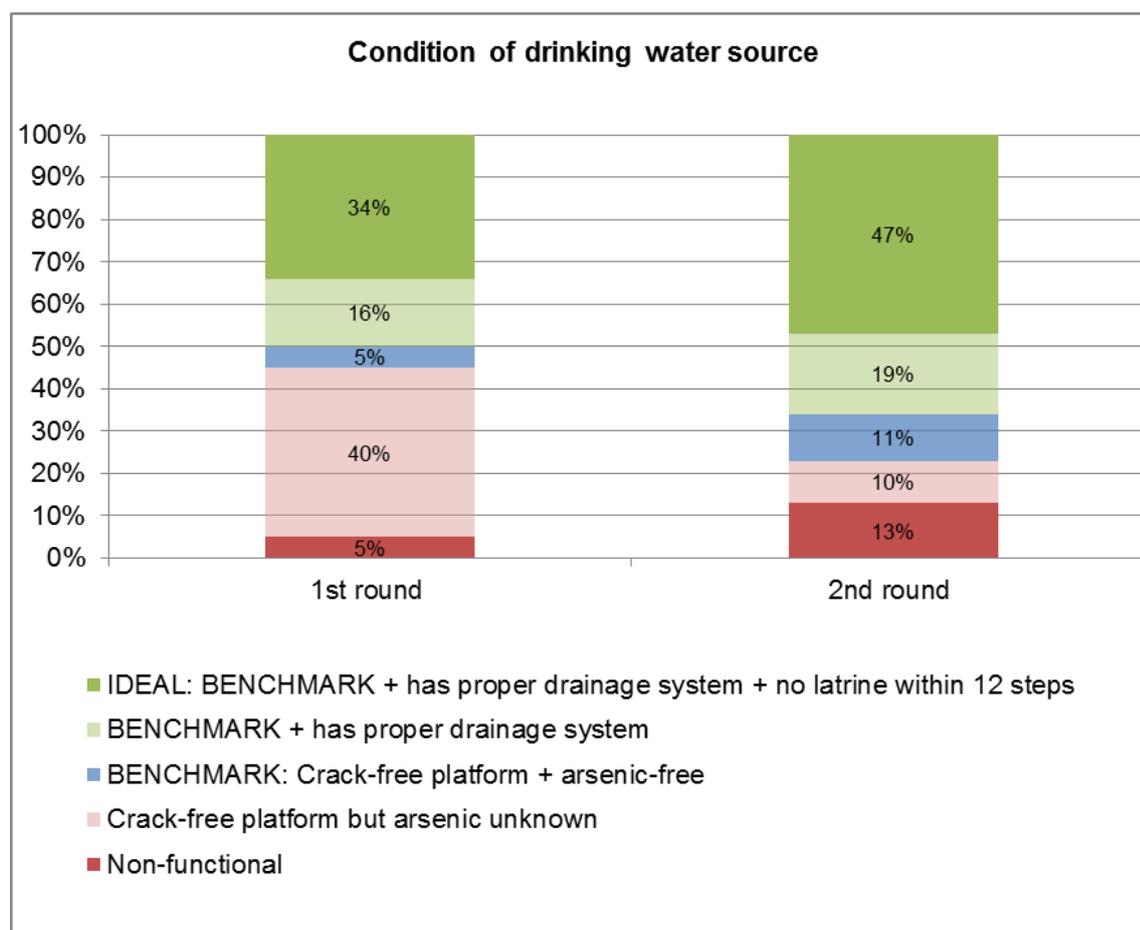
There are 3 QIS scales, which measure the following indicators:

- Condition of drinking water source - supported by BRAC (VWC01).
- Performance of VWC (VWC02).
- Gender balance in VWC management (VWC03).

### **3.1 Condition of drinking water source supported by BRAC (VWC01)**

Through the VWCs, BRAC provided loans to construct tube well platforms to existing sources or bored deep tube wells and installed pond sand filters in the arsenic contaminated or water scarce areas through cost sharing approaches. Among the 100 VWCs, 53 VWCs have received 66 platform loans while 21 deep tube wells were bored in the areas of 16 VWCs. For operation and management of deep tube wells and pond sand filters, water management committees are formed. Information was collected from 77 water sources through interviews with users and spot checks.

**Figure 2 Condition of drinking water source (VWC01)**



The findings show that, overall, 87% of sources were functional (scores 1 to 4). However, in 10% of cases the level of arsenic was not known to the VWC, this is mainly because the majority of these areas are not arsenic affected. For level 2 to 4, 76% of the VWCs knew that testing was done and the source was arsenic free. 66% of tube wells have a proper drainage system as they were found free from stagnant water around the source, and only around half of them had no latrine or latrines within 12 steps. The findings also show that after the last monitoring round the condition has improved. The percentage at and above benchmark rose from 55% to 77%.

### 3.2 Management performance of VWCs (VWC02)

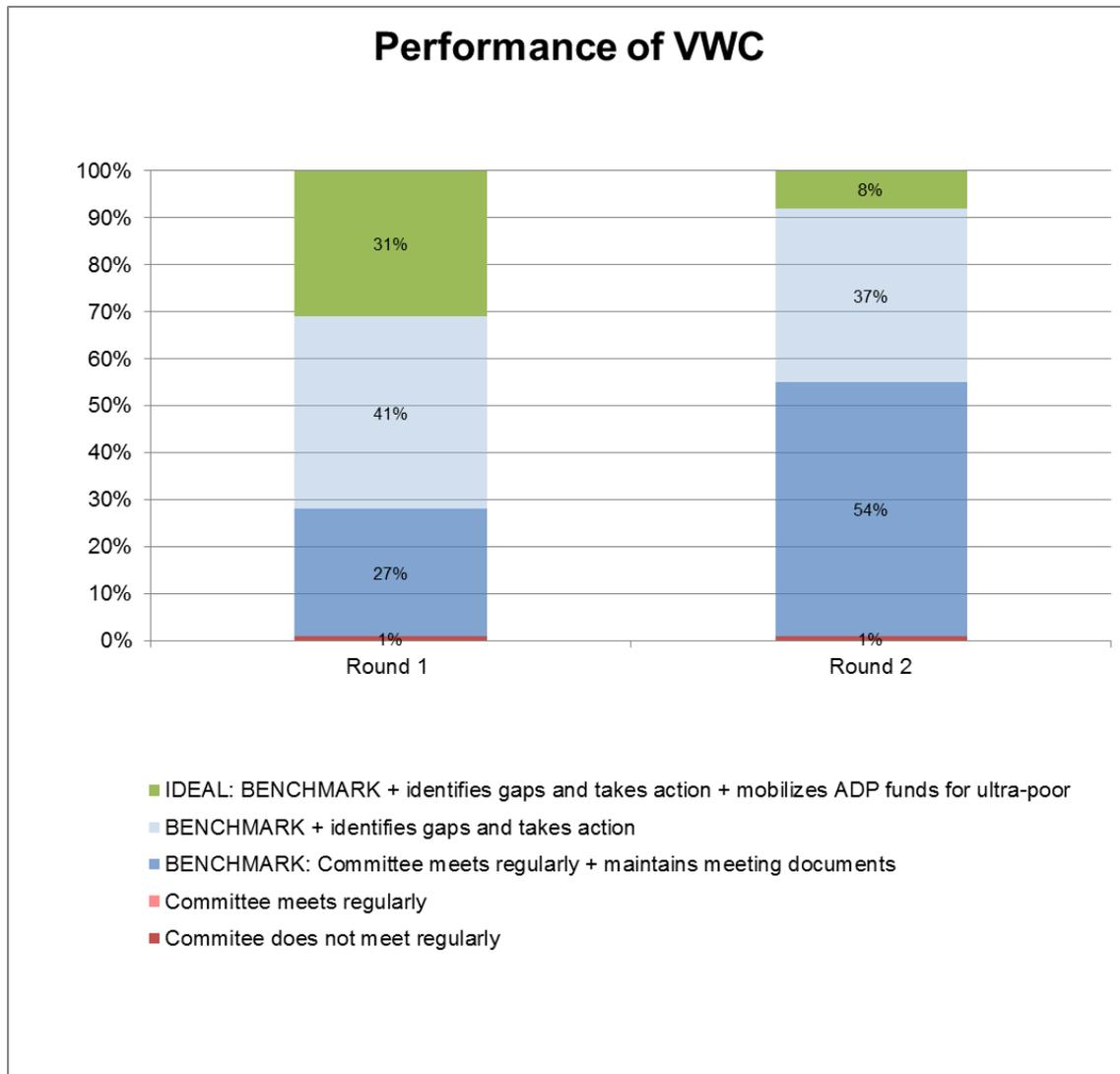
A typical Village WASH Committee includes adult males and females, adolescent girls and boys, representatives from different vulnerable social groups such as poor and ultra-poor, as well as representatives from schools, religious institutions, BRAC village organisations (microfinance groups) and social clubs. The members are supposed to meet every two months with at least eight members present to review conditions and progress of water, sanitation and hygiene conditions in the village. They also keep records, update the register, select poor and ultra-poor who may receive grants and loan supports, and maintain links with local government.

Figure 3 shows that 45% of VWCs scored above, while 54% scored at the benchmark (score 2). In the previous round 72% of VWCs scored above, and 27% scored at the benchmark

(score 2). The performance has increased twofold at the benchmark in this round and this has affected the scores at the higher level.

A reason for this could be that after reaching coverage up to a significant level the majority of VWCs do not have to take decisions on important issues anymore.

**Figure 3 Performance of VWC (VWC02)**



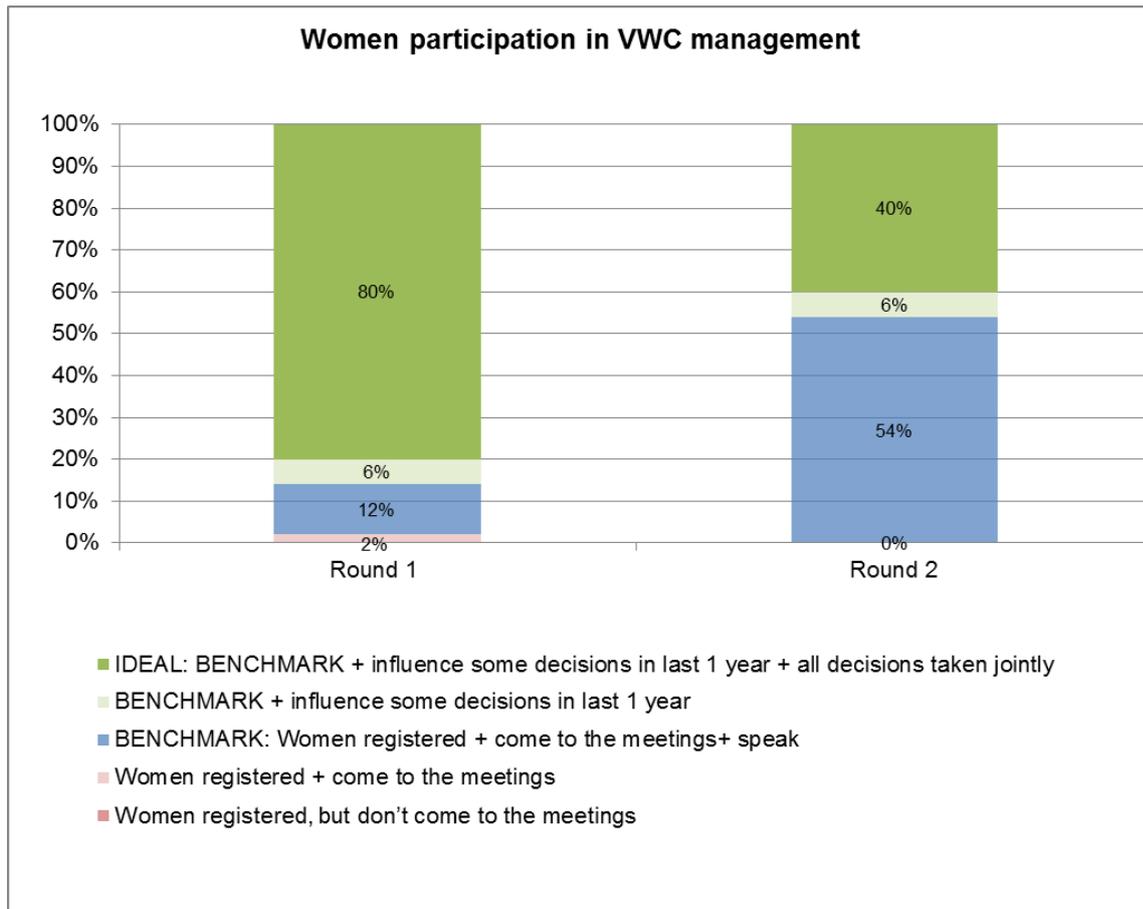
### 3.3 Women’s participation / Gender balance in VWC management (VWC03)

To have men and women on the same platform in a rural setting in order to discuss and decide on the improvement of WASH issues in the village could be considered as one of the major achievements of the BRAC WASH programme. In both rounds the scores were given separately by men and women groups and then triangulated to give women and men an equal voice on this indicator.

On women’s participation/gender balance in VWC management (VWC03), the findings show there is a standard number of women in all the VWCs and they regularly attend the meetings. Here percentages have not changed. Four times more VWCs have scored at the

benchmark (women are members, come to meetings and speak out) than the previous round indicating that the emphasis on giving women a voice has worked. 40% of VWCs have scored at the ideal level, which means women are registered members, attend the meetings, speak out and take decisions together with male members. The percentage has reduced by over half compared to the previous round. This is in line with the previous indicator on performance of the VWC, after reaching the coverage up to a significant level the majority of the VWCs do no longer have to take decisions on important issues.

**Figure 4 Women participation in VWCs (VWC03)**



## 4 Household indicators

The data for household indicators include:

- Condition of water source and management in case of water.
- Quality, use and sludge management in case of household latrines.
- Hand washing practice after defecation.

The data collection process for household indicators included a combination of spot checks and interviews in a participatory manner. In case of water the respondents were asked to demonstrate the water collection process from source to storage pot and observations were

scored. The same process was followed for the latrine: both the monitor and the respondent visited the latrine and final scores were given after discussion.

#### 4.1 Condition of main drinking water source (HH01)

This indicator reflects the status of the main drinking water source of the household. It appears that 95% of the households drink water that is known to be arsenic free. There is a higher probability of finding a tube well that has a platform with cracks and a latrine within 12 steps of their drinking water well in ultra-poor households than with other wealth groups. Both findings indicate a higher risk of bacteriological contamination of drinking water wells for ultra-poor households. This risk is greater for shallow wells than for deep tube wells when arsenic levels surpass the safety mark. The findings also show that the percentage of population with a higher score was lower compared to the previous round and this applies to all three socio-economic groups.

**Table 5 Condition of main drinking water source by socio-economic status (HH01)**

Monitoring round	HH01 (Socio-Economic status)	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
1st round (n= 3758)	Non-poor	46%	21%	19%	10%	4%	100%
	Poor	42%	19%	23%	12%	4%	100%
	Ultra-poor	36%	15%	29%	16%	4%	100%
	Overall	41%	18%	24%	13%	4%	100%
2nd round (n=1679)	Non-poor	34%	31%	13%	18%	4%	100%
	Poor	34%	26%	15%	20%	5%	100%
	Ultra-poor	28%	23%	18%	26%	5%	100%
	Overall	33%	28%	14%	20%	5%	100%

#### 4.2 Drinking water management (HH02)

This indicator measures how water is managed from source to drinking vessel. The data reveals that 42% of the sample households scored below benchmark and the majority of the households are ultra-poor. In 29% of the households water is properly managed from source

to cup. This small percentage has maintained its position in the last round, but there is a drop in safe collection of water, especially among the ultra-poor.

**Table 6 Drinking water management by socio-economic status (HH02)**

Monitoring round	HH02 (Socio-Economic status)	IDEAL: (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
1st (n=3758)	Non-poor	35%	19%	23%	19%	4%	100%
	Poor	28%	20%	28%	21%	4%	100%
	Ultra-poor	21%	14%	35%	24%	6%	100%
	Overall	28%	18%	28%	21%	5%	100%
2nd (n=1679)	Non-poor	31%	14%	12%	39%	4%	100%
	Poor	30%	16%	16%	33%	5%	100%
	Ultra-poor	19%	12%	15%	50%	4%	100%
	Overall	29%	15%	14%	38%	4%	100%

\*Cleaning of vessel - once a week, pot is covered and hands cannot touch during transport.

\*\*Safe home storage - vessel cleaned once a week, drawing by pouring, scoop, filter or tap.

Overall, the picture is worse the second time for all three classes, except for those households already at the top or one level below (scores 3 and 4). There is a small group of well-performers among UP, PP and NP alike, while the others do less well than before, especially the UP. The best performers are non-poor, followed by the poor and then the ultra-poor.

### 4.3 Condition of latrine at household level by socio-economic status (HH03)

Table 7 Condition of latrine at household level by socio-economic status

Monitoring round	HH03 (Socio-Economic status)	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
1st (n=3751)	Non-poor	9%	61%	17%	11%	2%	100%
	Poor	7%	57%	19%	15%	2%	100%
	Ultra-poor	24%	36%	24%	13%	3%	100%
	Overall	13%	52%	20%	13%	2%	100%
2nd (n=1677)	Non-poor	6%	45%	31%	16%	2%	100%
	Poor	6%	45%	32%	13%	4%	100%
	Ultra-poor	15%	27%	31%	20%	7%	100%
	Overall	7%	42%	32%	15%	4%	100%

The findings show that 49% of households scored above benchmark, while 32% are at the benchmark. Due to programme grants, more ultra-poor households than non-poor households have hygienic latrines with two pits (composting latrines). However, the proportion is lower the second time. When it comes to latrine maintenance, ultra-poor scored significantly lower than the poor and non-poor households. The findings also show that the percentage of population at the higher end of the ladder has dropped in comparison with the previous round. This is the case for all three socio-economic groups.

### 4.4 Use of latrine among different household members (HH04)

Table 8 gives the distribution of the scores on latrine use by different household members. According to the findings, 97% scored above benchmark. This means that all members of the household use the latrine and that the faeces of those household members unable to use the latrine by themselves end up in the latrine.

In the second round many households did not achieve top score because they did not have small children and/or members who were unable to use the latrine autonomously due to disability or age. In this case 3 is 4. Latrine use among men and adolescent boys has increased compared with the first monitoring round.

**Table 8 Latrine use among household members by socio-economic status**

Monitoring round	HH04 (Socio-Economic status)	IDEAL: (1) women and adolescent girls + (2) children from age of 6 + (3) men and adolescent boys use the latrine + (4) faeces of any other members end up in latrine	(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
1st (n=3705)	Non-poor	55%	37%	5%
	Poor	54%	34%	8%
	Ultra-poor	51%	35%	7%
	Overall	54%	36%	6%
2nd (n=1627)	Non-poor	29%	68%	1%
	Poor	29%	67%	1%
	Ultra-poor	24%	70%	4%
	Overall	29%	68%	1%

#### 4.5 Consistency of latrine use at day/night by time and seasonality (HH05)

This indicator shows the pattern of latrine use at day/night and across seasons of all the family members of the households which have a latrine. 96% of the households scored above the benchmark. This means that they use the latrine during the day and the night, also during the rains. 48% of all households used the latrine also during abnormal situations, for example when the path to the latrine is flooded. The households that did not face an abnormal situation for the past year belong to level three. In that case level 3 is 4. However, level 3 also includes those households that did not use a latrine in abnormal situations in the past year. Perhaps a sub-category has to be created for the next monitoring round concerning abnormal situations.

**Table 9 Consistency of latrine use at day/night by time and seasonality by socio-economic status (HH05)**

Monitoring round	HH05(Socio-Economic status)	IDEAL: (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)	BENCHMARK: (1) During the day during dry season + (2) during night during dry season
1st (n=3752)	Non-poor	74%	21%	3%
	Poor	69%	22%	6%
	Ultra-poor	72%	19%	6%
	Overall	72%	21%	5%
2nd (n=1640)	Non-poor	53%	44%	2%
	Poor	43%	54%	2%
	Ultra-poor	46%	47%	5%
	Overall	48%	48%	3%

## 4.6 Hand washing provisions after latrine use by socio-economic status

In total, 34% of households scored above and 28% scored at the benchmark for the HH06 indicator, 'Hand washing provision after defecation'. Around 62% is at or above benchmark which means this percentage of households tend to use soap for hand washing after defecation. Very few households have a special hand washing station at or near the latrine. This indicator is used as a proxy indicator for hand washing behaviour at the household level where presence of soap and water inside or around the latrine was observed. Though a small proportion at the top or one level below have maintained their position there is a substantial drop in percentage at the benchmark and this is the case across all socio-economic groups. These households failed to continue to ensure soap and water in and around the latrine. This shows that promoting provisions for washing hands with water and soap need strengthening.

**Table 10 Provisions for hand washing after latrine use by socio-economic status (HH06)**

Monitoring round	HH06 (Socio-Economic status)	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
1st (n=3747)	Non-poor	11%	30%	41%
	Poor	3%	30%	46%
	Ultra-poor	1%	23%	48%
	Overall	5%	28%	45%
2nd (n=1639)	Non-poor	11%	29%	28%
	Poor	3%	30%	27%
	Ultra-poor	1%	21%	30%
	Overall	6%	28%	28%

## 4.7 Sludge management when latrine pit is full (actual practice)

About half of the sample households have had filled latrine pits/septic tanks (774 of a total of 1679 households). 6% of these households scored above benchmark with 3% at the ideal level, while 72% scored at the benchmark. This means 78% of households properly covered the pit content when it was full and only 3% has used the compost on their crops after keeping it in the covered pit for a year. Non-poor households scored less at and above benchmark than households from other wealth categories indicating this group needs to get more attention in hygiene promotion activities on sludge management. Scores above benchmark were higher in the previous round. It seems that respondents stated the ideal

rather than the reality in the first round and that scores are more realistic in the second round. This may be an indication that contents of pit latrines are being buried now. And small percentages (3%) have begun to use the compost productively (Ideal).

**Table 11 Sludge management when latrine pit is full (actual practice) by socio-economic status (HH07)**

Monitoring round	HH07 (Socio-Economic status)	IDEAL: BENCHMARK + (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	BENCHMARK + (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)
1st (n=1456)	Non-poor	10%	6%	70%
	Poor	13%	11%	62%
	Ultra-poor	17%	11%	58%
	Overall	13%	9%	64%
2nd (n=774)	Non-poor	1%	3%	68%
	Poor	4%	3%	76%
	Ultra-poor	3%	2%	74%
	Overall	3%	3%	72%

## 5 WASH in Schools

BRAC WASH has considered schools as one of the major components of its hygiene promotion activity. With the financial support from school authorities BRAC WASH has constructed separate sanitary latrines for girls, with water and menstrual hygiene facilities, in girls' secondary schools or co-education secondary schools in 152 upazilas. For operation and maintenance of existing and provided facilities Student Brigades and School WASH Committees are formed in each school.

This section has data on four indicators for WASH in schools, which include: condition of latrine, performance of student brigades and school WASH committees and menstrual hygiene management. The sample size for schools was 245 of which 205 are co-education and 40 are girls' schools. Data was collected from all these schools through meetings and interviews with teachers and members of Student Brigades and School WASH Committees as well as spot checks and verification of written documents.

### 5.1 Condition of latrines at school (SS01)

Data was collected from three types of school latrines:

1. Separate latrine for girls provided jointly by BRAC WASH and school authority.
2. Separate latrine for girls from other source (not the latrines provided jointly by BRAC WASH and school authority).
3. Separate latrine for boys.

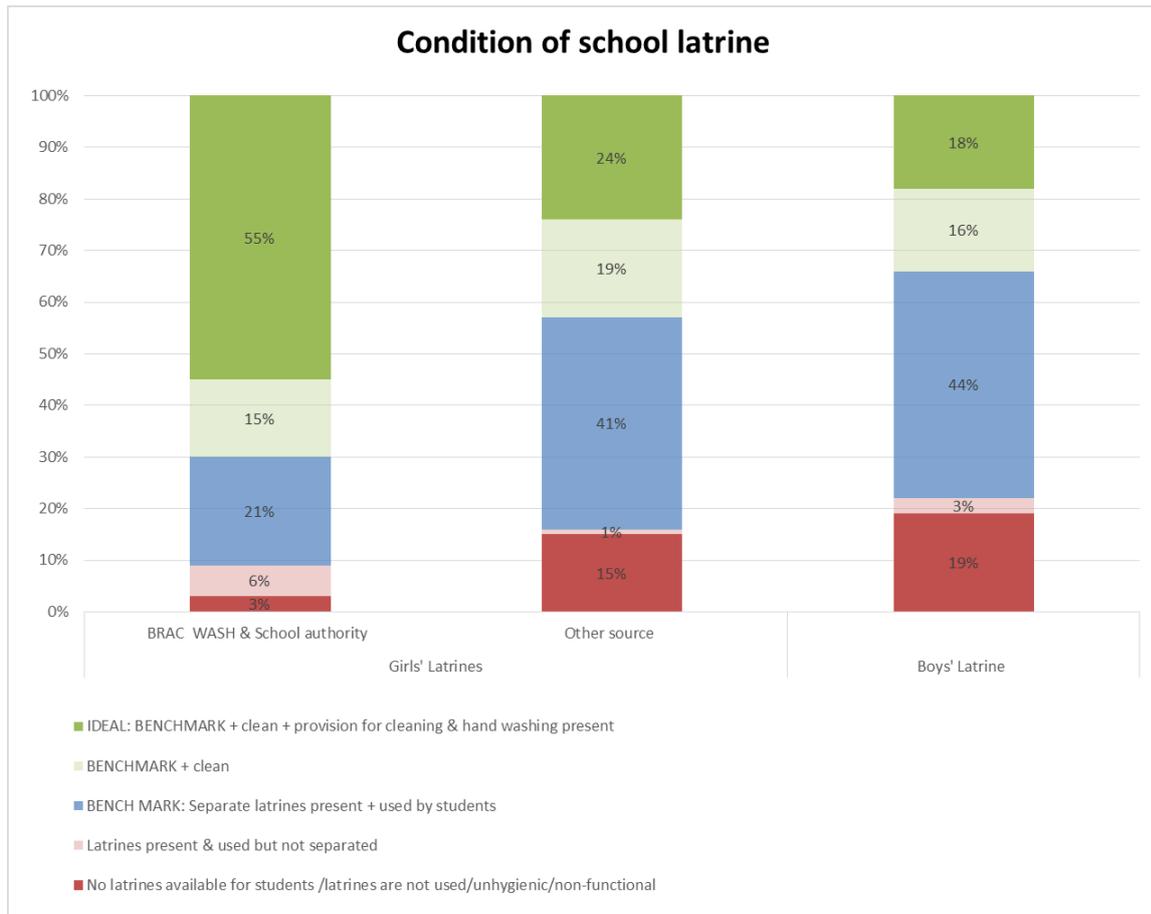
Data was collected from all the latrines present in the school premises. Spot checks were done for 594 girls' latrines (480 constructed with the joint support from both BRAC and the school authority, plus 114 other girls' latrines) and 306 boys' latrines. The findings show that latrines provided jointly by BRAC WASH and the school authority scored higher than other types. Other girls' latrines came second and boys' latrines scored last. Almost twice as many girls' latrines provided jointly by BRAC WASH and the school scored above benchmark in comparison to boys' latrines (70% vs. 34%). During the monitoring period 3% of latrines provided by BRAC and the school authority were found not in use due to new construction or renovation of the school premises. However, 6% of latrines were not separate.

**Table 12 Condition of latrines at school**

SS01 Score	Score Description	Boys' latrine			Girls' latrine				
				BRAC WASH & school authority			Other source		
		1st round (n=380 schools)	2nd round (n=306 latrines)	1st round (n=380 schools)	2nd round (n=480 latrines)	2nd round (n=114 latrines)			
		Score at individual level	Score at individual level	At & above BM	Score at individual level	Score at individual level	At & above BM	Score at individual level	At & above BM
4	<b>IDEAL:</b> (1) separate latrines for boys and girls are present + (2) boys' latrines are used only for boys/ girls' latrines are used only by girls + (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	21%	18%	34%	68%	55%	70%	24%	43%
3	(1) separate latrines 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	22%	16%		16%	15%		19%	

SS01 Score	Score Description	Boys' latrine			Girls' latrine				
					BRAC WASH & school authority			Other source	
		1st round (n=380 schools)	2nd round (n=306 latrines)		1st round (n=380 schools)	2nd round (n=480 latrines)		2nd round (n=114 latrines)	
	Score at individual level	Score at individual level	At & above BM	Score at individual level	Score at individual level	At & above BM	Score at individual level	At & above BM	
2	<b>BENCHMARK:</b> (1) separate latrines for boys and girls are present + (2) boys latrines are used only for boys/ girls latrines are used only for girls	37%	44%	44%	11%	21%	21%	41%	41%
1	Latrines are there and are always used by the students, but not separate for boys and girls	4%	3%	22%	3%	6%	9%	1%	16%
0	No latrine at all or no latrines for boys and girls available in the school OR are not used or unhygienic/non-functional/no latrine other than girls' latrines provided by BRAC WASH & school authority	4%	19%		2%	3%		15%	
No boys in School		12%		0	0	0	0		
Total		100%	100%	100%	100%	100%	100%	100%	100%

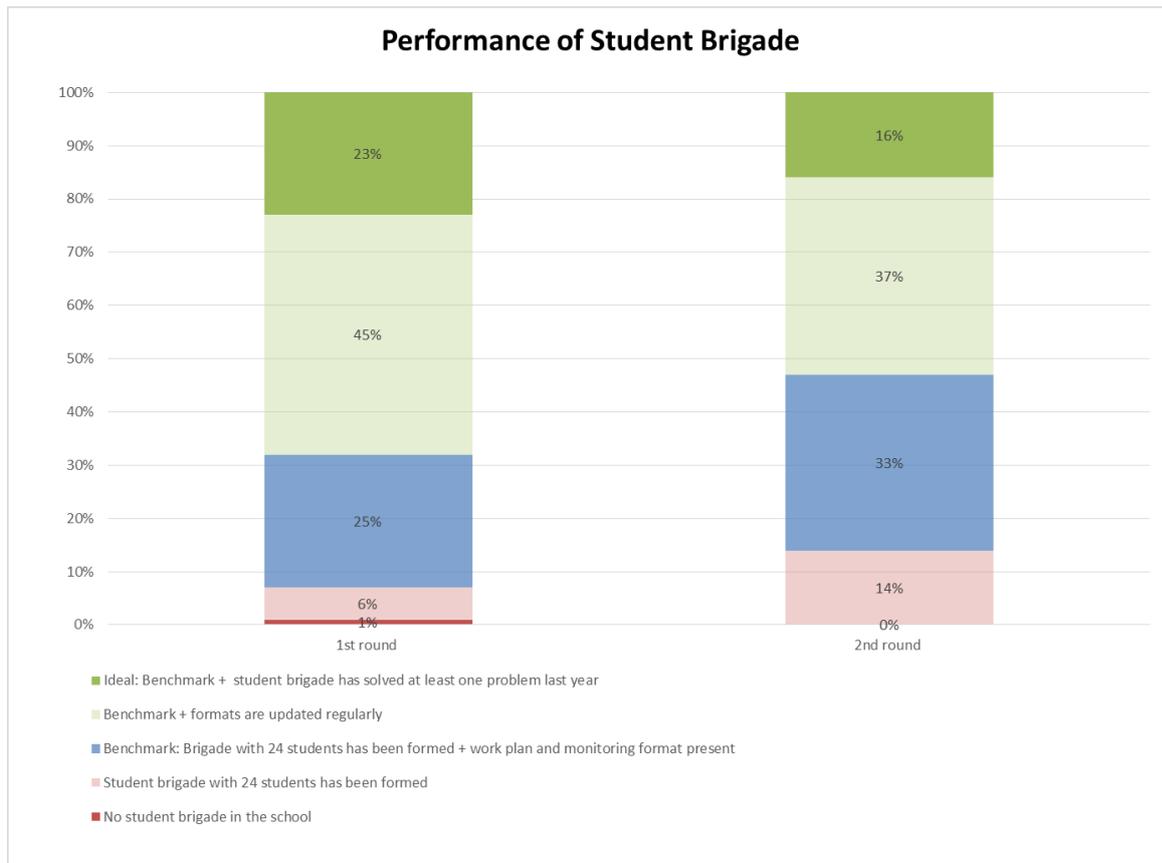
**Figure 5 Condition of school latrine**



## 5.2 Performance of Student Brigades (SS02)

The distribution of the scores for the Student Brigades (scale SS02) has been summarized in the figure below. Performance ranges from no brigade (score 0) and brigade with 12 boys and 12 girls (six per class –from 6th to 9th grade) (score 1) to brigades that have made work plans and monitoring formats (score 2), also update the formats (score 3) to have solved at least one problem in the last year (score 4). Overall, 53% perform above and 33% at the benchmark. The score at the higher level has gone down compared with the previous year (68% vs. 53% at benchmark). The reason could be with more schools freshly joining the programme, the overall percentage that could reach the two highest levels has become smaller.

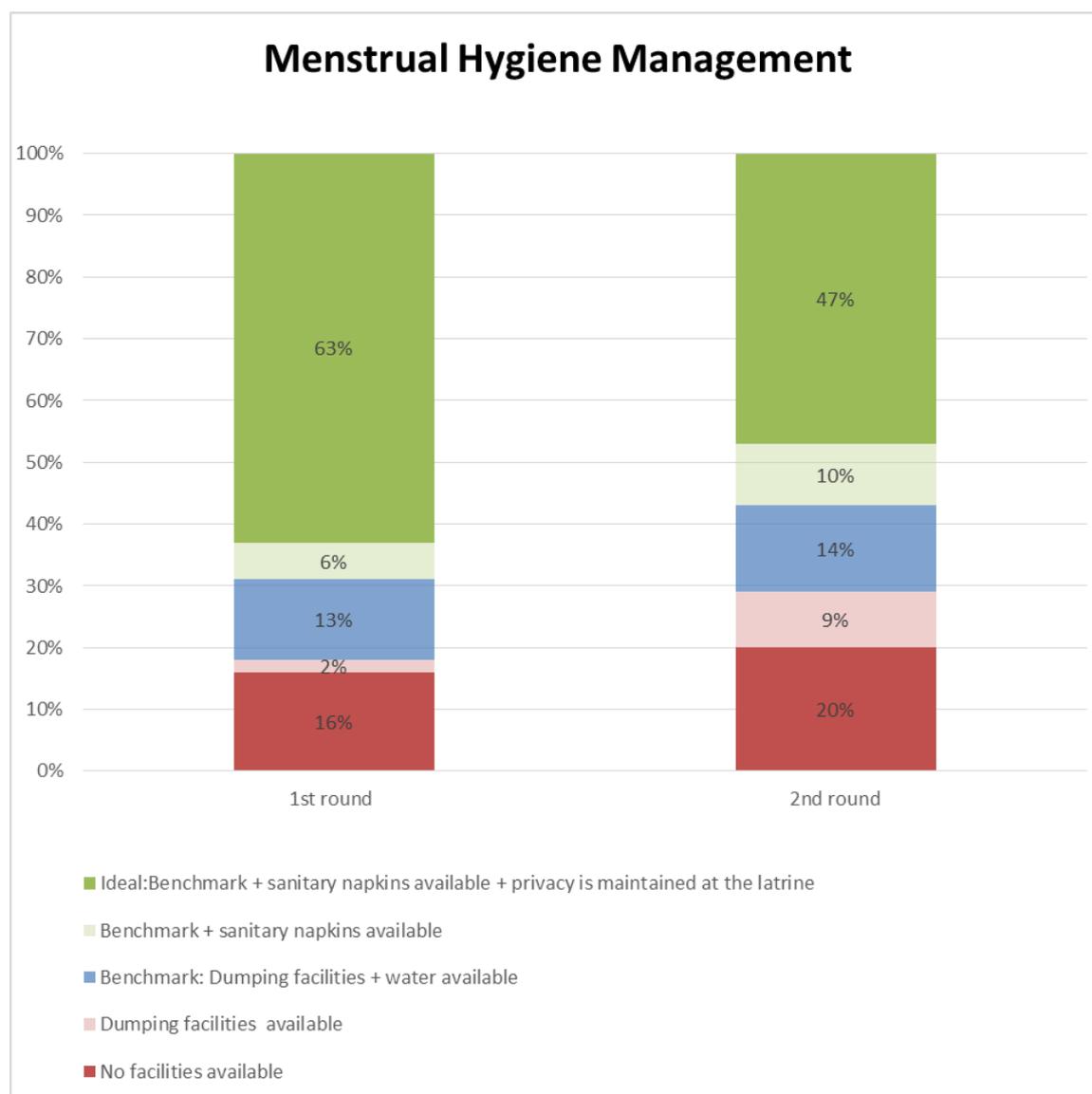
**Figure 6 Performance of student brigade**



### 5.3 Menstrual Hygiene Management at school (SS03)

The findings show that 57% of schools scored above and 14% at the benchmark for menstrual hygiene management. It also shows 57% of schools had sanitary napkins at the time of data collection. Scores above benchmark have gone down (69% to 57%). 71% of schools have disposal facilities and water in the latrines. Due to absence of either dumper facilities inside or end disposal facilities outside the latrine one in five schools could not score at level one.

**Figure 7 Menstrual hygiene management**



### 5.4 Performance of School WASH Committees

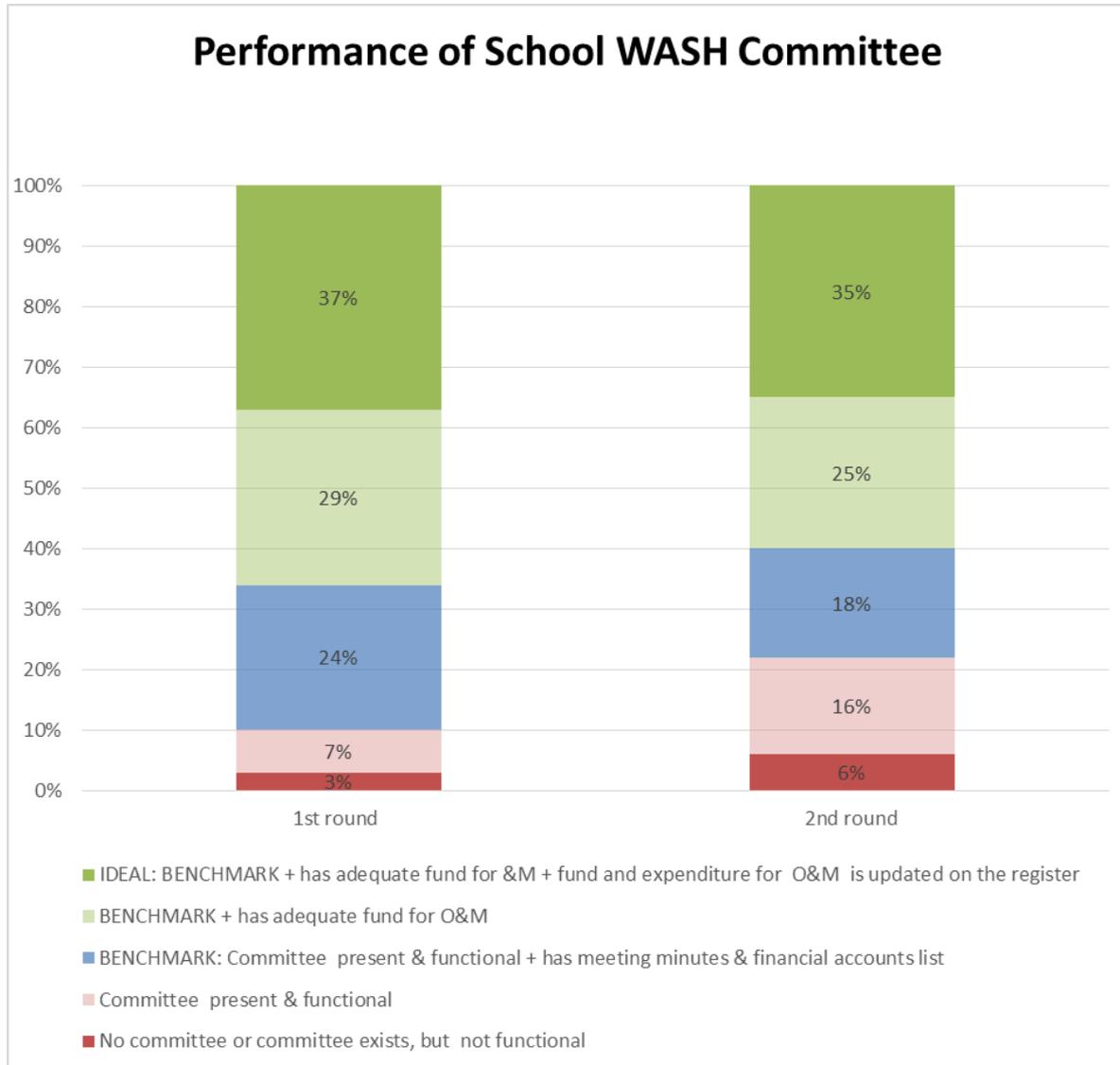
The data shows that 60% of School WASH Committees perform above and 18% perform at the benchmark<sup>4</sup>, while 22% remained below benchmark. Above benchmark implies that besides meeting and keeping records and accounts they also have some funds to maintain WASH facilities (score 3) and the expenditures are updated in the register (score 4). Below benchmark (BM) are schools that have no WASH committee or the committee does not keep records and accounts, which is the programme’s minimal behavioural target or benchmark.

Compared with the brigades, top scores for WASH committees have stayed close together for both rounds even though the programme has expanded. In round one 66% of the committees scored above benchmark, in round two 60%. The top score, which includes having a well maintained WASH fund, was held by 37% of the committees in round one and

<sup>4</sup>Benchmark: Committee (male and female members) is functional AND has documents, meeting minutes and financial account list

35% in round two. However, compared with round one a larger percentage of committees is still at level 1 and twice as many schools had a non-functional WASH committee (meetings held irregularly).

**Figure 8 Performance of School WASH Committee**



## 6 Performance of Rural Sanitation Centres

In order to maintain a smooth supply of sanitation products BRAC WASH provided interest-free loans to rural sanitation entrepreneurs in each union. In order to ensure better quality product orientation has also been organised for the local entrepreneurs.

This section lists the findings on the performance of Rural Sanitation Centres (RSC) that have received support from BRAC WASH. The total number of the sample was 181 and data was collected through interviews with the sanitation entrepreneurs and through spot checks.

From the RSCs that have received support from BRAC WASH, 51% of them have received financial and orientation support, 37% have received only orientation support and 4% have received only financial support. And 8% of RSCs are self-supporting.

Of those RSCs that have received financial and orientation support 24% perform above, 28% perform at and 48% below the benchmark. After disaggregating RSCs in accordance with support received from BRAC, the obtained results are summarized in Table 13.

The data shows that centres with BRAC support for orientation and finances did better than the ones that received only orientation (52% vs. 38% at and above benchmark). This means that these RSCs are not only easy to reach and offer at least 3-4 essential products, they also provide other services to customers (e.g. transport facilities) and actively market their products and services to potential customers in surrounding villages. 26% of the BRAC supported centres are no longer in business. A reason for this may be that due to the increase in sanitation coverage demand for their work has dropped.

**Table 13 Performance of RSCs with different levels of BRAC support**

RSC01 Score	Description of score	All RSC		Financial and Orientation Support		Only Orientation Support		Only Financial Support		No support
		1st Round (n=215)	2nd Round (n=181)	1st Round (n=129)	2nd Round (n=92)	1st Round (n=52)	2nd Round (n=68)	1st Round (n=7)	2nd Round (n=7)	2nd Round (n=14)
4	IDEAL: BENCHMARK + (3)provides other services to customers on their demand (4) markets goods and services to customers in surrounding areas	12%	3%	17%	4%	4%	3%	14%	0%	0%
3	BENCHMARK + (3) provides other services to customers on their demand	44%	15%	55%	20%	40%	13%	43%	0%	7%
2	BENCHMARK: (1) Rural Sanitation Centre/enterprise within reach of union + (2) has at least 3 or 4 types of sanitary products	6%	24%	8%	28%	8%	22%	0%	0%	14%
1	(1) Rural Sanitation Centre/enterprise within reach of union	5%	22%	4%	22%	8%	21%	14%	14%	21%
0	No Rural Sanitation Centre/enterprise within reach of union	33%	36%	16%	26%	40%	41%	29%	86%	57%
Total		100%	100%	100%	100%	100%	100%	100%	100%	100%

## 7 Conclusion and lessons learnt

### 7.1 Conclusion

This report has shared the results of the outcome indicators of the BRAC WASH programme. It lists findings of the WASH I area where it has been working for the past 8 years and shows where progress has been made and which components still need extra attention.

The results on the VWC indicators show that a large majority of the drinking water sources supported by BRAC WASH are functional and protected (87%) and more VWCs have information on arsenic in the water sources in their particular areas. The data on performance of the VWCs and participation of women in the VWCs reveals that although all the VWCs are functional (have meetings every two months) and women are actively participating in the meetings, there is a drop in percentage at the top level. A reason for this could be that after reaching coverage up to a significant level the majority of VWCs do not have to take decisions on important issues anymore.

Of the seven household indicators, the water source indicator shows a mixed development. The number of sources known to be arsenic free, protected and without stagnant water, increased but the percentage with latrines within 12 steps also increased. This shows that wells get older and the density of the settlement (as well as the number of latrines) increase. 64% of the tube wells have a platform.

78% of the households have access to a hygienic latrine and only 2% of households do not have access to a latrine of any kind. Among the households having a hygienic latrine, 81% are not shared (this is more common for the non-poor), while 12% are shared by two families and 7% by more than two. The majority of hygienic latrines are single pit (73%). The second most common type for the ultra-poor is the double-pit latrine (32%) while the septic tank is the second most common type for non-poor households (26%). The score for latrine cleanliness has dropped substantially in the last round and is more common in ultra-poor households.

Information on the latrine use indicator includes use among household members and use across day/night or seasons. There is not so much difference in the scores above benchmark for these two in the two rounds. However, in both cases the percentage at the ideal level is significantly higher in the first round. A possible reason could be that during the last round if everyone in the household used the latrine, they were placed at the ideal level. In this case the absence of household members who cannot access the latrine autonomously (children/elderly) were not considered. These households were supposed to be placed one step below the ideal situation. Similarly those households that did not experience any abnormal situation (such as when the path to the latrine is flooded), but always use the latrine, were placed at the ideal level. In the recent round those situations were clarified.

Presence of soap and water in and around the latrine have reduced substantially in the recent round (78% vs. 62%) though a small proportion at the top or one level below have maintained their position. Soap and water were found in 69% of the households which have a hygienic latrine, but both water and soap were absent in 6% of the households.

Approximately half the sample households have experienced filled latrine pits/septic tanks. Here the development of reported practice is remarkable. Non-poor households scored less at and above benchmark than households from other wealth categories. So hygiene promotion is needed on sludge management for non-poor households. It is noteworthy that the scores above benchmark in the previous round are much higher than in this round. It seems that in the first round respondents stated the ideal rather than the reality and that the score for the second round is more realistic.

Further analysis was done on use of latrine, presence of hand washing provision after defecation and sludge management by households that have access to a hygienic latrine. The data reveals that once the households obtain a hygienic latrine, almost all the members use and maintain it properly. Although a significant proportion of these households (mainly non-poor) could not properly manage the end product after the pit was full. However, a growing group (4%) has begun to use the compost productively. The information from schools shows that 91% of the girls' latrines provided by BRAC (with cost sharing from the school authority) are being used by girls. However, 3% of latrines provided by BRAC and the school authority were found not in use due to new construction or renovation on the school premises and 6% of school latrines were not separate. Almost twice as many girls' latrines were found clean (above benchmark) in comparison to boys' latrines (70% vs. 34%). This means that extra attention has to be given to upgrading/maintenance of the boys' latrines with active participation of student brigade members. 71% of schools have disposal facilities and water available in the latrines while 60% of schools have adequate funds for operation and maintenance. The percentages were 82% and 66% for the previous round.

The findings on the Rural Sanitation Centres show that centres which received loan and training from BRAC are doing better than those which received only training (52% vs. 38% at and above benchmark). During the monitoring period essential sanitation products were more readily available in these centres. The percentages were 80% and 52% in the previous round. However, 26% of the BRAC supported centres (receiving loan and orientation) are not in business anymore. A reason may be that due to the increase in sanitation coverage demand for their work has dropped.

## **7.2 Lesson learnt**

### **7.2.1 On QIS**

The Qualitative Information System (QIS) has enabled the BRAC WASH programme to measure its outcome in a systematic way. QIS is a participatory process in which both the respondent and the monitor participate in the data collection process. As a result the respondents can see for themselves where they need to improve to get a better score and upgrade their WASH situation.

Some of the QIS ladders need some adjustments to better reflect the actual situation. For the indicator 'Latrine use by members' the household composition should be taken into consideration, because the level 3 and the ideal position do not reflect a precise score. The households that have babies/infants/elderly members who cannot access the sanitation facilities autonomously and whose faeces end up in the latrine as well as households that do not have such members, both score a three. In this case 3 is 4. Similarly information on abnormal situations such as cyclones, floods etc. should be obtained (can be used as a sub-category) as households that do not use a latrine in these abnormal situations for the

past year score level three and this also includes households that did not experience any calamity during that period. In this case 3 is 4.

The two rounds have shown that in some areas progress is slow and to improve the situation rigorous hygiene promotion activities are necessary especially in the case of water management at home, hand washing behaviour and waste management. There is not a great difference in results among the different socio-economic groups but the ultra-poor score more at the lowest two levels and less at the highest level.

Student Brigades and School WASH Committees should be encouraged more to maintain and upgrade the condition of boys' latrines.

With the increasing sanitation coverage the demands on the RSCs are changing over time, so entrepreneurs need to diversify their activities. In addition to that RSCs should focus more on marketing their products.

# Annex 1

## A1 Adaptations of the ladders

The indicators in this Annex have been adapted after the first monitoring round in order to better represent the situation on the ground. For instance, the position and the quality of the platform and the drainage were interchanged on the ladder for the indicator 'Condition of drinking water source'. For the indicator 'Drinking water management' safe collection and the quality of platform were interchanged. In addition to that the indicator relating to the condition of the household latrine has also been updated to ensure that it is 'hygienic'.

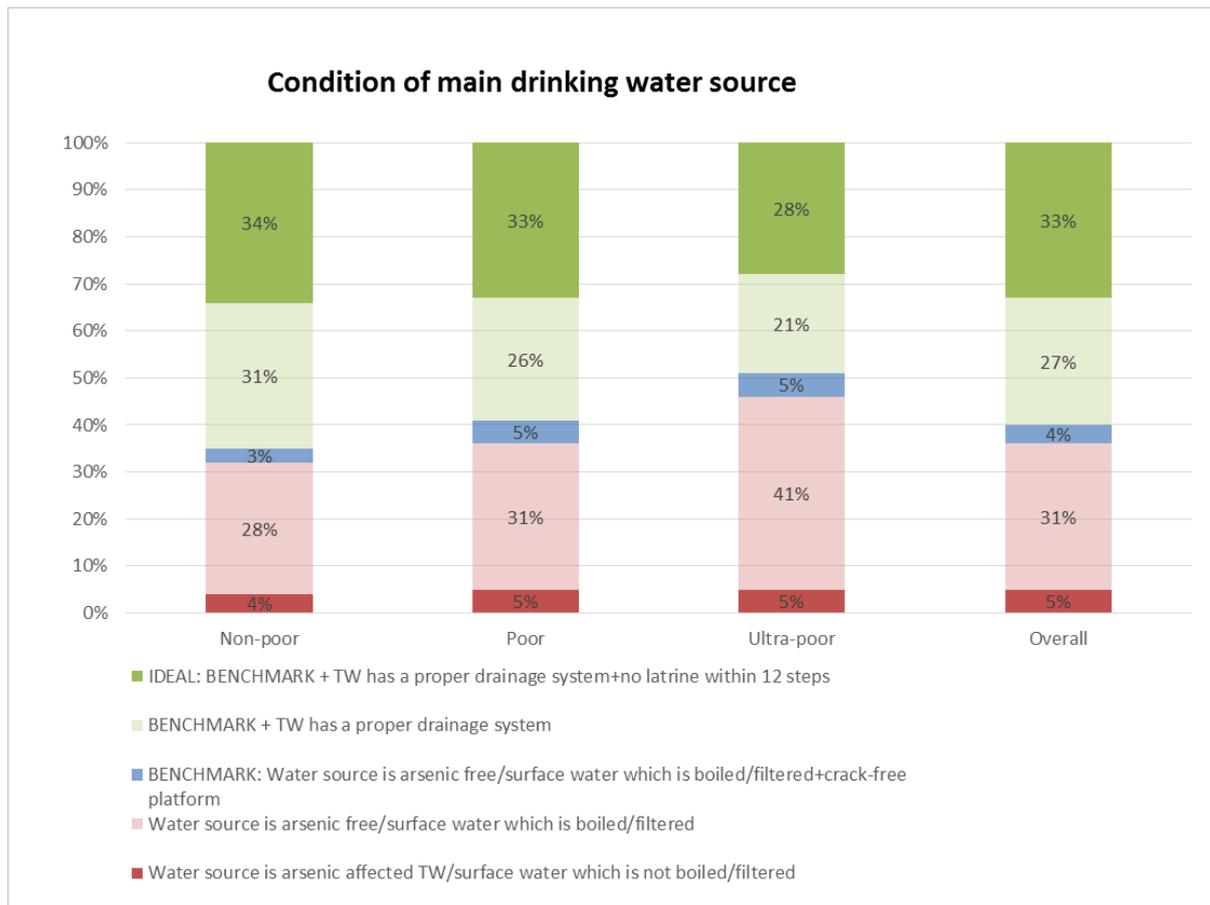
**Table A1 Updated/new indicators**

<b>Code</b>	<b>Updated/new indicator</b>
HH01a	Condition of main drinking water source by socio-economic status
HH02a	Drinking water management by socio-economic status
HH03a	Condition of household latrine by socio-economic status
HHH3a	Ownership of one hygienic latrine
HHH3b	Type of hygienic latrine
HHH04	Use of hygienic latrine among family members by socio-economic status
HHH05	Consistency of hygienic latrine use by time and seasonality by socio-economic status
HHH06	Provisions for hand washing after hygienic latrine use by socio-economic status
HHH7a	Sludge management when hygienic latrine pit is full (actual practice)
HHH7b	Sludge management when hygienic latrine pit is full (plan for the future)

## A2 Condition of main drinking water source by socio-economic status (HH01a)

This indicator shows that 95% of the households drink water from a source that is known to be arsenic free and 64% (54% in case of ultra-poor) of the tube wells have a platform.

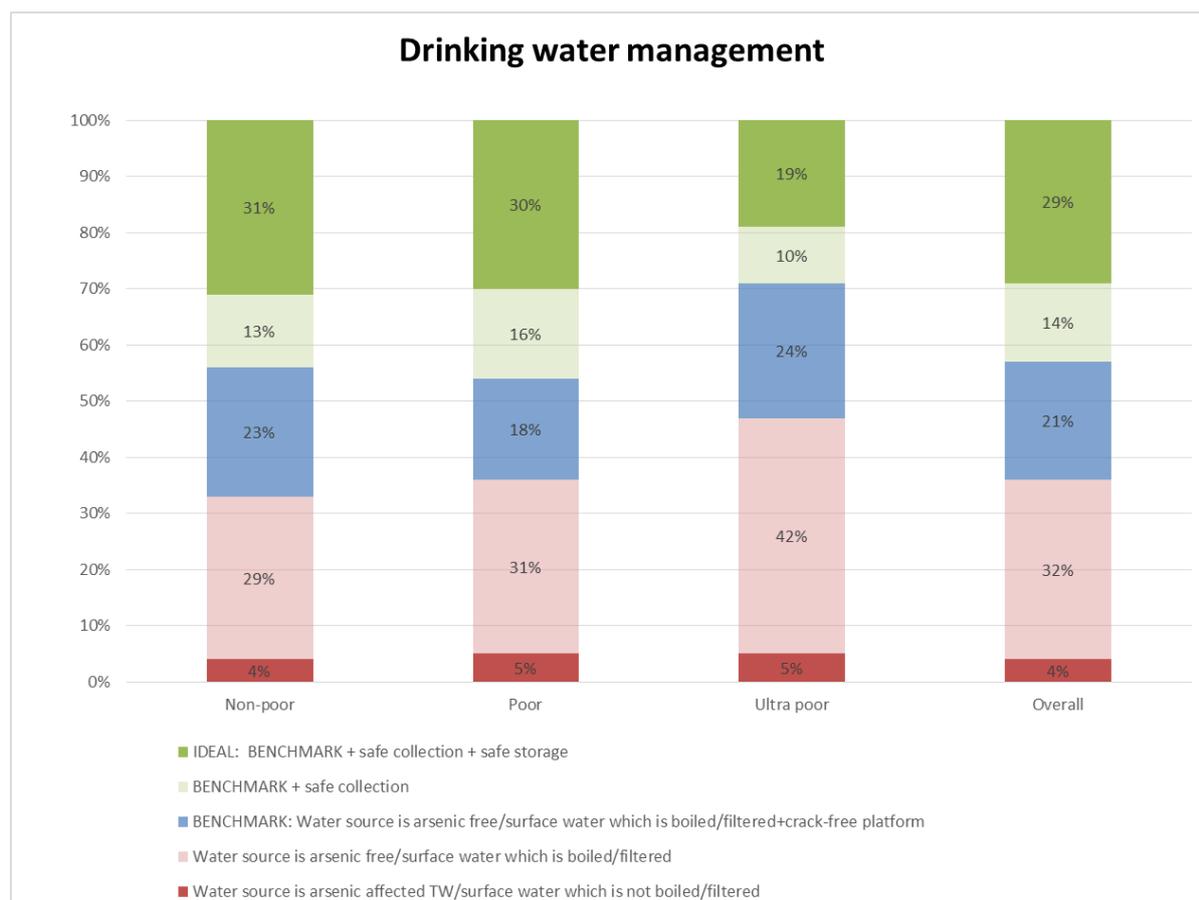
**Figure A1 Condition of main drinking water source**



### A3 Drinking water management by socio-economic status (HH02a)

This indicator measures how water is managed from source to cup at household level. The data reveals that despite having well protected tube wells a large majority of households tend to contaminate water during collection. In 29% of the households water is properly managed from source to cup.

Figure A2 Drinking water management



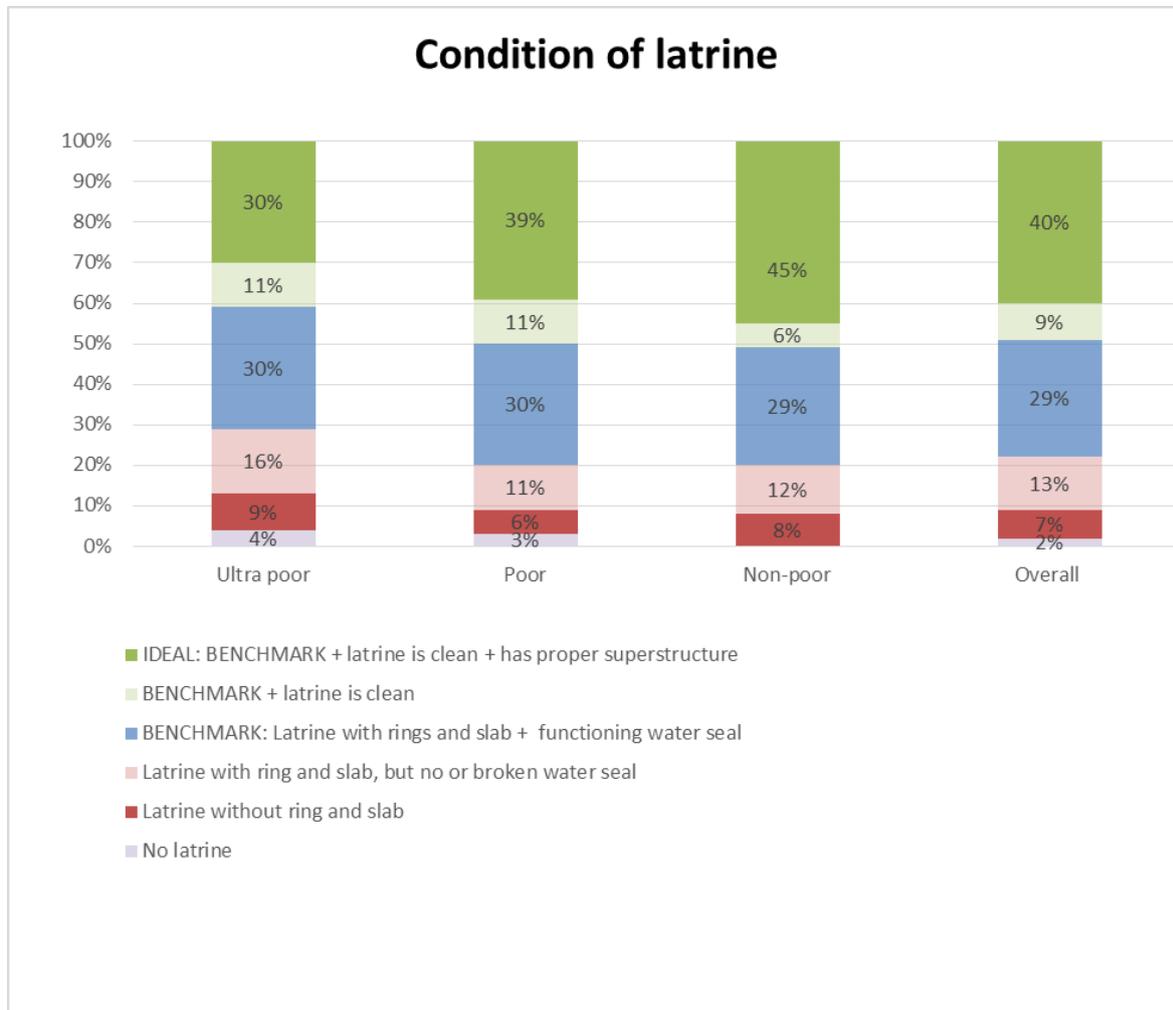
### A4 Condition of latrine at household level by socio-economic status (HH03a)

The following adaptations were made to the ladder of the 3rd household indicator ‘Condition of latrine’:

1. A new score was included as F representing the households with no latrines or nobody in the HH uses the latrine. It was found that overall 2% of the households do not have a latrine.
2. The disposal site was taken into consideration to see whether the faeces are exposed in an open or closed environment. The score is E, if the faeces are exposed in the open environment, no matter how good the other conditions are.

- The two pits were replaced by proper superstructures at the ideal position resulting in more latrines at the ideal position than the previous ladder and non-poor households scored higher than others.

**Figure A3 Condition of latrine**



The data shows 78% of the households have a hygienic latrine and 49% of the latrines were found clean. However, there is not a great difference in the findings across the socio-economic status.

## **A5 Ownership of one hygienic latrine (HH03a)**

81% of households have their own hygienic latrine which is not shared by other households and this is more common for non-poor households. On the other hand 12% of the households share the latrine between two families and 7% of the households share the latrine with three or more than three families. There is not much difference across the socio-economic status.

**Table A2 Ownership of one hygienic latrine (HH03a)**

HH03a (n=1279)	Used by one family	Used by two families	Used by three or more than three families	Total
Non-poor	84%	10%	6%	100%
Poor	77%	15%	8%	100%
Ultra-poor	78%	16%	6%	100%
Overall	81%	12%	7%	100%

**A6 Type of hygienic latrine (HHH3b)**

The majority of the hygienic latrines are single pit (73%). The second most common type for the ultra-poor is the double-pit latrine (32%) while the septic tank is the second most common type for the non-poor households (26%).

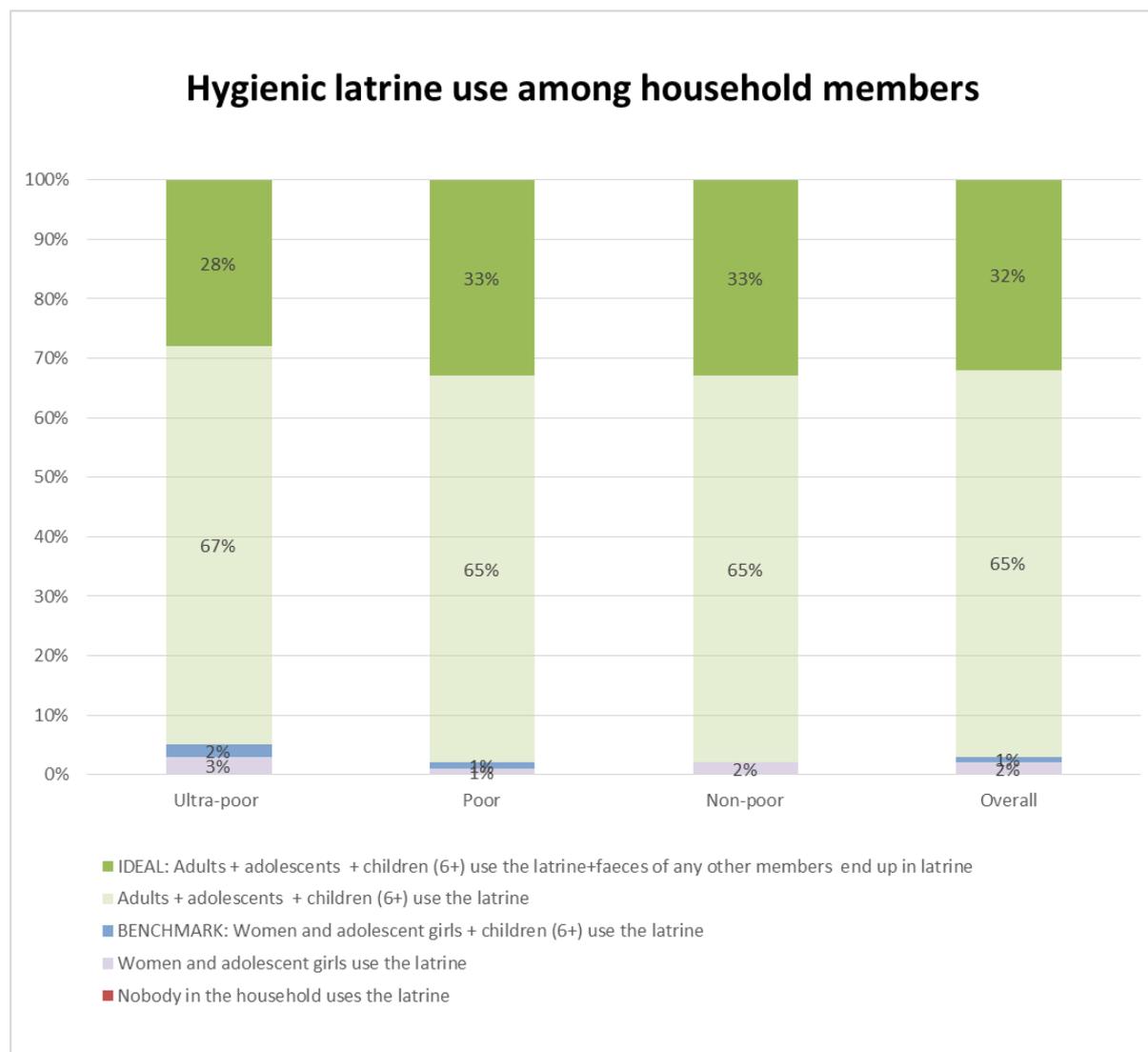
**Table A3 Type of hygienic latrine**

HHH3b (n=1279)	Single pit latrine	Double pit latrine	Septic tank	Total
Non-poor	69%	5%	26%	100%
Poor	81%	9%	10%	100%
Ultra-poor	64%	32%	4%	100%
Overall	73%	10%	17%	100%

**A7 Use of hygienic latrine among the family members by socio-economic status (HHH04)**

This ladder depicts the scores of the use of hygienic latrines among the different family members. According to the analysis, 97% scored above benchmark. This means that all members of the household use the hygienic latrine and that part of the faeces of household members unable to use the latrine by themselves end up in the latrine. There is not a great difference in the percentages among the socio-economic categories.

**Figure A4 Hygienic latrine use among household members**

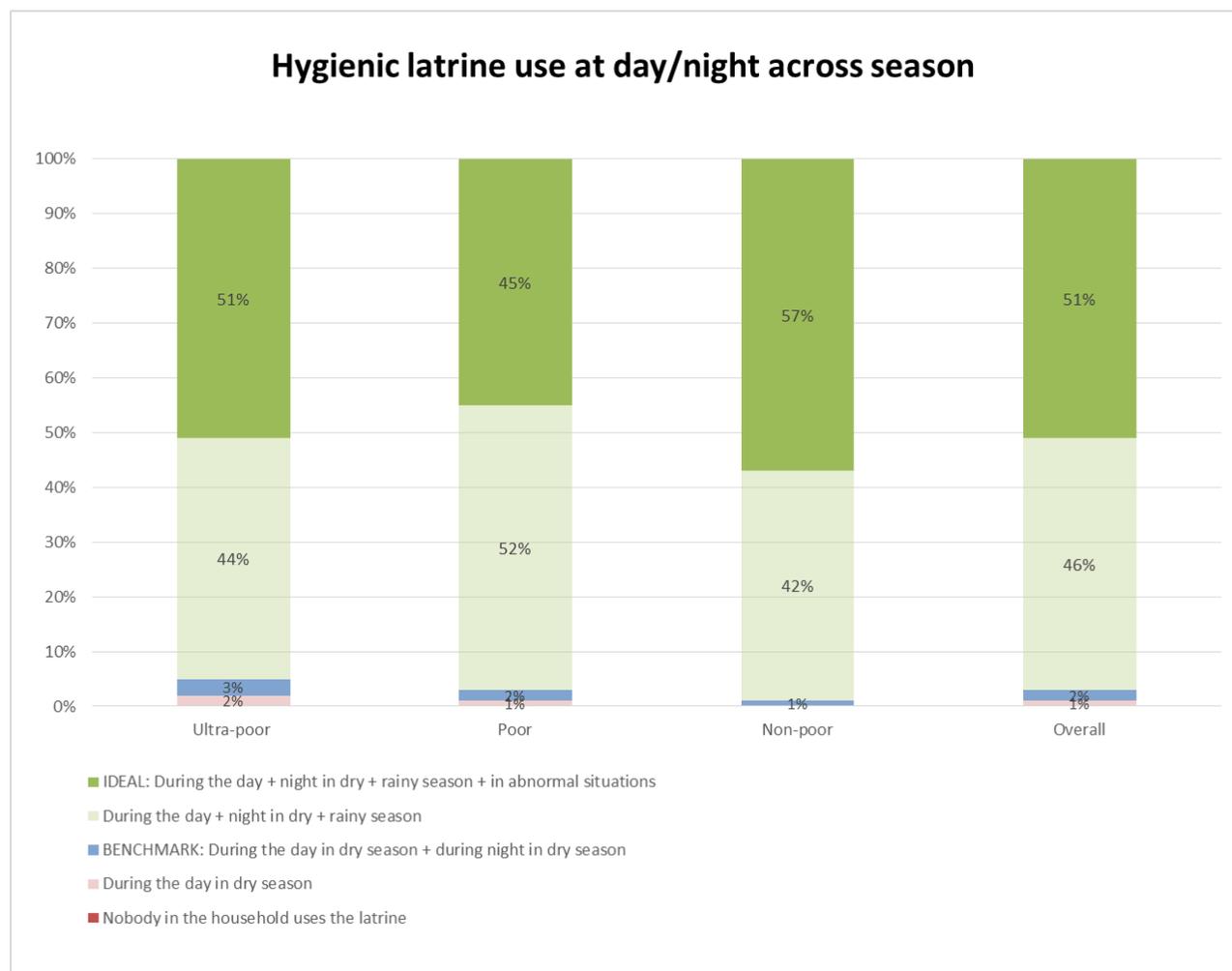


With this ladder many households scored second best because they did not have junior members and/or members who do not use the latrine autonomously due to disability or age. In this case 3 is 4. For this reason the composition of the household needs to be taken into consideration when analysing this data.

### **A8 Consistency of hygienic latrine use by time and seasonality by socio-economic status (HHH05)**

This indicator shows the pattern of latrine use at day /night and across seasons among the family member of the households which have access to a hygienic latrine. 97% of the households scored above benchmark. 51% of all households used the latrine during the day and at night in the dry and the wet season, as well as during abnormal situations (such as when the path to the latrine is flooded). The households that did not face any abnormal situation in the past year belong to level three. In that case level 3 is 4. However, level 3 also includes those households that did not use the latrine in abnormal situations in the past year. So a split is needed for this level.

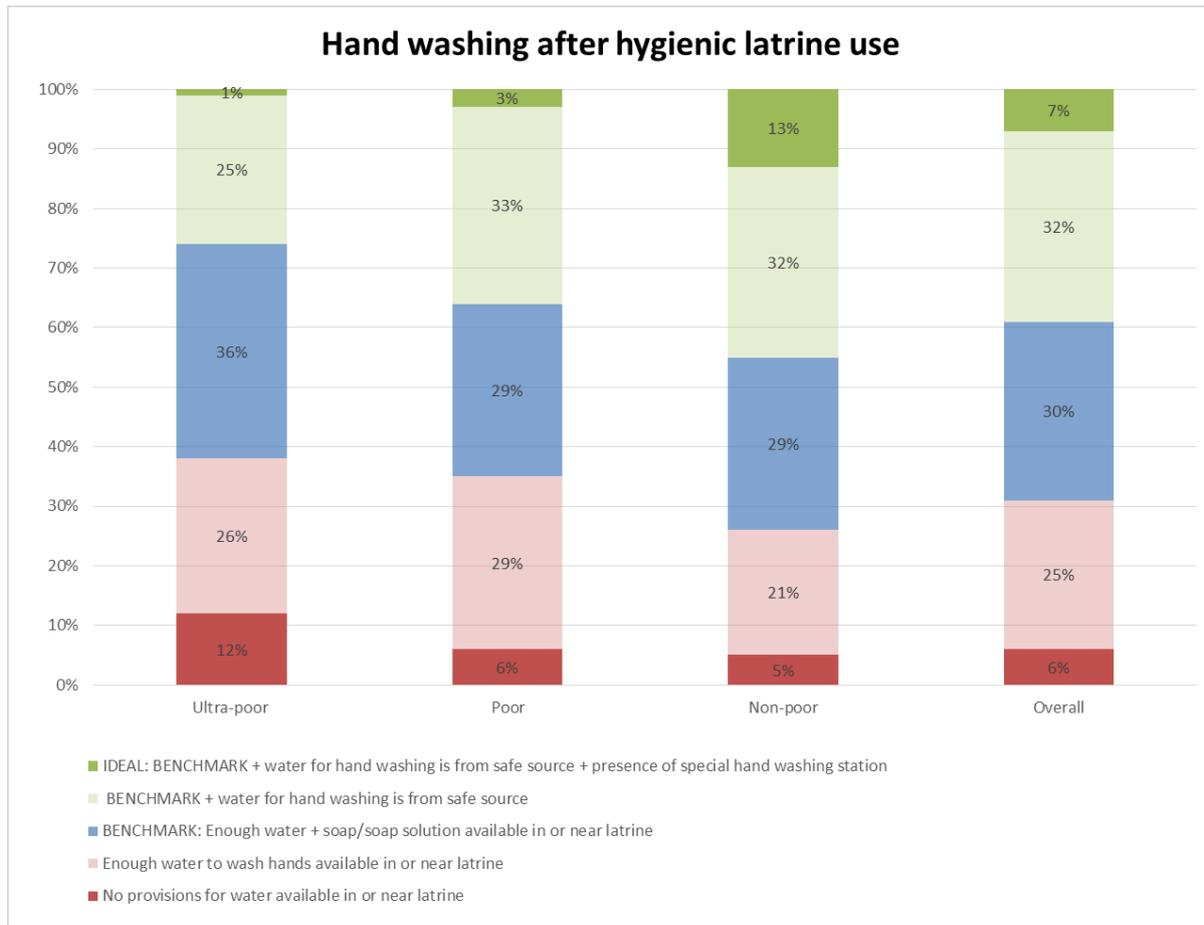
**Figure A5 Hygienic latrine use day/night/season**



## **A9 Provisions for hand washing after hygienic latrine use by socio-economic status (HHH06)**

In total, 39% of households scored above and 30% scored at the benchmark for the indicator 'Hand washing provision after defecation'. Almost 69% scored at or above benchmark which means these households tend to use soap after defecation. However, (6%) do not have water or soap and 25% have only water inside or near the latrine for hand washing after defecation. Very few households have a special hand washing station at or near the latrine, while 26% of the ultra-poor households use water from a safe source for hand washing. This indicator is used as a proxy indicator for hand washing behaviour at the household level.

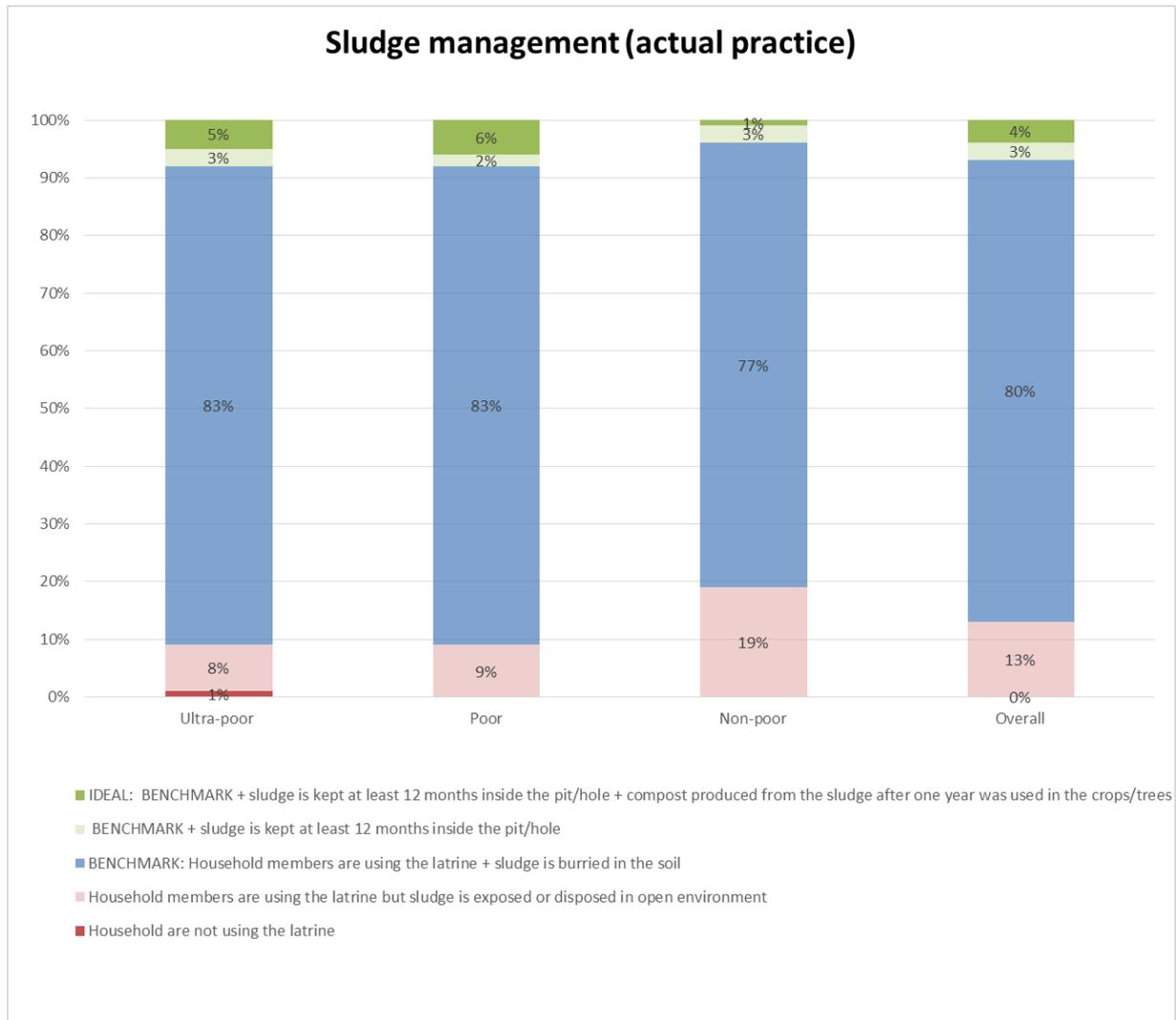
**Figure A6 Hand washing after hygienic latrine use**



### **A10 Sludge management when hygienic latrine pit is full (actual practice) (HHH7a)**

Of 1279 households that have a hygienic latrine 554 households already have had their pits filled up. 7% of these households scored above benchmark, while 80% scored at the benchmark. Non-poor households scored less at and above benchmark than households from other wealth categories.

**Figure A7 Sludge management (actual practice)**



### **A11 Sludge management when hygienic latrine pit is full (plan for future) (HHH7b)**

Data was collected from 725 households that have hygienic latrines that are not yet filled up. 8% of these households scored above benchmark, while 86% scored at the benchmark. There is no significant difference among the different wealth categories. It is worth noting that the scores for the plan are higher than the actual practice indicating a gap between knowledge and practice.

**Table A4 Sludge management when hygienic latrine pit is full (plan for future) (HHH7b)**

HHH7b (n=725)	IDEAL:BENCHMARK + (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	BENCHMARK + (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
Socio-Economic status	4	3	2	1	0	
Non-poor	4%	2%	88%	6%	0%	100%
Poor	7%	2%	86%	5%	0%	100%
Ultra-poor	4%	5%	82%	9%	0%	100%
Overall	5%	3%	86%	6%	0%	100%

