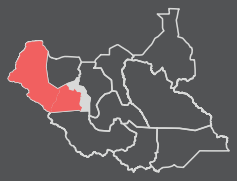

Raja County Water, Sanitation and Hygiene Brief

Western Bahr el-Ghazal State, South Sudan, November 2017

Background

Since 2016, insecurity and the presence of armed actors has impacted Raja County, Western Bahr el Ghazal. Fighting between armed actors in June 2016 in Raja Town and surrounding areas triggered displacement, damaged agricultural activities, weakened trade routes and left behind vulnerable populations.[1] Since then access to the area has been limited. Following reports of high levels of malnutrition, a World Food Program (WFP) multi-sectoral Rapid Response Mission took place between 6-10 November 2017, in Timsaha, Boro Medina, Raja Town and Akwiyo, Western Bahr el Ghazal. This mission was conducted to assess the information gaps related to insecurity, displacement, access to services, food consumption (both quality and quantity), and the Water, Sanitation and Hygiene (WASH) conditions to help understand the scale and severity of food insecurity reported. REACH participated in the assessment mission to assess the WASH conditions. The majority of the findings documented in this Brief are based on six Key Informant (KI) interviews, structured observations that followed a defined set of WASH questions, one Focus Group Discussion (FGD), one Group Interview (GI), interactions with community members and general observation of the areas made by foot, car and helicopter. Secondary information from WASH partners operating in the area has been used to supplement this brief.

Table 1: Overview of findings

	Akwiyo	Timsaha	Boro Medina	Raja Town
WASH partner present	No	No	No	Yes
Perennial surface water	Yes	No	Yes	No
Number of potable Water Points (WPs)	0	17	7	28
Improved WP yields to decrease	N/A	Yes	Yes	Yes
Fencing around WPs	No	No	No	Yes
Water treated at household level or point of use	No	No	No	No
Unsanitary jerry cans used	Yes	Yes	Yes	Yes
Place of defecation	Open	Open	Open	Latrine
Soap used/ available	No	No	No	Yes
Vector breeding sites present	Yes	Yes	Yes	Yes
Diarrhoea common problem	Yes	Yes	Yes	Yes
Solid waste management	Throw away	Throw away/ burn	Throw away	Burn/throw away

Map 1: Locations assessed

Key Findings

- Akwiyo had the greatest WASH needs of all sites visited, with no access to improved water sources, latrines and WASH NFIs.
- Water yields from improved water points may decrease, with Timsaha likely to face water shortages that would lead people to dig unimproved water sources to collect water.
- Insufficient access to WASH Non Food Items (NFIs) was reported or observed in all assessed locations. This indicated that water collected from improved sources is not hygienically stored and could lead to water-borne diseases.
- Open defecation was the most common practice in Akwiyo, Timsaha and Boro Medina.
- Soap was not commonly available in Akwiyo, Timsaha and Boro Medina.
- An insufficient presence of hygiene practices was reported in all assessed areas.

Results

Akwiyo

Akwiyo had the greatest WASH needs of all assessed locations, with no access to potable water, latrines or soap. The only available water sources are surface water: stagnant open pools and the river. No WASH partner was operational in the area.

To **access water** residents were completely dependent on surface water. Water was collected from stagnant pools, which GI participants reported will likely cease to contain water in the dry season, and from the river. Water in the two pools observed was partially covered by red and green algae, which when brushed aside, revealed brown water. These stagnant pools were observed to be **vector breeding sites,** which can place the community at risk of vector-

borne diseases including malaria. The presence of malaria within the community was referenced by the demonstration of a traditional cure for malaria (a mix of wild leaves and roots) during a GI. Observed water storage devices were damaged 20 L jerry cans, cut in half and with holes, as well as buckets, meaning that water collected is not stored in a sanitary fashion.

Open defecation appeared to be the most prevalent practice and no latrines were identified. The forest surrounding the settlement is likely where populations practice open defecation, which may cause faecal contamination of the water sources. Poor sanitation, combined with the lack of access to potable water, increases the likelihood of water-borne diseases. Poor sanitation is exacerbated by an inability to wash hands with soap. During a GI, participants reported that there are no accessible markets, thus soap is not available.

Formal **solid waste management** practices were not in place. A small amount of waste was observed on the ground.

Timsaha

Timsaha appeared to have the lowest access to water. There was no access to a perennial water source and functional borehole yields are predicted to cease as the dry season progresses. Open defecation was the most common practice and no access to soap, combined with no WASH partner operating in the area, have led to poor sanitation and hygiene practices.

HHs in Timsaha **access water** through 33 boreholes, with local authorities estimating that 17 are functional (16 non-functional). Eight hand pumps were observed: four were functional and three of these four provided clear water. This indicated that, as of the start of November, basic water sources were available for those living in Timsaha. KIs indicated that by January boreholes will no longer produce water and remain unused until around May. KIs reported the presence of individuals trained within the community capable of repairing boreholes, however, a lack of spare parts and tools was reported as the key challenge for borehole management and maintenance. No observed borehole was protected by any kind of fence or bush. Despite the limited number of livestock spotted, the lack of fencing meant that animals were able to access WPs and animal faeces were found close to three of the four functional boreholes. In addition to inadequate fencing, a lack of adequate drainage and evidence of **vector breeding sites** was found at all functional boreholes and confirmed during KI interviews. The presence of vector breeding sites places the settlement at risk of vector-borne diseases.

Figure 1: Functionality of observed boreholes in Timsaha

KIs reported that as water levels decrease and it takes longer to pump, queues will grow and longer periods of time will be spent collecting water. Once water can no longer be accessed from boreholes, KIs reported that residents will turn to unimproved water sources, digging wells that are between three to five meters deep. The third type of water source in Timsaha is a dam found roughly half a day's walk from the observed area. This dam is also used to give animals water. KIs reported that water from all water sources is not treated. Additionally, 20 L jerry cans were the most commonly used water storage devices. Jerry cans were predominantly broken, either cut in half or with holes, and lids mostly missing, meaning that despite water being collected from improved sources, it can not be stored in a sanitary fashion.

The majority of the population has **no access to latrine**. Two unimproved pit latrines were observed (at the governor's office and the hospital), with neither demonstrating signs of use. KIs indicated that a small proportion of the community who do not practice open defecation dig three to four meter holes which are later covered in soil. Lacking tools and latrine slabs were reported to be the key sanitation concern by a KI. KIs reported open defecation is the most prevalent practice and that it takes place in the surrounding forest.

Hygiene practices are poor. KIs reported that soap is not used when washing, as soap is not commonly available. A lack of access to soap, combined with open defecation, increases the likelihood of water-borne diseases. Diarrhoea, potentially the result of the lack of access to soap and unsanitary defecation practices, affected the community throughout the year, with KIs reporting that case numbers rose during the rainy season.

Formal **solid waste management** practices were not in place. KIs reported that the most common practice was to throw waste away, followed by burning.

Boro Medina

Of the four areas visited, Boro Medina had the second-best access to improved water sources. This is due to the high number of functional boreholes, combined with a decreased population. Open defecation was the most common practice and no access to soap, combined with no WASH partner operating in the area, has led to poor sanitation and hygiene practices. Those most at risk of suffering from insufficient WASH services are the vulnerable group of elderly, disabled and children who depend on others to provide them with water.

HHs in Boro Medina **accessed water** from improved and surface water sources: boreholes and the river. Local authorities reported the existence of 13 boreholes with hand pumps, with 4 categorised as suitable for human consumption by local technicians. Of the nine boreholes with hand pumps observed, seven were reported as functional with four providing clear water. Local authorities informed that water yields for some boreholes will decrease or cease during the dry season. A female KI narrowed the number of functional boreholes down to three that were used for human consumption, with two of the three likely to dry up during the dry season. KIs stated that time spent waiting at boreholes is at most five minutes, and that the total amount

Figure 2: Functionality of observed boreholes in Boro Medina

of time spent collecting water is up to 20 minutes meaning that they had access to an improved water source. While five individuals were reported to have received training to repair and restore WPs, a lack of spare parts and tools were the main challenges reported by KIs for borehole management. No observed borehole was protected by any kind of fence or bush, meaning that the surrounding area had a greater chance of becoming contaminated.

Although drainage points were dry when observed, **vector breeding sites** were found at eight of the nine boreholes and were confirmed by KIs. KIs reported that there was a common awareness within the community about the connection between vector breeding sites and vector-borne diseases (malaria).

The secondary water source type for Boro Medina is a river located roughly 10 to 15 minute walk from the Governor's office. KIs reported that the river is the main water source for those living nearby. KIs reported that as hand pumps that produce locally trusted water dry up around January, more people will start collecting water from the river.

According to KIs no water treatment methods took place for water collected from boreholes or the river. KI interviews and observations indicated that 20 L jerry cans are the most commonly used storage devices, followed by three to five L containers. Jerry cans observed were predominantly broken, either cut in half or with holes, and lids were mostly absent. This leaves households (HHs) unable to store water using sanitary containers which can lead to water-borne diseases. KIs confirmed that some HHs attempted to repair broken jerry cans or seal holes with plastic sheets.

There is **no access to latrines** for the majority of the population. Pit latrines with brick walls were observed in three permanent dwellings, but these dwellings appeared to be abandoned. These latrines were without doors and there was no evidence that they had recently been used. Latrines observed were less than five meters from the dwelling's main building, but more than 50m from boreholes. Open defecation was reported as the most prevalent practice and took place in the shrubland surrounding homesteads. Fences were present around the majority of dwellings observed, which may have limited livestock access to the dwellings. No livestock or animal dung was observed in or near houses.

Hygiene practices were poor. KIs reported that soap was not used when washing as soap is not commonly available. A traditional form of soap was created from boiled fruit peels. When this alternative is not used by HHs, people reportedly rinse hands and clothing with water. Diarrhoea has affected the community throughout the year, and case numbers rose during the rainy season, potentially due to open defecation practices and poor hygiene practices.

Formal solid waste management practices were not in place. KIs reported that people throw waste away.

Raja Town

Of all four areas visited, Raja Town was the least in need of WASH support. Raja town is serviced by a WASH partner, Solidarites, and has numerous WPs. The majority of the population reportedly use latrines and the importance of washing with soap was referenced by host community members living in Raja Town. The primary WASH related needs were WASH NFIs, however, a WASH NFI distribution is reportedly planned.

Figure 3: Functionality of boreholes in Raja Town

Water was accessible from boreholes and water yards. Of the 37 boreholes assessed by Solidarites, 26 were functional and 23 used for human consumption. There were also two functional water yards.[2] Local authorities and KIs indicated that water yields for some boreholes will likely decrease or cease during the dry season and when this occurs residents will have to walk further to collect water from other boreholes. There was a group of displaced, elderly and vulnerable peoples who are unable to collect water and rely on neighbours who deliver them between 5 to 10 L of water every second day. The primary challenge for borehole management reported by a KI is access to spare parts and tools. In addition to WASH partner Solidarites, there were four trained water technicians in Raja Town. A river to the north of Raja Town ceases to flow roughly around December until around the start of the rainy season. Water is stored in jerry cans and as in other assessed areas, the majority of jerry cans were damaged and without lids, meaning that despite access to improved water sources water is not stored in a sanitary fashion. An inability to store water using sanitary containers can lead to water-borne diseases.

Latrines are used by 90% of the population, as reported in a baseline conducted by Solidarites. Latrine provision has been classified as a limited service, as KIs reported that those without private latrines use neighbour's latrines. KIs reported that when digging latrines, HHs aimed for the depth to be between 4 to 10 meters. KIs reported a preference for deeper latrines, so that they do not have to frequently dig a new one, and to minimise the smell. Household latrines are covered with six thick sticks that create a grid as latrine slabs. A KI reported that fencing is created from sticks and grass and also said that 75% of the doors are iron sheets. Communal latrines were found at the school and government offices, but not in the market.

Hygiene practices in Raja Town, prior to insecurity in mid 2017, were promoted by five trained hygiene workers (female and male), but all have since been displaced. Soap was reported as available in the market for 60 South Sudanese Pounds. All KIs indicated that the common hygiene practice is to wash hands with soap before eating and preparing food, as well as after using the latrines. They also reported that vulnerable groups and those based outside of Raja Town are more likely to not wash hands with soap, due to a lack of access and awareness. The continued presence of diarrhoea throughout the year was attributed to the consumption of wild foods.

Formal solid waste management practices are not in place. The most common practice is to throw waste away, followed by burning.

Endnotes

1. OCHA. South Sudan Humanitarian Bulletin. June 2016.
2. Solidarites. Raja Town Pump Assessment. November 2017.