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ACRONYMS

DTM – Displacement Tracking Matrix

WASH – Water, Sanitation and Hygiene

IOM – International Organization for Migration

NEMA – National Emergency Management Agency

SEMA – State Emergency Management Agency

GBV – Gender Based Violence

LGA – Local Government Areas

SAHEI – Sanitation and Hygiene Education Initiative

KAP – Knowledge, Attitude and Practice

SPSS – Statistical Package for Social Sciences

HH – Household

IDP – Internally Displaced Person
GENERAL BACKGROUND

Water, Sanitation and Hygiene (WASH) has been a paramount challenge in Borno prior to the emergence of the insurgency in 2009. The persistent increase in population of IDPs in Maiduguri metropolitan has been alarming for the fact that the city is the only relatively calmed place in the state due to the social unrest. According to IOM Displacement Tracking Matrix (DTM) Round XIII (December 2016) there are 1,770,444 individuals being displaced and 314,574 households with an average House hold size of 7.2. This figure is increasing with the degree at which insurgent’s activities is spreading. The Internally Displaced Persons (IDPs) in Maiduguri are mostly living in formal, informal camps and host communities. A significant number of humanitarian organizations and INGOs are working in the IDPs formal camps in collaboration with NEMA/SEMA to reduce the basic humanitarian needs gaps, while some others are operating in the host communities. But the number of IDPs staying in the informal camps, host communities and those trapped in remote areas of Borno is quiet alarming (75.66% of IDPs are living in host communities and 24.34% in informal camps according to IOM (Round VIII DTM).

There are significantly persistent demands in Water, Sanitation and Hygiene (WASH) that has created a wide range of gaps as there has been overcrowding due to high population density in the community mostly affected by the escalated armed conflict. The significant number of displaced persons in Borno state taking shelter in IDP Host communities and Informal camps has made access to safe drinking water very difficult. Overcrowding has also resulted to dilapidated sanitation facilities which result in increase of open defecation in the IDP host communities. As a result of open defecation, gender based violence (GBV) becomes a re-occurring case where most girls and women were raped and even lynched as a result of their vulnerability. Humanitarian access in major LGAs of Borno state is still a big problem and there has been an increase in mortality rate of women and children due to lack of access to safe drinking water, sanitation facilities and poor hygiene. Recently the Nigerian government calls for humanitarian intervention in hard to reach communities of Borno State as concerns were raised on the daily increased mortality rate as a direct result of lack of access to safe drinking water, sanitation facilities and health services.

As a result of over population in IDPs host communities with limited water infrastructures and sanitation facilities the government has been strained with limited options to cope with waste management. Furthermore the open defecation occurs in host communities and the lack of the waste management are both sources of contamination to the ground water at the level of the first aquifer and the river. Unfortunately many IDPs are forced to rely on the water source from the river and some of the borehole with poor equipment and pumping water from the first aquifer.
Formal, informal camps and host communities stand at the risk of the outbreak WASH related diseases due to lack of access to safe drinking water and poor sanitation and hygiene practices especially during the raining season.

It is in light of these gaps that ZOA received funds from EO Metterdaad to implement WASH program in Old Maiduguri, Jere LGA, Borno State. Sanitation and Hygiene Education Initiative (SAHEI) organization was engaged by ZOA to conduct hygiene promotion in Shuwari 2, 6 & 8 having established a baseline at the entry phase of the project in order to ascertain the knowledge, attitude and practices of the target informal camps and host communities that will be used to gauge the impact of the project during the final assessment.

SURVEY OBJECTIVES

This KAP survey provides benchmark values for indicators of ZOA WASH projects and will be used as a tool to inform future program planning, as well as, to measure the progress of current programming in the operational areas in Old Maiduguri. To achieve the survey objectives, this report addresses key questions regarding the benchmark values for indicators of WASH projects, with collected data providing baseline, mid-line and end-line values depending on the specific project. Due to the high volume of data collected, this report focuses on identifying the risks associated with practices pertaining to water, sanitation and hygiene knowledge at the Shuwari 2, 6 & 8 level of Old Maiduguri Ward of Jere LGA.

METHODOLOGY

The survey population for the KAP survey consists of the affected population, children, women and men, residing in Shuwari 2, 6 & 8 of Old Maiduguri Ward where ZOA through SAHEI is currently operational in hygiene promotion and has ambitions to begin operations in latrine construction as part of our WASH programming. The target population considered for this survey was 1300 households, with a sample size of 105 households. The sampling method used was simple random sampling to select the locations and households for participation in the survey.

SURVEY AREA

The survey area consists of operational areas for WASH programming for ZOA International which are (at present) Shuwari 2, 6 & 8 of Old Maiduguri ward, Jere LGA, Borno state.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Ward</th>
<th>Community</th>
<th>Sample Size</th>
<th>GPS Coordinates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Old Maiduguri</td>
<td>Shuwari 2</td>
<td>35</td>
<td>11.88112, 13.17383</td>
</tr>
<tr>
<td>2</td>
<td>Old Maiduguri</td>
<td>Shuwari 6</td>
<td>35</td>
<td>11.88121, 13.17511</td>
</tr>
</tbody>
</table>
SAMPLING DESIGN

The sample unit was determined to be households. A sample size of 104 households was calculated based on the target survey population of 1300 households in the selected Shuwari 2, 6 & 8. The sample size was calculated using Survey System calculator. Sample size for each cluster was determined independently using a 90% confidence level, 9.5 confidence interval and 5% margin of error. A total sample size of 105 households was calculated and the sampling method employed was simple random sampling to select the locations and households for participation in the survey.

ETHICS AND CONSENT PROCEDURES

The purpose of the KAP survey was shared with the respondents and agreement to participate was sought prior to the interview using oral ‘informed consent’ as outlined on the online, structured questionnaire. Confidentiality was also discussed and confirmed with respondents prior to the interview. Coding based on shelter number, when applicable and GPS coordinates was used to further ensure confidentiality of respondents.

QUALITY CONTROL

Data checking and validation for completeness and consistency was carried out on a daily basis through ensuring all responses were correctly filled in the paper questionnaire and no space was left blank. Data that were deemed inconsistent were highlighted and shared with the relevant coordination team at the field location for rectification and cleaning. The main inconsistency that commonly occurred was basically the respondent details as well as the total number of households in comparison to the disaggregated data by sex and age. However, quality control was ensured on a daily basis, with corrections being carried out on a real-time basis within the first 24 hours of data collection.

DATA MANAGEMENT AND ANALYSIS PLAN

All quantitative data were analysed using Excel and verified using Statistical Package for Social Sciences (SPSS). Based on the raw data, a master database was developed and data cleaning was carried out. A quantitative data framework was set up in Excel for all validated data. A series of frequencies, count and other statistical methods were employed in the analysis of the data.

LIMITATIONS AND CHALLENGES
The limitations and challenges during the process of conducting the KAP survey were minimal, particularly, considering the fact that there has been consistent influx of IDPs in Shuwari 8 & 6 which the population size may varies as at the time of the data collection. The main challenge faced was the discrepancy cited regarding the inconsistency between the total number of households in comparison to the disaggregated data by sex and age. However, as highlighted, quality control was conducted on a daily basis; thus, this was rectified in real-time within the first 24 hours of data collection.

As previously cited, due to the high volume of data collected as captured in the questionnaire, this report focuses on identifying the risks associated with practices around water, sanitation and hygiene knowledge at the community level for the IDP locations sampled in Shuwari 2, 6 & 8 respectively.

**DISCUSSION ON RESULT**

Who usually collect water for the family?

![Bar chart showing who usually collect water for the family: Adult Women 43%, Girls 31%, Boys 20%, Adult Men 11%, Being delivered to us 0%, Others 0%]

Adult women predominantly collect the water for the everyday use in the household. In 105 households interviewed, 41% responded adult women fetch the water for the household and 30% says girls also as well do the collection. Only 29% of the respondent says male children sometimes fetch the water. In average 71% of water collection is done by females.

How many minutes do you spend in collecting water from source?
23% of the total respondents spend 15-30 minutes to get water from the water point. 18% spend 30-60 minutes and 36% more than one hour to fetch the water. Only 23% spend less than 15 minutes. Spending high time on queuing is indicating that inadequate water points or inadequate yield of the water points serve the population. It can cause the lack of water intake per capita and contributes to the burden of work for women.

Water storage

Buckets are the predominant containers used for collection and transportation of drinking water. About 63% of the total respondents use buckets and only 37% use jerry cans.
51% of the respondent use buckets for storage of drinking water. Meanwhile 49% use jerry cans, bottle, drum barrel and clay pots. It was observed during the survey that these are often without lids. The use of open buckets and pots without a lid is a poor practice simply because water can easily get contaminated. Additionally, dipping method of fetching water from the storage container is a predominant practice among the population, which can also lead to contamination.

**Latrine**

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Only 9% of the sampled HH respondents owned a latrine while 91% are without latrine, this situation is however a key contributing factor to the predominantly indiscriminate open defecation practice within the host communities which is posing a threat to the public health.

85% of the sampled household respondents do practice open defecation which suggests that open defecation is a predominant practice according to the findings, 13% dig a hole and only 2% use public and neighbour’s latrines. 85% practice open defecation in open bush which will contributes to the high occurrence of diarrheal and other water-borne diseases which is a threat to public health.

Handwashing
About half of the respondents do not have a good hand washing practice during key times. 68% said they wash their hands during one of the three (3) critical times; 23% after defecation, 0% before preparing food and 45% before eating food. It is important to note that most of the respondents do not have a good hand washing practice after defecation, arguably the most important time to wash ones hands to prevent spread of diarrhoea and other diseases.

Most of the respondents do not use soap or ash when washing their hands: 67% of the total household respondents interviewed wash their hands with water only; washing hands only with water alone is not enough to stop the transmission of diarrhoea and other diseases. However, 13% indicated that they wash their hands with clean water and soap.

**Hygiene Message**
73% of the sampled household respondents have not heard any health/hygiene messages for the past three (3) months which suggests gap in safe hygiene practices among the populace. This situation is posing a threat of faeco-oral infection among the vulnerable population.

RECOMMENDATIONS

Water

1. Additionally, the regular cleaning of water storage containers and the promotion of a lid to minimize opportunities to contaminate drinking water should be part of a water hygiene program.
2. A mid-term evaluation should determine the reliability of water at recently constructed water points, their proper maintenance, the effectiveness of the water point committees in collecting funds to purchase spare parts for the maintenance and repair of pumps, and the community's compliance with the rules established by the committee.

Sanitation

1. During a mid-term evaluation, people's use of latrine and hand-washing systems should be assessed. Because majority of the people have no access to latrine at the time of this survey, it was impossible to determine latrine behaviours. It will be especially important to learn about behaviours of young children, the disposal of their excreta, and if they are being trained to use latrines.
Hygiene

1. Appropriate times must be designed for women for hygiene sessions. It has been seen women are everyday being overburdened with domestic work and hence do not have time to attend hygiene sessions yet they are expected to be the role models on good hygiene/sanitation practices at the household level.

2. Many people reported washing their hands before eating or preparing food. Relatively few, however, reported washing hands after "using the latrine". Therefore, it is recommended to encourage people to build an easy appropriate technology hand-washing system at the same time that they build a latrine.

3. The communities also need to be encouraged on other hygiene practices such as having rubbish pit, bathing shelters, drying racks and clothing lines.

4. Additionally, proper hand-washing techniques should be encouraged. Pouring water over the hands rather than dipping should be taught to avoid contamination of the water. Vigorous rubbing and cleaning between the fingers where germs are likely to accumulate should be taught. Education on hand-washing should include messages on both when and how to wash hands.

5. There is need for intensive campaign on hygiene/sanitation to strongly discourage open defecation which is a predominant practice among the population targeted.

6. Proper rubbish disposal should be encouraged as part of hygiene education campaign. For example, avoiding leaving empty tins, bottles, and broken pottery around the house where mosquitoes can breed, and metal and glass that can cut children should be part of the campaign.

General

1. If potable water and sanitation activities are executed in an area, they should be fully integrated so that the people understand the links between unprotected water sources, diarrheal disease (as well as other water-related diseases such as bilharzia), latrine use in the interruption of the faecal-route of disease transmission, and importance of hand-washing.

2. WASH and nutrition activities should strengthen health and hygiene/sanitation campaigns in the communities targeted. The hygiene promoters should work together to intensive mobilize and create awareness among the targeted population.

DISSEMINATION

The report will be disseminated to other WASH partners with operational presence in Old Maiduguri particularly within Shuwari 2, 6 & 8 being the target host communities where the KAP survey was conducted and relevant stakeholders in the Borno state upon request, with a copy to be annexed in any upcoming donor reporting as reference in the development of future programme proposal. Further documentation and briefing sheets will be developed following qualitative data collection for specific locations i.e. camp and non-camp settings for ZOA locations.
CONCLUSION

This KAP survey report provides the basis for understanding coverage, access and usage of water and sanitation facilities and how to best address any identified ‘risky’ hygiene practices that could adversely affect the public health of the affected population at the locations sampled, while at the same time measure the progress of ZOA WASH programme through the use of a continuous monitoring system to assess needs into the future.