

WASH NEEDS AND KEY PRIORITIES

Rohingya population in Cox's Bazar

About this report

This report provides an in-depth analysis of the WASH conditions and needs in the Rohingya camps in Cox's Bazar. It presents the WASH Severity Index, which classifies the Rohingya population at camp-level into five groups by level of need:



These severity scores were calculated for **water, sanitation, and hygiene** as well as an overall **WASH index**.

Need is calculated using a **combination of indicators** from the REACH-UNICEF WASH Household Assessment – Monsoon Follow-up. The Index thus helps to understand where the severity of WASH needs is the highest. The severity index is calculated on the current level of response. There is no “no severity” category as all Rohingya refugees are dependent on aid.

In this report, findings from the REACH-UNICEF survey are contrasted with data from the Needs and Population Monitoring (NPM) survey. A **secondary data analysis, interviews with WASH experts, and field visits** complement the results.

Key results of the WASH Severity Index

Water



+27,600 refugees

are in **very high need of water** (3.2% of the overall Rohingya population)

+299,000 refugees

are in **high need of water** (34.5% of the overall Rohingya population)

Sanitation



+6,300 refugees

are in **very high need of sanitation** (0.7% of the overall Rohingya population)

+37,200 refugees

are in **high need of sanitation** (4.3% of the overall Rohingya population)

Hygiene



+1,400 refugees

are in **very high need of hygiene** (0.2% of the overall Rohingya population).

+17,400 refugees

are in **high need of hygiene** (2% of the overall Rohingya population).

How is the WASH severity index calculated?

Water

5 indicators were used to calculate severity of water needs, such as % of households using unimproved water sources, % of households not treating water, and the % of households consuming less than 15 litres per person per day.

Sanitation

7 indicators were used to calculate the severity of sanitation needs, such as the % of households without latrine access in less than 20 minutes, % of households reporting latrine access problems for women and men, and % of households reporting at least one member feeling unsafe when using a latrine.

Hygiene

10 indicators were used to calculate the severity of hygiene needs, such as % of households unable to identify three critical handwashing times, % of households reporting problems for men and women when accessing bathing facilities, and % of households that never received hygiene kits.

[For a full list of all indicators, please refer to the annex.](#)

Table of content

Key priorities for the WASH response.....	3
Water.....	4
Sanitation.....	7
Hygiene.....	10
WASH facilities in Rakhine pre-displacement.....	14
Consultation with affected population.....	14
Information gaps and needs.....	15
Methodology.....	15
Spotlight: Camp 1W.....	16
Spotlight: Camp 8E	17
Annex	18

Methodology of WASH Severity Index

The WASH severity index is developed based on the data from the REACH-UNICEF WASH Household Assessment – Monsoon Follow-up. This can be used to understand where the most severe needs exist within sub-sectors (water, sanitation, and hygiene) across camps, to inform humanitarian programming that is responsive to the areas of highest need. This severity index used the Betti Verma method,¹ based on 22 indicators across the three domains of water, sanitation, and hygiene. Indicators were selected based on their level of correlation, ensuring that indicators reflected coinciding problems. The stronger the relationship between indicators, the less weight the individual indicator points should have, to prevent double counting of severity.

A five-point severity scale was used to plot the frequency of the overall WASH index, as well as the three sub-indices that it is comprised of (water, sanitation, and hygiene sub-indices). The five levels of need were categorized as: **1. Very low severity, 2. Low severity, 3. Moderate severity, 4. High severity, and 5. Very high severity.**

The index was calculated at the household level before being categorized by severity of need. Based on this system, the number of individuals falling into each category was estimated for each camp. The assessment sampling reference population with camp-level sampling weight was used to calculate the estimated population in need for each of the five severity levels.

Importantly, as all the Rohingya population in the ISCG camps rely on humanitarian assistance, the severity of need displayed in the WASH Severity Index represents the degree of current need, considering assistance is currently being provided. “Very low severity of need” at a camp level does not reflect an absence of need for humanitarian assistance – rather it means that needs according to this measurement are largely covered in this camp, which has reduced the severity of current need.

The severity index has not been validated by the Cox’s Bazar WASH Sector or the Global WASH Cluster. It is presented here as a pilot approach to inform future discussions on how severity ranking methodologies could be developed and included in future WASH Sector assessment and analysis processes.

Click [here](#) **for REACH’s report on the assessment, including presentation of the assessment methodology and analysis of the key findings.**

¹ For more information on Betti Verma method and severity ranking, see the following resources: Severity measures in humanitarian need assessments (ACAPS 2016); Composite measures of local disaster impact - Lessons from Typhoon Yolanda, Philippines (ACAPS 2014); Stata Module for Multiple Deprivation (Alperin/van Kerm 2009).

Key priorities for the WASH response

Key priorities for the WASH response are to ensure that a sufficient number of functioning water points, latrines, and bathing facilities are available in the camps. Beyond these, the WASH analysis further identifies the following priorities:

Protection

During water collection and the use of latrines and bathing facilities, Rohingya refugees are exposed to safety and protection concerns. For water collection, this particularly affects women and girls, who are usually tasked with collecting water for their families. Women report being harassed by men during water collection. The use of latrines and bathing spaces is associated with safety concerns as well, particularly for women and children. Factors influencing a sense of insecurity include lack of gender separation, lack of security at night, and facilities being in unsafe locations. In dialogue with affected Rohingya refugees, humanitarian response actors should work on solutions to improve people's sense of security around WASH facilities.

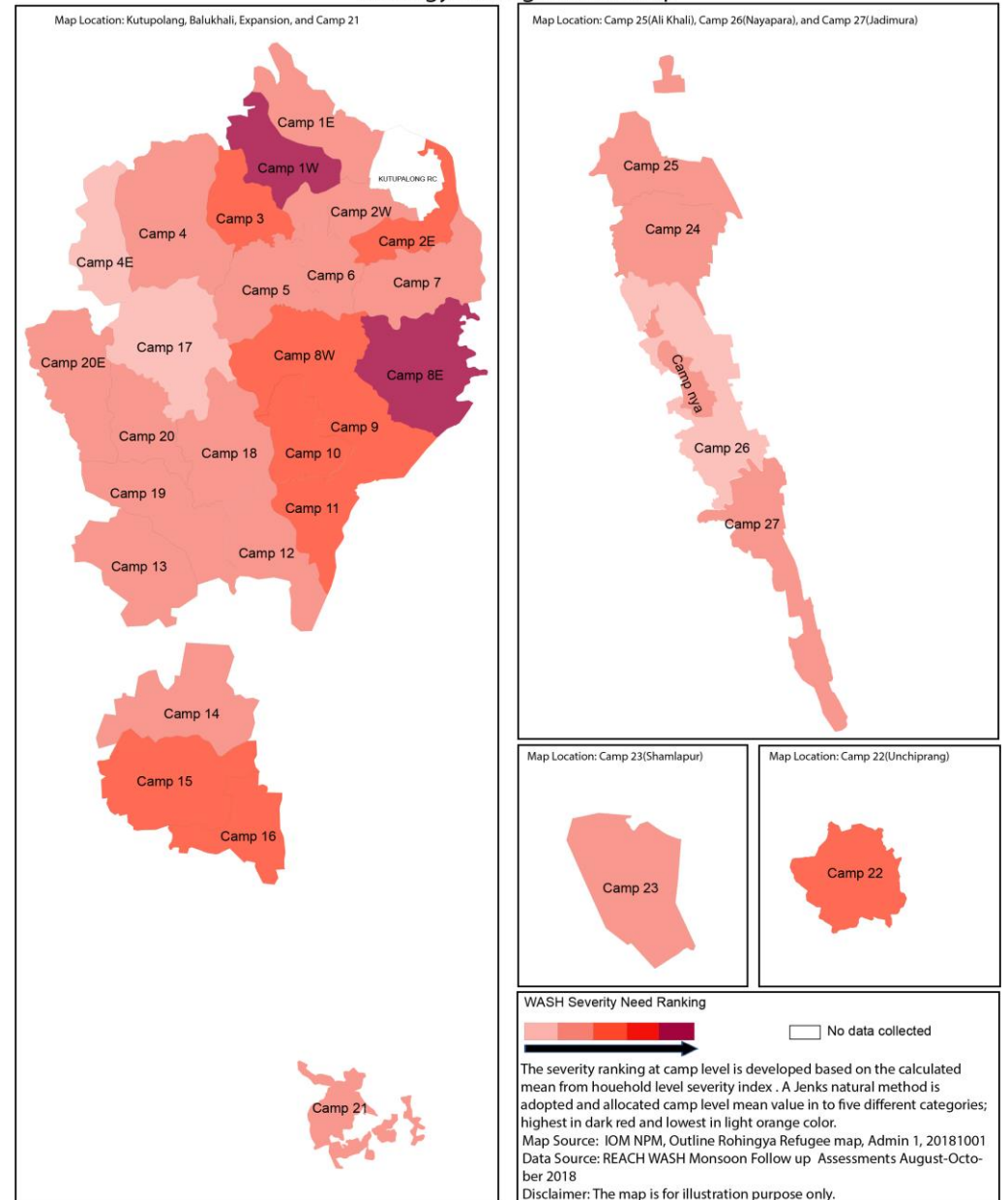
Improve access

Rohingya refugees face a variety of problems when accessing water points, latrines, and bathing facilities. This shows that even if Sphere standards are met in terms of the number of WASH facilities, access to them is not guaranteed. For water points, access issues include waiting times, distance to water points, and water points not functioning. For latrines and bathing facilities, they include lack of lighting, lack of gender separation, and facilities not functioning. Access is a concern particularly for people with disabilities.

WASH education

Findings from the analysis show a high need for WASH education. Results of water testing shows that much of the water used in the camps is safe at source-level and that contamination occurs during water collection, transport, and usage at household-level. This highlights the need for increased education and sensitization around safe water usage. Data on handwashing practices shows that while a majority of refugees recognize the need to wash their hands before eating and after defecating, this does not extend to childcare, such as feeding children or handling children's faeces. This highlights the need to understand cultural practices in order to better refine and target increased handwashing education, which can be informed by research.

Overall WASH Need Severity Ranking Rohingya Refugee Sites Map



Water

Camp Name	Camp population	Very low severity of needs		Low severity of needs		Moderate severity of needs		High severity of need		Very high severity of need	
Camp 8E	33036	0.0%	0	52.9%	17490	18.6%	6154	19.6%	6478	8.8%	2915
Camp 15	49298	0.9%	421	53.8%	26545	14.5%	7163	25.6%	12641	5.1%	2528
Camp 10	33225	3.9%	1308	47.2%	15697	15.0%	4971	26.8%	8895	7.1%	2355
Camp 1W	40648	0.9%	347	41.9%	17024	17.1%	6948	35.0%	14244	5.1%	2085
Camp 3	39257	0.0%	0	34.5%	13537	24.1%	9476	36.2%	14214	5.2%	2031
Camp 22	22288	4.3%	948	37.2%	8299	24.5%	5453	26.6%	5928	7.4%	1660
Nayapara	26915	7.1%	1923	42.9%	11535	13.3%	3570	30.6%	8239	6.1%	1648
Camp 7	38648	3.5%	1368	38.9%	15049	11.5%	4446	42.5%	16417	3.5%	1368
Camp 27	13005	3.1%	402	33.0%	4290	17.5%	2279	36.1%	4693	10.3%	1341
Camp 24	33731	11.5%	3865	27.1%	9135	21.9%	7379	36.5%	12298	3.1%	1054
Camp 26	42829	6.2%	2649	49.5%	21194	16.5%	7065	25.8%	11038	2.1%	883
Camp 21	12249	9.6%	1172	40.0%	4900	20.9%	2556	22.6%	2769	7.0%	852

Table 1: Water severity index. Displayed are the percentage of the camp's population and the total number of people per camp for each of the five categories of need. Bar length indicates the percentage of the camp population within each category.

Table 1 shows the camps with the highest number of people with **very high** water needs. For space reasons, only 12 camps are displayed. The full list of camps is available in the annex.

In Camp 8E, 2,915 people have very high water needs, which amounts to almost 9% of the camp population. Camp 9 has the highest number of people with high water needs (over 18,000 people, accounting for over 50% of the camp's population), but no one with very high water needs. The water severity index consists of 5 indicators. Among others, they include the % of households using unimproved water sources, % of households not treating water, and the % of households consuming less than 15 litres per person per day.

As of October, there were over 5,700 tube wells in the camps, which meets the standard of one tube well per 250 people overall. However, camp-level data shows differences between camps. While some camps had more than double the number of tube wells required to meet the 1:250 standard, other camps had very few tube wells. The highest gaps were in camps in Teknaf, where there are well documented water scarcities and in some instances water must be trucked. In Ukhia most camps met the standard. A notable exception is Camp 2E in Ukhia, which had a 55% tube well gap (WASH Sector 21/10/2018).

Water access

According to Needs and Population Monitoring (NPM) data, water access problems affected fewer people in September than in July; however, the percentage of the population facing challenges in accessing water remained high. In the REACH household survey, undertaken between August and October, 38% of households stated that they faced problems collecting water.

Main water access issues:

- **Long waiting times** (affecting 57% of refugees according to NPM, and 21% of households according to REACH)
- **Distance to water points** (affecting 41% of refugees according to NPM, and 23% of households according to REACH)
- **Water points not functioning** (affecting 35% of refugees according to NPM)
- **Difficult terrain on the way to water points** (affecting 20% of households according to REACH)

Sources: REACH 11/2018; NPM Round 12.

These access issues portray a clear message: there are not enough functioning and easily reachable water points in the camps, which increases waiting times at those

water points that do function, despite the overall Sphere standard of one tube well per 250 people being met.

One issue to highlight is the discrepancy between the NPM and REACH data. While both surveys broadly indicate the same access problems, the percentages of people affected vary significantly.

This is possibly due to differences between perceptions of the severity of needs of key informants and households. Moreover, in the REACH survey, respondents were asked first if they faced any problems accessing water and only if they answered positively were they asked about specific access problems. In the NPM survey, key informants were directly asked about specific water access issues, with “no access problems” being one of the possible options. This difference in questionnaire design possibly led to a difference in response behaviour. (See the Information Gaps section for a further discussion of these issues.)

Water collection

REACH data reveals that over 90% of households are meeting the Sphere minimum standard of three litres of drinking water per person per day, but only about half of households collect at least 15 litres of drinking and non-drinking water per person per day for domestic purposes (REACH 11/2018).

Water collection is mostly done by women and girls. Considering average family size, a household will require approximately five trips to water collection points per day (Oxfam 08/2018).

- 20% of households interviewed by REACH reported that water collection, including walking and waiting times, takes more than 30 minutes (REACH 11/2018).
- 84% of households use water the same day it is collected (REACH 11/2018).

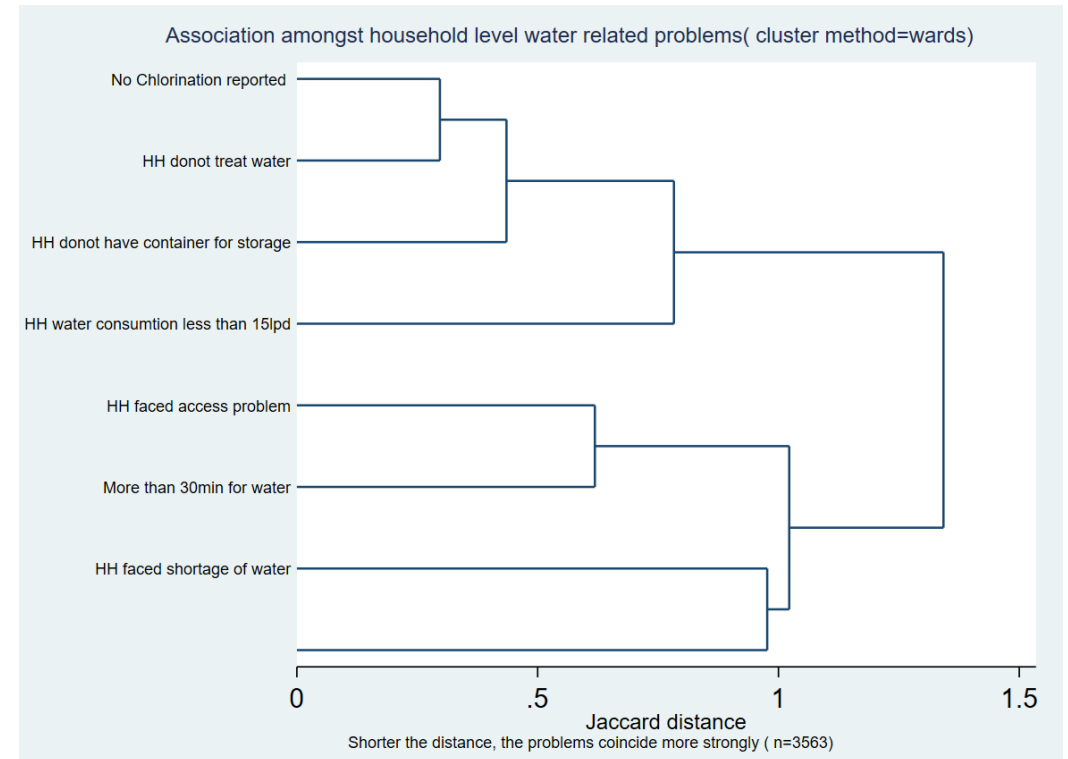
As women and girls are primarily responsible for water collection, this means that fulfilling their household’s water needs exposes them to safety concerns associated with water collection on a daily basis.

Protection concerns

In an Oxfam study, 34% of interviewed women did not consider the location of water points to be safe (Oxfam 08/2018). Female key informants reported that women face harassment from men on the way to and from water points and at water points (NPM Round 12). For example, they reported that men yell at women and girls or try to pull their burkas off (NPM Round 12). To avoid crowds, women reportedly resort to collecting water at dawn and dusk (NPM Round 12). Data on hygiene practices reveals that the majority of men bathe at tube well platforms (REACH 11/2018). This is likely one factor for the

presence of men at tube wells, which can make women and girls feel uncomfortable when collecting water.

Majhee key informants identified water points as locations where women face safety problems in 52% of blocks in September. Although an improvement in comparison to earlier in 2018, the high percentage illustrates the scale of safety concerns for women at water points, especially as this is reported by majhees, not directly by women themselves (NPM Round 12).



Graph 1: Associations between water-related indicators

Graph 1 shows the association between indicators related to water collected by REACH. The shorter the horizontal lines (Jaccard distance), the stronger the correlation between indicators. The vertical lines (connectors) indicate which indicators are combined problems, which means that they occur together. The graph indicates a significant overlap between households which have no water storage containers and households which consume less than 15 litres of water per day. This suggests that some households consume less water because they lack adequate water storage options. Another strong correlation is observed between households with water access

problems and households which need to walk over 30 minutes to collect water, indicating that distance to water sources is one of the most significant barriers to accessing water.

Water contamination and treatment

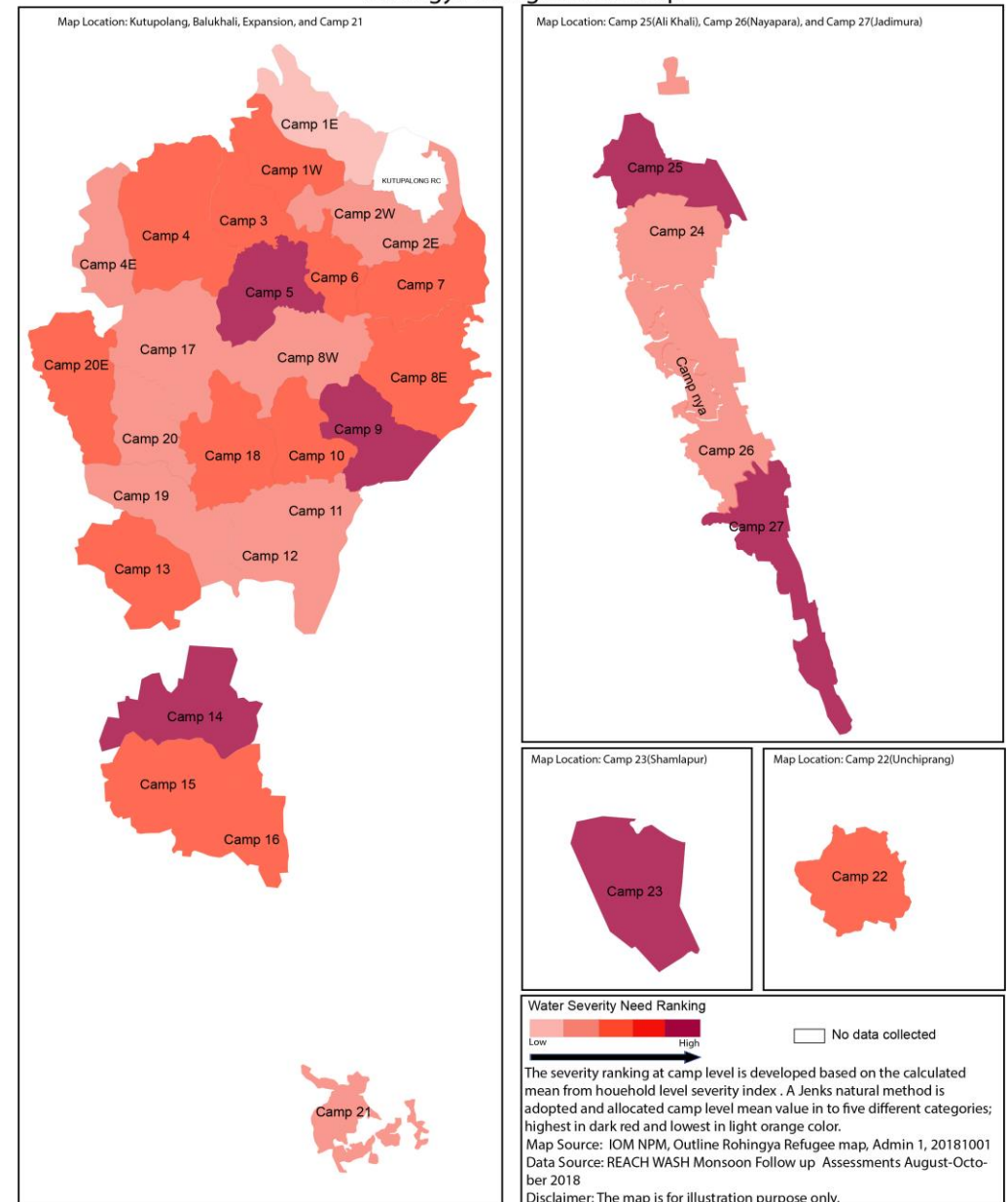
Water quality studies in the camps reveal that most water from underground aquifers is safe for consumption but **water samples at household level are often contaminated.**

Contamination likely occurs during the collection and storage of water, which indicates there is a need for improved WASH education among Rohingya. Between March and July 2018, over 14,000 water sources were tested in the camps, with 87% of samples from decontaminated tube well mouths found not to contain faecal coliforms.

However, at the household level, contamination is prevalent. In July, 71% of household samples were contaminated with faecal coliforms and 35% were contaminated with E.coli (icddr,b, UNICEF 26/08/2018). Water collection during the day is often done by children. Direct observation by the ACAPS/NPM Analysis Hub team in the camps confirmed that many children are not safely handling the tube well mouths or the collected water. This highlights the need for improved water handling to ensure the water remains safe for consumption. This could include education around safe water collection, storage, and usage which targets all household members, possible supervision of water collection and incentivisation where possible.

39% of households interviewed by REACH report treating their water, with purification by aqua tabs being by far the most common method used. This implies 61% of households do not treat their water (REACH 11/2018). The REACH survey, corroborated by NPM results, found that many households do not have access to aqua tabs but the lack of purification tablets may not be the main reason that water is not treated at the household level. Approximately 50% of NPM key informants reported that water treatment has not been a normal practice for people in their block (NPM Round 12). There is furthermore evidence that people believe the water is safe and see no reason to treat it (IPA, UNICEF 15/10/2018).

Water Need Severity Ranking Rohingya Refugee Sites Map



Sanitation

Camp Name	Camp population	Very low severity of need	Low severity of need	Moderate severity of need	High severity of need	Very high severity of need
Camp 1W	40648	32.48% 3978	35.90% 4397	18.8% 2303	12.0% 1466	0.9% 105
Camp 15	49298	56.41% 12573	22.22% 4953	12.0% 2667	9.4% 2095	0% 0
Camp 9	36623	47.0% 2186	19.7% 914	22.2% 1034	8.5% 398	2.6% 119
Camp 8E	33036	47.1% 9482	31.4% 6321	11.8% 2370	6.9% 1383	2.9% 593
Camp 10	33225	52.0% 17168	22.0% 7284	18.1% 5983	6.3% 2081	1.6% 520
Camp 3	39257	54.3% 11906	22.4% 4914	18.1% 3969	5.2% 1134	0% 0
Camp 11	32272	54.9% 27048	20.4% 10034	16.8% 8289	6.2% 3054	1.8% 873
Camp 2E	28711	45.8% 4443	30.8% 2993	14.0% 1360	6.5% 635	2.8% 272
Camp 6	24734	41.4% 16836	41.4% 16836	10.3% 4209	6.9% 2806	0% 0
Camp 18	27831	59.5% 7736	13.8% 1794	19.8% 2579	5.2% 673	1.7% 224
Camp 7	38648	54.9% 5972	31.0% 3371	9.7% 1060	3.5% 385	0.9% 96
Camp 16	21590	54.4% 14638	23.7% 6375	15.8% 4250	5.3% 1417	0.9% 236

Table 2: Sanitation severity index. Displayed are percentage of the camp's population and total number of people per camp for each of the five categories of need. Bar length indicates the percentage of the camp population within each category.

Table 2 shows the camps with the highest number of people with **high** sanitation needs according to the WASH Severity Index. For space reasons, only the 12 highest-ranking camps are displayed. The full list of camps is available in the annex.

Camp 1W has the highest number of people with high sanitation needs, while Camp 8E has the highest number of people with very high sanitation needs. The sanitation severity index consists of 7 indicators. For example, they include the % of households without latrine access in less than 20 minutes, % of households reporting latrine access problems for women and men, and % of households reporting at least one member feeling unsafe when using a latrine.

To meet the Sphere standard of one latrine per 20 people, over 45,000 latrines are required in the camps. As of October, there were about 41,100 functional latrines, leaving an overall gap of 9%. However, the gap differs significantly by camp. Latrine needs were particularly high in Camp 24, Camp 2E, Camp 19, Camp 2W, and Kutupalong RC, all of which had a latrine gap above 50%, with more than 40 people per latrine (WASH Sector 21/10/2018).

Latrine access

According to REACH data, 37% of households reported latrine access problems for women and 24% reported access problems for men.

Main latrine access issues:

- **Too many people using one latrine** (problem for women in 30% of households and for men in 21% of households according to REACH)
- **Lack of gender separation** (affecting 72% of the refugee population according to NPM; affecting women in 17% of households and men in 8% of households according to REACH)
- **Unclean and unhygienic latrines** (affecting 45% of refugees according to NPM; affecting women in 15% of households and men in 10% of households according to REACH)

- **Lack of lighting** (affecting 46% of refugees according to NPM; problem for women in 2% of households and for men in 1% of households according to REACH)
- **Latrines are full or not functional** (problem for 48% of refugees according to NPM; affecting women in 10% of households and men in 7% of households according to REACH)

Sources: REACH 11/2018; NPM Round 12.

These access issues named by households in the REACH assessment broadly correspond to the issues named by key informants in the NPM survey, although the stated percentage of people affected was much higher than in the household survey. This is similar to patterns observed in data on water and is discussed further in the Information Gaps section.

As for the issue of too many people using one latrine, qualitative research conducted by Oxfam reveals how overcrowded WASH facilities impact women beyond immediate WASH needs. Some Rohingya women stated that long queues at latrines generate tension among neighbours standing in line at the same time (Oxfam 09/2018). Furthermore, queueing reduces the time they have for other chores such as collecting water and cooking (Oxfam 09/2018).

The **inclusion** of people with disabilities is a major challenge in terms of access to both latrines and bathing facilities. Distance to WASH facilities and steep terrain impact people with disabilities in particular. Disability disaggregated WASH data remains a significant information gap.

Protection concerns

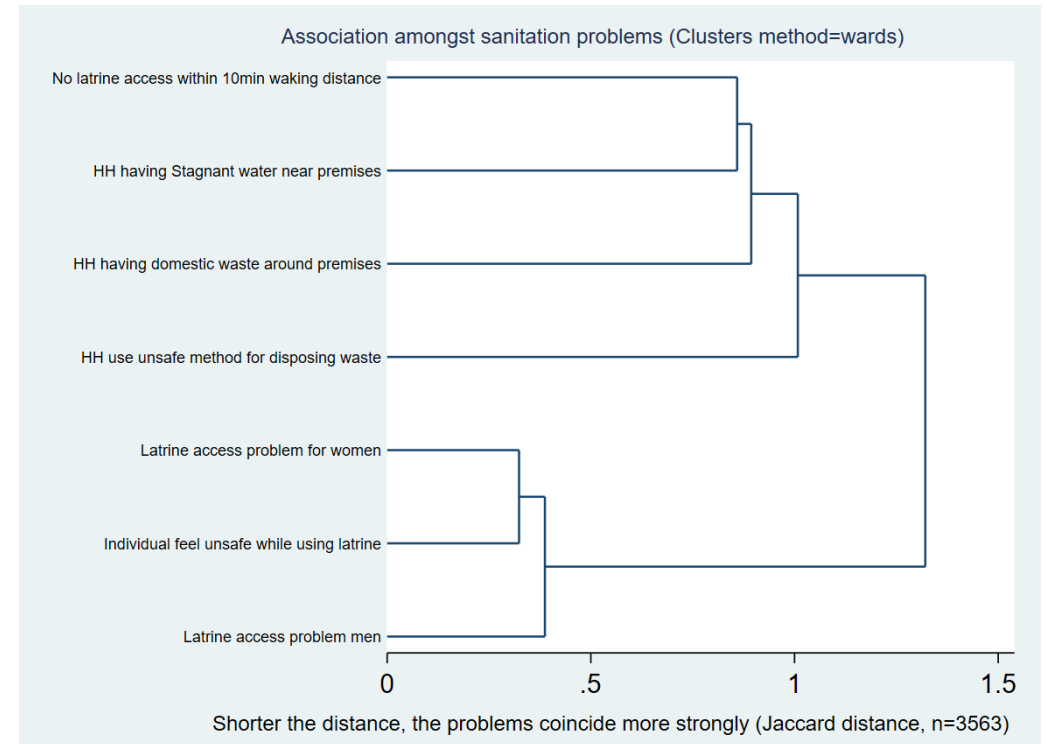
The use of WASH facilities such as latrines is associated with significant safety concerns, particularly for women and children:

- 26% of households in the REACH survey reported that **at least one member of their family felt unsafe when using latrines**, with women of all ages more affected than men (REACH 11/2018).
- In the NPM survey, key informants in 47% of blocks stated there are safety problems for women at latrines, with key informants in 59% of blocks highlighting safety issues for children at latrines (NPM Round 12).

This key informant data is corroborated by information gathered in focus groups, with women reporting feeling unsafe in latrines due to the lack of separation, latrines being in unsafe locations, and latrines not being secure at night (Oxfam 08/2018). Female key informants also described how men can see through the damaged wall material of some latrines (NPM Round 12).

Further research and engagement with refugees on safety issues can help humanitarian response actors to identify specific reasons why people feel unsafe, as well as measures to mitigate these concerns.

To cope with safety concerns, women have reported consuming less water and food to avoid having to use latrines, and having someone accompany them to WASH facilities (Oxfam 12/09/2018; NPM Round 12; Oxfam 09/2018).



Graph 2: Associations between sanitation-related indicators

Graph 2 shows the associations between sanitation indicators collected by REACH. The shorter the horizontal lines (Jaccard distance), the stronger the correlation between indicators. The vertical lines (connectors) indicate which indicators are combined problems, which means that they occur together. As shown, there is a strong correlation between latrine access problems for women and men, which suggests that often many members of the same household face latrine access barriers.

Open defecation

NPM data indicates that defecation practices vary significantly across camps.

- In 66.3% of majhee blocks, most people defecate in communal latrines, and in 13.4% of blocks, most people use family latrines (NPM Round 12). This broadly corresponds to REACH data. Furthermore, REACH results reflect no gendered differences in latrine use (REACH 11/2018).
- In 17.9% of blocks, most people defecate in open areas (NPM Round 12). Only 19.3% of majhees reported that open defecation is not practiced anywhere in their block (NPM Round 12).

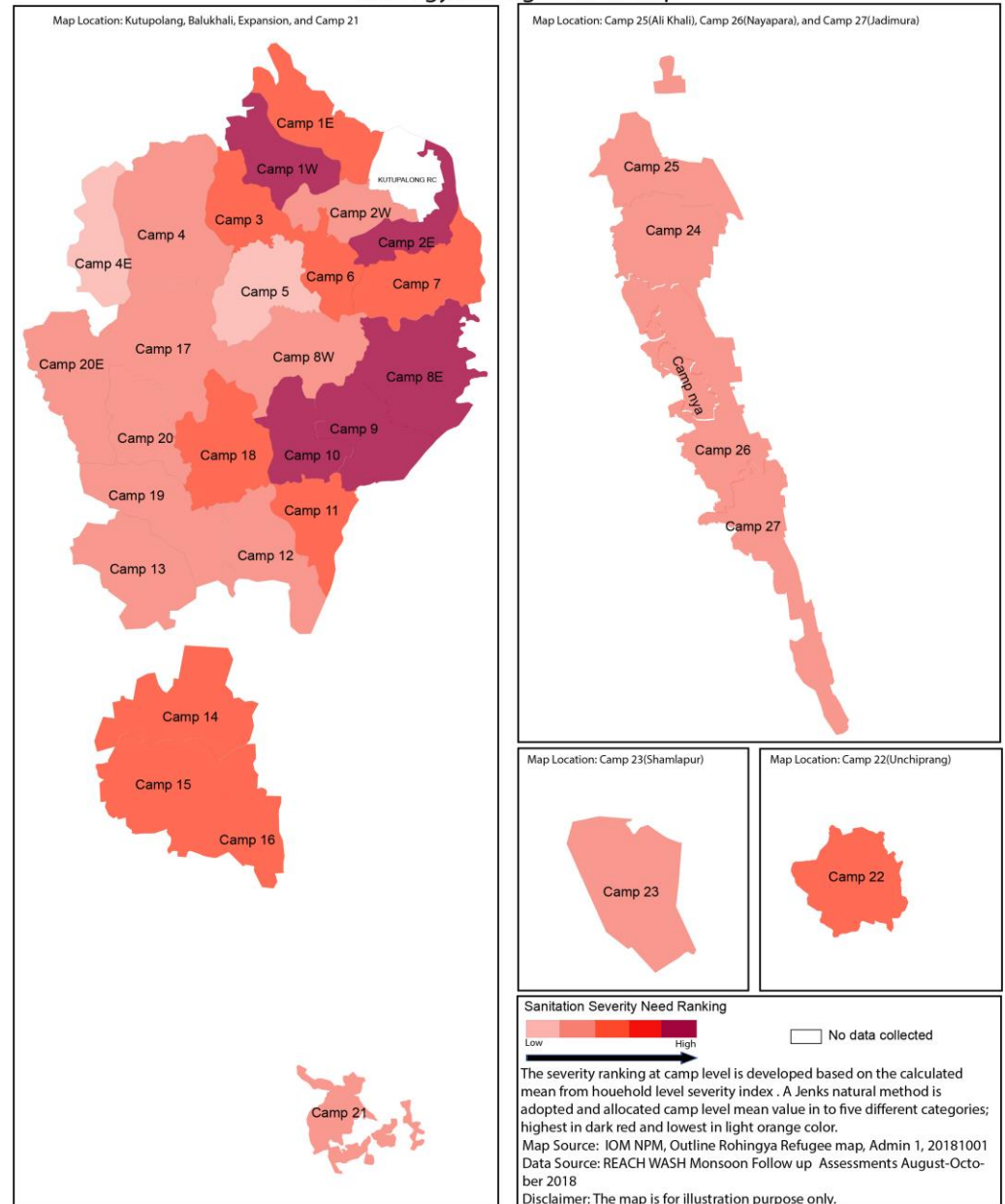
The question in the NPM survey does not differentiate between open defecation practices among adults and children; however, the phrasing “most people” implies that adults are included. The findings suggest that many adult Rohingya do practice open defecation. However, REACH household survey data suggests that open defecation is predominantly practiced by children under 5, with over 50% defecating outside (REACH 11/2018). Very few survey respondents stated that adults in their household were defecating outside.

It is unclear why the NPM key informants report that a significant share of the population is practicing open defecation, while the REACH household level respondents report it is predominantly practiced by children under 5. The reason for this discrepancy is not immediately clear. It is perhaps related to key informants overestimating the prevalence of open defecation in their blocks, or adults not wishing to admit to practicing open defecation. Nevertheless, a key take-away from the data is that open defecation **is** practiced in the camps and that faecal contamination is an issue. More research is required to gain further insight into the prevalence and patterns of open defecation in the camps. It is also important to note that there is evidence suggesting that children’s faeces have a higher prevalence of diarrhoea and pathogens and are thus more risky than adults’ faeces (WHO 06/2015). Education around safe disposal of children’s faeces and open defecation is therefore crucial.

Key locations of concern: Using NPM data, some key areas of concern can be identified. Camp 10 (48 blocks), Camp 13 (46), Camp 18 (42), and Camp 11 (42) all have more than 40 blocks where key informants reported that most people defecate outdoors or in open spaces (NPM Round 12). However, the WASH Sector gap analysis indicates that most of these camps have enough latrines to meet sector requirements, with only Camp 18 having a 7% latrine gap (WASH Sector 11/09/2018).

In 1.2% of blocks, key informants reported that most people defecate in plastic bags. This constituted a total of 26 blocks, of which 16 are located in Camp 3 and five are in Camp 5, indicating clear areas of concern regarding defecation practices (NPM Round 12).

Sanitation Need Severity Ranking Rohingya Refugee Sites Map



Hygiene

Camp Name	Camp population	Very low severity of need	Low severity of need	Moderate severity of need	High severity of need	Very high severity of need
Camp 8E	33036	7.8% 1580	31.4% 6321	51.0% 10272	8.8% 1778	1.0% 198
Camp 15	49298	12.8% 2857	50.4% 11239	30.8% 6858	5.1% 1143	0.9% 190
Camp 1W	40648	18.8% 2303	41.9% 5130	35.0% 4292	4.3% 523	0% 0
Camp 8W	32875	17.2% 2529	47.4% 6955	30.2% 4426	5.2% 759	0% 0
Camp 10	33225	10.2% 3382	52.0% 17168	33.9% 11185	3.9% 1301	0% 0
Camp 19	20149	27.8% 9386	51.3% 17305	15.7% 5280	5.2% 1760	0% 0
Camp 16	21590	19.3% 5194	43.9% 11805	33.3% 8972	3.5% 944	0% 0
Camp 1E	39608	30.5% 13053	56.2% 24066	11.4% 4895	1.9% 816	0% 0
Camp 3	39257	23.3% 5103	52.6% 11528	22.4% 4914	1.7% 378	0% 0
Camp 11	32272	9.7% 4799	61.9% 30539	25.7% 12652	1.8% 873	0.9% 436
Nayapara	26915	11.2% 113	69.4% 697	17.3% 174	2.0% 20	0% 0
Camp 2E	28711	38.3% 3718	46.7% 4534	13.1% 1270	1.9% 181	0% 0

Table 3: Hygiene severity index. Displayed are the percentage of the camp's population and total number of people per camp for each of the five categories of need. Bar length indicates the percentage of the camp population within each category.

Table 3 shows the camps with the largest number of people with **high** hygiene needs. Only 12 camps are displayed due to space reasons. The full list of camps is available in the annex.

Camp 8E has the highest number of people with high hygiene needs, with over 2,900 people affected. In Camp 15, 421 people (0.85% of the camp's population) have very high hygiene needs. Among others, the 10 indicators used to calculate the hygiene severity index include the % of households unable to identify three critical handwashing times, % of households reporting problems for men and women when accessing bathing facilities, and % of households reporting never having received hygiene kits.

Bathing facilities

The WASH Sector's Gap Analysis shows an insufficient number of bathing facilities in the camps. Over 45,000 facilities are required to meet the standard of one facility per 20 people, but as of October, there were only about 12,500 bathing facilities available, leaving an overall gap of 72%. At camp-level, the gap varied between 22% (in Camp 17) and 100% (in Camp 20 Ext. and Nayapara RC) (WASH Sector 21/10/2018).

REACH data reveals that women are more reliant on the availability of designated bathing spaces than men.

- 43% of women reported using communal bathing facilities, as compared to only 23% of men.
- The most commonly used bathing facility for men is tube well platforms (63%) and for women it is makeshift spaces inside their shelters (52%) (REACH 11/2018).

Discussions with WASH experts drew attention to the issue of makeshift bathing spaces. This has implications for drainage and safe use of these spaces. Humanitarian actors need to engage with Rohingya refugees to understand hygiene behaviours and practices in order to provide targeted information and sensitization to improve safe use of hygiene facilities and improved hygiene practices.

Bathing facility access

According to REACH data, 22% of households reported that women faced problems accessing bathing facilities, and 5% reported access problems for men (REACH 11/2018). When it comes to specific problems accessing bathing facilities, REACH and NPM data

once again differ significantly in terms of the number of people facing challenges, with NPM suggesting that access problems are much more prevalent.

Main bathing facility access issues:

NPM:

- **Lack of gender separation** (affecting 73% of the refugee population)
- **Lack of lighting** (problem for 48% of the refugee population)
- **Insufficient water** (affecting 40% of the refugee population)

REACH:

- **Too many people** using one facility (problem for women in 10% of households and for men in 3% of households)
- **Distance to facilities** (affecting women in 7% of households and men in 2% of households)
- **Unclean facilities** (problem for women in 4% of households)

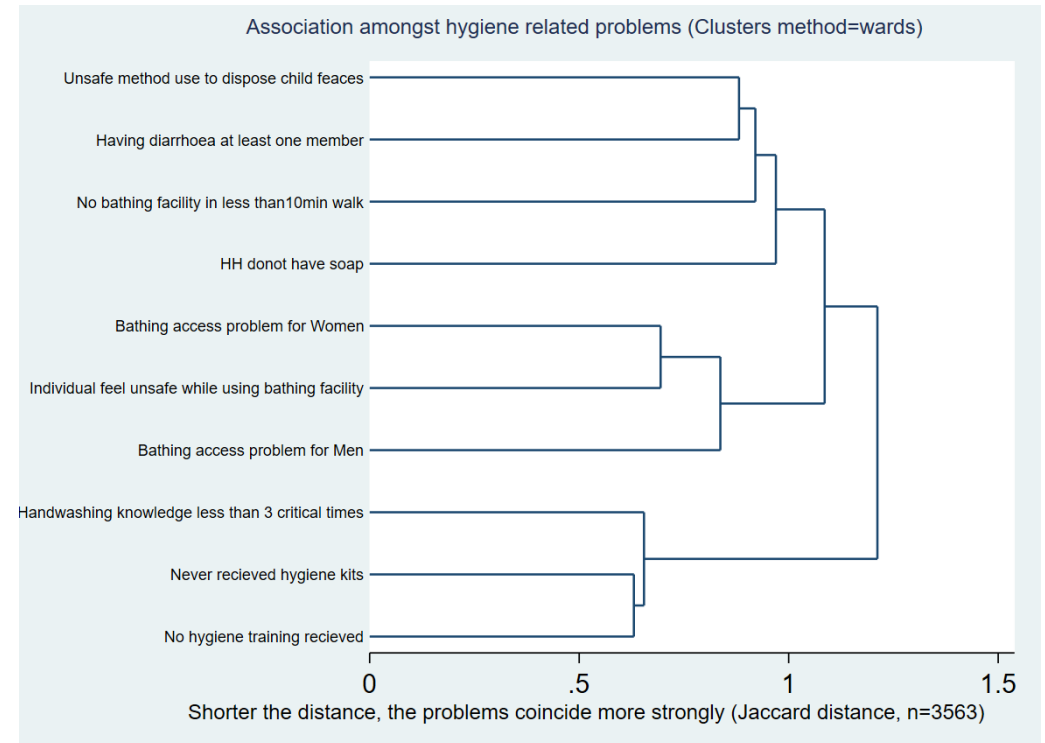
Sources: REACH 11/2018; NPM Round 12.

One possible explanation for the striking differences between the two surveys is questions surrounding access problems were understood differently by majhee key informants and household respondents. The issue is further discussed in the Information Gaps section. It was also noted that the access question in the REACH survey was possibly misinterpreted. Furthermore, it is important to keep in mind that many shelters have makeshift bathing spaces that are predominantly used by women, which may alter perceptions around problems accessing communal facilities, and during the enumeration in both surveys it may not have been clear whether the question was specific to communal bathing facilities or bathing spaces in general.

Protection concerns

Majhee key informants in 69% of blocks have highlighted safety problems for women at bathing and washing facilities and in 50.5% of blocks, they stated that children face safety issues at bathing and washing facilities (NPM Round 12). For both bathing facilities and latrines, female key informants reported that women and girls are often harassed by men and boys, who for example cut into the walls of facilities to look inside (NPM Round 12). Women interviewed by Oxfam stated that the lack of safety at night, unsafe location of bathing facilities, lack of privacy, and the lack of gender separation made them feel unsafe in bathing spaces (Oxfam 12/09/2018). Further anecdotal evidence reveals that some bathing facilities lack roofs and fencing around the cubicle, which makes women feel unsafe (Oxfam 09/2018).

As detailed in the section on water, many households do not have sufficient water to cover all WASH needs. Insufficient availability of water for household use likely impacts women disproportionately. REACH data reveals that half of women bathe in makeshift spaces inside their shelters, whereas men mostly bathe at tube well platforms or in communal bathing facilities. Furthermore, 80% of surveyed women reported washing menstrual hygiene items inside the shelter or in household bathing facilities (REACH 11/2018).



Graph 3: Associations between hygiene-related indicators

Graph 3 shows associations between REACH's hygiene-related indicators. The shorter the horizontal lines (Jaccard distance), the stronger the correlation between indicators. The vertical lines (connectors) indicate which indicators are combined problems, which means that they occur together.

The unsafe disposal of child faeces, the lack of bathing facilities within 10 minutes walking time, lack of soap, and incidence of diarrhoea are a combined problem as the indicators correlate strongly with one another. This is not surprising and illustrates how hygiene issues often occur together, and contribute to the occurrence of diarrhoea.

In addition, the data shows that WASH education and hygiene practices are linked: Households which did not receive hygiene kits overlap with households which did not receive hygiene training, which is little surprising as the kit distribution is ideally accompanied by training. These two indicators strongly correlate with households which do not recall at least three critical times for handwashing, which suggests that increasing the coverage of hygiene kits and trainings can improve handwashing awareness.

Hand washing

Another concerning issue is the lack of awareness and practice around handwashing in the camps. REACH survey results indicate there are some significant gaps in handwashing practices.

- Around 82% of survey respondents reported to wash their hands before eating and after defecation; however, this leaves a significant share of people who do not wash their hands at these critical times. Furthermore, handwashing around childcare is not common.
- Only around 40% of people wash their hands before preparing food for children or before feeding them.
- Less than 20% reported washing their hands after handling child faeces (REACH 11/2018).

More research is required to understand why handwashing is much less common around activities related to childcare, while the importance of handwashing for adults before eating and after defecation seems to be understood by a large share of the population.

Varying explanations have been provided for the lack of handwashing practiced. NPM data indicates that for some 50% of the population handwashing is generally not a normal practice (NPM Round 12). The lack of soap seems to influence handwashing behaviour as well. 51% of households reported a lack of soap in the REACH survey, while according to the NPM survey, lack of soap affects 35% of refugees (REACH 11/2018; NPM Round 12). Nevertheless, 91% of households interviewed in the REACH survey stated that they were using soap and water to wash their hands – despite a lower share of households indicating that they wash their hands at critical times, as detailed above (REACH 11/2018).

Menstrual hygiene management (MHM)

Women interviewed by Oxfam reported that in Myanmar, reusable menstrual cloths were the most common MHM practice. This shifted post displacement to Bangladesh, with the majority of women interviewed by Oxfam reporting to use disposable sanitary pads (Oxfam 08/2018). However, women interviewed by REACH revealed a different picture about their menstrual hygiene practices in Bangladesh. 57% stated they used reusable pads, 41% use cloths, and only 35% use disposable pads (REACH 11/2018). Both surveys are representative, so differences might be attributed to the different times of data collection and the availability of products (the Oxfam survey was conducted in April 2018).

- Only half of women interviewed by Oxfam stated that their menstrual hygiene needs were being met (Oxfam 08/2018).
- Similarly, 30% of women interviewed by REACH reported that they face problems accessing menstrual hygiene materials.
- However, despite these access problems, 94% of women claimed to be satisfied or very satisfied with their access to menstrual hygiene materials (REACH 11/2018).

This discrepancy cannot be explained through the data alone. A possible explanation could be that the two questions on access were understood to mean something different. This example highlights the need to verify that questionnaires are translated and communicated with culturally adequate terms, to ensure that subtleties of the questionnaire are understood as intended. This is especially true with sensitive issues such as menstrual hygiene.

Menstrual hygiene is challenging for women in the camps. Media reported that girls share menstrual hygiene products amongst themselves due to shortages (SBS 08/01/2018). In focus group discussions, women reported not having enough water to clean menstrual items or enough space to dry them (Oxfam 08/2018). Women have reported that they consider it a sin if men see menstrual cloths, which is why they attempt to wash and dry the cloths in private spaces, and dispose of the cloths in latrines or by burying them if there is no adequate washing and drying space available (BBC Media Action 05/09/2018).

Social customs

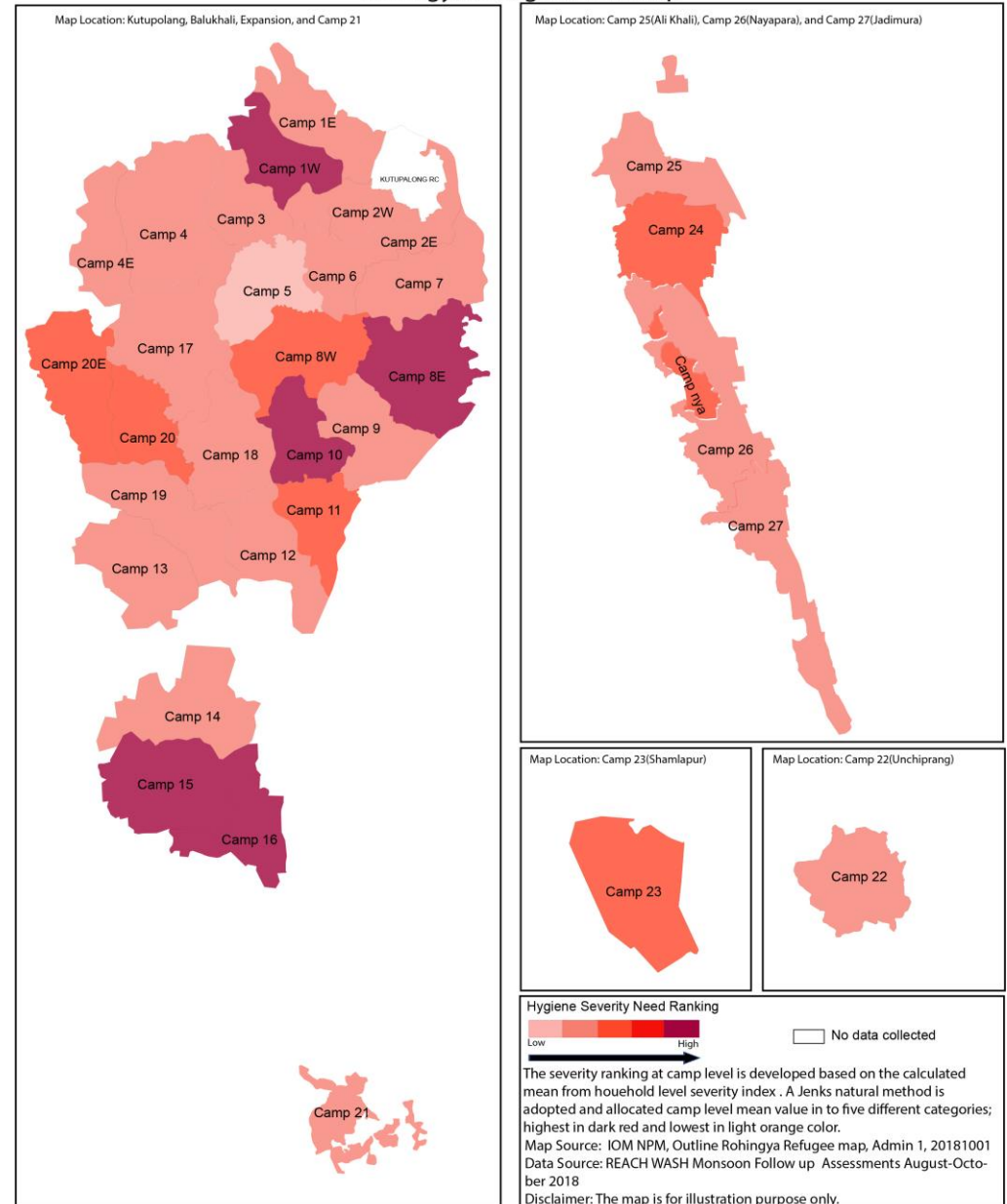
Furthermore, women in FGDs reported social restrictions on women during their periods, such as not being allowed to cook or to leave the shelter for at least two days (Oxfam 08/2018). When girls get their first period, they are only allowed to leave the shelter

to use the latrine. They are generally not allowed to eat certain foods while on their period, such as salt and garlic (BBC Media Action 05/09/2018).

Both women and men have reported that menstruation is perceived as a female issue, and women rarely discuss menstruation with their husbands. Men consequently are mostly unaware of women’s issues and their needs in relation to menstruation and menstrual hygiene (BBC Media Action 05/09/2018).



Hygiene Need Severity Ranking Rohingya Refugee Sites Map



WASH facilities in Rakhine pre-displacement

In a qualitative survey, Oxfam asked a total of 38 women and girls from three camps about their WASH practices before the displacement to Bangladesh. While this is not a representative study, the anecdotal information gives some insight into the customary WASH conditions and practices of the Rohingya.

Women reported that some households had their own bathing space inside or outside the house, which was used by five to eight people all of the same family. Each household was reported to have had a latrine shared by all genders and used by five to eight people. There were bathing cubicles, where women would wash cloths used for menstrual hygiene. They would dry these cloths inside the bathing cubicle if it was not used by men, or behind the house where men would not see the cloths (Oxfam 09/2018).

Results from a June 2017 assessment in Maungdaw district in Rakhine state indicate that most households had their own pit latrines, although many had sustained damage during cyclone Mora. This corroborates the information from the Oxfam study. Another finding is most latrines did not have a child-friendly design, meaning children had to practice open defecation (ACF 06/2017). This suggests that open defecation is a normal practice for children, and makes it unsurprising that it remains a common practice in the camps, with over 50% of children under 5 practicing open defecation (REACH 11/2018).

Consultation with affected population

Survey results indicate that refugees and host communities are not sufficiently consulted before the installation of WASH facilities. Around 60% of respondents report to have been asked for feedback on WASH facilities (Oxfam 08/2018). However, out of 21 FGDs conducted in the same study, only two groups stated that NGOs had consulted them on preferences and specific needs (Oxfam 08/2018).

Oxfam further revealed that latrines are often designed based on technical considerations, whereas the social component of latrine usage is given less importance (Oxfam 09/2018). A high proportion of male staff in the WASH sector in Cox's Bazar implies that sometimes women's issues surrounding WASH are considered from a male perspective (Oxfam 09/2018). Key informants of the survey also indicated that not enough is done to ensure accountability to affected populations, particularly women and girls (Oxfam 09/2018).

When communicating with affected populations about WASH services and programming, it is also crucial to understand subtleties in their language. Rohingya women have developed a "sociolect", which uses words and pronunciations that may not be understood by Rohingya men (TWB 03/10/2018). Previous research has also highlighted the need to be culturally sensitive when speaking to women and girls about topics such as menstruation. Many women prefer to use the word *gusol* ("to shower") to refer to menstruation, instead of *haiz*, which is a more academic word borrowed from Arabic (BBC Media Action 05/09/2018). It is crucial that aid workers understand these differences and preferred vocabularies in order to meaningfully engage with the population.

Information gaps and needs

Inclusion: There is little age and disability disaggregated data available, particularly regarding access to WASH facilities.

Open defecation: The data on open defecation from NPM and REACH surveys is contradicting. More qualitative research is necessary to understand this practice better.

For some questions, **NPM's key informant survey and REACH's household survey differ significantly**, with NPM data often indicating a higher level of need. For example, when asked about water access issues, just over 20% of households interviewed by REACH stated that distance to water points was an issue. In the NPM survey, distance to water points was mentioned by over 40% of NPM key informants.

A number of factors could be contributing to differences between the results of the two surveys:

- Different perceptions of need of key informants and individuals at household level.
- Questions were possibly understood differently by households and by key informants, with the latter likely having a higher familiarity with humanitarian vocabulary.
- Possible differences in how terminology in the questionnaire was translated
- The language in which the interview was conducted. Conducting interviews in Chittagonian instead of Rohingya increases the risk of misunderstandings and miscommunication. A recent study found that 36% of Rohingya interviewed had problems understanding a basic Chittagonian sentence (TWB 11/2018). This means that if Chittagonian is used during the enumeration, there is a significant possibility of misunderstanding.
- Differences in questionnaire design. For many questions, the REACH survey follows a two-step approach. For example, on water access, people were first asked whether they face problems collecting water. Only if the answer was “yes” were they asked to name specific problems. In the NPM survey, key informants were asked directly which problems people face when accessing water, with “no access problems” being one of several options. This difference in the design of the questionnaire possibly impacted response behaviour.

More research is required to better understand strengths and weaknesses of both survey methodologies (household survey and key informant survey) specifically in the context of the Rohingya crisis.

Handwashing data reveals that many people do not wash their hands around activities related to childcare, such as before feeding children or after handling children's faeces. Further investigation is necessary to understand why, which can also inform programming to promote critical handwashing times.

Methodology of REACH and NPM surveys

The **REACH-UNICEF WASH Household Assessment – Monsoon Follow-up** is a household assessment which was conducted between 14 August and 3 October 2018 in 33 camps. Overall, 3,571 households were surveyed, with results being generalizable at camp level with a 95% confidence level and a 5% margin of error.

The **NPM Site Assessment** regularly collects information about the overall Rohingya population in Cox's Bazar through key informant interviews, focus groups discussions, and direct observations. The majority of key informants are majhees, who provide information about the needs in their respective majhee block. In order to generalize findings, the ACAPS-NPM Analysis Hub weighted results at the majhee block level according to the size of the population. This report uses data from NPM Round 12, collected between 23 September and 10 October 2018, roughly in the same time period as REACH data collection.

Spotlight: Camp 1W – Water situation

Total households: 9,300

Total population: 40,500

In the WASH Severity Index, Camp 1W is among the camps with some of the highest WASH needs. When all levels of severity are combined and weighted according to population to create an overall weighted mean of severity, Camp 1W ranks highest among the camps in severity of overall WASH needs. The water situation seems particularly concerning, with 5% of the camp population (over 2,000 people) facing very high water needs, and 35% (over 14,000 people) facing high water needs. This spotlight explores water needs in Camp 1W in order to understand specific needs and gaps in 1W. REACH and NPM data are used as the basis for the analysis, which is complemented by information gathered during interviews and field visits.

According to the latest WASH Sector gap analysis, Camp 1W meets the Sphere standard of one tube well per 250 people. 194 tube wells are functional, 32 more than the required 162 tube wells (WASH Sector 24/12/2018).

Considering that Camp 1W nevertheless ranks high in the WASH Severity Index, this indicates that the mere coverage of WASH facilities does not necessarily mean that WASH needs are met for the population.

Water treatment

Almost two-thirds of people in Camp 1W do not treat their drinking water. When asked why they do not use aqua tabs for water treatment, the lack of tabs and lack of knowledge around the usage of the tabs came across most strongly. 68% of people never received aqua tabs, while 39% have no knowledge about aqua tabs and 30% do not know how to use them (REACH 11/2018).

Water access

40% of people surveyed in Camp1W reported problems accessing water. Water access challenges are mostly related to the terrain and physical accessibility of water sources. For 27% of the camp population, the water source is too far away, and for 25%, the paths to water sources are too steep. (REACH 11/2018).

In contrast to REACH data, results from the NPM key informant survey suggest that the share of the camp population facing water access challenges is higher, and that access problems are more related to the functionality and availability of water points. According to key informants, in 55% of blocks in Camp 1W, non-functioning water points are an obstacle to water access, and in 39% of blocks, there are not enough water points (NPM Round 12). Neither access issue was an option in the REACH questionnaire, while the NPM questionnaire places less focus on physical access. This

suggests that this data from the two surveys can be understood as complementary rather than contradictory. Indeed, during field investigation conducted by the ACAPS/NPM Analysis Hub in Camp 1W, one of the issues people reported was that many water points were defunct, with others working but producing water of bad quality, so that people did not like using the water point.

Both surveys highlight the issue of waiting times at water points; however there are discrepancies in reported prevalence of the problem. According to the REACH household survey, 19% of people in Camp 1W face long waiting times at water points, while this was identified as a water access issue by key informants in 48% of blocks (REACH 11/2018; NPM Round 12). As discussed in the Information Gaps section, it is unclear why the results differ so greatly in this particular instance. The site visit confirmed the issue of long lines at water points during peak water collection times.

1W is a highly congested and densely populated camp. The lack of space is a major issue for the construction of WASH facilities.

In terms of water supply, 1W has been in a transition phase. A new water network is being constructed by BRAC and MSF, with several large water tanks planned to supply the camp's population with chlorinated drinking water (MSF 05/10/2018). As the water network is expected to cover most water needs in 1W once it is fully operational, a number of tube wells are expected to be decommissioned. This explains why at the time of the REACH data collection, no new tube wells were being installed in 1W except for emergency purposes.

Spotlight: Camp 8E – Sanitation & Hygiene

Total households: 7,600

Total population: 33,000

Camp 8E is ranked among the camps with the highest sanitation and hygiene needs in the WASH Severity Index. Regarding sanitation, 2.9% of the camp population (970 people) have very high needs and 6.8% (2,260 people) have high needs. For hygiene, 1% of people have very high needs (324 people), 8.8% (2,900 people) have high needs, and 50% (16,800 people) have moderate needs, with 8E ranking the highest in all three severity categories of hygiene needs.

According to the latest available WASH Sector gap analysis, as of October 2018, there were 1,686 functional latrines in Camp 8E, with 1,689 being required to meet the Sphere standard. For bathing facilities, there was a significant gap of 1,544 facilities, as only 145 were functional. As in many camps, installation of new WASH facilities is hampered by the lack of space.

In the following section, REACH and NPM data is analysed in order to highlight key sanitation and hygiene problems in Camp 8E. The analysis was supplemented by interviews with WASH experts and field visits.

Sanitation

Latrine access problems were identified both in the REACH and in the NPM survey, with safety around latrines being an additional key concern.

In the REACH survey, 62% of households in Camp 8E reported **latrine access** problems for women and 31% reported access problems for men (REACH 11/2018). This is significantly above the all-camp average (37% for women and 24% for men) (REACH 11/2018). For women in Camp 8E, the main latrine access problems are that there are too many people at latrines, reported by 51% of households; the lack of gender separation, reported by 24%; and latrines being full, reported by 22%. Too many people using one latrine is an access issue for men in 28% of households and latrines being full in 12% of households (REACH 11/2018).

The NPM questionnaire collects general latrine access issues, without inquiring how women and men are differently affected. The key latrine access problem in Camp 8E reported by key informants is the lack of gender separation, identified as an issue in 67% of blocks. 62% reported that latrines were not functional. Only 11% of blocks reported having gender-segregated latrines (NPM Round 12).

As discussed in the Information Gaps section, the discrepancies in the percentages between NPM and REACH can possibly be explained by the differences between the questionnaires, with REACH asking first whether people in the household faced latrines

access problems, whereas NPM directly asks which problems people face. Despite the variances between the two surveys, the data clearly indicates that the **lack of gender-segregated latrines** and **too many people using one latrine** are key issues. The latter may also be related to latrines being full or non-functional, leading to an increased number of people using the remaining functional latrines.

Safety is highlighted in both surveys. 32% of households reported having at least one member feeling unsafe when using latrines (REACH 11/2018). However, when asked about specific latrine access issues, only a small share of households considered safety concerns an access problem for women (8%) or men (2%). This discrepancy may be related to the way these questions were asked, or differences in how the concept of “safety” was translated or understood in relation to these questions.

Similarly, NPM data reveals that only 9% of key informants in Camp 8E considered latrine safety to be an access issue in their block (NPM Round 12). However, when inquiring about general safety problems in their blocks, many key informants identified latrines as places where people have safety issues. Safety at latrines was reported as an issue for children in 44% of blocks, for women in 30% of blocks, and for men in 6% of blocks (NPM Round 12). This roughly corresponds to the 32% of households surveyed by REACH reporting latrine safety issues for at least one household member.

Hygiene

Over 70% of households reported that women use makeshift spaces inside the shelters for bathing, a finding significantly higher than the all-camps average of 52% (REACH 11/2018). Discussions with WASH experts confirmed that makeshift bathing spaces are common in Camp 8E and that their numbers are increasing. Men rely less on bathing spaces, with 76% of households reporting that men bathe at tube well platforms (REACH 11/2018). Access to bathing facilities is considerably more difficult for women than for men. 32% of households reported access problems for women, while only 2% reported problems for men (REACH 11/2018). For women, the most common access problem is insufficient water at bathing facilities, reported by 13% of households, followed by bathing facilities being unsafe, reported by 9% (REACH 11/2018). The main access problems for men, each reported by 2% of households, are bathing facilities being crowded and the lack of gender separation (REACH 11/2018).

As with sanitation, the NPM survey asks about general problems with access to bathing spaces. The lack of gender separation affects people in 75% of blocks, followed by the lack of water, an issue in 53% of blocks (NPM Round 12). Although the percentages differ significantly, the overlap between the two surveys indicate that people’s access to bathing facilities is affected by lack of water and the lack of gender-segregated facilities.

Annex

Indicators used in the WASH Severity Index

Water
% of households reporting they are using unimproved water sources
% of household reporting that it took more than 30 min to collect water from nearest water source
% of households which do not have container for storage apart from container used for collection
% of household reporting they are not treating water
% of households reporting consumption of water is less than 15 liters per day
Sanitation
% of households reporting that they do not have access to latrine in less than 20 min of walk
% of households reporting latrine access problem for women
% of households reporting latrine access problem for men
% of households reporting at least one member feeling unsafe in using latrine
% of households reporting there was stagnant water near their shelter when there was heavy rain
% of households reporting witnessing domestic waste within 30 meters of their shelter
% of households reporting disposal of waste in undesignated area or by burning
Hygiene
% of households reporting use of unsafe method for disposing child feces
% of households not able to identify at least three critical handwashing times
% of households reporting they do not have soap
% of households reporting they do not have access to bathing facilities in less than 20 min walking
% of households reporting bathing facility access problem for women
% of households reporting bathing facility access problem for men
% of households reporting at least one member feeling unsafe in bathing facilities
% of households reporting they never received hygiene kits
% of households reporting they did not participate in hygiene training
% of households reporting at least one household member had diarrhea in past two weeks

Camp level severity ranking

Camp point	WASH Index Mean	Sanitation Index Mean	Hygiene Index Mean	Water Index Mean
Camp 1W	0.3763	0.2956	0.3545	0.5426
Camp 8E	0.3543	0.2515	0.4230	0.5108
Camp 10	0.3449	0.2503	0.3678	0.5179
Camp 9	0.3331	0.2853	0.2560	0.5575
Camp 15	0.3322	0.2306	0.3666	0.5060
Camp 11	0.3317	0.2469	0.3481	0.4878
Camp 16	0.3227	0.2222	0.3510	0.5364
Camp 3	0.3052	0.2201	0.2954	0.5342
Camp 22	0.3041	0.2196	0.2988	0.5192
Camp 2E	0.3020	0.2512	0.2515	0.4998
Camp 8W	0.3018	0.1893	0.3359	0.5074
Camp 6	0.2954	0.2383	0.2403	0.5163
Camp 23	0.2939	0.1432	0.3122	0.6033
Camp 14	0.2927	0.2327	0.2076	0.5668
Camp 25	0.2919	0.1907	0.2789	0.5539
Camp 18	0.2866	0.2125	0.2671	0.5082
Camp 7	0.2865	0.2178	0.2288	0.5221
Camp 19	0.2818	0.1915	0.2848	0.4821
Camp 24	0.2789	0.1675	0.3221	0.4827
Nayapara	0.2782	0.1713	0.3185	0.4817
Camp 20 ext.	0.2747	0.1260	0.3305	0.5494
Camp 1E	0.2729	0.2130	0.2691	0.4124
Camp 20	0.2716	0.1556	0.3220	0.4707
Camp 12	0.2694	0.1780	0.2922	0.4657
Camp 5	0.2688	0.1831	0.1874	0.5696
Camp 2W	0.2624	0.1843	0.2017	0.5152
Camp 4	0.2619	0.1694	0.2400	0.5121
Camp 13	0.2576	0.1355	0.2790	0.5034
Camp 27	0.2575	0.1554	0.2062	0.5723
Camp 21	0.2510	0.1706	0.2189	0.4834
Camp 26	0.2423	0.1564	0.2271	0.4686
Camp 4 ext.	0.2375	0.1053	0.2991	0.4638
Camp 17	0.2300	0.1418	0.2030	0.4605

WASH Index

Camp Name	HH WASH index (<0.2)	People	HH WASH index (0.2-<0.4)	People	HH WASH index (0.4-<0.6)	People	HH WASH index (0.6-<0.8)	People	HH WASH index (above 0.8)	People
	Very low severity of need		Low severity of need		Moderate severity of need		High severity of need		Very high severity of need	
Camp 15	6.8%	1524	54.7%	12192	32.5%	7239	6.0%	1333	0%	0
Camp 8E	4.9%	988	46.1%	9284	44.1%	8889	4.9%	988	0%	0
Camp 16	3.5%	944	61.4%	16527	31.6%	8499	3.5%	944	0%	0
Camp 19	12.2%	4106	65.2%	21998	20.0%	6746	2.6%	880	0%	0
Camp 10	6.3%	2081	47.2%	15608	44.1%	14567	2.4%	780	0%	0
Camp 3	6.9%	1512	62.9%	13796	27.6%	6047	2.6%	567	0%	0
Camp 23	9.5%	2375	49.5%	12403	38.9%	9764	2.1%	528	0%	0
Camp 1W	4.3%	523	46.2%	5653	45.3%	5549	4.3%	523	0%	0
Camp 22	6.4%	1378	63.8%	13781	27.7%	5972	2.1%	459	0%	0
Camp 1E	21.9%	9382	58.1%	24882	19.0%	8158	1.0%	408	0%	0
Camp 6	10.3%	4209	65.5%	26657	23.3%	9470	0.9%	351	0%	0
Camp 5	17.9%	6565	63.2%	23149	17.9%	6565	0.9%	346	0%	0
Camp 14	9.4%	3691	72.6%	28520	17.1%	6711	0.9%	336	0%	0
Camp 20 ext.	3.0%	924	70.7%	21554	25.3%	7698	1.0%	308	0%	0
Camp 9	6.8%	318	63.2%	2942	27.4%	1272	2.6%	119	0%	0
Camp 18	12.1%	1570	62.1%	8072	25.0%	3251	0.9%	112	0%	0
Camp 2E	13.1%	1270	58.9%	5713	27.1%	2630	0.9%	91	0%	0
Camp 4 ext.	9.3%	89	74.2%	716	15.5%	149	1.0%	10	0%	0
Camp 11	1.8%	873	63.7%	31411	34.5%	17014	0%	0	0%	0
Camp 12	9.1%	3020	67.7%	22486	23.2%	7719	0%	0	0%	0
Camp 13	10.7%	4355	69.6%	28308	19.6%	7984	0%	0	0%	0
Camp 17	24.1%	9317	63.4%	24500	12.5%	4831	0%	0	0%	0
Camp 20	7.4%	2422	75.8%	24916	16.8%	5537	0%	0	0%	0
Camp 21	20.0%	5742	63.5%	18225	16.5%	4744	0%	0	0%	0
Camp 24	8.3%	2689	65.6%	21179	26.0%	8404	0%	0	0%	0
Camp 25	3.7%	1152	69.4%	21595	26.9%	8350	0%	0	0%	0
Camp 26	20.6%	5738	64.9%	18076	14.4%	4017	0%	0	0%	0
Camp 27	15.5%	6125	60.8%	24091	23.7%	9392	0%	0	0%	0
Camp 2W	23.1%	5814	59.6%	15018	17.3%	4360	0%	0	0%	0
Camp 4	12.6%	3120	67.6%	16712	19.8%	4902	0%	0	0%	0
Camp 7	15.0%	1637	63.7%	6935	21.2%	2312	0%	0	0%	0
Camp 8W	6.0%	885	62.1%	9105	31.9%	4679	0%	0	0%	0
Nayapara	8.2%	82	73.5%	738	18.4%	184	0%	0	0%	0

Water Index

Camp Name	HH water index (<0.2)	People	HH water index (0.2-<0.4)	People	HH water index (0.4-<0.6)	People	HH water index (0.6-<0.8)	People	HH water index (above 0.8)	People
	Very low severity of need		Low severity of need		Moderate severity of need		High severity of need		Very high severity of need	
Camp 8E	0.00%	0	52.94%	17490	18.63%	6154	19.61%	6478	8.82%	2915
Camp 15	0.85%	421	53.85%	26545	14.53%	7163	25.64%	12641	5.13%	2528
Camp 10	3.94%	1308	47.24%	15697	14.96%	4971	26.77%	8895	7.09%	2355
Camp 1W	0.85%	347	41.88%	17024	17.09%	6948	35.04%	14244	5.13%	2085
Camp 3	0.00%	0	34.48%	13537	24.14%	9476	36.21%	14214	5.17%	2031
Camp 22	4.26%	948	37.23%	8299	24.47%	5453	26.60%	5928	7.45%	1660
Nayapara	7.14%	1923	42.86%	11535	13.27%	3570	30.61%	8239	6.12%	1648
Camp 7	3.54%	1368	38.94%	15049	11.50%	4446	42.48%	16417	3.54%	1368
Camp 27	3.09%	402	32.99%	4290	17.53%	2279	36.08%	4693	10.31%	1341
Camp 24	11.46%	3865	27.08%	9135	21.88%	7379	36.46%	12298	3.13%	1054
Camp 26	6.19%	2649	49.48%	21194	16.49%	7065	25.77%	11038	2.06%	883
Camp 21	9.57%	1172	40.00%	4900	20.87%	2556	22.61%	2769	6.96%	852
Camp 8W	1.72%	567	51.72%	17004	11.21%	3684	32.76%	10769	2.59%	850
Camp 4	7.21%	2197	37.84%	11534	10.81%	3296	41.44%	12633	2.70%	824
Camp 2E	2.80%	805	47.66%	13685	17.76%	5098	28.97%	8318	2.80%	805
Camp 16	0.88%	189	44.74%	9659	5.26%	1136	45.61%	9848	3.51%	758
Camp 2W	5.77%	1446	44.23%	11088	12.50%	3134	34.62%	8678	2.88%	723
Camp 11	0.88%	286	53.10%	17136	21.24%	6854	23.01%	7425	1.77%	571
Camp 14	2.56%	797	28.21%	8771	17.09%	5316	50.43%	15681	1.71%	532
Camp 18	6.03%	1679	37.07%	10317	10.34%	2879	44.83%	12476	1.72%	480
Camp 1E	11.43%	4527	55.24%	21879	13.33%	5281	19.05%	7544	0.95%	377
Camp 25	3.70%	359	33.33%	3234	12.96%	1258	47.22%	4582	2.78%	270
Camp 5	0.00%	0	32.08%	8080	12.26%	3090	54.72%	13784	0.94%	238
Camp 12	6.06%	1329	51.52%	11293	10.10%	2214	31.31%	6864	1.01%	221
Camp 6	1.72%	426	39.66%	9808	16.38%	4051	41.38%	10235	0.86%	213
Camp 20 ext.	0.00%	0	45.45%	438	15.15%	146	34.34%	331	5.05%	49
Camp 13	8.04%	3269	38.39%	15621	15.18%	6176	38.39%	15621	0.00%	0
Camp 17	7.14%	1048	42.86%	6287	22.32%	3274	27.68%	4060	0.00%	0
Camp 19	3.48%	701	47.83%	9636	19.13%	3855	29.57%	5957	0.00%	0
Camp 20	1.05%	49	58.95%	2742	16.84%	783	23.16%	1077	0.00%	0
Camp 23	0.00%	0	34.74%	3781	5.26%	573	60.00%	6530	0.00%	0
Camp 4 ext.	5.15%	52	51.55%	518	14.43%	145	28.87%	290	0.00%	0
Camp 9	1.71%	626	35.04%	12834	12.82%	4695	50.43%	18468	0.00%	0

Sanitation Index

Camp Name	HH sanitation index (<0.2)	People	HH sanitation index (0.2-<0.4)	People	HH sanitation index (0.4-<0.6)	People	HH sanitation index (0.6-<0.8)	People	HH sanitation index (above 0.8)	People
	Very low severity of need		Low severity of need		Moderate severity of need		High severity of need		Very high severity of need	
Camp 11	54.9%	27048	20.4%	10034	16.8%	8289	6.2%	3054	1.8%	873
Camp 8E	47.1%	9482	31.4%	6321	11.8%	2370	6.9%	1383	2.9%	593
Camp 10	52.0%	17168	22.0%	7284	18.1%	5983	6.3%	2081	1.6%	520
Camp 12	66.7%	22150	25.3%	8390	4.0%	1342	3.0%	1007	1.0%	336
Camp 19	64.3%	21705	20.9%	7040	9.6%	3226	4.3%	1467	0.9%	293
Camp 2E	45.8%	4443	30.8%	2993	14.0%	1360	6.5%	635	2.8%	272
Camp 2W	54.8%	13807	33.7%	8478	6.7%	1696	3.8%	969	1.0%	242
Camp 16	54.4%	14638	23.7%	6375	15.8%	4250	5.3%	1417	0.9%	236
Camp 22	45.7%	9876	39.4%	8498	9.6%	2067	4.3%	919	1.1%	230
Camp 18	59.5%	7736	13.8%	1794	19.8%	2579	5.2%	673	1.7%	224
Camp 4	55.9%	13815	28.8%	7131	13.5%	3342	0.9%	223	0.9%	223
Camp 9	47.0%	2186	19.7%	914	22.2%	1034	8.5%	398	2.6%	119
Camp 1W	32.5%	3978	35.9%	4397	18.8%	2303	12.0%	1466	0.9%	105
Camp 7	54.9%	5972	31.0%	3371	9.7%	1060	3.5%	385	0.9%	96
Camp 13	76.8%	31212	17.9%	7259	5.4%	2178	0.0%	0	0.0%	0
Camp 14	55.6%	21809	20.5%	8053	21.4%	8388	2.6%	1007	0.0%	0
Camp 15	56.4%	12573	22.2%	4953	12.0%	2667	9.4%	2095	0.0%	0
Camp 17	59.8%	23120	30.4%	11732	8.0%	3106	1.8%	690	0.0%	0
Camp 1E	56.2%	24066	22.9%	9789	19.0%	8158	1.9%	816	0.0%	0
Camp 20	61.1%	20071	30.5%	10036	8.4%	2768	0.0%	0	0.0%	0
Camp 20 ext.	73.7%	22478	21.2%	6466	4.0%	1232	1.0%	308	0.0%	0
Camp 21	63.5%	18225	26.1%	7490	7.8%	2247	2.6%	749	0.0%	0
Camp 23	69.5%	17416	18.9%	4750	8.4%	2111	3.2%	792	0.0%	0
Camp 24	63.5%	20506	25.0%	8068	11.5%	3698	0.0%	0	0.0%	0
Camp 25	56.5%	17564	28.7%	8926	11.1%	3455	3.7%	1152	0.0%	0
Camp 26	62.9%	17502	28.9%	8034	8.2%	2295	0.0%	0	0.0%	0
Camp 27	69.1%	27358	17.5%	6942	11.3%	4492	2.1%	817	0.0%	0
Camp 3	54.3%	11906	22.4%	4914	18.1%	3969	5.2%	1134	0.0%	0
Camp 4 ext.	70.1%	676	25.8%	248	4.1%	40	0.0%	0	0.0%	0
Camp 5	60.4%	22112	20.8%	7601	16.0%	5874	2.8%	1037	0.0%	0
Camp 6	41.4%	16836	41.4%	16836	10.3%	4209	6.9%	2806	0.0%	0
Camp 8W	61.2%	8978	23.3%	3414	12.9%	1897	2.6%	379	0.0%	0
Nayapara	58.2%	584	29.6%	297	11.2%	113	1.0%	10	0.0%	0

Hygiene Index

Camp Name	HH hygiene index (<0.2)	People	HH hygiene index (0.2-<0.4)	People	HH hygiene index (0.4-<0.6)	People	HH hygiene index (0.6-<0.8)	People	HH hygiene index (above 0.8)	People
	Very low severity of need		Low severity of need		Moderate severity of need		High severity of need		Very high severity of need	
Camp 8E	7.84%	1580	31.37%	6321	50.98%	10272	8.82%	1778	0.98%	198
Camp 19	27.83%	9386	51.30%	17305	15.65%	5280	5.22%	1760	0.00%	0
Camp 20 ext.	12.12%	3695	62.63%	19091	20.20%	6158	5.05%	1540	0.00%	0
Camp 10	10.24%	3382	51.97%	17168	33.86%	11185	3.94%	1301	0.00%	0
Camp 15	12.82%	2857	50.43%	11239	30.77%	6858	5.13%	1143	0.85%	190
Camp 16	19.30%	5194	43.86%	11805	33.33%	8972	3.51%	944	0.00%	0
Camp 11	9.73%	4799	61.95%	30539	25.66%	12652	1.77%	873	0.88%	436
Camp 1E	30.48%	13053	56.19%	24066	11.43%	4895	1.90%	816	0.00%	0
Camp 8W	17.24%	2529	47.41%	6955	30.17%	4426	5.17%	759	0.00%	0
Camp 20	20.00%	6575	45.26%	14880	32.63%	10728	2.11%	692	0.00%	0
Camp 23	27.37%	6861	48.42%	12139	22.11%	5542	2.11%	528	0.00%	0
Camp 1W	18.80%	2303	41.88%	5130	35.04%	4292	4.27%	523	0.00%	0
Camp 27	50.52%	20008	41.24%	16333	7.22%	2858	1.03%	408	0.00%	0
Camp 3	23.28%	5103	52.59%	11528	22.41%	4914	1.72%	378	0.00%	0
Camp 13	27.68%	11251	57.14%	23227	14.29%	5807	0.89%	363	0.00%	0
Camp 17	50.89%	19669	41.96%	16218	6.25%	2416	0.89%	345	0.00%	0
Camp 24	14.58%	4706	62.50%	20170	21.88%	7060	1.04%	336	0.00%	0
Camp 25	27.78%	8638	57.41%	17852	13.89%	4319	0.93%	288	0.00%	0
Camp 21	46.09%	13232	43.48%	12483	8.70%	2497	0.87%	250	0.87%	250
Camp 18	33.62%	4372	46.55%	6054	18.10%	2354	1.72%	224	0.00%	0
Camp 2E	38.32%	3718	46.73%	4534	13.08%	1270	1.87%	181	0.00%	0
Camp 9	35.04%	1630	53.85%	2504	9.40%	437	0.85%	40	0.85%	40
Camp 4 ext.	21.65%	209	58.76%	566	17.53%	169	2.06%	20	0.00%	0
Nayapara	11.22%	113	69.39%	697	17.35%	174	2.04%	20	0.00%	0
Camp 12	22.22%	7383	56.57%	18794	21.21%	7048	0.00%	0	0.00%	0
Camp 14	51.28%	20132	42.74%	16776	5.98%	2349	0.00%	0	0.00%	0
Camp 22	23.40%	5053	57.45%	12403	19.15%	4134	0.00%	0	0.00%	0
Camp 26	47.42%	13198	42.27%	11764	10.31%	2869	0.00%	0	0.00%	0
Camp 2W	49.04%	12354	45.19%	11385	5.77%	1453	0.00%	0	0.00%	0
Camp 4	45.05%	11141	39.64%	9804	15.32%	3788	0.00%	0	0.00%	0
Camp 5	59.43%	21767	33.02%	12093	7.55%	2764	0.00%	0	0.00%	0
Camp 6	41.38%	16836	46.55%	18941	12.07%	4911	0.00%	0	0.00%	0
Camp 7	40.71%	4431	48.67%	5298	10.62%	1156	0.00%	0	0.00%	0

PEOPLE IN NEED							
SECTOR	SEVERITY OF NEED	SEVERITY OF NEED	VAR SHORT	% of People	Households in Need	People in Need	
Water	HH_water_access_index(<0.2)	Very Low Need	var240_	4.03%	8050	34859	
	HH_water_access_index(0.2-<0.4)	Low Need	var241_	42.69%	85355	369614	
	HH_water_access_index(0.4-<0.6)	Moderate Need	var242_	15.48%	30952	134034	
	HH_water_access_index(0.6-<0.8)	High Need	var243_	34.63%	69237	299819	
	HH_water_access_index(above 0.8)	Very High Need	var244_	3.18%	6356	27523	
Sanitation	HH_Sanitation_index(<0.2)	Very Low Need	var245_	55.96%	111899	484559	
	HH_Sanitation_index(0.2-<0.4)	Low Need	var246_	25.69%	51377	222477	
	HH_Sanitation_index(0.4-<0.6)	Moderate Need	var247_	13.31%	26619	115269	
	HH_Sanitation_index(0.6-<0.8)	High Need	var248_	4.30%	8590	37196	
	HH_Sanitation_index(above 0.8)	Very High Need	var249_	0.73%	1466	6347	
Hygiene	HH_Hygeine_index(<0.2)	Very Low Need	var250_	29.12%	58229	252150	
	HH_Hygeine_index(0.2-<0.4)	Low Need	var251_	49.23%	98444	426295	
	HH_Hygeine_index(0.4-<0.6)	Moderate Need	var252_	19.47%	38925	168556	
	HH_Hygeine_index(0.6-<0.8)	High Need	var253_	2.01%	4018	17400	
	HH_Hygeine_index(above 0.8)	Very High Need	var254_	0.17%	334	1447	
WASH	HH_WASH_index(<0.2)	Very Low Need	var255_	10.67%	21341	92412	
	HH_WASH_index(0.2-<0.4)	Low Need	var256_	61.58%	123131	533196	
	HH_WASH_index(0.4-<0.6)	Moderate Need	var257_	26.29%	52563	227615	
	HH_WASH_index(0.6-<0.8)	High Need	var258_	1.46%	2916	12625	
	HH_WASH_index(above 0.8)	Very High Need	var259_	0.00%	0	0	