BIDIBIDI WASH KNOWLEDGE, ATTITUDES, AND PRACTICES ENDLINE SURVEY 2022

A 2022 STUDY ON CURRENT COMMUNITY ACCESS TO WATER AND PRACTICES ON SANITATION AND HYGIENE IN BIDIBIDI REFUGEES SETTLEMENT IN YUMBE DISTRICT

DECEMBER 2022
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I. ACKNOWLEDGEMENTS

In a very special way, WMU will wish to thank all partners (IPs and Ops) for this opportunity to contribute to the creation of new knowledge in the WASH sector in the Bidibidi refugee settlement. This study comes at a crucial time in Bidibidi when UNHCR has declared her strategic intention to embark on long-term development activities within the settlement in the strategic 2022 road map. We believe that the findings of this study will contribute to other studies to provide the basis for measuring and comparing progress in the WASH sector.

WMU in Bidibidi (Yumbe) operation sees this as a great landmark to celebrate and appreciate all those whose efforts contributed to the production of this survey report. In a very special way, WMU would like to thank UNHCR, OPM, and Yumbe District through its various units that contributed to the survey notably the DWO, and DHO who provided the support we needed to conduct this survey. Additionally, we appreciate and thank all interviewees, RWCS, and communities who facilitated our work.

Through your collective efforts, we have an end-line survey done and we thank you for this.
## II. ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAPs</td>
<td>Knowledge Attitude and Practices</td>
</tr>
<tr>
<td>DWO</td>
<td>District Water Officer</td>
</tr>
<tr>
<td>WHO</td>
<td>District Health Officer</td>
</tr>
<tr>
<td>WASH</td>
<td>Water sanitation and hygiene</td>
</tr>
<tr>
<td>WTWG</td>
<td>Wash Technical Working Group</td>
</tr>
<tr>
<td>UNHCR</td>
<td>United Nations High Commissioner for Refugees</td>
</tr>
<tr>
<td>HH</td>
<td>House Holds</td>
</tr>
<tr>
<td>OPM</td>
<td>Office of the Prime Minister</td>
</tr>
<tr>
<td>POCs</td>
<td>Persons of Concern</td>
</tr>
<tr>
<td>RWC</td>
<td>Refugee Welfare Councils.</td>
</tr>
</tbody>
</table>
III. EXECUTIVE SUMMARY

1.0 INTRODUCTION
Uganda is hosting over 1 million refugees (Uganda Refugee Response, UNCHR 2021) with about 245,632 (UNHCR 1st December 2021) of them settled in the Bidibidi refugee settlement. This rapid influx of refugees has put pressure on key facilities and services including shelter and WASH infrastructure.

In addition, the influx also led to the depletion of the existing systems, hence creating interventions to reconstruct them. To improve WASH service delivery efficiently and effectively in the settlement, there is a need for accurate and reliable information on which to base programmatic decisions. Bidibidi settlement has had several interventions by different partners, and in as much as there were access indicators obtained regularly by the partners that provide extremely useful average figures at the settlement level, there has been a gap in the in-depth understanding of the situation at the household level and to account for disparities within the settlement to measure the impact of the interventions.

In consideration of the existing challenges, UNHCR in collaboration with government and WASH actors conducted an end-line KAP survey to understand the progress made through the established /provided WASH services in comparison with acceptable standards as well as assessing existing gaps to facilitate evidence-based planning of future programs.

IV. METHODOLOGY
The survey mainly utilized 3 methods: A household questionnaire survey, Focus Discussion groups and a documentary review. The survey covered all 5 zones of Bidibidi settlement, with samples drawn from all the zones. The sample size for each zone was calculated using the UNHCR sample size determination tool. A sample of 1470 Households (only refugees) was interviewed using the household questionnaire survey. Reviewed documents included: partners’ periodic updates es and minutes of WASH meetings. Data was collected using Kobo data collection software and analyzed using the Standardized UNHCR WASH KAP analysis tool, Advanced excel analyzer, and SPSS data analysis software.
I. BACKGROUND AND CONTEXT

INTRODUCTION

Uganda is hosting over 1 million refugees (Uganda Refugee Response, UNHCR, and October 2022) with about 193,156 (UNHCR 30th October 2022) of them settled in the Bidibidi refugee settlement. This rapid influx of fluctuating numbers of refugees has put pressure on key facilities and services including shelter and WASH infrastructure and fluctuating numbers of refugees within and out of country movements make planning difficult. In addition, the influx also led to the destruction of systems, hence creating interventions to reconstruct them. To improve WASH service delivery efficiently and effectively in the settlement, there is a need for accurate and reliable information on which to base programmatic decisions.

Bidibidi settlement has had several interventions by different partners, and in as much as there were access indicators obtained regularly by the partners that provide extremely useful average figures at the settlement level, there has been a gap in the in-depth understanding of the situation at the household level and to account for disparities within the settlement to measure the impact of the interventions. In consideration of the existing challenges, WMU in collaboration with government and WASH actors conducted end line KAP survey to understand the progress made through the established /provided WASH services in comparison with acceptable standards as well as assessing existing gaps to facilitate evidence-based planning of future programs.

Uganda is one of the largest asylum countries worldwide and the largest in Africa, giving a tragic reminder of the fragility and conflict in the Great Lakes region. As of 30th October 2022, Uganda hosted an estimated 1,381,122 refugees spread over 30 refugee settlements across 12 districts. The main cause for the refugee influx in the Bidibidi settlement is the crisis in South Sudan, which sharply deteriorated in mid-2016. Renewed fighting in South Sudan in July 2016 caused many South Sudanese to flee the country and seek safety in northwest Uganda. As of 31st October 2022, there were 1,460,520 refugees settled in the Bidibidi refugee settlement. Displacement is expected to continue, as South Sudan’s security situation has not improved although there is a reduction in the average daily arrivals of refugees.

The continued influx of people has created a demand for a range of social services, including water, sanitation, and hygiene services, and put pressure on existing infrastructure.

One of the critical needs in post-emergency is accurate and reliable information on which to base programmatic decisions. However, to be able to know what the situation is at the household level and to account for disparities within Bidibidi
Refugees Settlement, WMU as the Implementing WASH partner commissioned an end-line KAP survey in December 2022 whose results are highlighted in this report through a household survey with a sound sample size representing accurately the rest of the settlement.

II. SURVEY OBJECTIVES
The main objective of the end-lifeline survey is to track program results, impact, and long-lasting change in the Water, Sanitation, and Hygiene interventions in the Bidibidi refugee settlement.

Specific objectives are to:
- Establish refugees' knowledge, Attitudes, and Practices (KAP) about WASH in the Bidibidi refugee settlement.
- Generate information regarding the quality, access to, and effectiveness of WASH interventions in the Bidibidi refugee settlement.
- To gain a better understanding of and evaluate the current Knowledge, Attitudes, and Practices (KAP) of refugees about Water, Sanitation and Hygiene, and menstrual hygiene management

III. METHODOLOGY
Survey area and sample frame
The KAP was conducted in the Bidibidi settlement, particularly in the 5 zones in Yumbe District. The sample sizes were determined using the UNHCR sample size determination tool, and samples were determined per zone.

The respondents from the household level were extracted from the OPM statistics of registered refugees in the Bidibidi Refugee Settlement and the neighboring host community as of Aug 2022. This formed a sample frame from which the sample size was drawn. As seen in the table below.

<table>
<thead>
<tr>
<th>ZONES</th>
<th>POPULATION SIZE(HH)</th>
<th>SAMPLE SIZE(HH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone 1</td>
<td>7,419</td>
<td>387</td>
</tr>
<tr>
<td>Zone 2</td>
<td>8,455</td>
<td>389</td>
</tr>
<tr>
<td>Zone 3</td>
<td>11,205</td>
<td>393</td>
</tr>
<tr>
<td>Zone 4</td>
<td>5,921</td>
<td>382</td>
</tr>
<tr>
<td>Zone 5</td>
<td>9,316</td>
<td>390</td>
</tr>
<tr>
<td>Host Community(30% of)</td>
<td>12,695</td>
<td>582</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>55,011</strong></td>
<td><strong>2523 (0774532931)</strong></td>
</tr>
</tbody>
</table>
Sampling size and methodology

Simple Random sampling was adopted to reflect and compare the experiences across the 5 zones. Enumerators were instructed to go to the identified locations and interview the household closest to the location. The selection of respondents was done using systematic or simple random sampling. Each community was clustered based on zones. The number of respondents was then divided among the zones. In each zone, the respondent was selected by skipping two households and considering the third household.

The table below shows the different zones and their respective sample sizes as well as several data collectors.

### Sampling size

<table>
<thead>
<tr>
<th>ZONES</th>
<th>POPULATION SIZE (HH)</th>
<th>SAMPLE SIZE (HH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone 1</td>
<td>7,460</td>
<td>367</td>
</tr>
<tr>
<td>Zone 2</td>
<td>8,467</td>
<td>369</td>
</tr>
<tr>
<td>Zone 3</td>
<td>11,220</td>
<td>373</td>
</tr>
<tr>
<td>Zone 4</td>
<td>6,050</td>
<td>363</td>
</tr>
<tr>
<td>Zone 5</td>
<td>9,530</td>
<td>371</td>
</tr>
<tr>
<td>TOTAL HH</td>
<td>42,727</td>
<td>1843</td>
</tr>
</tbody>
</table>

Indicators and questionnaire elaboration

The standard WASH KAP survey Questionnaire (see Annex 1) was designed by UNHCR to produce responses relating to the degree of access to different WASH services at the household and individual levels, as well as responses relating to the perceptions of barriers and to the solutions required to increase access to services using Key informant and Focus group discussion of 12 (2 male and 2 male below 18, 2 Female and 2 male above 18, 1 key informant, 1 PSN and 2 Host: 1 male and 1 female above 18) across the five zones.

The WASH Working Group meeting reviewed the questionnaire to remove some optional questions. The tool was then transformed into an electronic questionnaire to be administered with tablets and mobile phones using the Kobo collect data collection software. The questionnaire logic was integrated into the Kobo collect software to ensure that the right questions were asked and that enumerators did not have to manually skip irrelevant questions. The questionnaire was pre-tested with the field staff across the five zones.
Modification of the instruments was done based on the feedback for example some optional questions that were not needed for the survey were skipped. The pre-testing team’s issues on data gathering were discussed and addressed accordingly in preparation for the actual data collection.

In addition, the questionnaire was meant to generate results to address the following key indicators.
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Indicator</th>
<th>Questionnaire Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Supply</td>
<td>Average liters of potable water/per person/per day collected at HH level</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% HHs with at least 10 L/p protected water storage capacity</td>
<td>Section B</td>
</tr>
<tr>
<td></td>
<td>Maximum distance [m] from household to potable water collection point</td>
<td></td>
</tr>
<tr>
<td>Water treatment</td>
<td>% HHs collecting drinking water from protected/treated sources</td>
<td>Section C</td>
</tr>
<tr>
<td>Hygiene</td>
<td>% HHs with access to soap</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% HHs with access to a specific hand-washing device</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% Respondents know who least 3 critical moments when to wash hands</td>
<td>Section D</td>
</tr>
<tr>
<td>Sanitation</td>
<td>% HHs with family latrine/toilet</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% HHs reporting defecating in a toilet/latrine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% HHs practicing open defecation. **Includes defecating in the bush at night.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% HHs having access to a bathing facility</td>
<td>Section E</td>
</tr>
<tr>
<td>Solid Waste</td>
<td>% HHs with access to a solid waste disposal facility</td>
<td>Section F</td>
</tr>
<tr>
<td>Menstrual Hygiene</td>
<td>% Level of satisfaction of Reproductive age women and girls with MHM material used</td>
<td>Section G</td>
</tr>
<tr>
<td>Management</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Ethics and consent
Ethical considerations were considered from the inception of the research design and during the questionnaire administration. During the primary data collection process, the enumerators and research assistants explained the survey’s purpose, the collected data’s intended use, and the personal data anonymization process. Additionally, the enumerators and the research assistants also emphasized that participation in the survey was voluntary and that respondents could choose to stop the interview process at any time or skip questions that they did not wish to answer.

The research teams then gained verbal consent from all household members and Focus Discussion group members for the quantitative and qualitative data collection process emphasizing the issue of confidentiality and the security of the information they are providing. For successful management of expectations from household members and Focus Discussion Group, the enumerators and research assistants clearly explained that participating in the survey would not lead to any direct benefits, nor could the enumerators and research assistants provide diagnostic or individual case management support to each household and group visited. The research objectives and implementation plan were discussed and shared with key WASH partners in the settlement including UNHCR, OPM, and the district and this took place through WASH sector meetings and individual meetings with OPM and district officials. Stakeholder consultations were also conducted to improve the questionnaire.

Recruitment and training
A total of 40 enumerators and 4 research assistants were recruited from the zones within the settlement and the district after the temporary positions were advertised and successful enumerators were shortlisted and interviewed. The enumerators were then trained for 1 day on the actual data collection exercise. 4 supervisors selected from WMU staff helped to monitor and support the enumerators during data collection.

Data collection and quality control measures
The enumerators received 1 day of training and administered the questionnaire on tablets and mobile phones. In principle, the team is composed of at least a male and a female enumerator, to ensure quality, gender-sensitive interviews. Interpreters were not used during interview sessions except during focus group discussions where different ethnical groups converge to form the arrangement of 8-12 focus discussion group members because the enumerators were comfortable and well-versed with the language spoken in the areas where they worked. For children in households aged 0-17 years old, interviews were conducted chiefly with the mothers or primary caregivers.
In these cases, interviews addressed household-level questions and individual questions concerning both the mothers or primary caregivers themselves and their children, carefully respecting ethical considerations and advice provided by UNHCR. For individuals of 18 years or above, enumerators directly asked all the questions from all the sections of the questionnaire. Collected data was stored on a secure UNHCR Kobo server and checked daily by WMU M&E Officers for inconsistencies. Each household survey took approximately 60 minutes to administer. Exact times vary depending on the responses from the household heads and whether there were identified people to respond to survey questions.

Data analysis plan
All quantitative data collected was fully reviewed and consolidated into a single dataset for all 5 zones and the host community. By the analysis plan, thematic analysis was conducted based on the different sectors that appear as sections of this report and using different types of disaggregation to elicit further meaning (e.g., location, age, gender). Statistical tests were then run for selected variables to establish correlation factors.

Specifically, descriptive analyses using multivariate analysis statistical hypothesis tests (chi² for variance, independence, regression analyses, etc.) were used to describe and compare the various groups considered by the study and validate the statistical relevance of findings. All the major statistical results in this report were analyzed using the standardized UNHCR WASH KAP analysis tool, advanced excel analysis, and SPSS data analysis software.
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Indicator</th>
<th>Zone 1</th>
<th>Zone 2</th>
<th>Zone 3</th>
<th>Zone 4</th>
<th>Zone 5</th>
<th>Host Community</th>
<th>Overall baseline 2022</th>
<th>Overall baseline 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Quantity</td>
<td>Average liters of potable water/per person/per day collected at HH level</td>
<td>28</td>
<td>17</td>
<td>14</td>
<td>19</td>
<td>20</td>
<td>12</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>% HHs with at least 10 L/p protected water storage capacity</td>
<td>35.6%</td>
<td>32.9%</td>
<td>35.2%</td>
<td>10.7%</td>
<td>30.7%</td>
<td>33%</td>
<td>36.4%</td>
<td>29.7%</td>
</tr>
<tr>
<td>Water Access</td>
<td>Maximum distance [m] from household to potable water collection point</td>
<td>699</td>
<td>489</td>
<td>354</td>
<td>373</td>
<td>541</td>
<td>632</td>
<td>302</td>
<td>530</td>
</tr>
<tr>
<td>Water Quality</td>
<td>% HHs collecting drinking water from protected/treated sources</td>
<td>53%</td>
<td>73%</td>
<td>93%</td>
<td>76%</td>
<td>82%</td>
<td>63%</td>
<td>96%</td>
<td>73%</td>
</tr>
<tr>
<td>Sanitation</td>
<td>% HHs with family latrine/toilet</td>
<td>74%</td>
<td>72%</td>
<td>75%</td>
<td>76%</td>
<td>71%</td>
<td>78%</td>
<td>70%</td>
<td>74%</td>
</tr>
<tr>
<td></td>
<td>% HHs practicing open defecation. **Includes defecating in the bush at night.</td>
<td>1%</td>
<td>00%</td>
<td>1%</td>
<td>5%</td>
<td>00%</td>
<td>1%</td>
<td>13%</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>% HHs having access to a bathing facility</td>
<td>55%</td>
<td>66%</td>
<td>83%</td>
<td>84%</td>
<td>83%</td>
<td>75%</td>
<td>984.4%</td>
<td>74%</td>
</tr>
<tr>
<td></td>
<td>% HHs with access to soap</td>
<td>% HHs with access to a specific hand-washing device</td>
<td>% respondents know at least 3 critical moments when to wash hands</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>--------------------------------</td>
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<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td><strong>Hygiene</strong></td>
<td>33% 36% 25% 19% 34% 36% 82% 32%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Solid Waste</strong></td>
<td>87% 88% 89% 72% 85% 78 96% 84%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Menstrual Hygiene Management</strong></td>
<td>76% 72% 69% 57% 68% 65 74.4% 67%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
KEY FINDINGS

1. WATER SUPPLY

Fig. 1: Principal source of drinking water for households

The principal source of drinking water most used by all respondents across the 5 zones from the above figure 1 is (72%) Public tap stand, 27% hand pump, and 1% Piped connection to the house (or neighbor’s house) as it is clearly shown above in fig 1. Many partners motorized high-yielding boreholes and groundwater potential is generally high in the Bidibidi settlement. A second alternative source of drinking water for HH members

Fig. 2

During the survey (68%) average findings showed that respondents cited that the second alternative to public tap stands was boreholes/hand pumps as clearly indicated above. Reasons for their choice are that Boreholes/hand pumps are more reliable since their water is always available and that they neither depend on solar nor fuel to pump their water. Host community (47%) Zone 1 (49%), zone 2 (65%), zone 3 (93%), zone 4 (76%), and zone 5 (80%).
Source of water for other activities

Survey findings revealed that HHs use Hand pumps and public tap stands (47%), Hand pumps (30%), surface water (lake pond, dam, river)(13%), Unprotected hand-dug well (4%), Unprotected springs(3%), Rainwater (2%), Pipe connection to the house or neighbors’ (1%) and Others (1%) as their sources main source of water for other activities like gardening and bricklaying. This is because the protected sources are more accessible.

It further indicated that the protected sources for domestic drinking water are being encroached on for other activities. Relatedly on average public tap stands (47%), Hand pumps (30%), surface water (lake pond, dam, river)(13%), Unprotected hand-dug well (4%), Unprotected springs(3%), Rainwater (2%), Pipe connection to the house or neighbors’ (1%) and Others (1%) as shown in the figure above are encroached and used for other activities and this explains the reasons for pipe cut as per the 45% of focus group discussion.
Figure 4
From the findings, the average liters of portable water for HHs is 18 l/p/d. Host community 12l/p/d, zone 1 at 28 l/p/d, zone 2 at 17.l/p/d, zone 3 at 14l/p/d, zone 4 at 19l/p/d and zone 5 at 20 l/p/d. This, therefore, implies that the average access of potable water per person per day is still averagely below the 20L/P/D post-emergency standard. Figure 4 above shows that the average per capita in zone 2 is the least while zone 5 is the highest as shown in figure 4 above.

Protected water storage container

Figure 5
On inspection and observation by the survey Enumerators, as shown in figure 5 above, (29.7%) of average HHs at least had 10 liters per day covering ed their storage water containers. (33%)Host Community zone 1 (35.6%), zone 2 (32.9%), zone 3 (35.2%), zone 4 (10.7%), and zone 5 (30.7%). There is a delay from HHs to cover their water storage containers this is due to a shortage of containers, and some were worn out and no longer have lids which have contributed to the contamination of water affecting water quality as the community tries to improvise by gluing the leaking Jerricans using mud soap polythene bags, grass among as other as explained by the community as reason how the water stored gets contaminated at the household level during a focus discussion group.

**Distance to the nearest water point**

![Distance to the nearest water point](image)

*Figure 6*

Findings showed that the average walking distance to the nearest water point is 530m. Host community HHs walk for 632M Zone 1 HHs walk for 489 meters, zone 2 HHs walk for 489m, zone 3 HHs walk for 3054, zone 4 HHs walk for 375M, and zone 5 HHs walk for 541M. Zone 1 HHs walk for longer meters because it’s a water-stressed zone. The findings further revealed that water points are within reach of the PoCs. No HH walks beyond 20 minutes to get water, as shown in figure 6.
The survey further sought to find out whether the water the respondents collect was adequate to meet their needs. Average of 51.1% said Yes (Host Community (73.0%), Zone 1 (47.1%), Zone 2 (68.3%), Zone 3 (27.1%), Zone 4 (21.7%), Zone 5 (55.2%)) that the water they collect is enough to meet their needs meanwhile an average of 49 said No (Host Community (27.0%), Zone 1 (52.9%), Zone 2 (31.7%), Zone 3 (72.9%), Zone 4 (78.3%), Zone 5 (44.8%)) that the water they collect doesn’t meet their needs as shown in figure 8 below.

Reasons why HHs don’t collect enough water.

- Water is too far: 12%
- Waiting time at the water point is too long: 8%
- There are water shortages: 24%
- Limitation of volume of water that can be…: 5%
- It is too dangerous to get water: 1%
- Don’t have enough storage containers: 47%
- Can’t afford to buy enough: 3%
The survey also sought to know why HHs don’t collect enough water to meet their domestic needs and the following were the feedback findings from the respondents, Don’t have enough storage containers (47%), There was water shortage(24%), Water is too far (12%), Waiting time at water point is too long, Limitation of volume that can be collected at water point (5%), Can’t afford to buy (3%) and it is too dangerous to get water(1%). This, therefore, implies that the major reason why the community doesn’t collect adequate water and store it for their needs is inadequate storage containers. This, therefore, calls for mobilizing and distribution of water storage containers according to the focus discussion group findings 90% of PoC attribute inadequacy of water storage to inadequate storage containers as shown in figure 9 below.

**Figure 9**

**Persons responsible for water collection**

On who usually collects water for HHs (91%) of adult females are responsible for collecting domestic (8%) of children (11 - 18) years also participate in water collection for HHs, while (1%) of adult males take part in water collection at a smaller percentage. Further with the FGD held, the burden of water collection lies on women with just a few exceptions of men who give a helping hand. The children aged (11 – 18) are just learning from their mothers and seek to hold their mothers and there is a need for mindset change for men to support their wives in house chores especially pregnant women as shown in figure 10 below.
Cleaning water collection container

From figure 11 below, (33%) of respondents clean their water at least once a week, (62%) clean their water containers every time they use them, and (4%) clean their water containers at least once a month, and (1%) clean their Jerrican at least once in a year. There’s a need for an improvement in jerrican cleaning, especially in zone 1.

How drinking water containers are clean

A further investigation carried out in figure12 below sought to understand what material the respondents were using to clean their containers and following were the findings showed (51%) of respondents washed them with a specific product (such as Omo detergent, bleach, soap powder, etc), (37%)Wash them using rocks /sands and shaking, (7%)Wash them with a piece of
tissue/ sponge while (4%) Rinse them with water only and (1%) use other methods. This, therefore, implies that the majority of the respondent interviewed (51%) wash with a specific product (such as Omo detergent, bleach, Soap powder, etc and there is a need to make follow up, encourage advocate, and support others who cannot afford to adopt and the option which is affordable to reduce water contamination at transportation household level.

**How drinking water containers are cleaned**

- Wash them with a specific product (such as Omo detergent or bleach, soap powder etc.) - 51%
- Wash them with a piece of tissue/sponge - 7%
- Wash them by using rocks/sand and shaking - 37%
- Rinse them with water - 4%
- Other - 1%

*Figure 12*

**Water contamination in Households**

<table>
<thead>
<tr>
<th></th>
<th>Host Community</th>
<th>Zone 1</th>
<th>Zone 2</th>
<th>Zone 3</th>
<th>Zone 4</th>
<th>Zone 5</th>
<th>Total Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>observing the two-cup system</td>
<td>52%</td>
<td>42%</td>
<td>62%</td>
<td>67%</td>
<td>56%</td>
<td>48%</td>
<td>55%</td>
</tr>
<tr>
<td>did not observe the two-cup system</td>
<td>30%</td>
<td>18%</td>
<td>30%</td>
<td>27%</td>
<td>35%</td>
<td>40%</td>
<td>30%</td>
</tr>
<tr>
<td>water poured</td>
<td>16%</td>
<td>39%</td>
<td>7%</td>
<td>4%</td>
<td>6%</td>
<td>7%</td>
<td>13%</td>
</tr>
<tr>
<td>Unable to participate</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
<td>3%</td>
<td>5%</td>
<td>2%</td>
</tr>
</tbody>
</table>

*Figure 13*

Further findings from the research indicated that (55%) of HHs are observing the two-cup system which eliminates water contamination. (30%) did not observe the two-cup system while (13%) of...
respondents water poured (2%) were unable to participate in the observation as shown in figure 13 above this, therefore, implies there is a need to emphasize safe water chain management.

Water treatment

![Water treatment chart]

**Figure 14**

From figure 15 above, when the respondents were asked whether they treat their drinking water at household levels (13%) replied “Yes, always treat their water before drinking”, (and 17%) “Yes, always sometimes treat water before drinking” and (71%) of the respondents replied No, Don’t treat water before drinking this shows that the greatest number of the household do not treat their water before drinking this, therefore, calls for close water quality monitoring and safe water chain management to ensure water taken by the POcs is free from contamination thus reducing disease related to water born like acutewatery diarrhea, eye diseases, Typhoid among others.
HYGIENE
Presence of Soap

The findings indicated that the majority of households (75%) showed that they have soap with the Host community (91), zone 1 at 93%, zone 2 at 91%, zone 3 at 75%, zone 4 at 68%, and zone 5 at 82%. The percentage of households with access to a specific handwashing device stands at 51% (with zone 1 at 51%, zone 2 at 74%, zone 3 at 43%, zone 4 at 54%, and zone 5 at 31%). An average of 86% of households appreciated at least the three critical moments of when to wash hands as follows (Before eating 92%), after defecation at (91%), and before cooking/meal preparation (74%) as shown in figure 15 above.
From where did you get your soap

![Source of soap](image)

Figure 16

Notably, the survey revealed that most of the households (0.3%) received their soap from Non-Governmental Organizations. (59%) of the households purchased the soap, while 3.2% of the households received soap as a gift, 33.7% don’t have a source of soap, and equally, (3.8)% of the households traded household items for soap indicates that there is a drastic distribution of soap but though the community have to attain the lively status to make the self-reliant to supply such needs as evidence in trading of food ratio given to them and living without such basic human need which is inhuman especially with the highest proportion of zone 3 (48%) and (34%) zone 5 as shown in figure 16 above.
Reasons Households gave for not shaving soap

Further analysis revealed the reasons households gave for the absence of soap, that is, ran out of soap or used up (9%), unable to afford it (52%), soap is unavailable or cannot find it (18%), and any other reason (22%) this clearly shows the most POCs don’t have a reliable income and there are competing priorities for the little resource they have thus failing to afford soap which high rate (52%) as shown in figure 17 above.

Alternative HH has for washing hands in absence of soap

Important to note, 61% of the households use ash, 28% use water only, 9% use sand, 2% do not use anything and 2% of the households use any other means when there is no soap.
Critical Hand-Washing Moments

The majority (89%) of household members across all 5 zones and the surrounding host community identified the following 3 critical handwashing moments, before eating (92%), after defecation (91%), and before cooking or preparing a meal (74%). This survey revealed the most critical moment to wash hands is before eating among most household members (86%). The findings reveal it is not a popular practice among households to wash hands after handling a child’s stool (32%), before breastfeeding (28%), and before feeding children (36%) as shown in figure 20 above.

Specific Hand Washing Device/Station

Here, the survey assessed the presence of handwashing devices. The findings indicated that 68% of the households had a handwashing facility while the rest (32%) do not have a handwashing
device/station in their households across all the zones. From the observations carried out, the
survey also revealed that only 13% of the households do not have water in the handwashing
device but 87% of the households had water in the handwashing facility. Further, the findings as
observed, indicated that 75% of the households have soap/ash around the handwashing device
while 25% of the households do not have soap/ash in the handwashing device as shown in figure
21.

How house Holds Protect their food from Flies

From the observation, it is noted 81% of the households had their food covered and protected
from flies. This implies the household members are sensitive to diseases that may arise. 13% of
the households did not have food covered and protected from flies. 6% of the households were
observed because there was no visibility of food seen therefore the interviewer was able to know
if there is food covered and protected from flies as shown in figure 22 above.
SANITATION

Where Household Members Excluding Children under 5 Defecate

The survey results showed across all zones that the majority of households (74%) defecate in the household latrine. It is noted, 15% of the households defecate in communal latrines, and 2% practice open defecation, Others (2%) as shown in figure 23.

The findings also showed that most adult household members do not defecate in the open air especially at night (92%). The survey findings revealed that most household members (15%) usually defecate in a communal latrine, (9%) Defecate in a Bucket toilet and (2%) defecate in others, and (2%) practice open defecation.
The survey findings indicate across all zones that the below average of the households (41%) have children defecate in the household latrines. 23% of the households revealed that the children use plastic pots while 19% of the households showed that the children practice open defecation. The 1% of the households showed that children under 5 are taken to communal latrines while 1% use plastic bags and another 2% use other means and 13% don’t have children in the age range of 5 and below as shown in the figure above.
How children’s feces are handled.

The findings showed that across all zones the majority of households (71%) collected and disposed of the feces in latrines of children under 5 that don’t use latrines (zone 1 at 100%, zone 2 at 0%, zone 3 at 89%, zone 4 at 75% and zone 5 at 90%).

Adults that practice open defecation
The survey as the figure above revealed that most households (94%) of adult members do not defecate in the open air especially at night except for a few and they stand at 6%. The reason they cited include; no latrine available (40%), too dark at night (35%), the latrine being too far (20%), and any other reason (5%) for instance husband is sick (100%).

**Type of Facility Where Household Members Defecate**

<table>
<thead>
<tr>
<th>Type of Facility</th>
<th>Host Community</th>
<th>Zone 1</th>
<th>Zone 2</th>
<th>Zone 3</th>
<th>Zone 4</th>
<th>Zone 5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bucket toilet</td>
<td>78%</td>
<td>13%</td>
<td>15%</td>
<td>14%</td>
<td>19%</td>
<td>10%</td>
<td>78%</td>
</tr>
<tr>
<td>Communal latrine</td>
<td>74%</td>
<td>8%</td>
<td>8%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>74%</td>
</tr>
<tr>
<td>Household latrine</td>
<td>72%</td>
<td>7%</td>
<td>2%</td>
<td>15%</td>
<td>1%</td>
<td>2%</td>
<td>72%</td>
</tr>
<tr>
<td>Open defecation</td>
<td>75%</td>
<td>15%</td>
<td>7%</td>
<td>0%</td>
<td>5%</td>
<td>2%</td>
<td>75%</td>
</tr>
<tr>
<td>Other</td>
<td>76%</td>
<td>1%</td>
<td>2%</td>
<td>0%</td>
<td>7%</td>
<td>2%</td>
<td>76%</td>
</tr>
</tbody>
</table>

From the findings (Figure 27 above as well as figure 24), the majority of the households across all the zones (74%) have a shared facility used by many households. 15% of the households use communal latrines 9% Defecate in a Bucket toilet and (2%) defecate in another other and (2%) practice open defecation.

From the survey, 67% of the households revealed that the latrine provides adequate privacy for them and their household members but 33% of the households disagreed otherwise. The reasons they cited include infrastructure/door being poor/damaged (32%), other reasons (31%), lock missing/not working (12%), and being too close to the house (5%).

The main type of latrine used in most households (96%) is a pit latrine and with a VIP toilet at 4%. Most of the latrines in use by the households (97%) are made of the following: bricks (75%), wood (13%), metal (5%), plastic sheeting, and thatch/leaves all at 2%, and fabric (1%).
The survey shows that the majority of the households (74%) across all the zones have a designated shower or bathing facility. 26% of the households as observed during the survey have no designated bathing facility. This is an indicator that the household without designated showers or bathing facilities either bathe outside or share other household facilities and therefore exposing them to protection risks and there is a need for awareness creation to encourage each household to own designated shower or bathing facility as shown in figure 28 above.

<table>
<thead>
<tr>
<th>Presence of bathing facility in the household</th>
<th>Host Community</th>
<th>Zone 1</th>
<th>Zone 2</th>
<th>Zone 3</th>
<th>Zone 4</th>
<th>Zone 5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not have a designated bathing facility</td>
<td>24%</td>
<td>45%</td>
<td>34%</td>
<td>16%</td>
<td>16%</td>
<td>17%</td>
<td>26%</td>
</tr>
<tr>
<td>Have a designated shower/bathing facility</td>
<td>75%</td>
<td>55%</td>
<td>66%</td>
<td>83%</td>
<td>84%</td>
<td>83%</td>
<td>74%</td>
</tr>
</tbody>
</table>

*Figure 28*
Presence of vectors

Figure 29
The findings (figure 29) indicated that, across all zones, 67% of households reported observing the abnormal presence of mosquitoes, rodents (52%), cockroaches (38%), flies (29%), other vectors (3%), and 8% of households reported that they didn’t observe any vectors. This, therefore, implies that the community where the POCs are invested with mosquitoes (67) this an indication of a rise in the spread of malaria and other diseases spread by mosquitoes, rodents cockroaches and flies coupled to that there was an observation of busy household courtyards This, therefore, call for an intentional and intensify awareness creation on basic sanitation and hygiene,
SOLID WASTE MANAGEMENT

The survey findings (figure 30) indicated how households dispose of domestic waste. The results revealed that across all zones, most households (67%) have access to a waste disposal facility, the household pit. (2%) of the households burn waste. (12%) of the households have a designated open area and equally, (08) % of the households have an undesignated open area. (02%) of the households bury the waste or dispose of the waste in a communal pit,(3%) of the households dispose of their waste in the communal pit and 1% of the households have to dispose of their waste in the street bin container for garbage collection as shown in figure 30 below.

How domestic waste is handled at the HH level.

<table>
<thead>
<tr>
<th>Where households dispose domestic waste</th>
<th>Burn it</th>
<th>Communal pit</th>
<th>Household pit</th>
<th>Undesignated open area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host Community</td>
<td>65%</td>
<td>12%</td>
<td>76%</td>
<td>19%</td>
</tr>
<tr>
<td>Zone 1</td>
<td>19%</td>
<td>9%</td>
<td>72%</td>
<td>4%</td>
</tr>
<tr>
<td>Zone 2</td>
<td>5%</td>
<td>4%</td>
<td>59%</td>
<td>3%</td>
</tr>
<tr>
<td>Zone 3</td>
<td>4%</td>
<td>22%</td>
<td>57%</td>
<td>19%</td>
</tr>
<tr>
<td>Zone 4</td>
<td>8%</td>
<td>8%</td>
<td>68%</td>
<td>16%</td>
</tr>
<tr>
<td>Zone 5</td>
<td>3%</td>
<td>4%</td>
<td>67%</td>
<td>12%</td>
</tr>
<tr>
<td>Total</td>
<td>8%</td>
<td>1%</td>
<td>7%</td>
<td>12%</td>
</tr>
</tbody>
</table>

Figure 30

MESSAGING

Here, the survey analysis was intended to establish the best way for household members to receive hygiene and health messages. The findings (Figure 30) revealed that the majority of households across all zones (39%) prefer to receive health and hygiene messages through community meetings (39%), (33%)home visits by community health workers, radio (20%), focus group discussions (5%), and SMS (1%).
The survey (Figure 32) revealed across all zones that most households (33%) received a visit from a community health worker to discuss any health or hygiene messages, 33% of households indicated not receiving a visit and 1% of the households indicated not knowing of such arrangement.

The findings (Figure 32) also show 62% of many households attended a health or hygiene community meeting, 37% of the households did not attend and 1% of households expressed not knowing of the community meeting on health or hygiene promotion.

The notable challenge engrossed with messaging as per the survey revealed that the majority of households (44%) cannot read, 28% read with ease but 29% of households read with difficulty, therefore, recommending the best method of passing hygiene and sanitation to be.

The best alternative means to receive health and hygiene messages is a Community meeting (39%), Home Visits by Health workers (33%), where the POCs can express themselves get feedback and be able to ask questions and receive immediate answers, and Radio (16%), Focus Discussion Group(5%). Printed fliers (1%), Flyers (1%), and SMs(1%)
Best alternative means to receive health and hygiene messages

- SMS: 1%
- Radio: 16%
- Printed flyers: 1%
- Other: 1%
- Home visits from CHWs: 33%
- Focus Group Discussions: 5%
- Community meetings: 43%

Figure 33
Menstrual hygiene management

Materials used in the last menstrual period

From the survey findings in figure 30, while reproductive-age girls and women between the age of 12-48 were being interviewed on the preferred material used during the menstruation period, Most women and girls of reproductive age (59%) said they use disposable pads, followed by (10%) said the use Re-usable pads, while (13%) said they use Re-useable Cloth, (14%) said they use Cotton and (1%) layers of underwear and 1% nothing /bleed into clothes. 90% of the women interviewed recommended that kits should have to include Kitenge/clothes used to wrap around their waist during menstruation. This is to ensure that even if menstruation starts when they are not aware, they will not be worried about being embarrassed by leakage through their clothes. Most women expressed that this was the first time someone had talked to them about menstrual hygiene, and they were very grateful/happy with the education and information sessions provided. Many women did not know their basic anatomy and the reasons why they experience their monthly menstrual period and information gaps in knowledge have been exploited by men thus leading to an unwanted and unplanned pregnancy.

MHM materials used in the last menstrual period

<table>
<thead>
<tr>
<th>Material</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposable Pad</td>
<td>78%</td>
</tr>
<tr>
<td>Reusable Pad</td>
<td>12%</td>
</tr>
<tr>
<td>Reusable Cloth</td>
<td>6%</td>
</tr>
<tr>
<td>Tampon</td>
<td>0%</td>
</tr>
<tr>
<td>Cotton</td>
<td>3%</td>
</tr>
<tr>
<td>Menstrual cup</td>
<td>0%</td>
</tr>
<tr>
<td>Layer of underwear</td>
<td>1%</td>
</tr>
<tr>
<td>Nothing/bleed into clothes</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
</tr>
</tbody>
</table>

Figure 34
Where women in the households change menstrual hygiene products and Where women dispose of menstrual management products

According to the 2022 end-line survey figure, most women and girls of reproductive age reported that they change their menstrual hygiene products from the latrine 89% followed by 10% who said they change theirs from home and 1% reported that in other places. This, therefore, implicates that while constructing latrines there should be provision for the girls and women to have safe space to change their menstrual hygiene products as shown in figure 35 and 36.
Menstrual hygiene management products women used before coming to the refugee settlement

According to the 2022 end-line survey in figure 33 below, the most common Menstrual Hygiene management materials use before while interviewing the woman and girls of reproductive age they reported that (59%) were using disposable pads, (14%) reported that they were using cotton while (13%) reported that they were using re-usable clothe, (10%) reported that they were using a re-usable pad and (4%) were using a layer of underwear and (3%) reported they were using Nothing / Bleed into clothes, while the issue of women of reproductive age bleeding in the clothes seems to be negligible it’s a very critical issue which is very degrading and recommendation to restore the dignity for such women by availing them with sanitary pads, teaching them on how to make them bring a lasting solution to the girls and women of childbearing age.
MHM material before coming to the refugee settlement

- Disposable pad: 59%
- Reusable pad: 10%
- Reusable cloth: 13%
- Tampon: 0%
- Cotton: 14%
- Menstrual cup: 0%
- Layers of underwear: 4%
- Nothing/bleed into clothes: 2%
- Other: 1%
- Was not needed at the time: 0%
RECOMMENDATIONS FOR THE END LINE.

- Some support is still required for the water user committees. Most of the water users committee members are doing work on their own, especially for fencing areas around the water points.

- It is without a shed of doubt that the project has made a tremendous impact in eradicating open defecation amongst the persons of concern. However, there are still some zones that still need sensitization to end open defecation. They should be encouraged on the benefits of proper latrine usage.

- There is a need to consider viable options for financing communally owned tools to support Pump Mechanics by empowering more Mechanics so that each zone has its own fully functioning Hand pump mechanic.

- Provision of water storage containers so that each household can reserve enough water for domestic use.

- Whereas the stop of soap distribution to the PoCs is a great approach to a durable solution but there’s a great need for soap among the PoCs thus rendering a huge population without soap because they can’t afford yet it’s a basic essential human need thus posing them to dangers of germs and unhygienic conditions

- With the distribution of the Dome shaped slabs, households should be encouraged to come up with superstructures because of the slabs. In so doing the sanitation coverage will improve across Bidibidi.

- The need to motorize some hand pumps for the host community to forge a more peaceful co-existence.

- Model homes should always be rewarded to encourage others to emulate them.

- Trade fairs should be encouraged amongst the persons of concern so that trade initiatives are encouraged and hence competition.