# A Report Prepared for the Hastings-SL, Hastings-UK Link

## STATUS OF WASH FACILITIES IN SELECTED SCHOOLS IN HASTINGS-SL

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# 1.0 Introduction

## 1.1 Study Rationale

This study, commissioned by the Hastings-UK and Hastings-SL link, (hitherto referred to as "the Link") was designed to establish the existing status of water supply, sanitation and hygiene (WASH) services across fourteen selected schools around Hastings in Sierra Leone. The outcome of this study will inform plans by the Link aimed at improving access to these services and contribute towards overall improvement in the quality of education across the target schools.

Towards this aim, the study has therefore assessed the existing status of WASH services in these schools, against the Ministry of Education, Science and Technology (MEST) 2015 National Standards and Technical Guidelines for WASH in schools, as comparator. Essentially, the guidelines are underpinned by the following core principles:

that WASH facilities in schools:

i. Are interactive spaces that stimulate children's learning and development,
ii. Concept of hygiene should be evident in the design of the facility and encourage hygiene behavior
iii. Address the special gender related needs and roles
iv. Offer enough capacity and minimal waiting time
v. Do not harm the environment

# 2.0 Objectives, Results and Deliverable of the study

The specific aim of the study was to:

2.1 Assess the efficacy of water supply system design, functional status, service level and appropriateness
2.2 Assess the efficacy of design of then sanitation facilities, functional status, service level and appropriateness
2.3 Assess degree to which both enhance hygiene practice
2.4 Prepare a report on findings complete with recommendations on the way forward

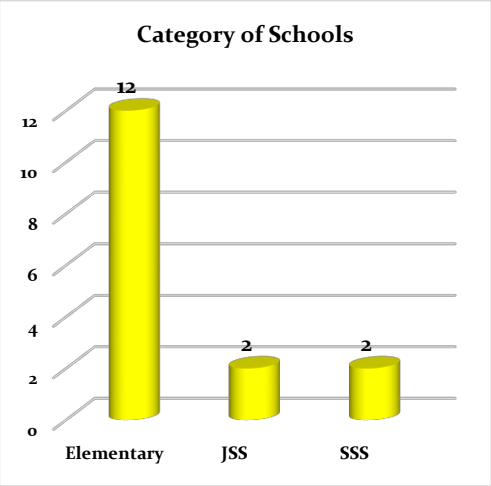
To be able to achieve the desired deliverables, a study questionnaire was designed to generate data on the types, quality and functional status of water supply, sanitation and hygiene services, including basic information on the school.

On account of the limited size of the survey canvas, each school was visited and specific data generated. Based on this data, a WASH profile has been prepared for each school as annex to this report.

# 3.0 General Survey Findings

## 3.1 Profile of Target Schools

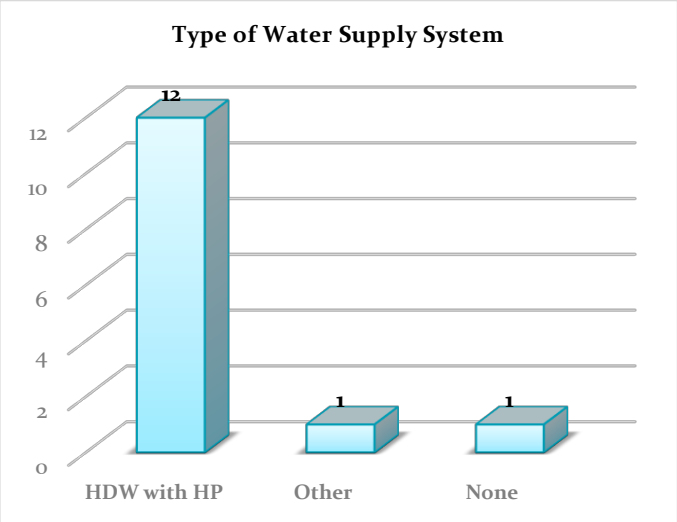
At the date of the surveyed, all 14 schools enroll a total of 7,624 pupils. The distribution between boys (50.2%) and girls (49.8%) being split almost in the middle. The average school strength was 545, with Beckley preparatory school Allen Town, enrolling the least number (150) of children. REC Infant and Primary school, Hastings on the far end, enrolled as many as 1,038 pupils.




Two of the schools were secondary schools, doubling as Junior (JSS) and Senior (SS). The remaining 12 were all elementary, with 4 doubling as infant/nursery and primary schools.

In all cases, it was observed that WASH service levels were not consistent with school size as prescribed by MEST standards and technical guidelines for WASH in schools. The situation is the same even in schools practicing the twin shift arrangement. At current enrollment levels, it can be argued that school WASH facilities, offer inadequate levels of service and are generally of poor quality.

## 3.2 Access to and Use of Water Supply Services




All but one school have an improved source of drinking water supply. Hand-dug wells (HDW) fitted with handpumps formed the vast majority (86%) of system type. One school had a rope and bucket arrangement for extracting water.

At the point of the survey, 11 of the water points were in working order, whereas, 2 had broken down.

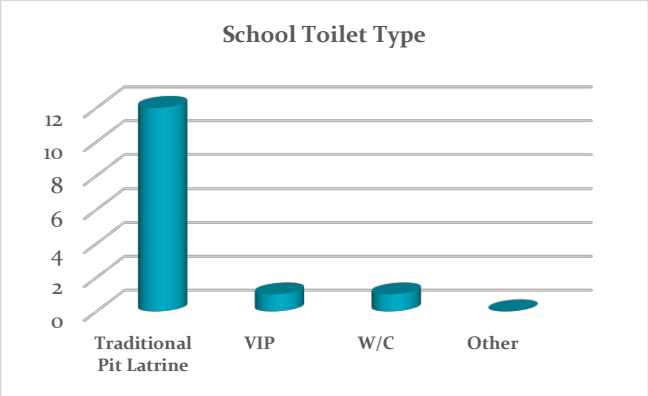
Of the 11 functional water points, 1 was reportedly seasonal and 2 observed to be developing mechanical problems associated with leaking cylinders. Of the 2 non-functional water points, one was reportedly dried up and the other, for mechanical problems.

In all cases, school authorities are responsible for operation and maintenance of their water supply systems. Repair time leads range from less than 7 days to over one month. According to survey results, water points are reportedly returned to proper working condition within 14 days of their breakdown in about 75% of the cases. In the remainder of cases, this repair time had exceeded, one month.

## 3.3 Access to and use of Sanitation Services

### 3.3.1 School Toilets

All 14 surveyed schools have toilet facilities. The vast majority (about 86%) being traditional pit latrines. One of the remaining two, is a Ventilated Improved Pit latrines (VIP) and the other a W/C system (for teachers only).




At the time of the survey, about 86% of these toilets were in working order, albeit in unsatisfactory condition (offensive smell) mostly associated with inappropriate design.

Over half of the school toilets make provision for only 2 drop holes (one each for boys and girls).

Four drop holes have been provided in each of 4 school toilets and the remaining 2 exceptionally providing 5 and drop 7 drop holes each.

In all but 2 schools, toilets were in working condition (86%). Both non-functional school toilets have been abandoned for clogged drains.

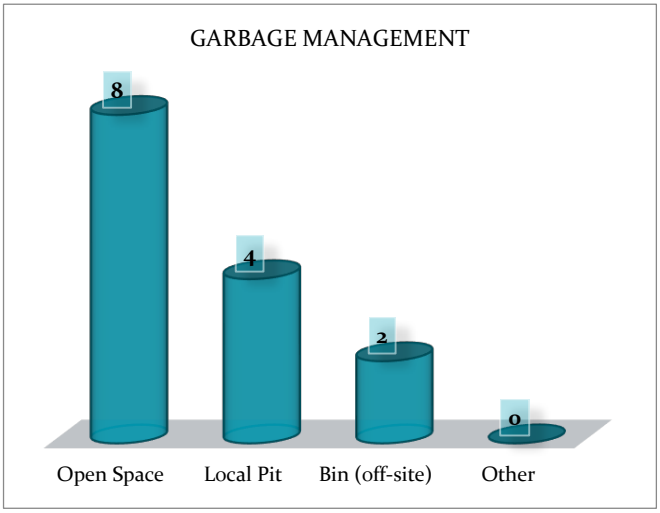
Similar to water supply facilities, operation and maintenance responsibilities for school toilets essentially rests with school authorities. In exceptional circumstances, this responsibility had been out sourced in one school, with very good results, (clean, no smell and water supply routinely available). In 64% of the cases, repairs are reported to have been made within 7 days of breakdown and within 14 days in about 21% of the cases.

The level and quality of service with regards school toilets were also observed to not meet MEST standards and technical guidelines.

### 3.3.2 Urinals

Urinal spaces were observed in only 6 of the 14 target schools surveyed, of which only one met MEST standards and technical guidelines requiring ceramic finished walls and running water in the facility. The remaining 8, have masonry finished walls with their attendant discoloration and offensive smell.

### 3.3.3 Garbage Disposal facilities

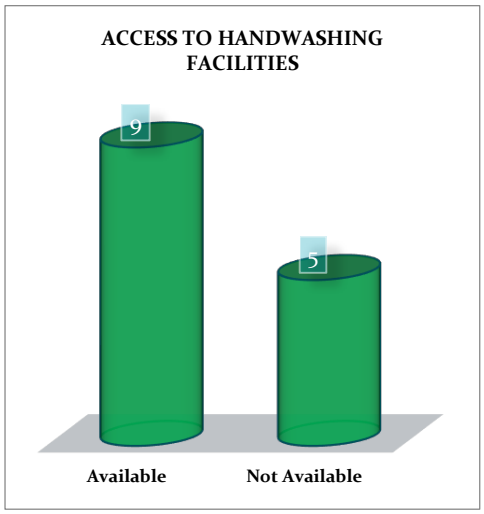



The vast majority of schools, (8 in 14), lack appropriate garbage disposal arrangements within their premises. The 4 with local shallow pits report a daily burning practice, its attendant environmental concerns for their school children and surrounding communities, notwithstanding. Only two had formal collection arrangements for off-site disposal.

## 3.4 Hygiene Practice

### 3.4.1 Handwashing Facilities

Handwashing arrangements were available in 9 of the target 14 schools surveyed. In all but one of these schools, the facility is compliant with MEST guideline, i.e. tap with running water, and importantly within the toilet. The rest are of a temporary nature, (a bucket fitted with a tap, located in all cases, away from the toilet, and reportedly filled with water manually by students from within the school premises.




Without exception all 9 schools with handwashing arrangements, reportedly make no provision for soap, with the result that children don't routinely wash their hands with soap even at critical times.

Coming at the back of recent major public health problems in the country (ebola,2014 and cholera, 2012), survey findings on the overall status of hygiene practice especially as related to handwashing, the limited sample size of schools notwithstanding, should be of concern to healthcare authorities, who had invested considerable amounts of resources more so in schools to combat both epidemics.

### 3.4.2 Menstrual Hygiene

In the seemingly continuing spirit of neglect and reluctance to mainstream menstrual hygiene in the WASH sector, none of the 14 target schools provide menstrual hygiene management facilities, it's well documented advantages, notwithstanding.

# 4 Sustainability of WASH services

The benefits accruing from sustainable access to school WASH services can be two-fold. First, it is the satisfaction that the huge investment costs have been efficiently utilized, but more importantly, the desired socio-economic effects for which they are designed and provided. The longer communities use these services, the greater the benefit. Providing and ensuring functionality of requisite management structures is the only way sustainable access to these services can be guaranteed.

Whereas, the survey findings point to some positive trends, i.e. the existence of some form of arrangement for the operation and maintenance of school WASH facilities, it was also evident from the response time that these arrangements take effect that they are mostly adhoc and weak. Strengthening O&M structures in the schools must be central to any future arrangements to support improvement of school WASH facilities, if sustainable access is to be guaranteed.

# 5 General Recommendations on the Way Forward

Consistent with core principles of the MEST 2015 minimum standards and technical guidelines, the study recommendations for WASH services in the target schools will essentially address quality and service level issues that could enhance sustainable improvements in hygiene behaviors in and around the school. Based on the scope of the study, the recommendations will mostly focus on hardware to improve availability and accessibility of safe water supply and sanitation and how both combine to provide and enabling environment for improving hygiene behavior.

## 5.1 Water Supply Services

With a 93% coverage level across target schools, survey results indicate that availability of safe water supply may not be a key problem. Going by results of the 2012 nation-wide waterpoint mapping survey[1], sustainable access to safe water supply is likely to be negatively impacted on account of the choice of technology for extraction (hand-dug well) and the delivery mechanism (handpump). Significant decline in groundwater levels typically associated with rain-fed aquifers which HDW tap into, compounded by poor construction methods were identified as the main causes. To ensure safe water supply is fully accessible for its various uses in the school environment, MEST minimum standards promote running water. Using handpumps in this sense will generally be limiting and not meet this criterion.

[1] Over 40% of HDW fitted with HP not functional, (MoWR/UNICEF-WB: 2012 survey)

To enhance availability and sustainable access to safe water in schools therefore, the following corrective actions are recommended:

- HWD are re-deepened to ensure they hold a minimum of 2.5m water column at peak dry-season (end March)
- Install over-head storage capacity of 10,000L (minimum) and distribute water to convenient locations for drinking and handwashing within the school premises
- Renewable energy (solar power), will be the preferred source for pumping. Options include, grid system or use of force-lift handpumps as least cost.

## 5.2 Sanitation Services

The overall status of sanitation as the survey findings show, i.e. quality and levels of service of facilities in all 14 schools falls far short of requirement as measured against MEST minimum standards. The vast majority of school toilets are traditional pit latrines, a design option associated with significant pit falls. The open pit structure not only lends itself to odor problems, but more seriously, allows unchecked "fly-feaces" contact, increasing the risk of transmission of associated diseases including cholera. At the current average of 1 drop-hole per 273 pupils, existing services need to increase 6-fold to reached desired levels.

The status or lack thereof of urinals is yet another cause for concern. A body of evidence from global studies suggests that most visits to the school toilet are for urinating only. Therefore, the provision of adequate and well-designed urinals has the advantage of enabling and promoting better hygiene practice.

The uncontrolled and wide spread littering of school compounds can only be explained by a seemingly lingering gap between knowledge, attitude and practice. Simple solutions or approaches to effective management of garbage are well known and well documented. Indiscriminate burning practice adopted almost across all target schools poses a serious health risk for communities in and around such schools. The practice must therefore be discontinued immediately in favour of safer and more acceptable garbage disposal practices, including recycling. As learning spaces, schools offer far greater chances of encouraging behavior change on uptake. If not already part of the school learning curriculum, concerned authorities should be encouraged to include waste recycling as part of larger efforts aimed at climate change adaptation resulting from environmental degradation.

In the learning environment, school WASH facilities must be designed to provide interactive spaces that stimulate children's learning. They must be designed such that they are not only affordable and durable, but importantly, encourage proper use and are easy to maintain and keep clean. In line with this concept, the following corrective actions are recommended:

- Maintain MEST standards (minimum of 4 drop-holes per school toilet or 45 pupils per drop-hole for large schools)
- Provide running water
- Use the cost-effective water-seal / pour-flush design (Indian pan and trap)
- Provide urinals (boys) with designs that enhance hygiene, sustainable and easy to clean.

- Adopt and promote eco-friendly garbage disposal practices that are also cost-effective.
- Decorate school toilet walls with themes used in hygiene promotion materials to strengthen the link between education and practice.

## 5.3 Hygiene Practice

The overall findings from this survey in so far as the essence of hygiene is concerned, point to the unsettling lack of understanding of the fundamental synergy between water and sanitation facilities even at the school level. The problem may well be traced back to development planners, in which case, there could be reason for even greater concern. If water and sanitation provisions are not designed to enhance hygiene practice, the potential health benefits are minimal to none existent. It is therefore critical that the concept of hygiene is core and evident in the design of water and sanitation facilities. But as the survey findings suggest, there is an alarming consistency, mostly associated with the choice of technology, in the absence of synergy between water and sanitation facilities in the target schools.

Whereas the hand-dug well (HDW, the predominant technology option) has mostly guaranteed availability at close proximity, easy access to water supply for its many domestic uses, including handwashing and general cleaning purpose, remains a far cry. Huntingdon, the only school with a W/C arrangement, had long since abandoned use of their toilet for clogged drains due to the absence of regular running water for flushing. Ironically Huntingdon is also the only school with 2 HDWs.

That W/Cs and the much cheaper version, the “water-seal” or pour-flush latrine are the most hygienic means of excreta disposal is well documented and a well-known fact. Both not only guarantee the absence of the discomfort of smell, but critically they ensure the undesirable link between fly and feaces is totally and efficiently broken.

The best hope for sustained hygienic practice is to not only make water available in school premises, but importantly, there must be running water is school toilets. In line with this concept, the following corrective actions are recommended:

- Ensure running water in critical areas of the school, especially in toilet spaces, by installing mechanized pumping arrangements for water supply systems using solar energy at the high-end cost range and the humble force-lift pump at the lower end cost range.
- Provide 10,000L overhead storage tanks to ensure round the clock access to safe water supply
- Adopt and promote the W/C or water-seal latrine technology options with in-built handwashing facilities, for best results
- Provide ceramic-finish urinals for boys
- Upgrade girls’ toilets to provide for simple menstrual management facilities especially for Junior and Senior secondary schools

## ANNEX – 1: WASH PROFILE IN BECKLEY PREPARATORY SCHOOL, ALLEN TOWN

| Enrollment | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Infant / Nursery | | | Elementary | | | JSS | | | SSS | | | Grand Total | | |
| B | G | T | B | G | T | B | G | T | B | G | T | B | G | T |
| | | | 70 | 80 | 150 | | | | | | | **70** | **80** | **150** |

Latrine

Water Supply

Handwashing

| Service Type | Technology Option | Status | Comment | Proposed Improvement |
|---|---|---|---|---|
| **Water Supply** | Hand-dug well (HDW) with rope and bucket | working | High risk of contamination | Re-deepen to ensure min. 2.5m water-column<br>Install mechanized pumping and 10,000L overhead storage tank |
| **Sanitation** | | | | |
| **Latrine** | Traditional Pit Latrine (TPL), with 2 drop-holes each for boys and girls | In use and reasonably clean but with offensive smell | Existing drop-holes for pupils, adequate | Use water-seal system and provide separate toilet for teachers |
| **Urinal** | No provision made | | | Provide urinal space for boys |
| **Garbage Disposal** | Local pit | In use and routinely burn garbage | Indiscriminate burning can be hazardous | Introduce garbage sorting and composting practice |
| **Handwashing (HW)** | Plastic bucket fitted with tap | Contained water but no sign of soap | Locating facility away from toilet is unlikely to enhance handwashing at the most critical time | Introduce new design with running water and HW facility within toilet |
| | | | | |

## ANNEX – 2: WASH PROFILE IN NEW BAPTIST MODEL PRIMARY SCHOOL, GRAFTON

| Enrollment | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Infant / Nursery | | | Elementary | | | JSS | | | SSS | | | Grand Total | | |
| B | G | T | B | G | T | B | G | T | B | G | T | B | G | T |
| | | | 365 | 337 | 702 | | | | | | | **365** | **337** | **702** |



Latrine


Water Supply


Waste dump

| Service Type | Technology Option | Status | Comment | Proposed Improvement |
|---|---|---|---|---|
| **Water Supply** | HDW fitted with HP | Not in use, well reportedly dried up | Seasonal problem associated with bad construction | Re-deepen to ensure min. 2.5m water-column<br>Install mechanized pumping and 10,000L overhead storage tank |
| **Sanitation** | | | | |
| **Latrine** | TPL with 1 drop-hole each for boys and girls | In use and reasonably clean but with offensive smell | Service grossly inadequate and unhygienic | Use water-seal system and provide 8 drop-holes each for boys and girls with separate toilet for teachers |
| **Urinal** | No provision made | | | Provide urinal space for boys |
| **Garbage Disposal** | Open space | In use and routinely burn garbage | | Introduce garbage sorting and composting practice |
| **Handwashing** | No provision | | | Introduce new design with running water and HW facility within toilet |

## ANNEX – 3: WASH PROFILE IN REC LOWER PRIMARY SCHOOL, JUI

| Enrollment | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Infant / Nursery | | | Elementary | | | JSS | | | SSS | | | Grand Total | | |
| B | G | T | B | G | T | B | G | T | B | G | T | B | G | T |
| | | | 256 | 313 | 569 | | | | | | | **256** | **313** | **569** |

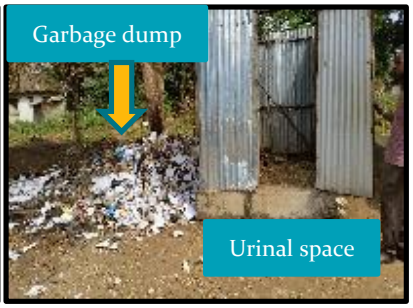
Latrine

| Service Type | Technology Option | Status | Comment | Proposed Improvement |
|---|---|---|---|---|
| **Water Supply** | Not available | | | • Install BH with mechanized (solar powered) pumping<br>• provide overhead storage tank |
| **Sanitation** | | | | |
| **Latrine** | TPL with 1 drop-hole each for boys, girls and teachers | Kept in reasonably good condition | Service, grossly inadequate and unhygienic | • Adopt water-seal toilet with the following number of drop-holes: boys (6) and girls (7)<br>• Provide separate facilities for teachers |
| **Urinal** | No provision made | | | • Provide urinal space for boys |
| **Garbage Disposal** | Open space | Burn garbage daily | Indiscriminate burning poses health risk to school community | • Introduce garbage separation and composting practice |
| **Handwashing** | No provision | | | • Introduce new toilet design with running water and HW facility within. |

## ANNEX – 4: WASH PROFILE IN UPPER INFANT AND PRIMARY SCHOOL, JUI

| Enrollment | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Infant / Nursery** | | | **Elementary** | | | **JSS** | | | **SSS** | | | **Grand Total** | | |
| **B** | **G** | **T** | **B** | **G** | **T** | **B** | **G** | **T** | **B** | **G** | **T** | **B** | **G** | **T** |
| 220 | 245 | 465 | 180 | 200 | 380 | | | | | | | **400** | **445** | **845** |






| Service Type | Technology Option | Status | Comment | Proposed Improvement |
|---|---|---|---|---|
| **Water Supply** | HDW fitted with HP | Currently functional | Technology choice does not enhance hygiene practice | • Re-deepen well to ensure min. 2.5m water column at peak dry-season<br>• Provide mechanized pumping<br>• Provide overhead water storage |
| **Sanitation** | | | | |
| **Latrine** | TPL with the following drop-holes: one each for boys and girls (2) and 1 for staff | Currently in use, albeit partially | Service inadequate and unhygienic | • Adopt water-seal toilet with the following number of drop-holes: boys (9) and girls (10) and separate facilities for teachers |
| **Urinal** | | | | • Provide urinal space for boys |
| **Garbage Disposal** | Open space | Routinely burn | | • Introduce garbage separation and composting practice |
| **Handwashing** | Plastic bucket fitted with tap | Water available with soap | Facility located away from toilet | • Introduce new toilet design with running water and HW facility within. |

## ANNEX – 5: WASH PROFILE IN EDEST, NURSERY AND PREPARATORY SCHOOL, JUI

| Enrollment | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Infant / Nursery** | | | **Elementary** | | | **JSS** | | | **SSS** | | | **Grand Total** | | |
| **B** | **G** | **T** | **B** | **G** | **T** | **B** | **G** | **T** | **B** | **G** | **T** | **B** | **G** | **T** |
| 50 | 50 | 100 | 145 | 106 | 251 | | | | | | | **195** | **156** | **351** |

School toilet

Water system

| Service Type | Technology Option | Status | Comment | Proposed Improvement |
|---|---|---|---|---|
| **Water Supply** | HDW fitted with HP | Currently functional | HDW within 10m (unsafe distance) from toilet, posing high risk of contamination | • Re-deepen well to ensure min. 2.5m water column at peak dry-season<br>• Provide mechanized pumping<br>• Provide overhead water storage |
| **Sanitation** | | | | |
| **Latrine** | TPL with the following drop-holes: boys (1), girls (2) and 1 each for male and female staff | Currently in use | Service inadequate and unhygienic | • Adopt water-seal toilet with the following number of drop-holes: boys (5) and girls (4) , with separate facilities for teachers |
| **Urinal** | | | | • Provide urinal space for boys |
| **Garbage Disposal** | Open pit | Routinely burn | Indiscriminate burning could be hazardous | • Introduce garbage separation and composting practice |
| **Handwashing** | No provision | | | • Introduce new toilet design with running water and HW facility within. |
| | | | | |

## ANNEX –6: WASH PROFILE IN HUNTINGDON SCHOOL, JUI

| Enrollment | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Infant / Nursery | | | Elementary | | | JSS | | | SSS | | | Grand Total | | |
| B | G | T | B | G | T | B | G | T | B | G | T | B | G | T |
| | | | | | | 182 | 168 | 350 | 320 | 230 | 550 | **502** | **398** | **900** |


| Service Type | Technology Option | Status | Comment | Proposed Improvement |
|---|---|---|---|---|
| **Water Supply** | 1 of 2 HDWs fitted with HPs provided within school premises | Both are currently functional | Need for 2 HDWs within school premises, not evident | • Re-deepen both wells to ensure min. 2.5m water column at peak dry-season<br>• Provide mechanized pumping<br>• Provide overhead water storage |
| **Sanitation** | | | | |
| **Latrine** | TPL with the following drop-holes: boys (2), girls (3), with separate facility for staff | Students toilets currently in use, but staff, not in use | Services are inadequate and generally unhygienic | • Adopt water-seal toilet with the following number of drop-holes: boys (5) and girls (4), with separate facilities for teachers<br>• Provide menstrual management facility in toilet for girls |
| **Urinal** | Masonry wall finish | In use | Smelly and dirty | • Provide urinal space for boys |
| **Garbage Disposal** | Open pit | Routinely burn | Indiscriminate burning could be hazardous | • Introduce garbage separation and composting practice |
| **Handwashing** | Series of buckets with taps in school hallways | Water is available without soap | Location could inhibit regular handwashing | • Introduce new toilet design with running water and HW facility within. |

## ANNEX – 7: WASH PROFILE IN MAYNARD SCHOOL, KOSSOH TOWN

| Enrollment | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Infant / Nursery | | | Elementary | | | JSS | | | SSS | | | Grand Total | | |
| B | G | T | B | G | T | B | G | T | B | G | T | B | G | T |
| | | | 176 | 198 | 374 | | | | | | | **176** | **198** | **374** |




HW facility inside toilet


| Service Type | Technology Option | Status | Comment | Proposed Improvement |
|---|---|---|---|---|
| **Water Supply** | HDW fitted with HP | Currently functional | Adopt a technology option that will allow running water and enhance hygiene practice | • Re-deepen well to ensure min. 2.5m water column at peak dry-season<br>• Provide mechanized pumping<br>• Provide overhead water storage |
| **Sanitation** | | | | |
| **Latrine** | TPL with 1 drop-hole each for boys and girls | Currently in use | Service inadequate and unhygienic | • Adopt water-seal toilet with the following number of drop-holes: boys (4) and girls (5),<br>• Provide separate facilities for teachers |
| **Urinal** | Fenced space | In use | Dirty and unhygienic | • Provide urinal space for boys |
| **Garbage Disposal** | Open pit | Routinely burn | Indiscriminate burning poses a health risk to school community | • Introduce garbage separation and composting practice |
| **Handwashing** | Plastic bucket fitted with HP | Water available without soap | Located away from toilet and not likely to enhance hygiene | • Introduce new toilet design with running water and HW facility within. |
| | | | | |

## ANNEX – 8: WASH PROFILE IN REC PRIMARY SCHOOL, KOSSOH TOWN

| Enrollment | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Infant / Nursery | | | Elementary | | | JSS | | | SSS | | | Grand Total | | |
| B | G | T | B | G | T | B | G | T | B | G | T | B | G | T |
| | | | 226 | 249 | 475 | | | | | | | **226** | **249** | **475** |


| Service Type | Technology Option | Status | Comment | Proposed Improvement |
|---|---|---|---|---|
| **Water Supply** | HDW fitted with HP | Currently functional, but reportedly seasonal | Adopt a technology option that will allow for running water and enhance hygiene practice | • Re-deepen well to ensure min. 2.5m water column at peak dry-season<br>• Provide mechanized pumping<br>• Provide overhead water storage |
| **Sanitation** | | | | |
| **Latrine** | TPL with 1 drop-hole each for boys and girls | Currently in use | Service inadequate and unhygienic | • Adopt water-seal toilet with the following number of drop-holes: boys (5) and girls (6), with separate facility for teachers |
| **Urinal** | Masonry finished wall | Not currently in use | | • Provide ceramic finish and running water for cleaning |
| **Garbage Disposal** | Open pit | Routinely burn | Indiscriminate burning could be hazardous | • Introduce garbage separation and composting practice |
| **Handwashing** | No provision | | | • Introduce new toilet design with running water and HW facility within. |

## ANNEX – 9: WASH PROFILE IN GLORY PRIMARY SCHOOL, HASTINGS

| Enrollment | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Infant / Nursery | | | Elementary | | | JSS | | | SSS | | | Grand Total | | |
| B | G | T | B | G | T | B | G | T | B | G | T | B | G | T |
| | | | 166 | 154 | 320 | | | | | | | **166** | **154** | **320** |


| Service Type | Technology Option | Status | Comment | Proposed Improvement |
|---|---|---|---|---|
| **Water Supply** | HDW fitted with HP | Currently functional | Adopt a technology option that will allow running water and enhance hygiene practice | • Re-deepen well to ensure min. 2.5m water column at peak dry-season<br>• Provide mechanized pumping<br>• Provide overhead water storage |
| **Sanitation** | | | | |
| **Latrine** | TPL with 1 drop-hole each for boys and girls | Currently in use | Service is inadequate, generally clean, but unhygienic | • Adopt water-seal toilet design with 4 each drop-holes for boys and girls<br>• separate facility for teachers |
| **Urinal** | No provision | | Urinal for boys is critical to avoid long waiting turns in already over stretched latrines | • Provide ceramic finish and running water for easy cleaning |
| **Garbage Disposal** | Bin and off-site disposal | functional | | • Introduce garbage separation and composting practice |
| **Handwashing** | No provision | | | • Introduce new toilet design with running water and HW facility within. |

## ANNEX – 10: WASH PROFILE IN KANKAYLAY ISLAMIC PRIMARY SCHOOL, HASTINGS

| Enrollment | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Infant / Nursery | | | Elementary | | | JSS | | | SSS | | | Grand Total | | |
| B | G | T | B | G | T | B | G | T | B | G | T | B | G | T |
| | | | 124 | 122 | 246 | | | | | | | **124** | **122** | **246** |


| Service Type | Technology Option | Status | Comment | Proposed Improvement |
|---|---|---|---|---|
| **Water Supply** | HDW fitted with HP | Currently functional, but shows signs of a leaking cylinder | Adopt a technology option that will allow running water and enhance hygiene practice | • Re-deepen well to ensure min. 2.5m water column at peak dry-season<br>• Provide mechanized pumping, otherwise repair source of leaking rising main assembly<br>• Provide overhead water storage |
| **Sanitation** | | | | |
| **Latrine** | TPL with 2 drop-holes each for boys and girls including separate facilities for male and female staff | Currently in use and out-sourced maintenance arrangements | Service is inadequate, generally clean, but unhygienic | • Adopt water-seal toilet design with 3 each drop-holes for boys and girls<br>• separate facility for teachers |
| **Urinal** | No provision | | Urinal for boys is critical to avoid long waiting turns in already stretched latrines | • Provide ceramic finish and running water for easy cleaning |
| **Garbage Disposal** | Garbage bin | Burn daily | Indiscriminate burning of waste poses health risks | • Introduce garbage separation and composting practice |
| **Handwashing** | Plastic bucket | Water available but no soap | | • Introduce new toilet design with running water and HW facility within. |

## ANNEX – 11: WASH PROFILE IN REC INFANT AND PRIMARY SCHOOL, HASTINGS

| Enrollment | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Infant / Nursery | | | Elementary | | | JSS | | | SSS | | | Grand Total | | |
| B | G | T | B | G | T | B | G | T | B | G | T | B | G | T |
| 273 | 258 | 531 | 288 | 219 | 507 | | | | | | | **561** | **447** | **1,038** |


| Service Type | Technology Option | Status | Comment | Proposed Improvement |
|---|---|---|---|---|
| **Water Supply** | HDW fitted with HP | Currently functional | Adopt a technology option that will allow running water and enhance hygiene practice | • Re-deepen well to ensure min. 2.5m water column at peak dry-season<br>• Provide mechanized pumping,<br>• Provide overhead water storage |
| **Sanitation** | | | | |
| **Latrine** | • TPL with 2 drop-holes each for boys and girls with separate facilities for infant and primary schools<br>• Rainwater harvesting system (RWHS) to service toilet | Currently in use with maintenance arrangements, out-sourced | • Service is inadequate but clean<br>• Storage capacity (2000L) for RWHS is inadequate with the result that water supply availability is seasonal | • Adopt water-seal toilet design with the following drop-holes: Infants (6) each for boys and girls, PS – boys (7) & girls (5)<br>• separate facility for teachers |

| Service Type | Technology Option | Status | Comment | Proposed Improvement |
|---|---|---|---|---|
| **Urinal** | In-built within toilet | Functional and well maintained | Additional urinal space is a disease trap | • discontinue use of additional urinal space in place of hygienic extension |
| **Garbage Disposal** | Local pit | Routinely burn waste | Indiscriminate burning of waste poses health risks | • Introduce garbage separation and composting practice |
| **Handwashing** | Ceramic handwashing basin within toilet and additional plastic buckets distributed in locations around school block | Water available but no soap | | • Provide additional ceramic handwashing basins within toilet |

## ANNEX – 12: WASH PROFILE IN KELLY'S SECONDARY SCHOOL, HASTINGS

| Enrollment | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Infant / Nursery | | | Elementary | | | JSS | | | SSS | | | Grand Total | | |
| B | G | T | B | G | T | B | G | T | B | G | T | B | G | T |
| | | | | | | 150 | 200 | 350 | 130 | 170 | 300 | **280** | **370** | **650** |


| Service Type | Technology Option | Status | Comment | Proposed Improvement |
|---|---|---|---|---|
| **Water Supply** | • HDW fitted with HP<br>• Network system (tap-stand, abandoned) | • HP currently functional, but shows signs of a leaking cylinder<br>• Network water supply system abandoned due to unreliable service<br>• Water storage tank, not in use for lack of network water | In short to medium-term fixing HDW with HP is ideal due to chronic shortage of drinking water in Freetown | • Re-deepen well to ensure min. 2.5m water column at peak dry-season<br>• Provide mechanized pumping, otherwise repair source of leaking rising main assembly<br>• Provide overhead water storage |
| **Sanitation** | | | | |
| **Latrine** | TPL with 2 drop-holes each for boys and girls including | Currently in use by JSS and SSS in twin shift system | • Even for the current twin shift arrangement, | • Adopt water-seal toilet design or better, with no more than 5 drop-holes each for boys and girls |

| Service Type | Technology Option | Status | Comment | Proposed Improvement |
|---|---|---|---|---|
| | separate facilities for male and female staff | | service is inadequate.<br>• Service is otherwise generally clean, but unhygienic | • Provide menstrual management facility in toilet for girls<br>• separate facility for teachers |
| **Urinal** | No provision | | Urinal for boys is critical to avoid long waiting turns in already stretched latrines | • Provide ceramic finish and running water for easy cleaning |
| **Garbage Disposal** | Garbage dump | Burn daily | Indiscriminate burning of waste poses health risks | • Introduce garbage separation and composting practice |
| **Handwashing** | Plastic bucket fitted with tap | Water available but no soap | | • Introduce new toilet design with running water and HW facility within. |
| | | | | |

## ANNEX – 13: WASH PROFILE IN ST. MULUMBA RC SCHOOL, HASTINGS

| Enrollment | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Infant / Nursery | | | Elementary | | | JSS | | | SSS | | | Grand Total | | |
| B | G | T | B | G | T | B | G | T | B | G | T | B | G | T |
| 58 | 37 | 95 | 165 | 159 | 324 | | | | | | | **223** | **196** | **419** |


| Service Type | Technology Option | Status | Comment | Proposed Improvement |
|---|---|---|---|---|
| **Water Supply** | HDW fitted with HP | Currently functional | Adopt a technology option that will allow running water and enhance hygiene practice | • Re-deepen well to ensure min. 2.5m water column at peak dry-season<br>• Provide mechanized pumping<br>• Provide overhead water storage |
| **Sanitation** | | | | |
| **Latrine** | TPL with 2 drop-holes each for boys and girls including separate facilities for staff | Currently functional and in use | Service inadequate, generally clean, but unhygienic | • Adopt water-seal toilet design with 5 drop-holes each, for boys and girls |
| **Urinal** | No provision | | Urinal for boys is critical to avoid long waiting turns in already stretched latrines | • Provide ceramic finish and running water for easy cleaning |

| Service Type | Technology Option | Status | Comment | Proposed Improvement |
|---|---|---|---|---|
| **Garbage Disposal** | Open pit | Routinely burn | Indiscriminate burning of waste poses health risks | • Introduce garbage separation and composting practice |
| **Handwashing** | Tap rainwater through 1000L water storage tank for handwashing | Availability of water is seasonal | Current handwashing arrangement is grossly inadequate and unlikely to promote sustained hygiene behavior change | • Introduce new toilet design with running water and HW facility within. |
| | | | | |

## ANNEX – 14: WASH PROFILE IN REC PRIMARY SCHOOL, ROKEL

| Enrollment | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Infant / Nursery | | | Elementary | | | JSS | | | SSS | | | Grand Total | | |
| B | G | T | B | G | T | B | G | T | B | G | T | B | G | T |
| | | | 285 | 300 | 585 | | | | | | | **285** | **300** | **585** |


| Service Type | Technology Option | Status | Comment | Proposed Improvement |
|---|---|---|---|---|
| **Water Supply** | HDW fitted with HP | Currently functional | Adopt a technology option that will allow running water and enhance hygiene practice | • Re-deepen well to ensure min. 2.5m water column at peak dry-season<br>• Provide mechanized pumping<br>• Provide overhead water storage tank (10,000L) |
| **Sanitation** | | | | |
| **Latrine** | TPL with 1 drop-hole each for boys and girls | Currently in use | Service is grossly inadequate, generally clean, but unhygienic | • Adopt water-seal toilet design with 7 drop-holes each for boys and girls<br>• separate facility for teachers |
| **Urinal** | No provision | | Urinal for boys is critical to avoid long waiting turns in already stretched latrines | • Provide ceramic finish and running water for easy cleaning |

| Service Type | Technology Option | Status | Comment | Proposed Improvement |
|---|---|---|---|---|
| **Garbage Disposal** | Open waste dump | Routinely burn | Indiscriminate burning of waste poses health risks | • Introduce garbage separation and composting practice |
| **Handwashing** | Plastic buckets located along school hall way | Water available but no soap | Handwashing facilities not located in or around toilet are less likely enhance the practice at critical times | • Introduce new toilet design with running water and HW facility within. |
| | | | | |