

Somalia

# Water, Sanitation, and Hygiene Assessment

Report

December 2019



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Cover image: Tyler Rundel. Rural community in Somaliland, October 2019. © IMPACT Initiatives, 2019

### About REACH

REACH Initiative facilitates the development of information tools and products that enhance the capacity of aid actors to make evidence-based decisions in emergency, recovery and development contexts. The methodologies used by REACH include primary data collection and in-depth analysis, and all activities are conducted through inter-agency aid coordination mechanisms. REACH is a joint initiative of IMPACT Initiatives, ACTED and the United Nations Institute for Training and Research - Operational Satellite Applications Programme (UNITAR-UNOSAT). For more information, please visit our website: [www.reach-initiative.org](http://www.reach-initiative.org). You can contact us directly at: [somalia@reach-initiative.org](mailto:somalia@reach-initiative.org) and follow us on Twitter @REACH\_info.

## SUMMARY

In Somalia, 2.7 million people are still in need of humanitarian WASH support<sup>1</sup> after decades of protracted crisis. United Nations agencies, non-governmental organizations, and organizations specialized in assessments collect large amounts of data, which is often challenging to analyze because of its overwhelming amount, uneven quality and incomplete coverage. To make sense out of this data, this assessment conducted a process of data collation, synthesis and analysis building on a desk study of all relevant data available, with a focus on quantitative data collection initiatives.

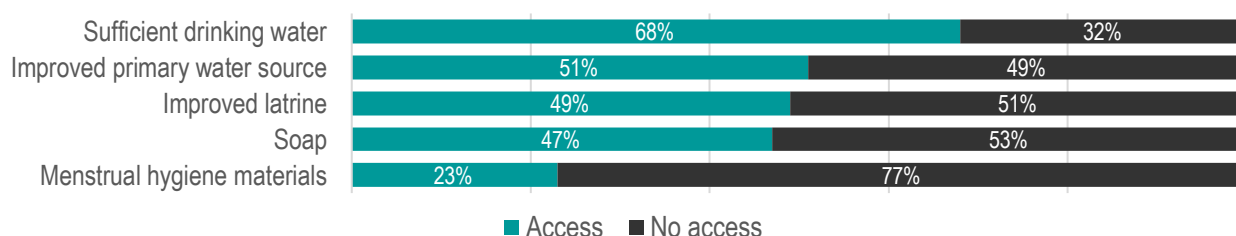
The general objective of the assessment is to understand and analyze WASH-related needs across Somalia to support evidence-based planning and advocacy by the WASH cluster. To achieve this goal, it contains the following specific objectives:

1. To understand the current WASH-related needs in Somalia.
2. To identify key factors and underlying causes of these needs and vulnerabilities.
3. To lay the foundation for continued monitoring and analysis by the WASH cluster.
4. To provide a robust evidence base to assist WASH cluster planning in Somalia and improve the effectiveness and efficiency of programming.

Accordingly, the following assessment is based on a review of quantitative WASH data, including the data being used by the WASH cluster in support of the 2020 Humanitarian Needs Overview (HNO) and Humanitarian Response Plan (HRP). The second source of data used for this report is from REACH's third annual Joint Multi-Cluster Needs Assessment (JMCNA). It entailed surveys of 10,783 households during July 2019 in 53 of the 74 districts in Somalia. Results are statistically representative for displaced and non-displaced households at the district-level. Figures for the total district population including displaced and non-displaced populations were aggregated based on the proportion of the population they encompassed. For the districts where non-displaced populations were surveyed, but not non-displaced, the population mean is based solely on the non-displaced population. District-level results were aggregated to the national level by weighting district averages by the percent of the national population in the district. Additionally, the assessment was intended to further investigate specific issues and themes pre-identified by the WASH Cluster, through Focus Group Discussions (FGDs) to add additional depth to the understanding of the issues and to better integrate the perspectives of beneficiaries. To this aim, twenty-four FGDs were conducted in September 2019 in Baidoa, Banadir, Galkayo, and further stratified by urban/rural, sex, affected group, disability, and ethnicity. Each FGDs consisted of six to eight participants.

The following key indicators used for the JMCNA show the pressing level of WASH needs in Somalia.<sup>2</sup> A third of the households reported not having enough drinking water, half reported lacking access to improved latrines, water sources, and soap, while three quarters reportedly did not have menstrual hygiene materials (e.g. menstrual cloth, pads, tampons, menstrual cups, etc.).

**Figure 1: Proportions of households surveyed in the JMCNA with or without access to basic WASH services.**



<sup>1</sup> Somalia WASH Cluster. 2019. WASH Sectoral PIN. Humanitarian Needs Overview (HNO) 2020.

<sup>2</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

According to secondary data, wasting (GAM WHZ<-2)<sup>3</sup> prevalence is estimated to be 13% nationally,<sup>4</sup> representing a “serious” severity classification that warrants a public health concern calling for action.<sup>5</sup> Current data for stunting (HAZ<-2),<sup>6</sup> is classified at a “low” severity level (7%) nationally.<sup>7</sup> However, it should be noted that this data from Food and Agricultural Organization (FAO) is far lower than previous thorough nutritional assessments (25%)<sup>8</sup> in Somalia and in neighboring nations like Ethiopia (38%)<sup>9</sup> and Kenya (26%),<sup>10</sup> which are classified as “high” when between 20-30% and “very high” when above 30%.<sup>11</sup>

There is an inadequate quantity of improved latrines. The JMCNA additionally found that shared latrines reportedly remain common as reported by 46% of the households with access to latrines,<sup>12</sup> though almost no FGD participants supported having shared latrines because of the lack of privacy and cleanliness.<sup>13</sup> If it cannot be avoided, respondents reported not wanting to share latrines with more than two other households.<sup>14</sup> For households with access to a latrine, more than half nationally (54%) reported having their own latrine, while the rest (46%) reportedly use shared facilities.<sup>15</sup> Non-displaced households (60%) were reportedly twice as likely to have private latrines compared to displaced households (31%).<sup>16</sup> The majority of FGD participants reported supporting the gender separation of shared latrines.<sup>17</sup>

Hygiene practices remain insufficient, leading to a heightened risk of water-borne disease. Less than half of the FGD participants reported washing their hands regularly after defecation.<sup>18</sup> JMCNA data showed that a majority of the households (79%) reportedly have a handwashing facility within 15 minutes travel time.<sup>19</sup> However, less than a third of households (31%) reported a functional handwashing facility at their latrine.<sup>20</sup> Non-displaced households, on the other hand, were reportedly much more likely (34%) to have one than displaced households (20%).<sup>21</sup> When soap was unavailable, FGD participants reported using water only, ash, and sand at even numbers.<sup>22</sup>

A majority of latrines lack basic fixtures such as lights, locks, or are inaccessible to disabled persons, with a greater proportion of latrines accessed by displaced households reportedly lacking basic fixtures. The JMCNA showed that three quarters (75%) were reportedly lockable from the inside and, less than a third (32%) had lighting at night. Non-displaced households (37%) were reportedly over three times as likely to have lighting in latrines compared to displaced households (10%).<sup>23</sup> While the JMCNA found 91% of latrines were reportedly accessible for disabled people,<sup>24</sup> a large majority of disabled FGD participants expressed issues of access them, including difficulties in using the toilets and transporting water when asked what were the main challenges accessing WASH services.<sup>25</sup>

<sup>3</sup> Global acute malnutrition, based on weight-for-height Z-score below -2 standard deviations

<sup>4</sup> FSNAU. 2019. Post Gu Acute Malnutrition Burden Estimates.

<sup>5</sup> UNHCR. 2015. Handbook for Emergencies. Acute malnutrition threshold.

<sup>6</sup> Based on height-for-age z-scores below -2 standard deviations

<sup>7</sup> FAO. 2019. Somalia Gu 2019 Survey database.

<sup>8</sup> Kassim, I.A.R., Seal, A.J. and Moloney, G., 2010. National micronutrient and anthropometric survey, Somalia 2009.

<sup>9</sup> CSACE, I. 2016. Ethiopia Demographic and Health Survey 2016. Addis Ababa, Ethiopia, and Rockville, Maryland, USA: CSA and ICF.

<sup>10</sup> Hanson, C. M., Mirza, I., Kumapley, R., Ogbuanu, I., Kezaala, R., & Nandy, R. 2018. Enhancing immunization during second year of life by reducing missed opportunities for vaccinations in 46 countries. *Vaccine*, 36(23), pp.3260-3268.

<sup>11</sup> De Onis, M., Borghi, E., Arimond, M., Webb, P., Croft, T., Saha, K., De-Regil, L.M., Thuita, F., Heidkamp, R., Krasevec, J. and Hayashi, C., 2019. Prevalence thresholds for wasting, overweight and stunting in children under 5 years. *Public health nutrition*, 22(1), pp.175-179.

<sup>12</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

<sup>13</sup> REACH. 2019. WASH Focus Group Discussions.

<sup>14</sup> Ibid.

<sup>15</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

<sup>16</sup> Ibid.

<sup>17</sup> REACH. 2019. WASH Focus Group Discussions.

<sup>18</sup> REACH. 2019. WASH Focus Group Discussions.

<sup>19</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

<sup>20</sup> Ibid.

<sup>21</sup> Ibid.

<sup>22</sup> REACH. 2019. WASH Focus Group Discussions.

<sup>23</sup> Ibid.

<sup>24</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

<sup>25</sup> Ibid.

JMCNA data showed that households employing WASH-related coping strategies generally had low levels of access to WASH services. Therefore, the use of these strategies did not improve wellbeing and livelihood conditions. Hence, they could be seen as mitigation measures that reduce the worst impact, rather than compensation measures that make up for the loss due to a shock.<sup>26</sup>

Of all focus group participants, almost two-thirds reported being satisfied or very satisfied with WASH programming. About half reported that WASH programming supports the priority needs of their community. Two-thirds felt that their communities were involved in decision-making about WASH programming. Around a quarter reportedly knew of complaint mechanisms existing, how to use them, or saying they work well.<sup>27</sup>

A quarter of FGD participants thought WASH facilities and Non-Food Items (NFIs) were of good or very good quality. However, there were considerable differences between the types of facilities and items: water points and storage were thought very favorably of, while the others were viewed poorly. Very few thought WASH facilities and NFIs lasted a long time. Again, water-related services were thought to last longer than other types. Toilets were the most remarked upon service as many complained that they were not dug deep enough, were of low quality, and collapsed when it rains. Garbage collection sites were also mentioned often with participants noting that they filled up quickly and were prone to collapsing.<sup>28</sup>

The key figures above indicate a high level of WASH needs in Somalia. Physical wellbeing and living standards conditions remain severely low, while there is limited availability and use of coping mechanisms. The results of this assessment are intended to assist policy makers in evidence-based decision making. While this report provides a general summary, the accompanying database and information products contain the complete range of WASH indicators aggregated by district and nationally and by displaced, non-displaced, and total populations.

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<sup>26</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

<sup>27</sup> REACH. 2019. WASH Focus Group Discussions.

<sup>28</sup> Ibid.



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## List of acronyms

AOD	Acute other diarrhea
AWD	Acute watery diarrhea
FAO	Food and Agricultural Organization
FGD	Focus group discussion
GAM	Global acute malnutrition
HAZ<-2	Height-for-age z-scores below -2 standard deviations
HNO	Humanitarian Needs Overview
HRP	Humanitarian Response Plan
IDP	Internally Displaced Person
JMCNA	Joint Multi-Cluster Needs Assessment
NFI	Non-food item
NGO	Non-governmental organization
PIN	People in need
WASH	Water, Sanitation & Hygiene
WFP	World Food Programme
WHZ<-2	Weight-for-height Z-score below -2 standard deviations

## INTRODUCTION

According to the Humanitarian Needs Overview (HNO) 2020, about 2.7 million people are still in need of humanitarian WASH support in a country that has been in a state of protracted emergency for decades. Unreliable access to water often from unimproved sources is still an important feature of the WASH humanitarian landscape in Somalia. Nationwide, access to an improved water source remains low, with large variations from one region to another. In drought affected regions, water scarcity is a leading cause of displacements and conflicts.<sup>29</sup> Protection risks are worryingly high in all parts of Somalia, resulting in all categories of users being at high risk of violence when using facilities.<sup>30</sup> Given the dire needs described, a strong understanding of the humanitarian conditions of the affected population is essential for the WASH cluster to better perform its 6+1 core functions<sup>31</sup> in Somalia. To this end, a detailed analysis of WASH data is important to providing the evidence-base necessary to support the more effective implementation of these key functions.

The general objective of the assessment is to understand and analyze WASH-related needs across Somalia to support evidence based planning and advocacy by the WASH cluster. To achieve this goal, it contains the following specific objectives:

1. To understand the current WASH-related needs in Somalia.
2. To identify key factors and underlying causes of these needs and vulnerabilities.
3. To lay the foundation for continued monitoring and analysis by the WASH cluster.
4. To provide a robust evidence base to assist WASH cluster planning in Somalia and improve the effectiveness and efficiency of programming.

In Somalia, United Nations agencies, non-governmental organizations, and organizations specialized in assessments collect large amounts of data, which is often challenging to analyze because of its overwhelming amount, uneven quality and incomplete coverage. To make sense out of this data, this assessment conducted a process of data collation, synthesis and analysis building on a desk study of all relevant data available, with a focus on quantitative data collection initiatives. However, one of the key findings was that very limited amounts of WASH data are readily available. Further work will be required to collect disaggregated datasets from WASH actors in the region and make them available to all members of the cluster and other WASH implementers. Therefore, for the purposes of this assessment, secondary data was mostly limited to REACH's 2019 Joint Multi-Cluster Needs Assessment (JMCNA), supplemented by health and nutrition data provided for the HNO process.

The aim of the assessment is to further investigate specific issues and themes pre-identified by the WASH Cluster, through FGDs to add additional depth to the understanding of the issues and to better integrate the perspectives of beneficiaries. It covered all accessible areas in Somalia. Insecurity was the primary barrier to access and mainly occurred in the South and Central portions of the country. The assessment is based on an analysis framework set on the key information needs identified by the WASH Cluster to deliver on its core functions. The framework breaks down the information needs and conceptualize the relations between the different dimensions that are taken into account for the needs analysis. As part of this framework, a list of key indicators and a methodology was developed to track WASH People in Need (PIN) and severity levels over the coming years.

The next section details the research method of the assessment. The following section contains the findings arranged by WASH themes: coping strategies, barriers, safety, health and nutrition, and accountability to affected people. The final section summaries the findings and methods of the WASH sectoral PIN used in the HNO process.

<sup>29</sup> Somalia WASH Cluster. 2019. WASH Sectoral PIN. Humanitarian Needs Overview (HNO) 2020.

<sup>30</sup> OCHA. 2018. Humanitarian Needs Overview 2019.

<sup>31</sup> Supporting service delivery, strategic decision-making, developing/implementing strategies and plans, contingency planning, monitoring, advocacy, and accountability to the affected population.

## RESEARCH METHOD

The assessment covers all accessible areas in Somalia. Insecurity was the primary barrier to access and mainly occurred in the South and Central portions of the country. The secondary data review is primarily based on the Joint Multi-Cluster Needs Assessment (JMCNA) where REACH supported the Somalia Assessment Working Group and the Somalia Information Management Working Group in conducting this third round of JMCNA in Somalia. Only a limited number of additional secondary data was available. Further work will be necessary to collate data from WASH partners into a shared platform.

It entailed surveys of 10,783 households during July 2019 in 53 of the 74 districts in Somalia. Results are statistically representative for displaced and non-displaced population groups at the district-level. Note that the results in this JMCNA results presented in this report are based on the self-reported status of the household, rather than the status of the settlement that the household lives in as the is used in the JMCNA report and so results may differ slightly. Figures for the total district population including displaced and non-displaced populations were aggregated based on the proportion of the population they encompassed. For the districts where non-displaced populations were surveyed, the population mean is based solely on the non-displaced population. District-level results were aggregated to the national level by weighting district averages by the percent of the national population in the district. Population figures are based on those officially endorsed by OCHA for the Humanitarian Needs Overview 2020, a national population estimate of 12.3 million (PESS 2014) that is approximately 2.5 million below current estimates.

The aim of the assessment is to further investigate specific issues and themes pre-identified by the WASH Cluster, through FGDs to add additional depth to the understanding of the issues and to better integrate the perspectives of beneficiaries. Each FGD involved between 6-8 participants. The FGDs were conducted in September 2019 and were stratified by district (Baidoa, Banadir, Galkayo), urban/rural, sex (male and female), affected group (Internally Displaced Person (IDP) and non-displaced), disability (disabled persons and enabled persons), and ethnicity (ethnic minority and ethnic Somali). The focus groups are intended to provide additional depth of understanding on issues of importance, though their results are not intended to a representative sample of the population as with a survey like the JMCNA. A total of 24 FGDs were held with combinations of these stratum as follows:

**Table 1: Location and composition of FGDs.**

Baidoa, Urban	Baidoa, Rural	Mogadishu, Urban	Galkayo, Rural
1. IDP, Male, Adult	7. IDP, Male, Adult	13. IDP, Male, Adult	19. IDP, Male, Adult
2. IDP, Female, Adult	8. IDP, Female, Adult	14. IDP, Female, Adult	20. IDP, Female, Adult
3. Host, Male, Adult	9. Host, Male, Adult	15. Host, Male, Adult	21. Host, Male, Adult
4. Host, Female, Adult	10. Host, Female, Adult	16. Host, Female, Adult	22. Host, Female, Adult
5. Disabled persons, Male, Adult	11. IDP, Male, Senior	17. Disabled persons, Male, Adult	23. IDP, Male, Senior
6. Ethnic minority, Male, Adult	12. Host, Male, Senior	18. Ethnic minority, Male, Adult	24. Host, Male, Senior

The qualitative data was collected in the form of the enumerators' records taken during the FGDs and the enumerators' post-FGD debriefing. All records were manually translated and coded. Records were split into sentences then divided according to the key indicators that the research intends to address. The analysis entailed identifying key issues in each indicator and defining brief summaries accordingly. The main limitation was that responses were very concise and did not allow for a great depth of qualitative analysis.

## FINDINGS

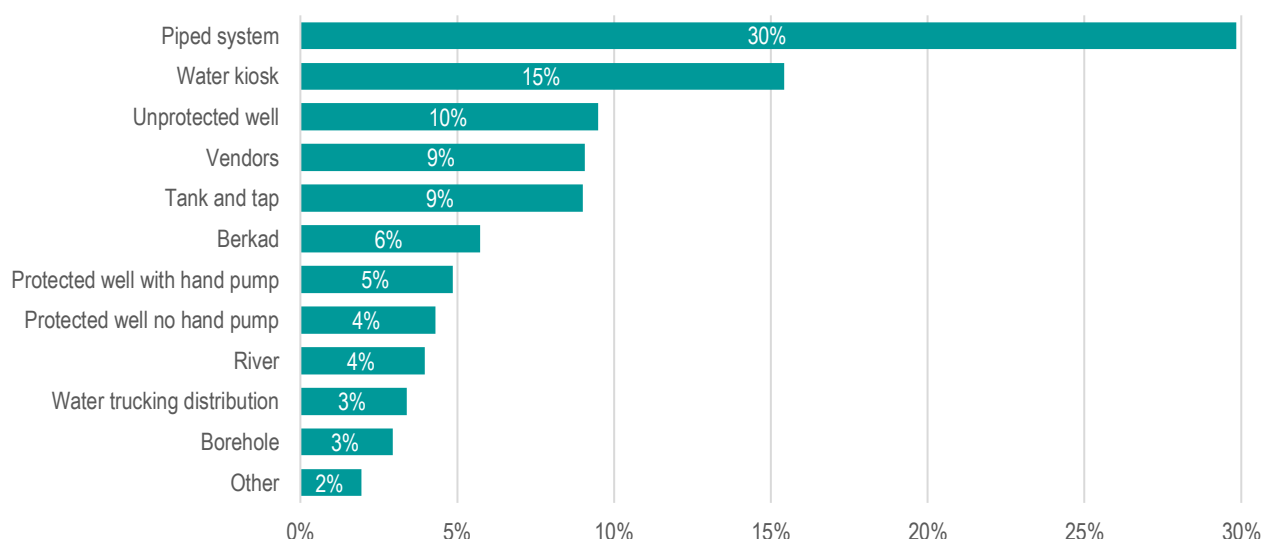
### Water

#### Access to water

A significant share of the population of Somalia reportedly does not have reliable access to safe drinking water: over four million people were reportedly found to be without a sufficient quantity of water.<sup>32</sup> Nationally, the JMCNA found that only two-thirds of households reported having enough water for drinking (68%) and domestic use (67%), though there is considerable differences between non-displaced (74%, 73%) and displaced households (49%, 45%) and between regions (24%-96%, 18%-96%). Moreover, over half of households (59%) reportedly have a water source within 15 minutes of their home,<sup>33</sup> while 83% are within 30 minutes.<sup>34</sup>

According to the JMCNA data, over six million people reportedly access water of insufficient quality.<sup>35</sup> Indeed, just over half of households (51%) reported accessing an improved primary water source, while 43% reported using an unimproved source and 6% rely on surface water. A surprising finding in the JMCNA data was the source for primary source of water. A plurality of households nationally reported using a piped system (30%), while it is general believed that wells (10%) and boreholes (3%) are the most common sources. This may be a result of the survey design which includes responses for water kiosks (15%), vendors (9%), and trucks (3%) which may source their water from wells and boreholes, making their total up to 40%. Similarly, such systems are classified as unimproved as the quality of the original source cannot be confirmed. Additionally, the use of these third-party suppliers could represent a financial burden, though also a mean of mitigating stress when other sources become unavailable. In fact, a majority of households (71%) reportedly pay for water, with 39% paying less than US\$10/month. However, half of those paying (56%) have also reported that prices have increased. Three quarters of households (73%) reported not treating their water. The most commonly reported methods buy households for treating water were chlorine (13%) and boiling (9%). Jerry cans were reportedly used to store water by over two thirds of households (70%) and water tanks were less commonly reported at one third (33%).<sup>36</sup>

Figure 2: Primary source of drinking water as reported in the JMCNA 2019, as a percentage of the national population.



<sup>32</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

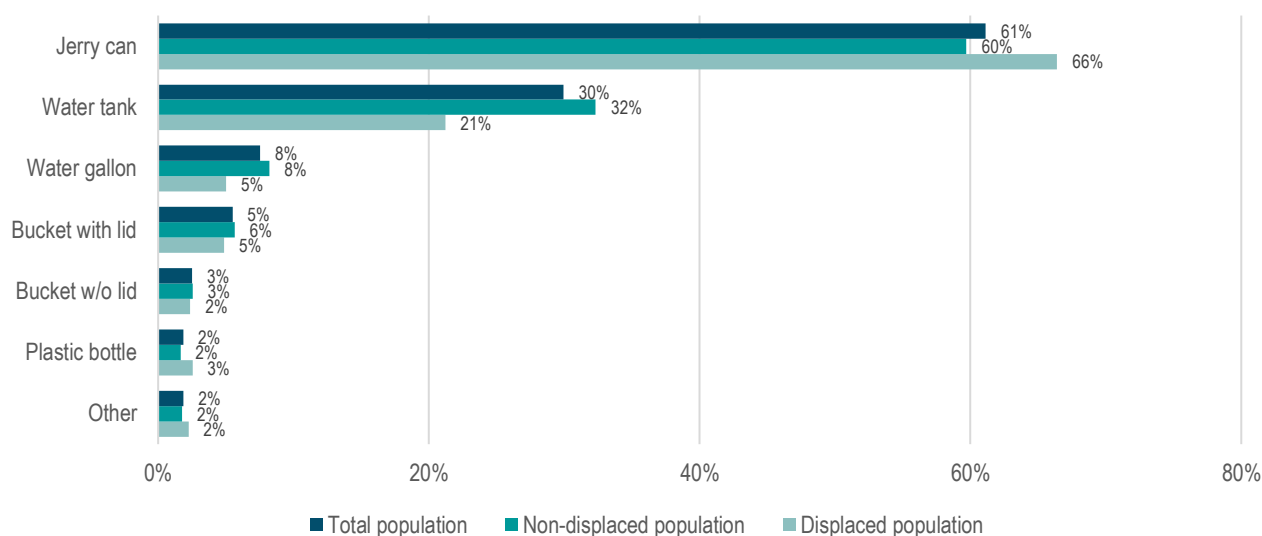
<sup>33</sup> By foot, one way.

<sup>34</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

<sup>35</sup> Ibid.

<sup>36</sup> Ibid.

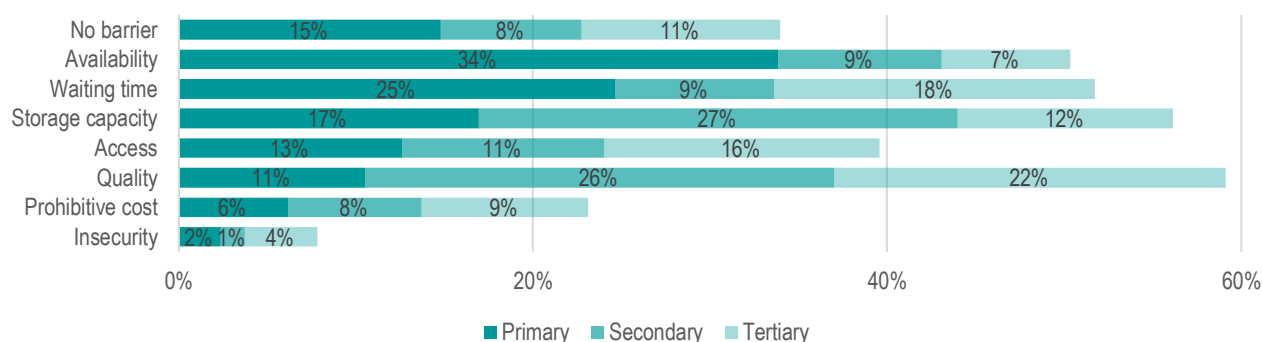
**Figure 3: Percentage of households using various water storage containers as reported in the JMCNA 2019, as a percentage of the national population.**



## Barriers to accessing water

Fifteen per cent of households reported no primary barriers to accessing water. The two most reported primary barriers were availability (34%) and waiting time (25%). Secondary barriers differed, with the two most reported being storage capacity (27%) and quality (26%).<sup>37</sup>

**Figure 4: Barriers to accessing water as reported in the JMCNA 2019, as a percentage of the national population.**



## Coping strategies to accessing water

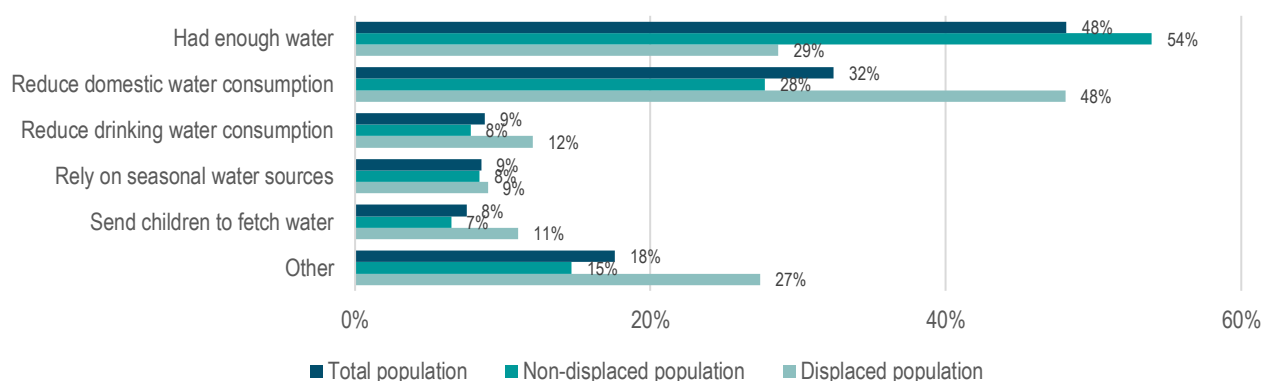
Over half of the households (52%) reportedly engage in negative coping strategies to access water.<sup>38</sup> There are clear differences between population groups, with 54% of non-displaced households resorting to negative coping strategies and 29% of displaced households reportedly doing so. There are also considerable geographic differences between districts, ranging from 3% to 84%, with households from the northeast and northwest engaging less in negative coping strategies than households from the south and central regions of the country. The most commonly reported coping strategy for insufficient access to water was reducing domestic water consumption (32%) and this also varied across population groups with 28% of non-displaced and 48% of displaced households reducing domestic water consumption. The next most frequently reported coping strategies were reducing drinking water consumption (9%), relying on seasonal water sources (9%), and sending children to fetch water (8%). The rest of the strategies has less than 5% response rate for the national

<sup>37</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

<sup>38</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

population. Very few households reported using severe coping strategies that affect the household's future productivity and are dramatic or difficult to reverse.<sup>39</sup> For example, selling productive assets, child labor, begging, and exploitation were all self-reported at less than 1%. Reducing drinking and domestic water use constitutes a potential physical/psychological risk, depending on the amount reduced, and relying on seasonal water sources likely increases the risk of water contamination as well as travel time highlighting subsequent protection-related concerns, as with sending children to fetch water.

**Figure 5: Coping strategies employed to access water as reported in the JMCNA 2019, by displaced, non-displaced, and the total population, as a percentage of the national population.**<sup>40</sup>



For the assessment, FGD participants provided additional insights into water-related coping strategies. The responses differed from that of the JMCNA, though it should be noted that FGD participant selection was not intended to form a representative sample of the population. Participants were much less likely to report reducing drinking or domestic water consumption as a coping strategy. Instead, the leading responses were: spending more time travelling to fetch water, relying on humanitarian assistance, purchasing water, and notifying their community leader or relevant authority. Purchasing water was mentioned by about a sixth of participants and from all strata without any significant group differences. They mentioned that when their primary water source became unavailable they would have to resort to purchasing water from private companies often through water trucks and at a higher price. Spending more time traveling can increase protection-related risks and the resource burden on households, while having to purchase water can be a financial burden.<sup>41</sup>

Relocating households as a mean of coping with water stress was discussed by a small share of participants. This is an important one to note as the World Food Programme classifies it as an emergency-level livelihood coping strategy.<sup>42</sup> It was more commonly reported by participants in Galkayo and Baidoa, while not in Banaadir. Additionally, it was far more prevalent among participants from host communities, IDPs, and seniors than adults. It was not mentioned by any ethnic minority or disabled participants. On the other hand, little detail was provided on household migration in the discussions. Participants were generally non-specific stating just that they were displaced to a place where they could get water. One participant provided slightly more details, describing it as a “near place”. This is an issue that may warrant further investigation.

Participants also stated that they would notify a community authority or government agency when facing water stress. Though this was reported as often being a first step that was followed by other coping strategies. Some participants spoke of community representatives organizing a collective response such as one of the other strategies listed, such as pooling money to buy water or contacting an NGO for assistance, demonstrating the existence and capacity of local institutions to address these challenges or at least coordinate a response.<sup>43</sup>

<sup>39</sup> Based on the livelihood coping strategies guidance in: WFP. 2015. *Consolidated Approach to Reporting Indicators of Food Security (CARI)*.

<sup>40</sup> Other includes: Adults reduce consumption so that minors can drink; Borrow or share materials or borrow cash; Drink unsafe water, Borrow or share materials or borrow cash; Rely on humanitarian assistance; Adults work extra shifts/jobs; Use money otherwise used for other purchases; Sell assets otherwise used for other purposes; Minors work; Spend more time travelling/waiting (secure areas); Adult members beg; Travel/Move to insecure or dangerous areas; Minors beg; and Sexual, economic exploitation to access humanitarian assistance.

<sup>41</sup> REACH. 2019. WASH Focus Group Discussions.

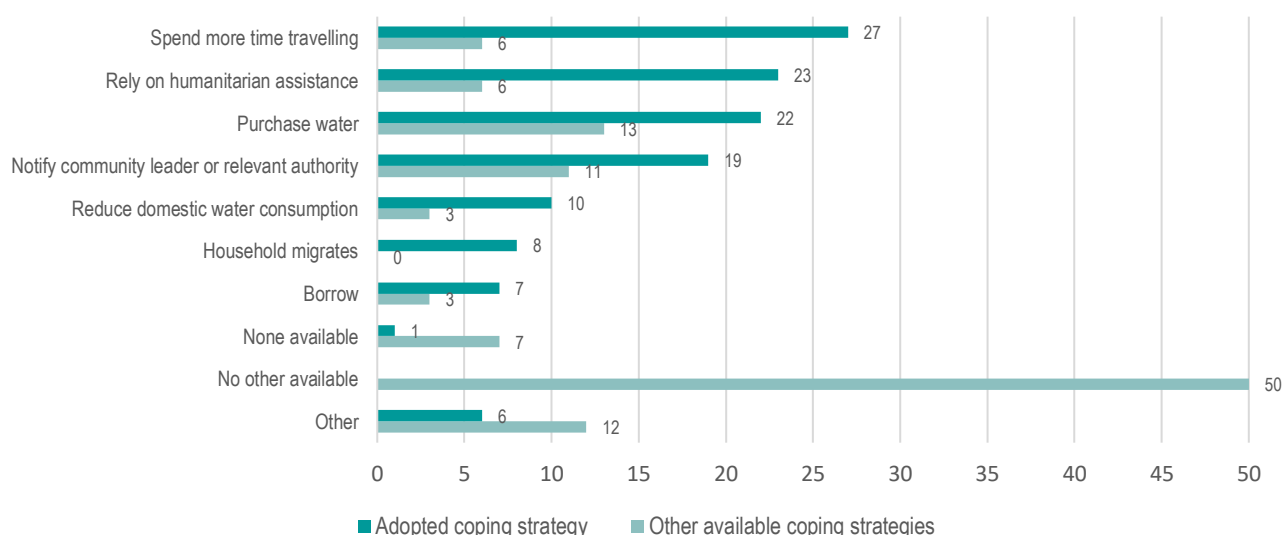
<sup>42</sup> Based on the livelihood coping strategies guidance in: WFP. 2015. *Consolidated Approach to Reporting Indicators of Food Security (CARI)*.

<sup>43</sup> REACH. 2019. WASH Focus Group Discussions.



When asked why they employed a specific coping mechanism, three quarters of focus group participants responded that there were no other options available, implying that there was only one strategy available to them individually.<sup>44</sup> One participant stated that there were no coping strategies available. Therefore, households reportedly have little means in responding to water stress and are likely to experience negative outcomes once the adopted strategy becomes exhausted.

**Figure 6: Water-related coping strategies: comparison of adopted and available to the households, represented by the number of participant responses per coping strategy.**<sup>45</sup>



When asked about how their communities coped with water shortages, many of the FGD participants' answers were similar to those of the strategies reported by households. The notable exception was that participants were reportedly much more likely to reduce water consumption. However, there were differences between strata. For instance, disabled individuals and ethnic minorities never expressed migration as a strategy, whereas that was the most frequent response for seniors. Moreover, almost no participants expressed that there were businesses in their community that could mitigate the effects of a disaster or help them recover in its aftermath.<sup>46</sup> However, this contradicts those who said they purchased water as a coping strategy. It is possible that the participants considered such businesses as outsiders rather than members of their community.

Participants also described when water shortages were likely to occur and they would need to employ these coping strategies. The dry season was the primary response. A few specifically mentioned the Jilaal dry season in particular, around January through March. The next most common response was "some years" or every two years. Participants also noted instances which would reportedly cause water shortages, including: aid shortages, damage to water sources and fuel shortages. Disabled participants and residents of Mogadishu were reportedly particularly affected by aid shortages. One urban participant did note that it occurred "when there is outbreak of diseases like cholera and WASH services are very low." There were no descriptions of how water quality changed as a result of water shortages or from the adopted coping strategies.<sup>47</sup>

There was a wide range of views on how NGOs could assist in providing a reliable supply of water. A plurality of FGD participants expressed a preference for wells or boreholes, followed by water storage systems. Two leading responses

<sup>44</sup> Ibid.

<sup>45</sup> Other includes: Crowded; Facilities are full; Insecurity at facility; No lock; Not accessible to minority; and Not clean.

<sup>46</sup> REACH. 2019. WASH Focus Group Discussions.

<sup>47</sup> Ibid.

focused on ensuring that water supervision committees are in place and provided with early warnings and that NGOs more actively engage with the committees and communities.<sup>48</sup>

## Sanitation

### Access to sanitation facilities

Access to basic sanitation remains a major issue for the country. According to JMCNA data, half of the households (49%) nationally reported having access to an improved latrine, while a third (34%) reported using an unimproved latrine, and the remainder (17%) had no access. For those with access to a latrine, it is reportedly located within 15 minutes of their homes by foot for a large majority (84%). Shared latrines reportedly remain common. Additionally, for those with access to a latrine, half of the households (54%) reported having their own while the rest (46%) would use shared facilities. Non-displaced households (60%) were reportedly twice as likely to have private latrines compared to displaced households (32%). Latrines were found to be rarely separated by gender, which is a matter of particular importance to the population according to the FGDs, as detailed in the following section. Less than a third of latrines (30%) were found to be accessible for disabled people and many to lack basic fixtures such as lights, locks.<sup>49</sup> Three quarters of latrines (74%) were observed to be lockable from the inside, while less than a third (31%) to have lighting at night. Non-displaced households (37%) were reportedly over three times as likely to have lights in the accessible latrines compared to displaced households (11%).<sup>50</sup> While facilities were found to be basic, households or communities reportedly work to ensure that they are well cared for.<sup>51</sup> A majority of households (70%) reported considering the latrines they use to be hygienic or very hygienic. Non-displaced households (76%) were reportedly more likely to consider the latrines they use to be hygienic compared to displaced households (52%).<sup>52</sup>

Sanitation surrounding the household was found to be of concern as three quarters of households (75%) reported environmental sanitation problems around their homes. The most commonly reported issues were solid waste (43%) followed by fecal matter (25%), stagnant water (24%), decaying organic matter (15%), and rodents (7%). Fecal matter is of particular concern from a public health stand point in particular when considering the prevalence of open defecation (13%) and improper disposal of children feces, as reported in other sections of the JMCNA. Of concern is that 18% of households reportedly leave it in the open, while the most commonly reported methods were to dispose of it in a covered pit (36%) and burial (35%). The remaining 10% of households reported burning it.<sup>53</sup>

### Qualitative assessment of latrines

There was unanimous support among all focus group participants for gender separated community latrines. Participants had strong feelings on this topic: a majority explained their preference as resulting from issues of personal privacy, dignity, and cultural norms. The second leading reason involved security issues. A few participants also mentioned reducing congestion of latrine usage and sanitation issues.<sup>54</sup> This clear preference warrants further investigation and programmatic focus considering the current low level of practice and it may not require much additional funding to implement.

<sup>48</sup> REACH. 2019. WASH Focus Group Discussions.

<sup>49</sup> Such issues may be a protection concern and are incorporated in the WASH Safety Index.

<sup>50</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

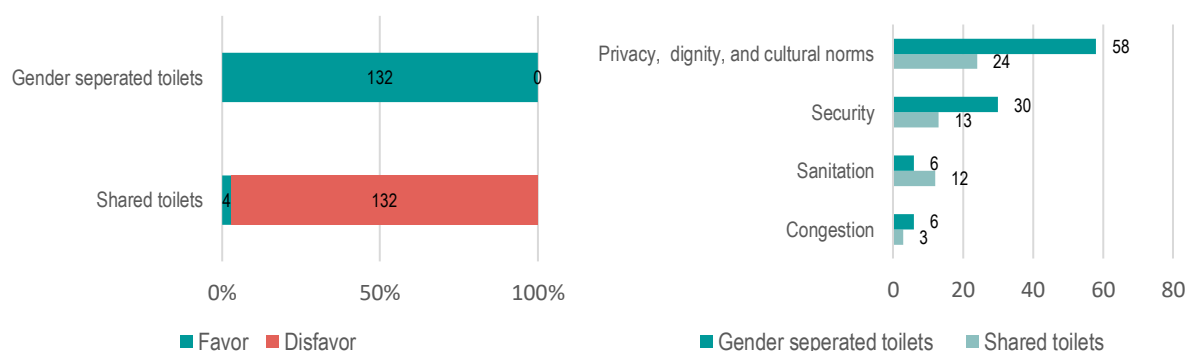
<sup>51</sup> REACH. 2019. WASH Focus Group Discussions.

<sup>52</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

<sup>53</sup> Ibid.

<sup>54</sup> REACH. 2019. WASH Focus Group Discussions.

Figure 7 (left): Preference for gender-separated latrines and shared latrines, represented by the percentage of FGD participants' responses. Figure 8 (right): Reasons given for preference towards gender-separated latrines and shared latrines, represented by the number of FGD participants' responses.

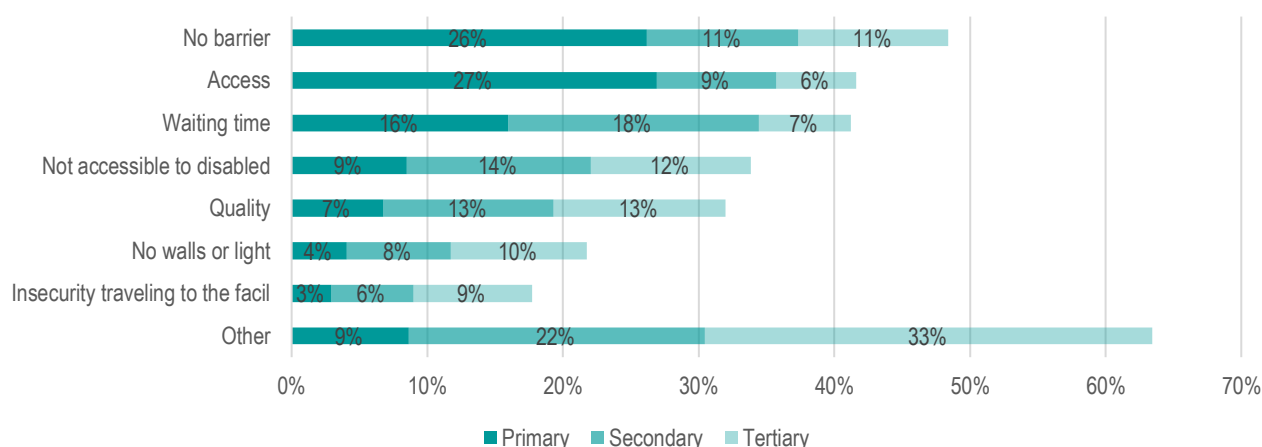


Almost no FGD participants supported shared latrines. The reasons were similar to those above, though sanitation was more prevalent. Participants were asked the number of household they were comfortable sharing a latrine with. However, several groups responded with the number of individuals instead. The most common responses were three households and 10 individuals, respectively. Three households per latrine confirms the WASH cluster's understanding and guidelines (such as used in the sectoral PIN calculations). When asked who they were comfortable sharing latrines with, the majority answered family members, about a quarter replied persons of the same sex, and a few their neighbors. Though it appears as though some groups or participants interpreted this question differently. Indeed, the participants' first preference being for a private latrine for their household, the second choice was sharing with neighbors, while less clear, it appears as though gender segregation was less important in such instances. Their last choice would be for public latrines, but if they must use them then they would at least like them to be gender segregated.<sup>55</sup>

## Barriers to accessing sanitation facilities

During the JMCNA assessment, three quarters (74%) of households reported primary barriers to accessing sanitation facilities. The two most commonly reported barriers being access (27%) and waiting time (16%). Waiting time was also the largest secondary barrier (18%) followed by latrines not being accessible to disabled persons (14%) and quality (13%).<sup>56</sup>

Figure 9: Barriers to accessing sanitation facilities as reported in the JMCNA 2019, as a percentage of the national population.<sup>57</sup>



<sup>55</sup> REACH. 2019. WASH Focus Group Discussions.

<sup>56</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

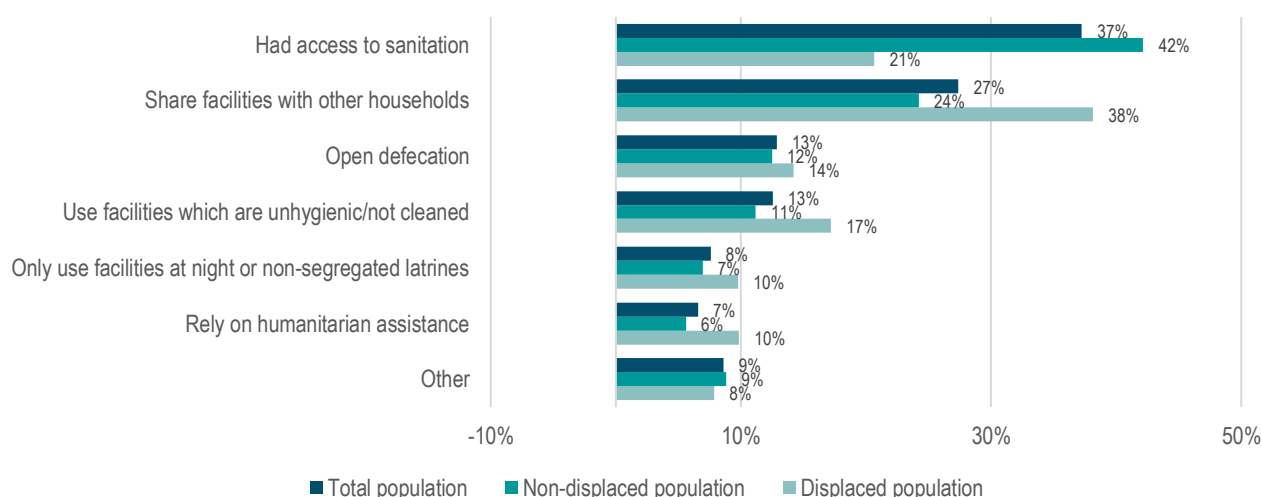
<sup>57</sup> Other includes: Crowded; Facilities are full; Insecurity at facility; No lock; Not accessible to minority; and Not clean.

## Coping strategies to access sanitation facilities

JMCNA data shows that around a third of the households (37%) reported having sufficient access to sanitation facilities so that they do not need to employ any coping strategy. Non-displaced households (42%) were twice as likely to report sufficient access as displaced households (21%). There were considerable geographic differences between districts, ranging from 1% to 86% of households reportedly using coping strategies, with households in the northeast and northwest generally using less coping strategies than households in the south and central; though this was less consistently reported than for water-related coping.<sup>58</sup>

The second most prevalent coping strategy for the lack of access to sanitation facilities is of programmatic concern, open defecation at a reported proportion of 13% nationally with a one-point difference for displaced and non-displaced. This figure is slightly lower than the proportion of households reporting no access to latrines (17%) who would therefore likely be engaging in open defecation. The next reported strategy was the use of unhygienic latrines (13%). The most reported strategy was sharing facilities with other households (27%), while households reported preferring to have their own private latrine. There were differences across population groups with 38% of displaced households reporting the use of shared facilities compared to 24% of non-displaced households. Of potential protection concern is the use of sanitation facilities at night or that are non-gender segregated (8%). Relying on humanitarian assistance is the last coping strategy to access sanitation facilities that was reportedly used by more than 5% of the population nationally.<sup>59</sup>

**Figure 10: Coping strategies employed to access sanitation facilities as reported in the JMCNA 2019, by displaced, non-displaced, and the total population, as a percentage of the national population.<sup>60</sup>**



## Hygiene

### Access to handwashing and menstrual hygiene materials

While 1% of the households self-report that they never wash their hands, handwashing appears not to be a common practice at all key moments.<sup>61</sup> For instance, 89% of households reportedly wash their hands before eating, but only 45% of the households reported doing so after defecation. There was a slight difference regarding handwashing times between displaced and non-displaced households. Access is likely the driving factor explaining these differences in handwashing

<sup>58</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

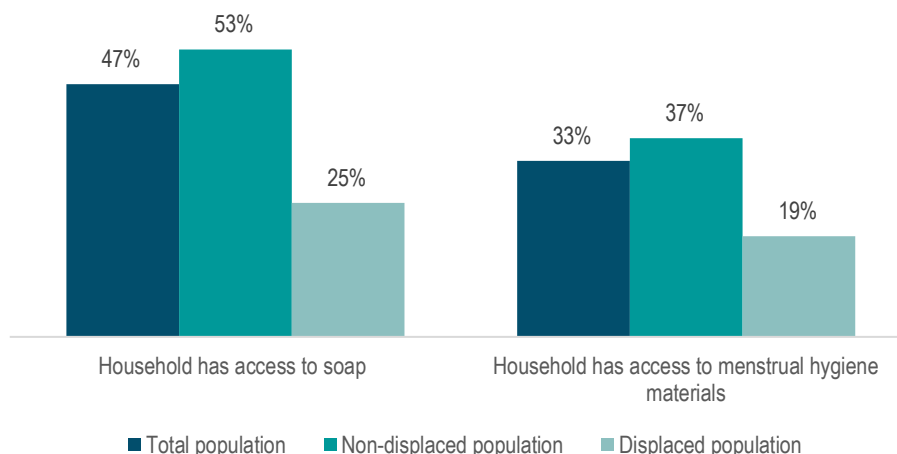
<sup>59</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

<sup>60</sup> Other includes: Spend more time travelling/waiting (secure areas); Use money otherwise used for other purchases; Travel/Move to insecure or dangerous areas; Sexual, economic exploitation to access humanitarian assistance; and Sanitation.

<sup>61</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

practices as a majority of households (79%) reported having a handwashing facility within 15 minutes' travel time<sup>62</sup> and less than a third of households (30%) reported a functional handwashing facility at their latrine. Non-displaced households (34%) were reportedly much more likely to have access to a facility than displaced households (20%). More functional handwashing facilities at latrines may encourage handwashing after defecation. Access to soap was another pressing issue highlighted by the JMCNA since less than half of the households nationally (47%) reported having regular access to soap, while non-displaced households (53%) were reportedly more than twice as likely to have access to it than displaced households (25%). Furthermore, a third of households (33%) reported having access to and using hygienic menstruation materials, with non-displaced households (37%) also around twice as likely to have access to it than displaced (17%).<sup>63</sup>

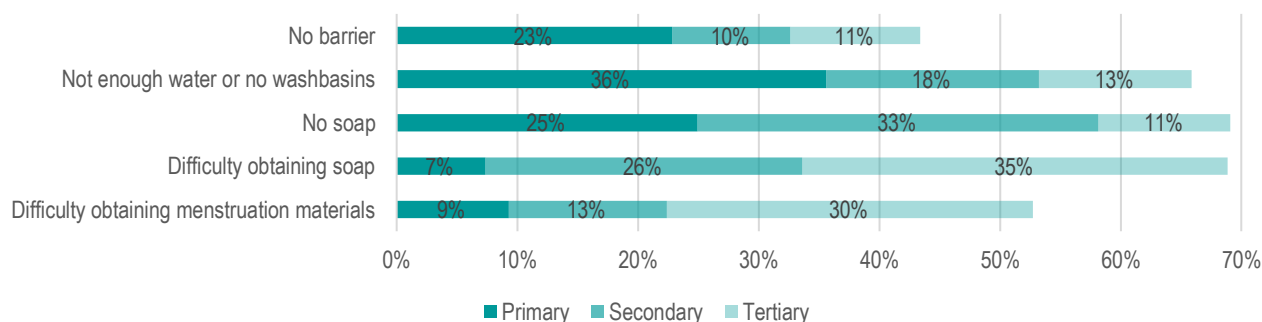
**Figure 11: Households' access to soap and menstrual hygiene materials as reported in the JMCNA 2019, as a percentage of the total, non-displaced, and displaced population.**



## Barriers to handwashing and obtaining menstrual hygiene materials

During the JMCNA, around three quarters of households (23%) reported facing barriers to hygiene. The main reported barriers were not enough water or washbasins (36%) followed by no access to soap (25%). No access to soap is also the leading secondary barrier (33%) followed by difficulty in obtaining soap (26%). Difficulty in obtaining soap and menstruation materials were reportedly the main tertiary barriers. When asked what the difficulties for obtaining soap were, the majority of households reported that it was cost, at near four time that of the next most reported reason. For menstruation materials, cost was again the main reason, at more than twice that of the next most.<sup>64</sup>

**Figure 12: Barriers to handwashing and to obtaining menstrual hygiene materials as reported in the JMCNA 2019, as a percentage of the national population.**



## Coping strategies to handwashing and obtaining menstrual hygiene materials

<sup>62</sup> 0-15 minutes was the closest option in the JMCNA for distance to handwashing facility.

<sup>63</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

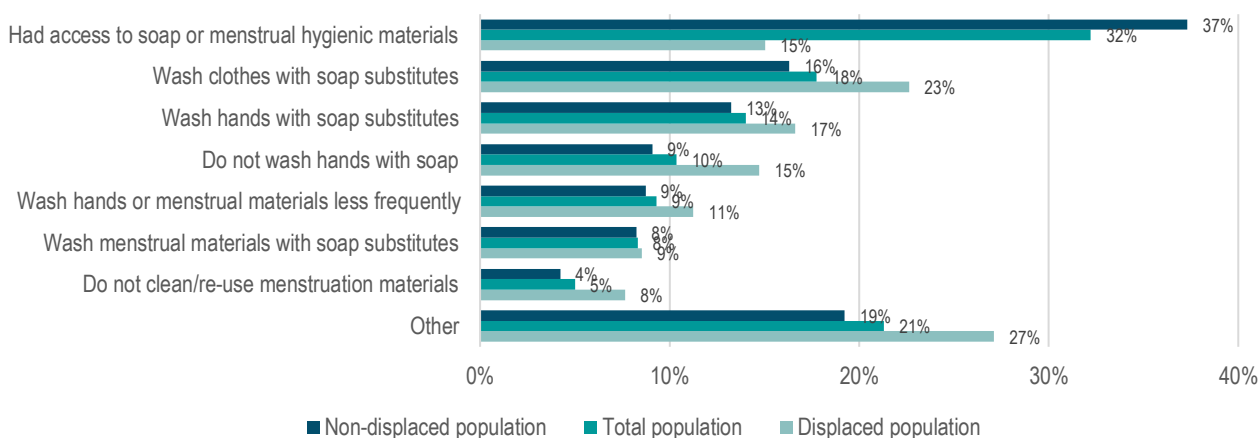
<sup>64</sup> Ibid.

Around a third of the households (32%) reported having access to soap or menstrual hygiene materials so that they did not need to employ any coping strategy. The proportions varied between non-displaced and displaced households which reportedly had access to soap or menstrual hygiene materials at 37% and 15% respectively. There were also considerable geographic differences between districts, ranging from 2% to 81%, with households in the northeast and northwest reportedly having greater access to soap and menstrual hygiene materials than households in the south and central regions.<sup>65</sup>

The three most commonly reported coping strategies involved using soap substitutes: washing clothes with soap substitutes (18%), washing hands with soap substitutes (14%), and washing menstrual materials with soap substitutes (8%).<sup>66</sup> Also reported was to not wash hands with soap (10%) and wash hands or menstrual materials less frequently (9%).<sup>67</sup>

Very few households reported using severe coping strategies that affect the household's future productivity and are dramatic or difficult to reverse.<sup>68</sup> For example, selling productive assets, child labor, begging, and sexual exploitation are all self-reported at less than 1%.<sup>69</sup>

**Figure 13: Coping strategies employed to access hygienic materials as reported in the JMCNA 2019, by displaced, non-displaced, and the total population, as a percentage of the national population.<sup>70</sup>**



## Qualitative assessment of handwashing practices

The FGD participants reported understanding the importance of handwashing but facing barriers in doing so. There was near consensus among participants on the importance of washing one's hands after using the toilet, with a majority saying that doing so is important to prevent disease, while less frequently mentioned were health, hygiene, and Islamic custom. However, despite their expressed regard for handwashing, around a quarter of respondents expressed that they were not able to do so after using the toilet (figure 11), highlighting the existence of barriers that prevent people from handwashing. The leading responses provided by FGD participants to handwashing barriers were no water, followed by lack of hygiene knowledge, lack of soap, forgetting to, no handwashing facility, and no time (figure 12).<sup>71</sup>

<sup>65</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

<sup>66</sup> While not addressed in the JMCNA, the FGD participants indicated that the leading soap alternatives are ash and sand, at least for hand washing.

<sup>67</sup> REACH. 2019. WASH Focus Group Discussions.

<sup>68</sup> WFP. 2015. *Consolidated Approach to Reporting Indicators of Food Security (CARI)*.

<sup>69</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

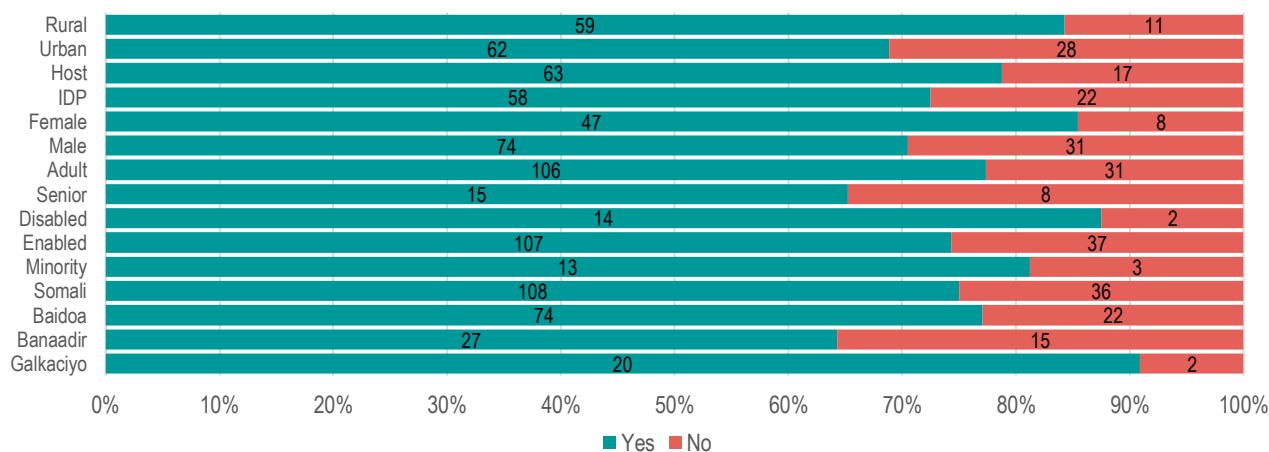
<sup>70</sup> Other includes: Rely on humanitarian assistance; Use latrines for bathing purposes; Use money otherwise used for other purchases; Do not wash hands at all; Sell assets otherwise used for other purposes; Adults work extra shifts/jobs; Minors work; Adult members beg; Spend more time travelling/waiting (secure areas); Minors beg; Sexual, economic exploitation to access humanitarian assistance; and Travel/Move to insecure or dangerous areas.

<sup>71</sup> REACH. 2019. WASH Focus Group Discussions.

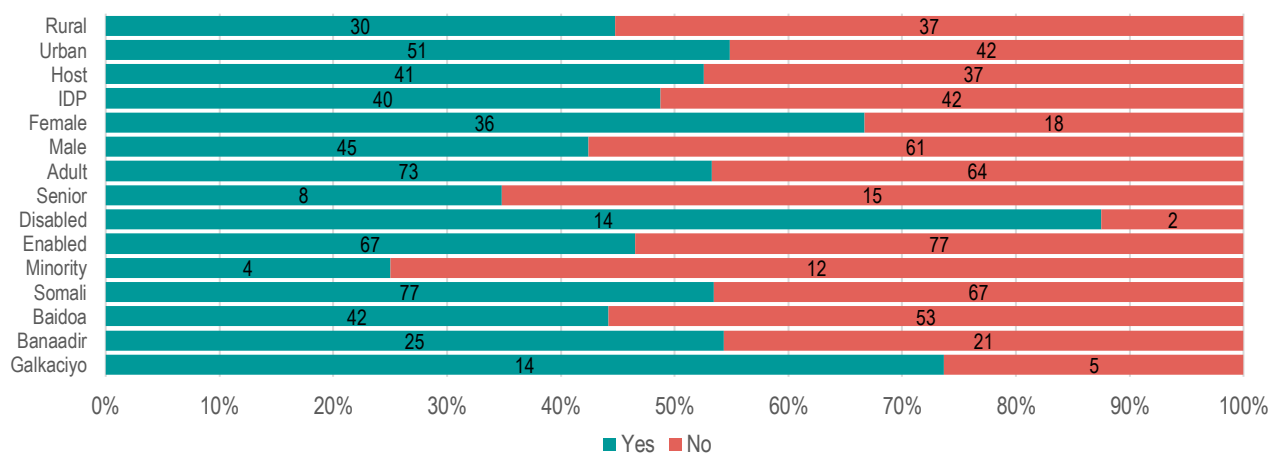


Access to soap was another issue discussed during the FGDs: around half of the participants reported washing their hands with soap (figure 13). The participants were also asked if they used alternatives to soap when it was not available and around a third reported using only water, another third using ash as an alternative, and the remaining third using sand.

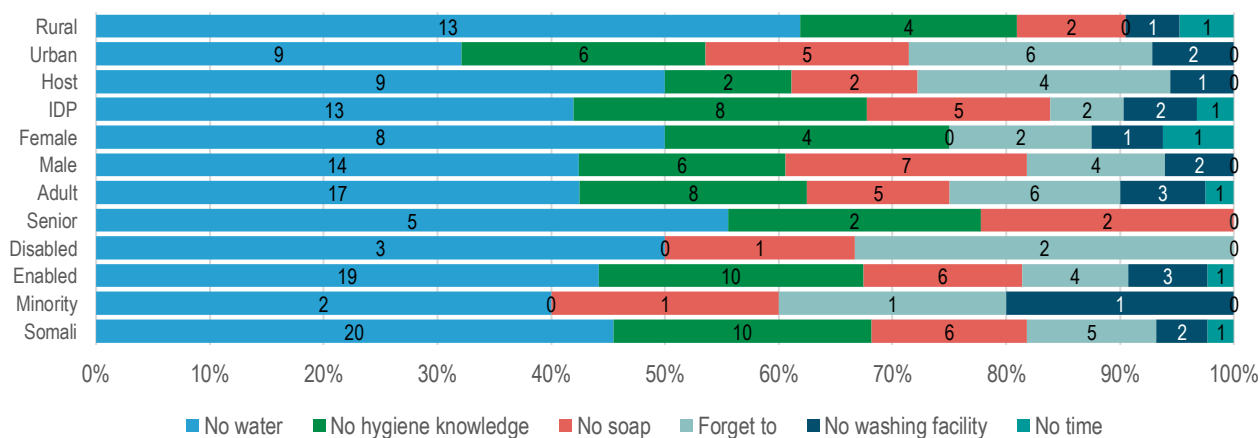
**Figure 14: FGD participants who regularly wash their hands after using a latrine, represented by the number of FGD participants' responses.**



**Figure 15: FGD participants who regularly wash their hands with soap, represented by the number of FGD participants' responses.**



**Figure 16: Barriers to handwashing represented by the number of FGD participants' responses.**



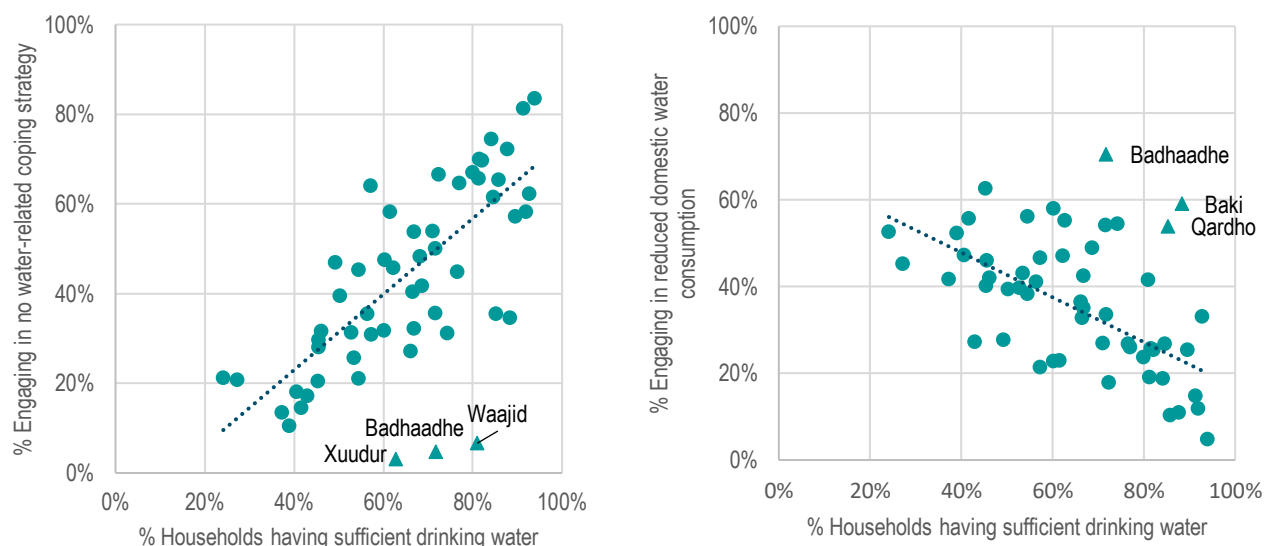
## Coping strategies' effects on wellbeing and living standards

The correlations were tested for all coping strategies for water, sanitation, and hygiene against the most indicative service access variables for each theme. The correlation results are shown below using the most indicative of the access variables: "Households having sufficient drinking water" for water, "latrine type category: no access" for sanitation, and "household has access to soap" for hygiene. The other access variables tended to have similar results but with less statistically significant and weaker correlations. The tables are listed in Annexes 16-18. Specific coping strategies are discussed for each WASH theme in the preceding three sections. This section presents how adopting these strategies affects the assessed wellbeing and living standard conditions.

The JMCNA showed that households employing WASH-related coping strategies generally had low levels of access to WASH services.<sup>72</sup> Therefore, the use of these strategies did not improve wellbeing and livelihood conditions. Instead, they could be seen as mitigation measures that reduce the worst impact, rather than compensation measures that make up for the loss of a shock. The latter would more likely be the case for coping strategies that are more livelihood-based or involve asset depletion, however as noted before these were very infrequently reported in the JMCNA.

For the more frequently used strategies, the JMCNA highlighted a negative correlation with regards to the access to WASH services, so that households employing them were more likely to also report not having corresponding services. While for most of the less frequently reported strategies, there is no correlation. For example, a household with sufficient drinking water is more likely to not use any water-related coping strategy<sup>73</sup> and less likely to reduced domestic consumption<sup>74</sup>. The figures below depict these two examples using percentage rates at the district level. The distribution of points shows this trend along with districts that are clear outliers such as Badhaadhe, Waajid, and Xuudur in the case of the former and potentially Badhaadhe, Baki, and Qardho in the latter.<sup>75</sup>

**Figure 17 (left): Relationship between the % of households having sufficient drinking water and the % of households engaging in no water-related coping strategy, represented by district population means. Figure 18 (right): Relationship between the % of households having sufficient drinking water and the % of households engaging in reduced domestic water consumption, represented by district population means.<sup>76</sup>**



<sup>72</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

<sup>73</sup>  $r_s(10487) = .366, p < .001$

<sup>74</sup>  $r_s(10487) = -.242, p < .001$

<sup>75</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

<sup>76</sup> More detailed figures can be found in Annexes 20-21.

In the case of resilient households that do not face any stresses, this is intuitive. Yet, it also suggests that employing these coping strategies to compensate for a stress, like a water shortage, is still insufficient to provide relief. The reason is likely that most of the strategies included in the survey are mitigation strategies that reduce the worst effects of the stress, rather than more severe strategies that are typically included in Livelihood Coping Strategy assessments that have a long-term impact on household productivity but also likely more immediate relief.<sup>77</sup>

There are a couple of exceptions, using facilities at night or non-segregated latrines<sup>78</sup> and relying on humanitarian assistance to access sanitation facilities<sup>79</sup> are positively correlated to access to latrines, so that their use is more common among households that have service access. However, the strength of the correlation is very weak in both cases.<sup>80</sup>

## Barriers for disabled persons in accessing WASH services

The main types of disabilities reportedly found in the participants' communities were physical and visual, with a smaller share psychological. Physical disabilities were related to people who had lost limbs or the use of limbs. The physically and visually disabled had the most challenges in utilizing sanitation facilities. Conflict was reported as a leading cause of physical and visual disability.<sup>81</sup>

When asked what are the main challenges in accessing WASH services, a large majority of disabled FGD participants said they had issues with access, including difficulty in using toilets and transporting water. The responses varied by participant and disability. The main barriers reported by disabled FGD participants included: transporting water, traveling to the latrine, using the latrine, and entering the latrine.<sup>82</sup>

Less than half of the disabled FGD participants stated that they depended on family or community support to access WASH services. Additionally, over a quarter stated that they depended on humanitarian aid and one participant noted that he/she had no known options. Participants mentioned that their community would support them, but no specifics were provided beyond referencing improved latrine facilities.<sup>83</sup>

When asked how WASH facilities could be improved, a majority of disabled participants supported building more accessible facilities. This included separate facilities, that are easier to enter and that have taps connected to a reliable supply of water. A smaller number of participants suggested supporting items, like wheelchairs. One participant suggested promoting disability awareness and another training on WASH practices for disabled persons.<sup>84</sup>

## Accountability to Affected Populations

### Qualitative assessment of the WASH facilities' quality and maintenance

A quarter of participants thought WASH facilities and NFIs were of good or very good quality. However, there were considerable differences between the specific types as shown in the figures below. Water points and storage were thought very favorably of, while the others were viewed poorly, as shown in the figure below.

<sup>77</sup> For more details on the standard application of livelihood coping strategies see: WFP. 2015. *Consolidated Approach to Reporting Indicators of Food Security (CARI)*.

<sup>78</sup>  $rs(10487) = .037, p < .001$

<sup>79</sup>  $rs(10487) = .027, p = .005$

<sup>80</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

<sup>81</sup> Ibid.

<sup>82</sup> REACH. 2019. WASH Focus Group Discussions.

<sup>83</sup> Ibid.

<sup>84</sup> Ibid.

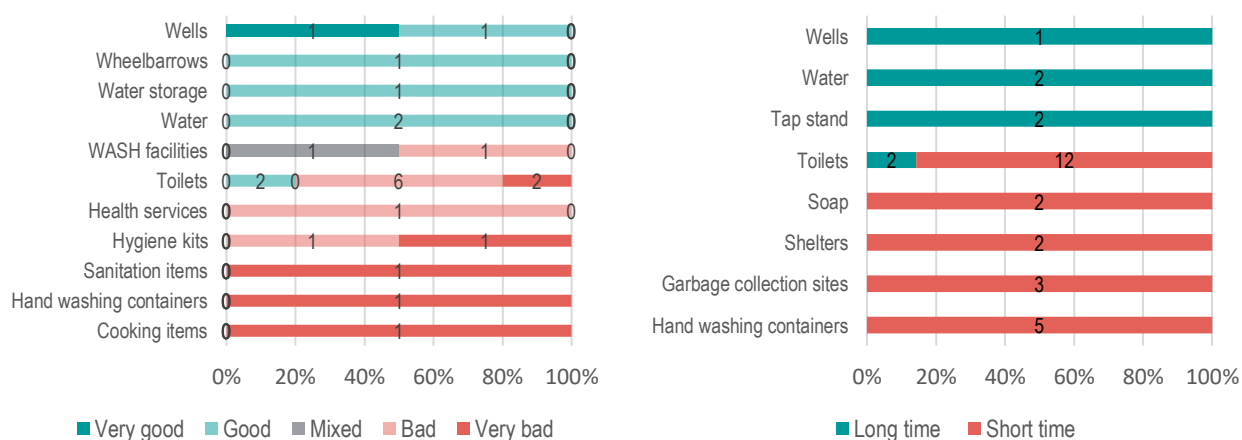
A small share of FGD participants thought WASH facilities and NFIs lasted a long time, water-related services were thought of well, while the other WASH facilities and NFIs were not, as shown in the figure below. This sentence is confusing and need rephrasing. Toilets were the most remarked upon service. Many complained that they were not dug deep enough, of low quality, and collapse when it rains. Garbage collection sites were also often mentioned with participants noting that they filled up quickly and were prone to collapsing.

A majority of FGD participants reported that sanitation facilities were not well maintained. The main maintenance issues discussed included: sanitation, lack of water, low quality of construction, no maintenance, and an insufficient number of toilets. The latter being a common complaint in much of the focus group discussions. The causes of these issues were primarily reported to be low quality construction, while additional themes included poor management, no water, an insufficient number of facilities, and sanitation issues. The reported issue that prevented the use of facilities included the maintenance issue above and issues of poor management and maintenance, lack of knowledge on how to properly use the facilities, and people privatizing shared toilets.

The privatization of shared latrines, such as placing an external lock on a public latrine, was also mentioned as a source of conflict. No explanation was provided on the motivation behind such action. However, it might fall under the broader context of overcrowding, improper use and poor maintenance.

Half of the FGD participants reported that WASH facilities lasted less than six months. One month was the shortest time specifically stated and three years was the longest. The times appeared to have a bimodal distribution with many reporting only a couple month and others reporting a year or more while few reported around six months. The facilities reportedly lasted longer in host communities than in IDP settlements.

**Figure 19 (left): Quality of WASH facilities and NFIs represented by the number of FGD participants' responses. Figure 20 (right): Duration of product life for WASH facilities and NFIs represented by the number of FGD participants' responses.**



## Satisfaction with WASH programming

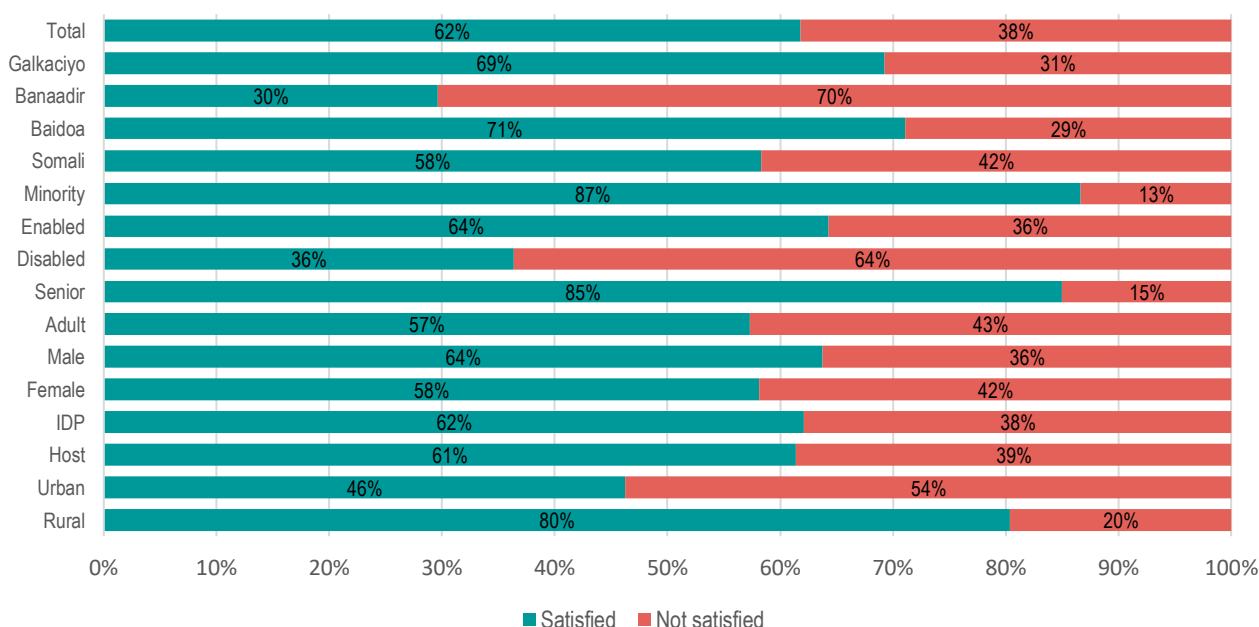
Among all FGD participants, a majority were reportedly satisfied or very satisfied with WASH programming. However, there were large differences between some of the groups. A third of the participants from Banaadir reported being satisfied with WASH programming, while two thirds reported satisfaction in Baidoa and in Galkayo. Ethnic Somalis were reportedly less satisfied than ethnic minorities and disabled participants as well as urban participants who reported being half as satisfied with WASH programming. The differences between men/women and host/IDP were significant. However, of those that expressed satisfaction with WASH programming, many reported that the assistance is still insufficient: "yes, although WASH

services is not enough as we required.” Of all FGD participants, over half of the grievances expressed were about the insufficient amount of aid, a quarter for no aid, and less for the low quality aid, slow aid delivery, and inappropriate aid.<sup>85</sup>

About half of the FGD participants thought that WASH programming supported the priority needs of their community. The differences between strata were less pronounced. The noticeable differences were seen between ethnic minorities and ethnic Somalis: a large majority of the former reported that WASH programming supported the priority needs of their community compared to half of the latter and unanimous disagreement in Galkayo compared to two thirds agreeing in Banaadir and over half in Baidoa. There are some discrepancies between satisfaction with programming and belief that programming does not support the priority need of the community. This is likely explained by several participants’ responses to the effect of ‘NGOs do not support the priority needs of our community but they still help with some of our needs.’<sup>86</sup>

Less than a quarter of FGD participants thought that WASH programming was provided fast enough. Though, as described above, there were other issues with programming that are of greater concern to beneficiaries such as receiving too little or no assistance.<sup>87</sup>

**Figure 21: Satisfaction with WASH programming represented by the number of FGD participants’ responses.**



## Aid modality preference

Fifty-eight per cent (58%) of households (58%) reported preferring cash support for water projects, followed by in-kind (31%). In the JMCNA, cash was not an available response for preferred modality for sanitation and hygiene. In-kind was reportedly the preferred modality for these two at 56% and 76% respectively, though it is likely that cash would be preferable if respondents were given the choice. Infrastructure was more commonly reported for latrines than for water or handwashing. This is likely because many households are requesting more toilet facilities.<sup>88</sup>

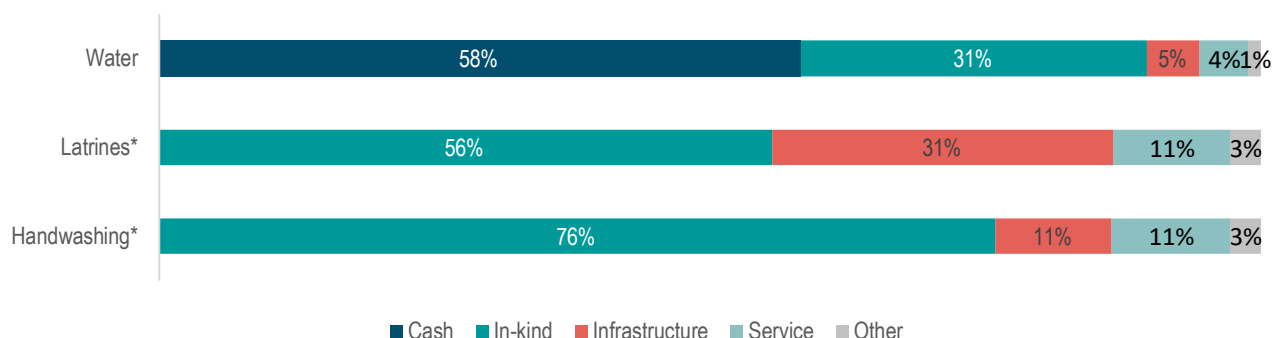
<sup>85</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

<sup>86</sup> REACH. 2019. WASH Focus Group Discussions.

<sup>87</sup> Ibid.

<sup>88</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

Figure 22: Aid modality preferences by WASH theme as reported in the JMCNA 2019.



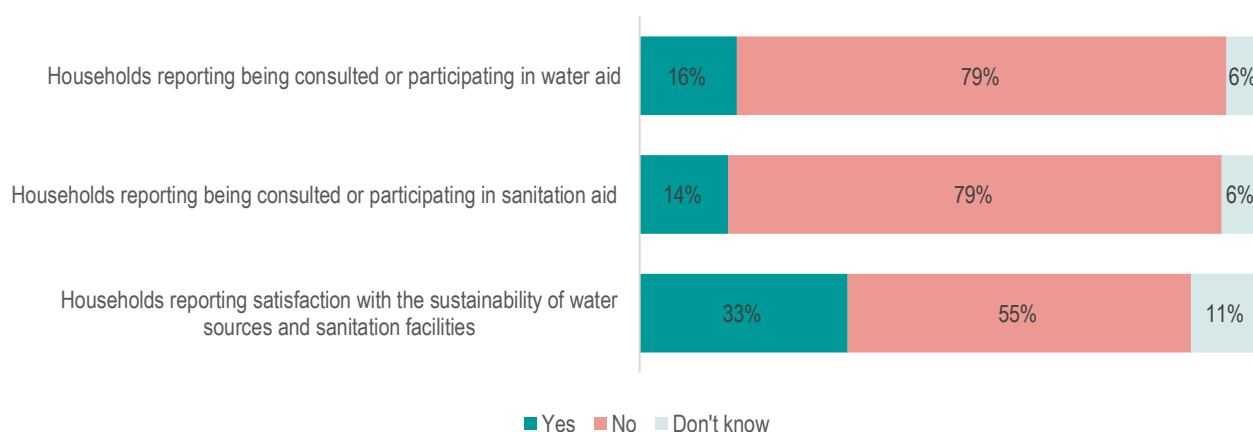
## Perception and understanding of the importance of WASH

All of the FGD participants believed that WASH was important to them. The leading reasons expressed were for health, that water is essential for life, and hygiene. They therefore recognized the connections between WASH and health and hygiene as a mechanism to this end. Some participants also expressed how WASH was important for personal dignity and/or quality of life. When asked about the causes of diarrhea, the majority responded with examples that demonstrated their understanding of its causes in relation to WASH issues. A few participants expressed views that showed an insufficient level of understanding, such as diarrhea being caused by hot weather or infection from earthworms. Most participants also expressed an understanding of the importance of WASH by correctly identifying ways of preventing diarrhea with a few responses failing to do so.<sup>89</sup>

## Household consultation or participation in WASH programming

Based on the findings of the JMCNA, a majority of the households reported that they have not been consulted in or able to participate in WASH programming decisions, as shown in the figure below. As discussed in the following section on community participation, these numbers may be misleading as many households may not be directly consulted, while at the same time their community is through local leadership. When asked about their satisfaction with water sources and sanitation facilities, a third of households reported being satisfied.<sup>90</sup>

Figure 23: Consultations of households on WASH programming as reported by the JMCNA 2019.



<sup>89</sup> REACH. 2019. WASH Focus Group Discussions.

<sup>90</sup> Ibid.



There is no clear correlation between communities being consulted or participating in water or sanitation programming and related WASH indicators based on a bivariate correlation analysis. This does not imply that community participation is not useful. Correlation does not account for many other issues such as the level of engagement or pre-existing conditions.

## Community participation in WASH decision-making

Two thirds of the FGD participants felt that their communities were involved in decision-making about WASH programming. The focus groups in Galkayo had the lowest average with a third believing their community was able to participate, compared to Baidoa at two thirds and even more in Banaadir. While disabled individuals were in unanimous agreement that their communities were able to participate, two thirds of non-disabled individuals reported being able to participate in decision-making about WASH programming. However, the examples provided by FGD participants of how they participated were community meetings, assessments, and or through their community representatives, implying that they have a very low level of influence over the decisions that affect them. Likely as a result, around half of the FGD participants thought that decision makers represented their interests and that their feedback was heard.<sup>91</sup>

When asked how their community would like to be involved in the decision-making, the leading responses were: agreement without providing specifics, meetings between the community and NGOs, improve suggestion/complaint mechanisms, increased contact with aid actors, and improved community leadership. While many FGD participants agreed when asked if they would like to be more involved in decision processes, this covered a range of possible levels of participation. Participants' responses were divided between those that sought a nominal participation such as the opportunity to have their voices heard while others sought more representative participation when community leaders or committees could exert more influence over programming decisions. FGD participants reported that women and host communities were more like to have more direct contact with the NGOs whereas men and IDP communities were more likely to favor having community leaders representing them. For IDPs, this may be the result of them having a greater community leadership structure in place that they can depend on. IDPs frequently spoke of the role these leaders played in coordinating between NGOs and the community.<sup>92</sup>

When asked for suggestions on how to improve participation in decision making, there was a wide range of responses. The three leading responses were similar to those above: greater community engagement, improved suggestion/complaint mechanisms, and greater beneficiary decision-making. A number of responses focused around developing local leadership, such as by establishing community committees and providing them with the necessary training. Several individuals suggested the creation of community centers as means to help organize their communities and provide a centralized place for things such as meetings, trainings, suggestion boxes, etc.<sup>93</sup>

## Feedback/complaints mechanism

FGD participants did not think well of existing feedback/complaints mechanisms, with around a quarter stating that they were good or average. There were also noticeable differences between groups as urban participants found them far worse than rural participants, disabled individuals and ethnic minorities were unanimous in their disapproval, while non-disabled people and ethnic Somalis were in line with the average. On the other hand, FGD participants of Galkayo were more numerous in approving, though a third expressed negative views. The main reported criticisms of the mechanisms were that they got no response when they used it, they did not know if they existed or how to use them, they did not exist, or that the responses were too slow. There were additional individual responses including that NGOs did not value comments, NGOs make promise that they do not keep, and NGOs are not doing enough for disabled persons. Lastly, around a quarter of FGD participants reported knowing of a mechanism existing, how to use it, and saying it works well. However, if they

<sup>91</sup> REACH. 2019. WASH Focus Group Discussions.

<sup>92</sup> Ibid.

<sup>93</sup> Ibid.

knew it existed then they generally knew how to use it. Also, those who reported knowing how to use it, were more likely to approve of it, two thirds did so.<sup>94</sup>

There were a wide range of recommendations provided when the participants were asked how to improve the process. Many involved more direct contact with NGOs including holding meetings between them and the community. Another large number reported wanting just a basic mechanism like a suggestion box or hotline. Other suggestions included NGOs being more responsive to feedback and the promotion of community governance. Additionally, though, a large majority thought that feedback mechanisms were not sufficient and wanted to be more involved in decision-making.<sup>95</sup>

## Malnutrition, morbidity, and mortality

### Prevalence

Malnutrition is a major issue in Somalia and WASH conditions are likely a contributing factor. Wasting (GAM WHZ<-2)<sup>96</sup> prevalence's is estimated to be of 13% nationally, representing a "serious" severity classification that warrants a public health concern.<sup>97</sup> The lowest district prevalence is of 8%; a "medium" severity, and the highest of 17%; a "critical" severity. Stunting (HAZ<-2)<sup>98</sup> prevalence is of an estimated rate of 7% nationally,<sup>99</sup> which is considered "low",<sup>100</sup> and the highest district figure of nearly 9% is also considered low. It should be noted that this data from FAO is far lower than previous thorough nutritional assessments (25%)<sup>101</sup> in Somalia and in neighboring nations like Ethiopia (38%)<sup>102</sup> and Kenya (26%),<sup>103</sup> which are classified as "high" when between 20-30% and "very high" when above 30%.<sup>104</sup>

Morbidity is an issue in the country and there are frequent outbreaks of waterborne disease. Acute watery diarrhea (AWD) and acute other diarrhea (AOD) are reported at a prevalence of 2% nationally, ranging at the district level from 0% to 5%. However, there is some concern as to how the data was collected and if the results can be representative at the national or district level. Morality rates are less concerning. The crude mortality rate for the country is estimated at 0.04 deaths per 10,000 per day,<sup>105</sup> within a range (0.3 – 0.6) that is typically considered non-crisis for Sub-Saharan Africa.<sup>106</sup> At the district level the lowest is 0.01 and the highest, 0.09, in Lughaye, which is near the 1.0 fixed emergency threshold.<sup>107</sup>

### Malnutrition and health correlations to WASH access indicators

A bivariate analysis was run for the correlation between malnutrition, morbidity, and mortality variables as well as WASH-related indicators from the JMCNA. Malnutrition indicators are more closely correlated to WASH service access than morbidity and mortality data, aggregated to the district level, possibly as a result of data quality.<sup>108</sup> While there may be a statically significant correlation between variables, that does not imply causality. For example, stunting has a strong negative

<sup>94</sup> REACH. 2019. WASH Focus Group Discussions.

<sup>95</sup> Ibid.

<sup>96</sup> Global acute malnutrition, based on weight-for-height Z-score below -2 standard deviations

<sup>97</sup> FSNAU. 2019. Post Gu Acute Malnutrition Burden Estimates.

<sup>98</sup> Based on height-for-age z-scores below -2 standard deviations

<sup>99</sup> FAO. 2019. Somalia Gu 2019 Survey database.

<sup>100</sup> De Onis, M., Borghi, E., Arimond, M., Webb, P., Croft, T., Saha, K., De-Regil, L.M., Thuita, F., Heidkamp, R., Krusevec, J. and Hayashi, C., 2019. Prevalence thresholds for wasting, overweight and stunting in children under 5 years. *Public health nutrition*, 22(1), pp.175-179.

<sup>101</sup> Kassim, I.A.R., Seal, A.J. and Moloney, G., 2010. National micronutrient and anthropometric survey, Somalia 2009.

<sup>102</sup> CSACE, I. 2016. Ethiopia Demographic and Health Survey 2016. Addis Ababa, Ethiopia, and Rockville, Maryland, USA: CSA and ICF.

<sup>103</sup> Hanson, C. M., Mirza, I., Kumapley, R., Ogbuanu, I., Kezaala, R., & Nandy, R. 2018. Enhancing immunization during second year of life by reducing missed opportunities for vaccinations in 46 countries. *Vaccine*, 36(23), pp.3260-3268.

<sup>104</sup> De Onis, M., Borghi, E., Arimond, M., Webb, P., Croft, T., Saha, K., De-Regil, L.M., Thuita, F., Heidkamp, R., Krusevec, J. and Hayashi, C., 2019. Prevalence thresholds for wasting, overweight and stunting in children under 5 years. *Public health nutrition*, 22(1), pp.175-179.

<sup>105</sup> FSNAU. 2019. Post Gu Acute Malnutrition Burden Estimates.

<sup>106</sup> Sphere Project. 2018. Sphere Handbook: Humanitarian Charter and Minimum Standards in Disaster Response.

<sup>107</sup> FSNAU. 2019. Post Gu Acute Malnutrition Burden Estimates.

<sup>108</sup> REACH. 2019. Joint Multi-Cluster Needs Assessment (JMCNA) data.

correlation with access to private latrines, but this is likely because households with private toilets are likely comparatively wealthier and therefore also able to spend more on food and healthcare. Key correlations are shown in the Annex 19.

Wasting was observed as less likely when households had: sufficient drinking water, an improved water source, spent less than \$10/month on water, had access to a private latrine, no environmental sanitation issues, access to soap, etc. Wasting is more likely when households reported an increase in water prices and used jerry cans. Other interesting findings include malnutrition rates being higher among households who bury children's feces, while lower when they place it in a covered pit but then also having higher AWD/AOD prevalence.

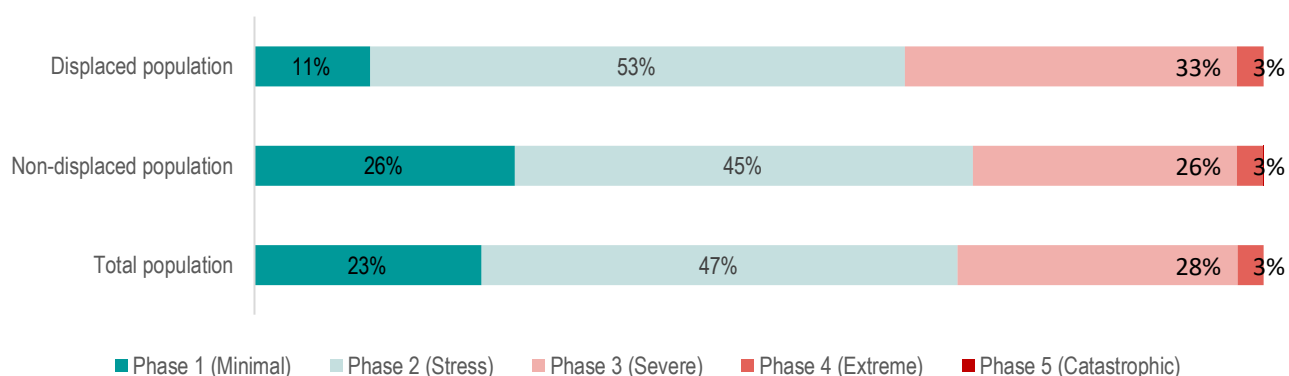
For distance to handwashing facilities, wasting and stunting decreased if they are within 15 minutes but increased if they were within 16-30 minutes. There is also an expected correlation between wasting and water sources within 15 minutes but none for further travel times. However, there were no correlations for distance to latrines. Additionally, malnutrition was higher for household within 16-30 minutes of a health clinic, yet lower when the facility was over three hours away. This may be the result of poor conditions in urban centers and camps rather than reflecting household access. Some counter-intuitive findings, that could be statically anomalies were stunting rates increased as access to latrines increased and as treatment of water increased. It is important to note that such an examination of malnutrition and health correlations is an exploratory analysis only and any potentially relevant finding would need to be confirmed through additional analysis to ensure that it is not the result of a statistical anomaly. A correlation matrix is provided in Annex 19.

## WASH safety

### WASH Safety Index

The cluster developed in 2019 a WASH Safety Index<sup>109</sup> based on the conditions and usage of WASH facilities in the area where the households live. The index was based on the indicators in the table below along with their weights. The analysis found 37% of the population of the country was classified as in phases 3 to 5 which qualify them as "in need". The indicators that were most frequently reported by households, leading to a worse score, were the absence of gender-separated latrines and lights, as well as communities not being consulted. The indicators referring to protection-related barriers were low for accessing sanitation facilities and minimal for accessing water.<sup>110</sup>

**Figure 24: Proportion of total, non-displaced, and displaced populations by severity phase of the WASH Safety Index.**



<sup>109</sup> Somalia WASH Cluster. 2019. WASH Sectoral PIN. Humanitarian Needs Overview (HNO) 2020.

<sup>110</sup> Ibid.

Table 2: WASH Safety Index indicators and weights.

<b>WASH safety indicator</b>	<b>Weight</b>
No latrines with walls and locks on inside of door	2
No latrines with internal source of light	1
No gender-segregated latrines	1
No dignified latrines reachable in less than 15 minutes of travel total	3
No improved water source reachable in less than 30 minutes of travel total	1
Not being consulted, or able to participate in, the design, location, and delivery of drinking water and water sources	1
Not being consulted, or able to participate in, the design, location, and delivery of sanitation facilities	2
Does not believe that water sources and sanitation facilities are well developed and sustainable	1
Protection related concern reported as primary concern in procuring water	3
Protection related concern reported as secondary concern in procuring water	2
Protection related concern reported as tertiary concern in procuring water	1
Protection related concern reported as primary concern in accessing adequate sanitation	3
Protection related concern reported as secondary concern in accessing adequate sanitation	2
Protection related concern reported as tertiary concern in accessing adequate sanitation	1
Protection related concern reported as Difficulty in obtaining soap	2
Protection related concern reported as Difficulty in obtaining menstruation materials	2

The district-level PIN and severity scores for the WASH Safety Index are available in Annexes 14-15.

### **Qualitative assessment of protection concerns accessing sanitation facilities**

Accessing latrines were not found to be a major source of protection-related concern among FGD participants. Instead, an insufficient number of latrines in particular, was reported as more of a stress factor that affects mental wellbeing and social cohesion than a security concern. When asked about the types of violence experienced when using latrines, a range of answers were provided such as violent incidents, those that did involve rape, fights, or unspecified violence. However, based on the discussions, it appeared that non-violent disputes were reportedly a far more pressing issue. Examples included individuals privatizing shared latrines, cleanliness or maintenance issues, long wait times, etc. Participants were reportedly very frustrated by the insufficient number of latrines and the issue was mentioned as a major source of conflict within communities.<sup>111</sup>

When asked who was most likely to experience violence, the majority of FGD participants replied women and/or children with a few adding seniors or disabled individuals. When asked for recommendations to prevent violence, the responses were orientated towards preventing disputes. The recommendations mostly involved more latrines, separating latrines by gender or household, and proper management as well as cleaning. There was one mention of gender based violence. Such issues might have been under-reported due to their sensitivity or they don't represent a significant protection concern for the FGD participants.<sup>112</sup>

<sup>111</sup> REACH. 2019. WASH Focus Group Discussions.

<sup>112</sup> Ibid.

## WASH severity and PIN

The WASH sector PIN for 2019 found a total of 2.7 million people in need (PIN), representing 1.8 million non-displaced and 0.8 million displaced. A total of 9.3 million were found to be affected and at risk of need if conditions deteriorate. The table below shows the estimated number of people (in million) and share of the population for each severity phase and aggregate groupings such as affected, in need, and in urgent need.

Table 3: WASH severity and PIN estimates.

	1	2	3	4	5
Phase	Minimal	Stress	Severe	Extreme	Catastrophic
Profile	12.3	Total population			
		9.3	Affected		
			2.7	People in Need	
				0.2	Urgent PiN
Million people	3.0	6.6	2.5	0.2	0.0
% population	24%	54%	20%	2%	0%

The WASH severity and PIN calculations are based on the following method:<sup>113</sup>

1. Indicator values are classified along a five-point scale to determine sub-pillars severity
2. Sub-pillar severities are aggregated by their median to determine the pillar severities.
3. Pillar severities are aggregated using a decision tree to determine the WASH Humanitarian Condition score.
4. WASH Humanitarian Condition scores are classified using the “Rule of 20%” to determine the WASH Severity Phase for each geographical area (district, nation) and affected group (host communities, IDPs, combined).
5. WASH Humanitarian Condition scores of 3-5 are proportioned using survey weights to determine the number of People in Need (PIN) for each geographical area (district, nation) and affected group (host communities, IDPs, combined).
6. For districts where data is scarce or unavailable projections are made based on a values from adjacent districts and adjusted by expert opinion.

The indicators used and how they are combined into pillars and sub-pillars are outline in the Annex 1.<sup>114</sup> The indicators used are also those described in the beginning of the report and are available in the accompanying dataset and maps aggregated to the district and national level.

The WASH severity and PIN analysis method was developed by the Global WASH Cluster in line the with Joint Inter-Sectoral Analysis Framework (JIAF) pillars. It is based on a holistic assessment of WASH conditions, rather than a relying on a single or limited number of proxy indicators. The analytical framework starts with WASH related living conditions pillar, which reflects people’s independent capacity to engage in economic and social activities to meet their basic needs. It includes such sub-pillars as: access to an improved water source, access to a sufficient quantity of water, access to functional sanitation facilities, access to functional handwashing facilities and soap, etc. This pillar has the worst severity of the three as a several of its components scored very poorly. For example, only around half of the population is found to have access to an improved water source, improved latrine, or soap. The second pillar then examines if the population is engaging in negative coping mechanisms that were used to improve their living conditions in the short term at the expense of long term productivity. This pillar has the lowest severity of the three. So while WASH related living conditions are generally poor, people are not frequently compensating by engaging in harmful activities that offer short-term relief while jeopardizing long-term recovery. The third pillar, finally explores, the physical wellbeing of the population. This pillar represents the direct and immediate (within six month) humanitarian needs of the population, including issue of safety,

<sup>113</sup> Somalia WASH Cluster. 2019. WASH Sectoral PIN. Humanitarian Needs Overview (HNO) 2020.

<sup>114</sup> The complete analytical method is available on the Somalia WASH Cluster website or by contacting the cluster team.

morbidity, and malnutrition. So while several key living standard indicators scored badly, the final WASH severity ratings were moderated by the more comprehensive analysis that additionally included these other pillars reflecting the immediate physical wellbeing of the population and their long-term resilience and recovery potential.

There are considerable regional differences in WASH need. Maps of selective PIN sub-scores are included in Annexes 2-15.

The WASH severity and PIN calculation was developed in 2019. The 2020 WASH assessment and subsequent years will begin include a trend analysis to show how conditions are changing between years using this new method. Trend analysis will be an important tool for determining funding requirements and for evaluating interventions up to the district level. Additionally, security conditions prevent detailed assessments of the conditions in sections of the country. The above method relied on projections for these areas based on conditions in adjacent districts. However, a more robust procedure for assessing conditions in hard to reach areas will be implemented in 2020.



## Annex 1. Indicators, sub-pillars, and pillars used in the WASH sectoral PIN.

Pillar	Sub-Pillar	Indicator	Source
Living Standards	Access to an improved water source	% Households reporting accessing an improved primary water source for drinking water in the past 30 days	JMCNA
		% Households reporting accessing an improved primary water source for domestic water in the past 30 days (cooking, bathing, not agriculture or livestock)	JMCNA
		% Households reporting presence of improved water source reachable in less than 30 minutes of travel total (by walking or available means of transport)	JMCNA
	Access to a sufficient quantity of water	% Households reporting having sufficient drinking water for all members in the past 30 days	JMCNA
		% Households reporting having sufficient water for domestic use (cooking, bathing, and cleaning, not agriculture or livestock) in the past 30 days	JMCNA
	Access to functional sanitation facilities	% Households reporting use of hygienic sanitation facilities	JMCNA
		% Households reporting using personal latrines	JMCNA
		% Households reporting sharing latrines with more than 3 households	JMCNA
	Access to functional handwashing facilities and soap	% Households reporting having soap at home or having daily access to soap	JMCNA
		% Households reporting presence of handwashing facilities reachable in less than 15 minutes of travel total	JMCNA
	Access to menstrual hygiene material	% Households reporting having menstruation materials at home or access to hygienic menstruation materials	JMCNA
	Access to environmental sanitation	% Households facing environmental sanitation problems within 10m of dwelling	JMCNA
	Access to healthcare facility	% Households reporting ability of members able to access required treatment in response to sickness, health issue by type of facility visited / healthcare sought	JMCNA
Coping mechanisms	Water Coping Sub-Index	% Households using negative coping strategies to access water in the past 1 month/30 days	JMCNA
	Sanitation Coping Sub-Index	% Households using negative coping strategies to access sanitation facilities in the past 1 month/30 days	JMCNA
	Hygiene coping strategies	% Households using negative coping strategies to access hygienic or menstrual materials in the past 1 month/30 days	JMCNA
Physical Wellbeing	Malnutrition	% of HHs living in areas with high prevalence of GAM	Nutrition cluster
		% Households reporting health issues or illnesses for at least one member in the past 3 months by type of issue/illness	JMCNA
	WASH related morbidity in children under five	% Households reporting health issues or illnesses for at least one member in the past 3 months by type of issue/illness	JMCNA
	WASH Safety Index	% Households reporting use of latrines with walls and locks on inside of door	JMCNA
		% Households reporting use of latrines with internal source of light	JMCNA
		% Households reporting use of gender-segregated latrines	JMCNA
		% Households reporting presence of dignified latrines reachable in less than 30 minutes of travel total	JMCNA
		% Households reporting presence of improved water source reachable in less than 30 minutes of travel total (by walking or available means of transport)	JMCNA
		% Households reporting being consulted, or able to participate in, the design, location, and delivery of drinking water and water sources	JMCNA
		% Households reporting being consulted, or able to participate in, the design, location, and delivery of drinking water and water sources	JMCNA
		% Households reporting protection concerns among top 3 main concerns in procuring water	JMCNA
		% Households reporting protection concerns among top 3 main concerns in accessing adequate sanitation	JMCNA
		% Households reporting protection concerns among 3 main concerns in procuring soap, and/or hygienic menstruation materials	JMCNA

## Annex 2. WASH sectoral PIN by district and displaced and non-displaced population.

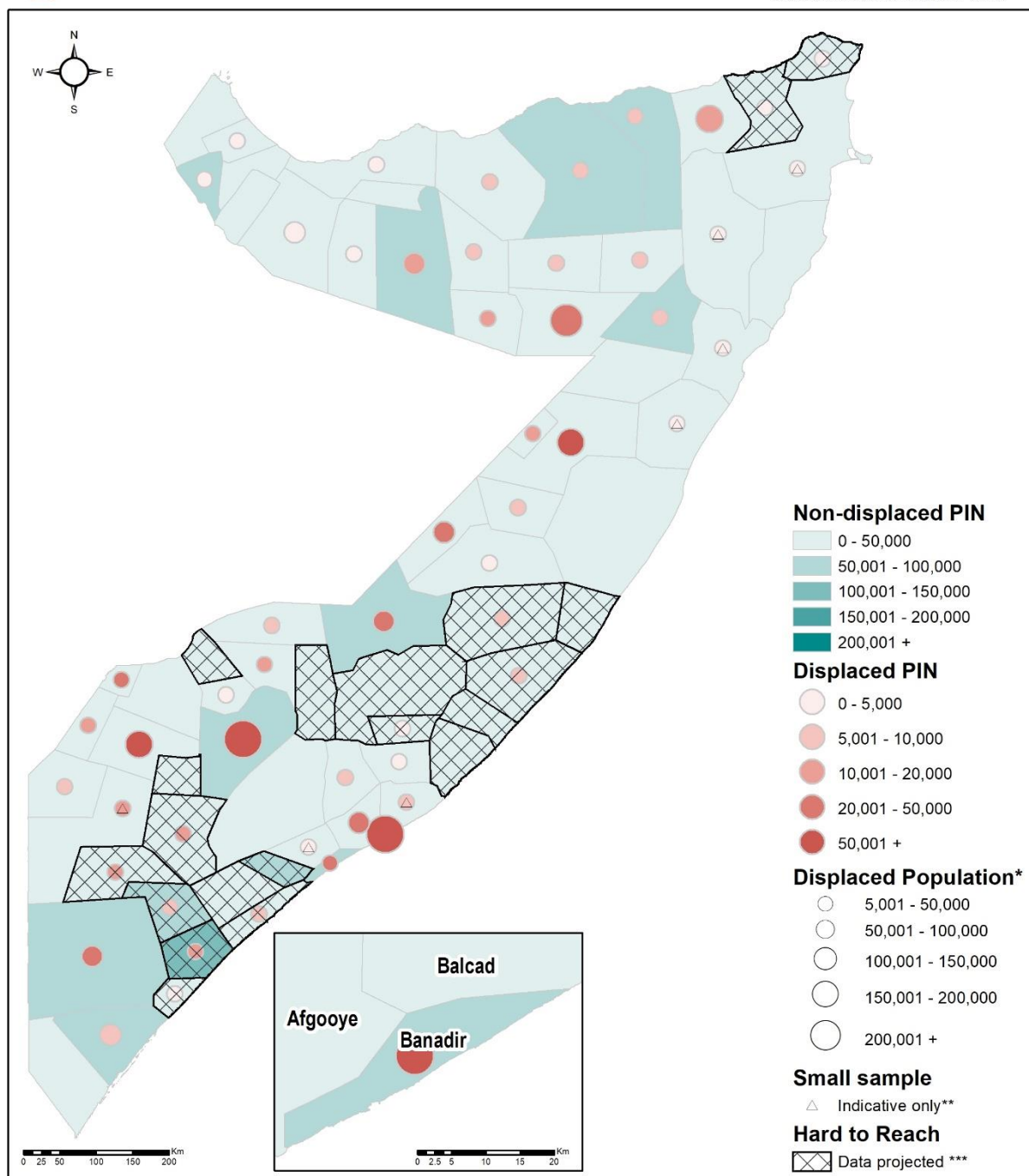


WASH Cluster  
Somalia

SOMALIA 2019

PIN - WASH

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Production date : 25 SEP 2019



### Footnotes:

\*For districts with IDP populations below 5,000, values are not displayed.

\*\*Limited IDP sample size. Data may be indicative of conditions, but is not based on a statistically representative sample of the population.

\*\*\*For Hard to Reach districts, where data was not collected, figures are projected as the median value of the adjacent districts.

Contact: reach.mapping@impact-initiatives.org

Note: Data, designations and boundaries contained on this map are not warranted to error-free and do not imply acceptance by the REACH partners, associated, donors mentioned on this map.

Data sources: REACH JMNCA 2019  
Population estimates based on PESS 2014 and as used in the HNO 2020.

Coordinate System: GCS WGS 1984

File: REACH\_Somalia\_Map\_Somalia\_STM\_PINWASH\_01OCT2019\_A4



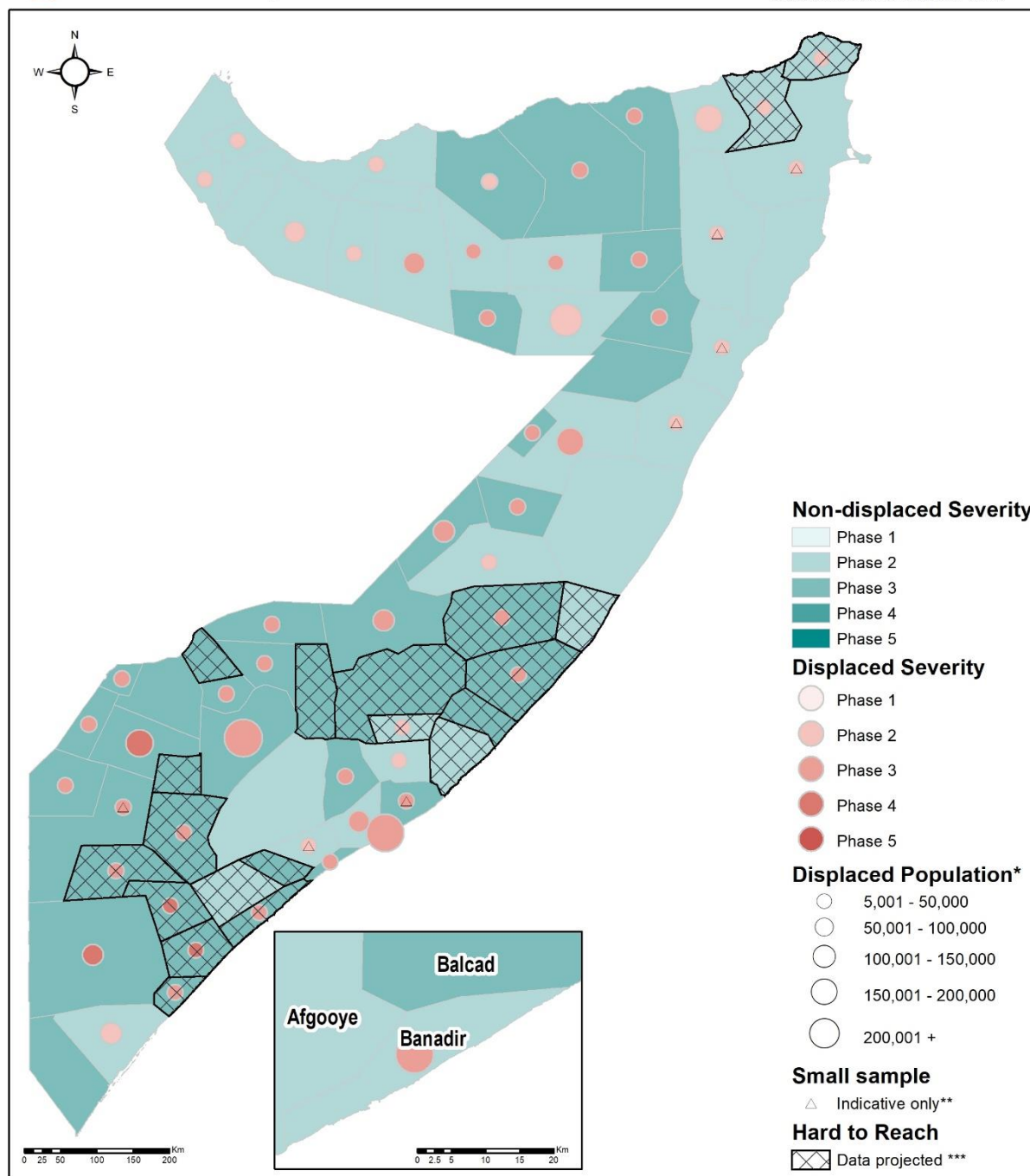
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## Annex 3. WASH sectoral severity score by district and displaced and non-displaced population.



**SOMALIA 2019**  
**Severity - WASH**

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Production date : 25 SEP 2019



### Footnotes:

\*For districts with IDP populations below 5,000, values are not displayed.

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Data sources: REACH JMNCA 2019  
Population estimates based on PESS 2014 and as used in the HNO 2020.

Coordinate System: GCS WGS 1984  
File: REACH\_Somalia\_Map\_Somalia\_STM\_SeverityWASH\_01OCT2019\_A4



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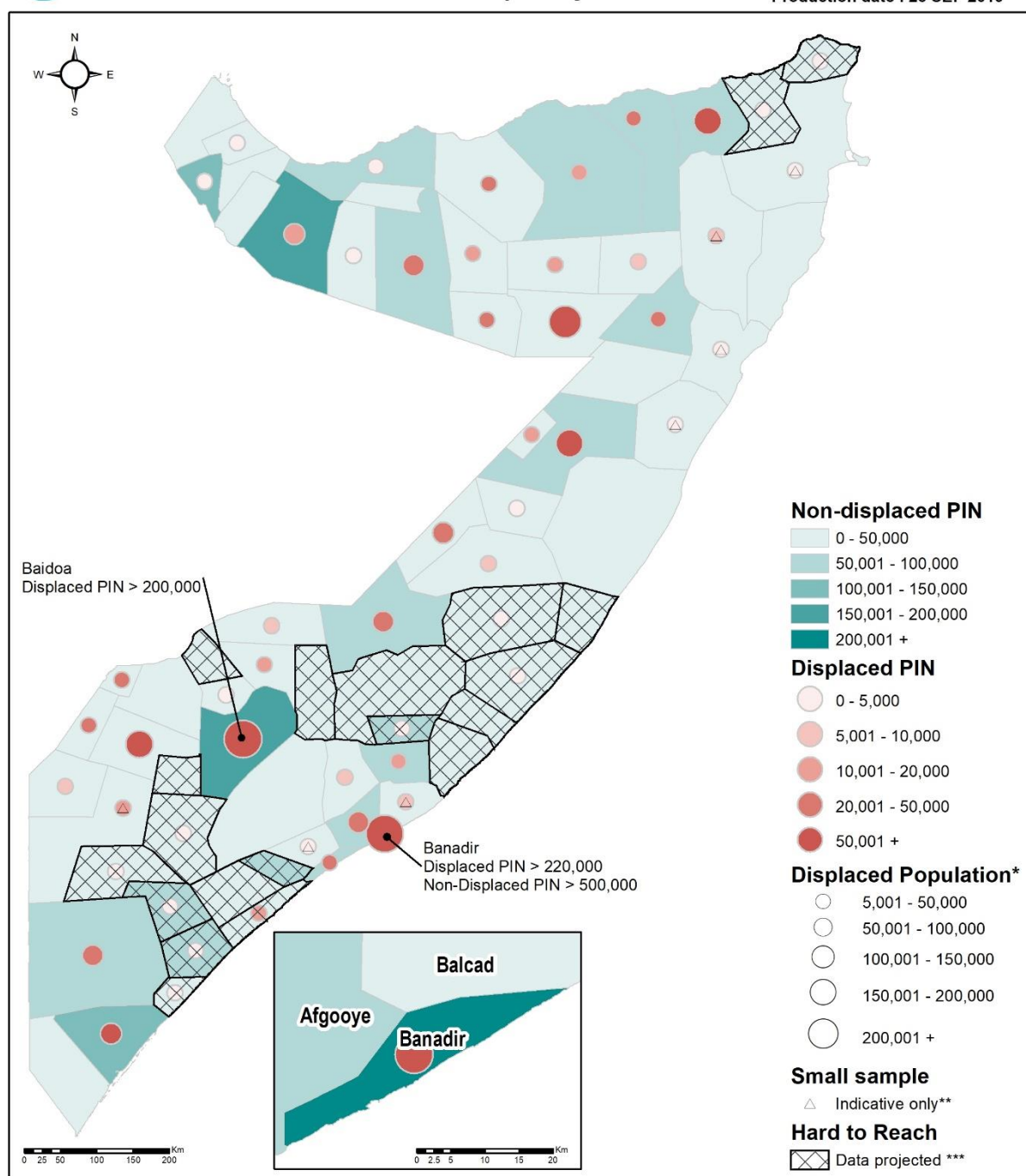
## Annex 4. Access to a sufficient quantity of water PIN by district and displaced and non-displaced population.



**SOMALIA 2019**

**PIN - Access to a sufficient quantity of water**

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Production date : 25 SEP 2019



### Footnotes:

\*For districts with IDP populations below 5,000, values are not displayed.

\*\*Limited IDP sample size. Data may be indicative of conditions, but is not based on a statistically representative sample of the population.

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Note: Data, designations and boundaries contained on this map are not warranted to error-free and do not imply acceptance by the REACH partners, associated, donors mentioned on this map.

Data sources: REACH JMNCA 2019  
Population estimates based on PESS 2014 and as used in the HNO 2020.

Coordinate System: GCS WGS 1984

File: REACH\_Somalia\_Map\_Somalia\_STM\_PINWaterQuantity\_01OCT2019\_A4



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## Annex 5. Access to a sufficient quantity of water severity score by district and displaced and non-displaced population.

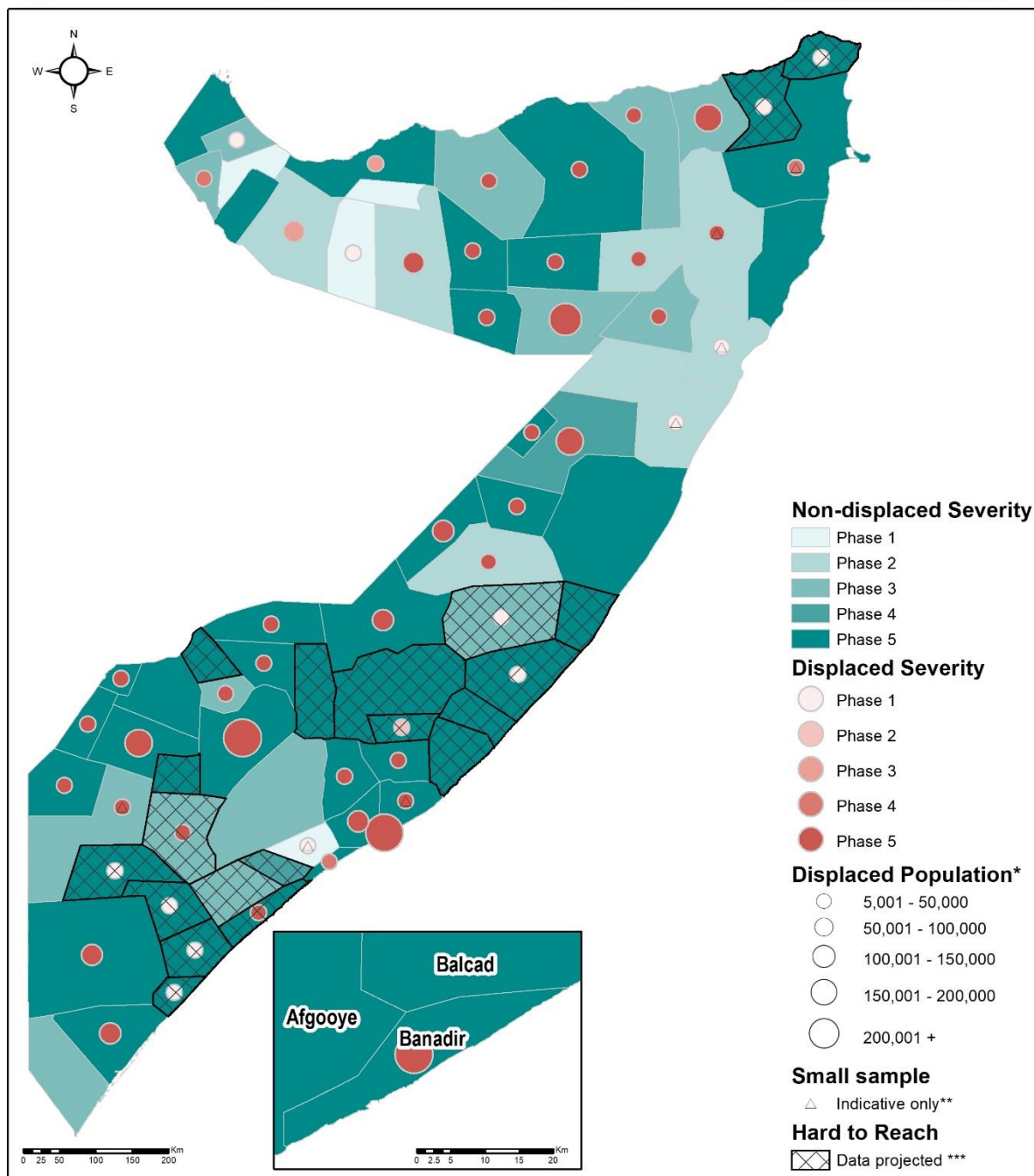


WASH Cluster  
Somalia

**SOMALIA 2019**

**Severity - Access to a sufficient quantity of water**

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Production date : 25 SEP 2019



### Footnotes:

\*For districts with IDP populations below 5,000, values are not displayed.

\*\*Limited IDP sample size. Data may be indicative of conditions, but is not based on a statistically representative sample of the population.

\*\*\*For Hard to Reach districts, where data was not collected, figures are projected as the median value of the adjacent districts.

Contact: reach.mapping@impact-initiatives.org

Note: Data, designations and boundaries contained on this map are not warranted to error-free and do not imply acceptance by the REACH partners, associated, donors mentioned on this map.

Data sources: REACH JMNCA 2019  
Population estimates based on PESS 2014 and as used in the HNO 2020.

Coordinate System: GCS WGS 1984

File: REACH\_Somalia\_Map\_Somalia\_STM\_SeverityWaterQuantity\_01OCT2019\_A4



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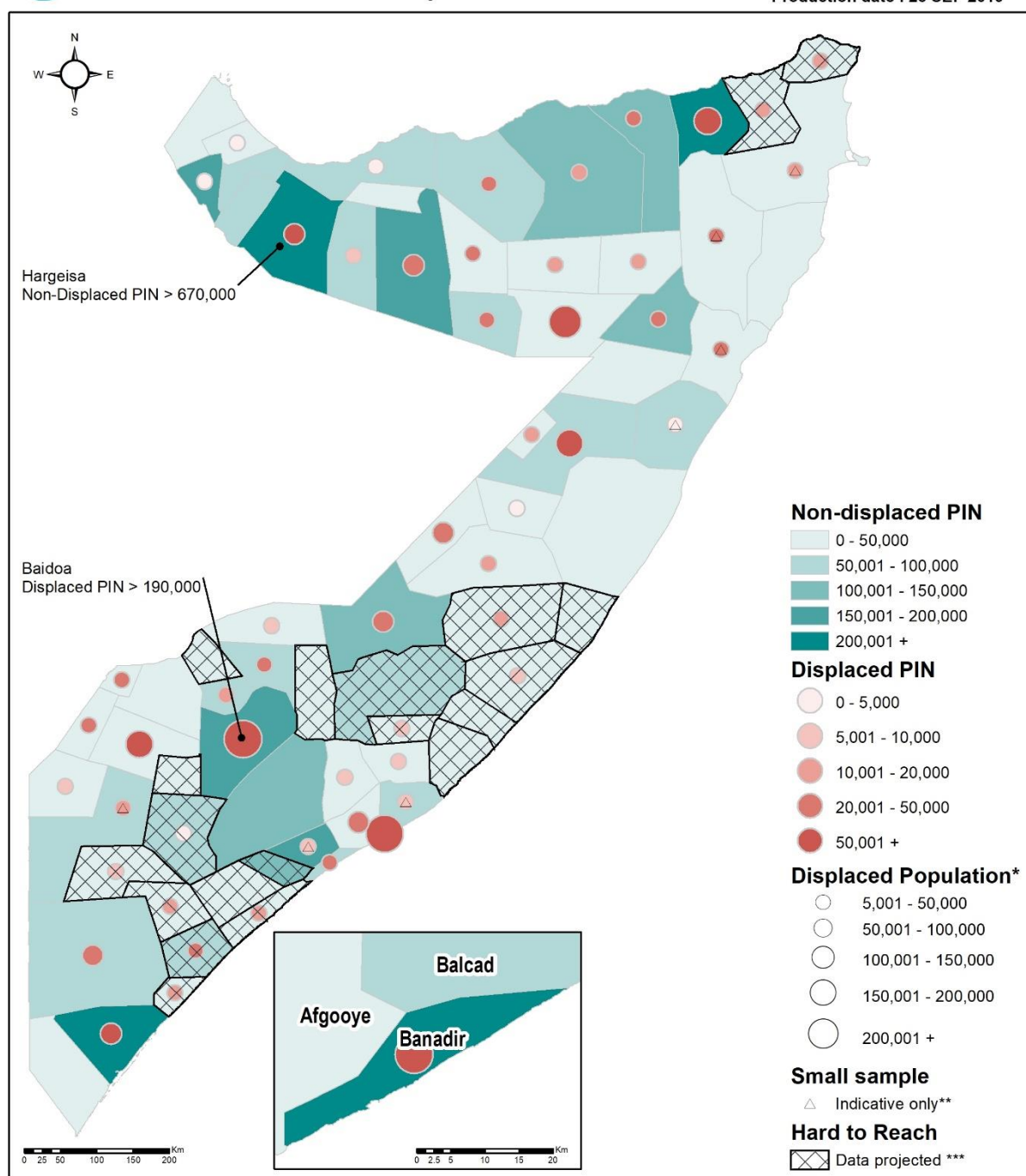
## Annex 6. Access to an improved water source PIN by district and displaced and non-displaced population.



**SOMALIA 2019**

**PIN - Access to an improved water source**

For humanitarian purposes only  
Production date : 25 SEP 2019



### Footnotes:

\*For districts with IDP populations below 5,000, values are not displayed.

\*\*Limited IDP sample size. Data may be indicative of conditions, but is not based on a statistically representative sample of the population.

\*\*\*For Hard to Reach districts, where data was not collected, figures are projected as the median value of the adjacent districts.

Contact: reach.mapping@impact-initiatives.org

Note: Data, designations and boundaries contained on this map are not warranted to error-free and do not imply acceptance by the REACH partners, associated, donors mentioned on this map.

Data sources: REACH JMNCA 2019  
Population estimates based on PESS 2014 and as used in the HNO 2020.

Coordinate System: GCS WGS 1984

File: REACH\_Somalia\_Map\_Somalia\_STM\_PINWaterSource\_01OCT2019\_A4



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## Annex 7. Access to an improved water source severity score by district and displaced and non-displaced population.

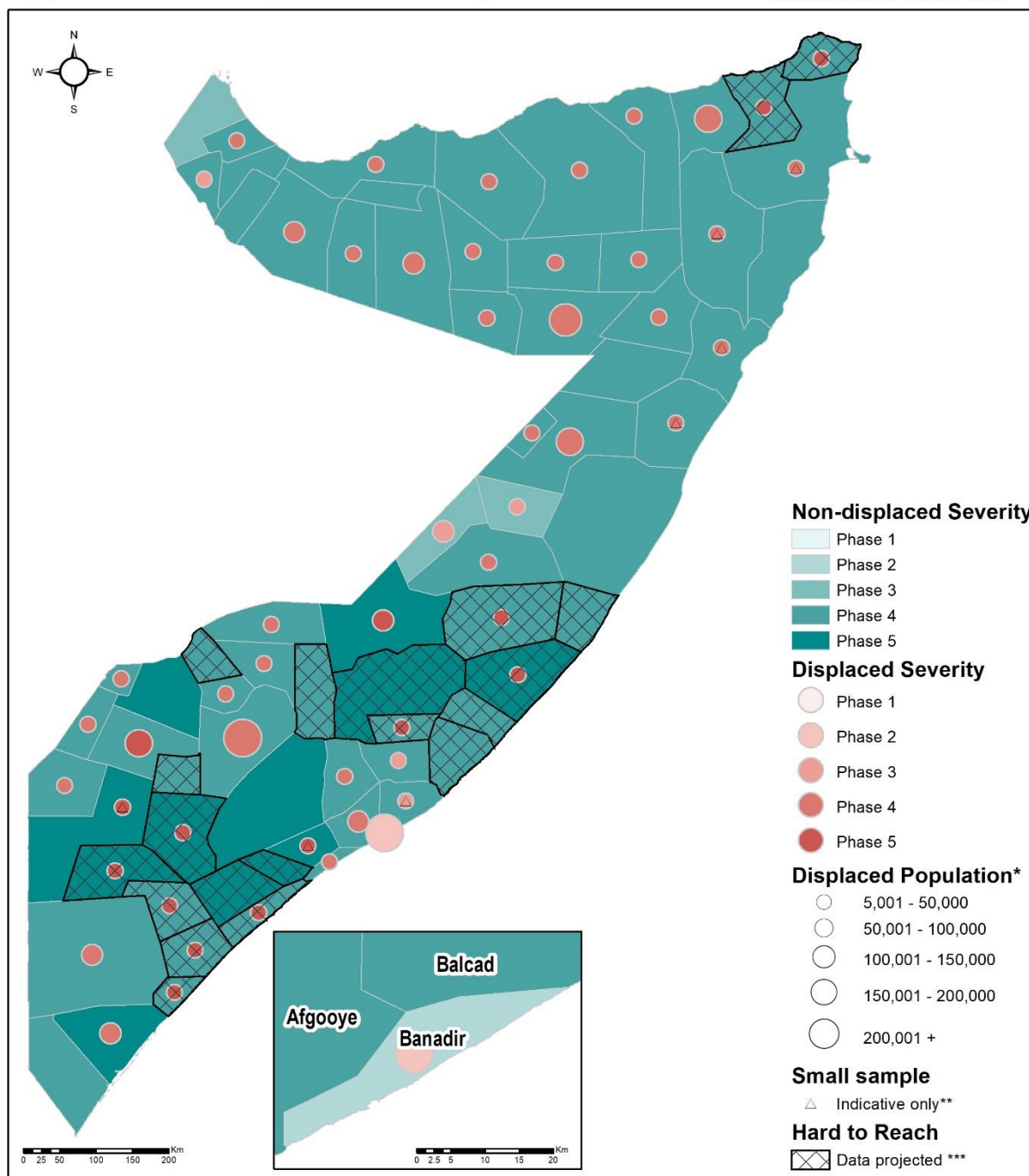


WASH Cluster  
Somalia

**SOMALIA 2019**

**Severity - Access to an improved water source**

For humanitarian purposes only  
Production date : 25 SEP 2019



### Footnotes:

\*For districts with IDP populations below 5,000, values are not displayed.

\*\*Limited IDP sample size. Data may be indicative of conditions, but is not based on a statistically representative sample of the population.

\*\*\*For Hard to Reach districts, where data was not collected, figures are projected as the median value of the adjacent districts.

Contact: reach.mapping@impact-initiatives.org

Note: Data, designations and boundaries contained on this map are not warranted to error-free and do not imply acceptance by the REACH partners, associated, donors mentioned on this map.

Data sources: REACH JMNCA 2019  
Population estimates based on PESS 2014 and as used in the HNO 2020.

Coordinate System: GCS WGS 1984

File: REACH\_Somalia\_Map\_Somalia\_STM\_SeverityWaterSource\_01OCT2019\_A4



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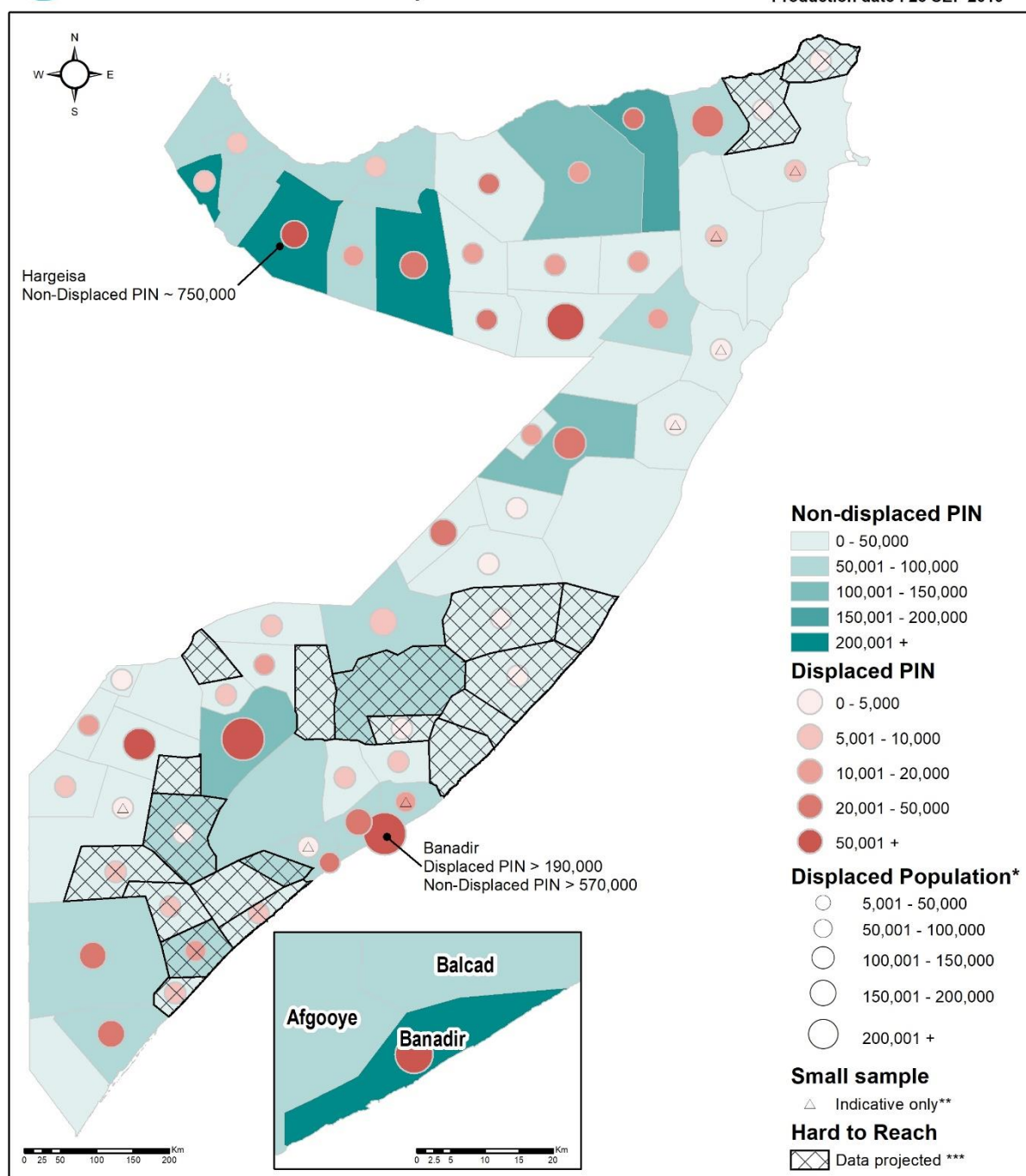
## Annex 8. Access to adequate sanitation facilities PIN by district and displaced and non-displaced population.



**SOMALIA 2019**

**PIN - Access to adequate sanitation facilities**

For humanitarian purposes only  
Production date : 25 SEP 2019



### Footnotes:

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Data sources: REACH JMNCA 2019  
Population estimates based on PESS 2014 and as used in the HNO 2020.

Coordinate System: GCS WGS 1984

File: REACH\_Somalia\_Map\_Somalia\_STM\_PINSanitation\_01OCT2019\_A4



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## Annex 9. Access to adequate sanitation facilities severity score by district and displaced and non-displaced population.

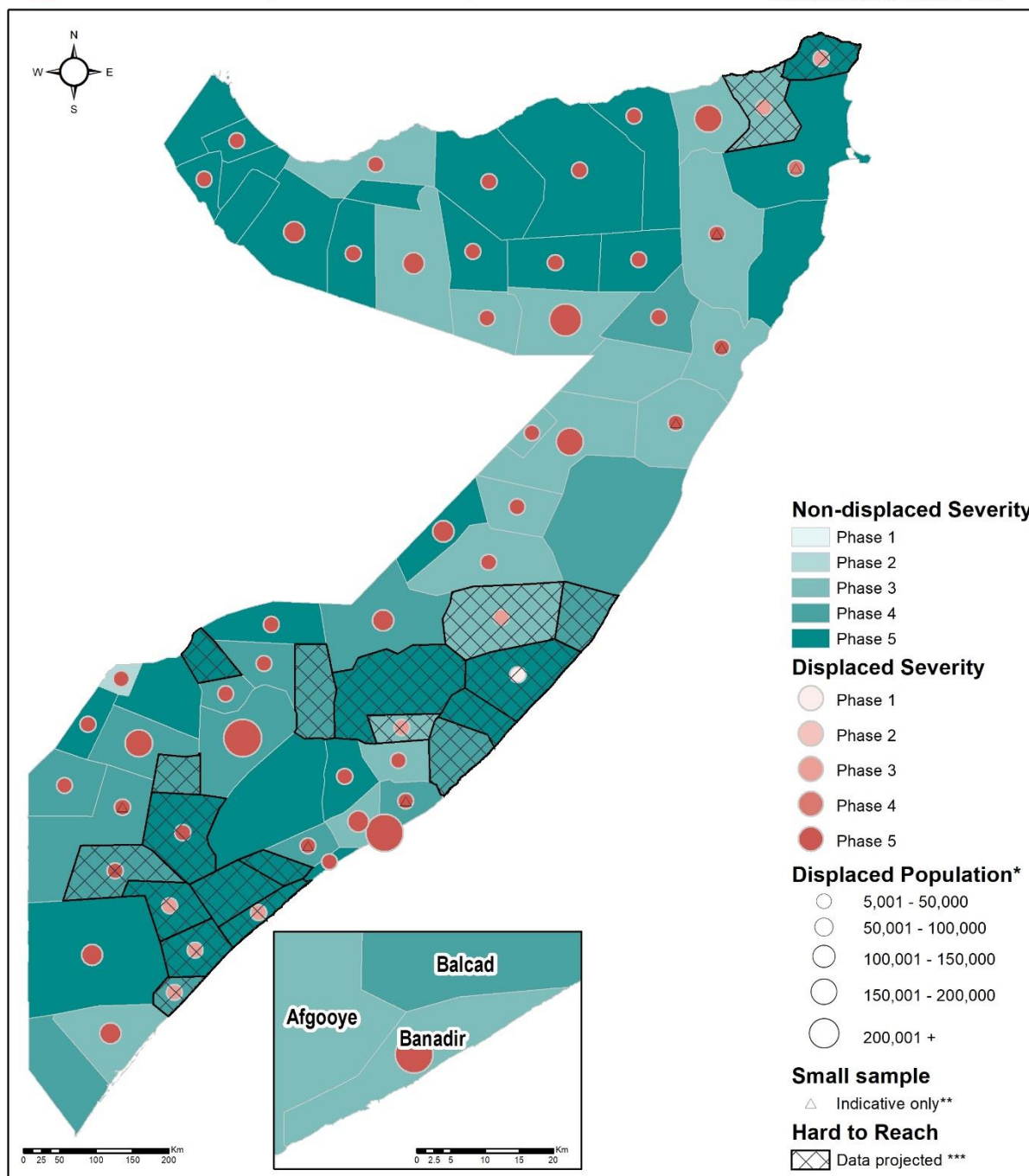


WASH Cluster  
Somalia

**SOMALIA 2019**

**Severity - Access to adequate sanitation facilities**

For humanitarian purposes only  
Production date : 25 SEP 2019



### Footnotes:

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Data sources: REACH JMNCA 2019  
Population estimates based on PESS 2014 and as used in the HNO 2020.

Coordinate System: GCS WGS 1984

File: REACH\_Somalia\_Map\_Somalia\_STM\_SeveritySanitation\_01OCT2019\_A4



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## Annex 10. Access to environmental sanitation PIN by district and displaced and non-displaced population.

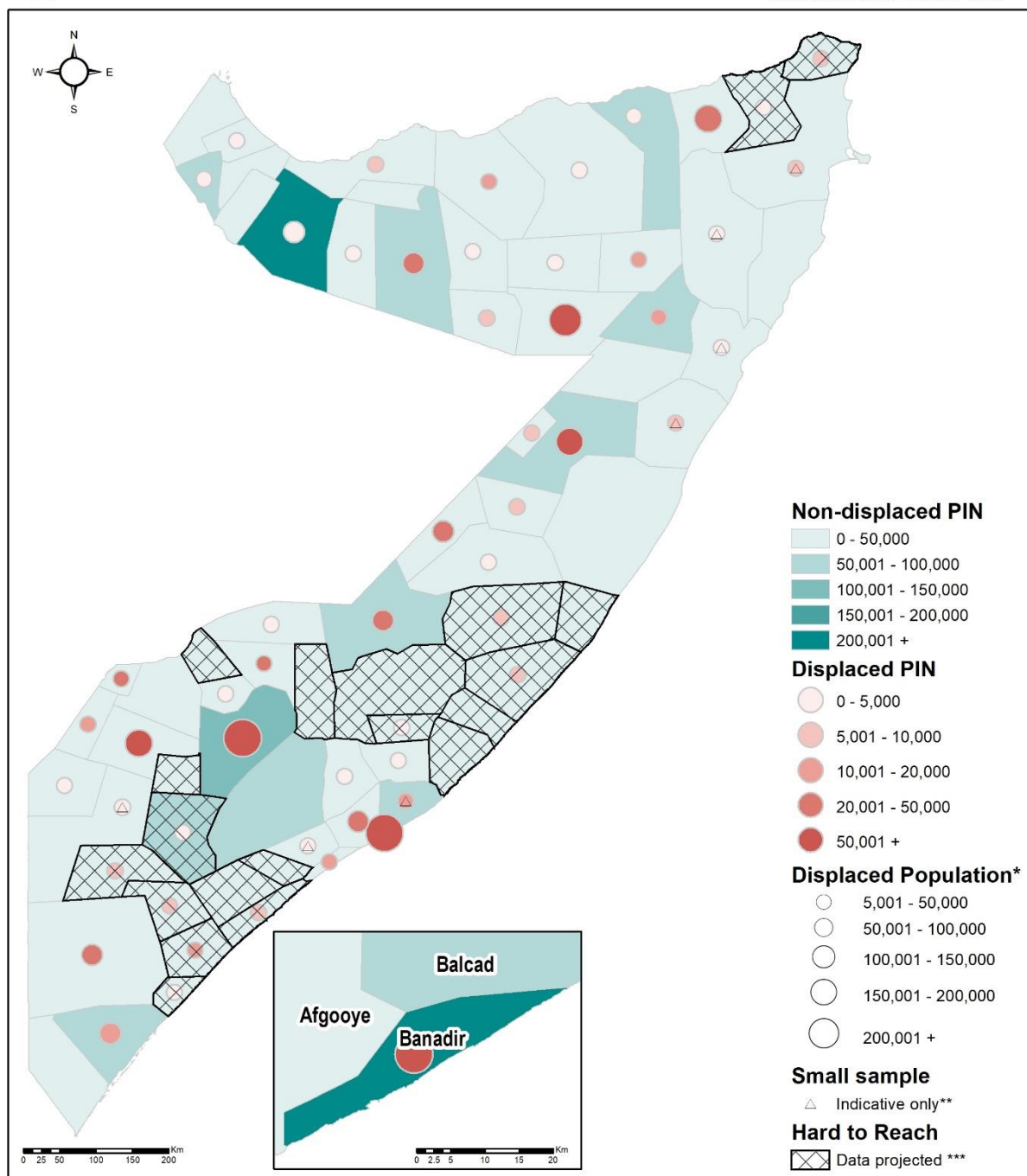


WASH Cluster  
Somalia

**SOMALIA 2019**

**PIN - Access to environmental sanitation**

For humanitarian purposes only  
Production date : 25 SEP 2019



### Footnotes:

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Data sources: REACH JMNCA 2019  
Population estimates based on PESS 2014 and as used in the HNO 2020.

Coordinate System: GCS WGS 1984

File: REACH\_Somalia\_Map\_Somalia\_STM\_PINEnvSanitation\_01OCT2019\_A4

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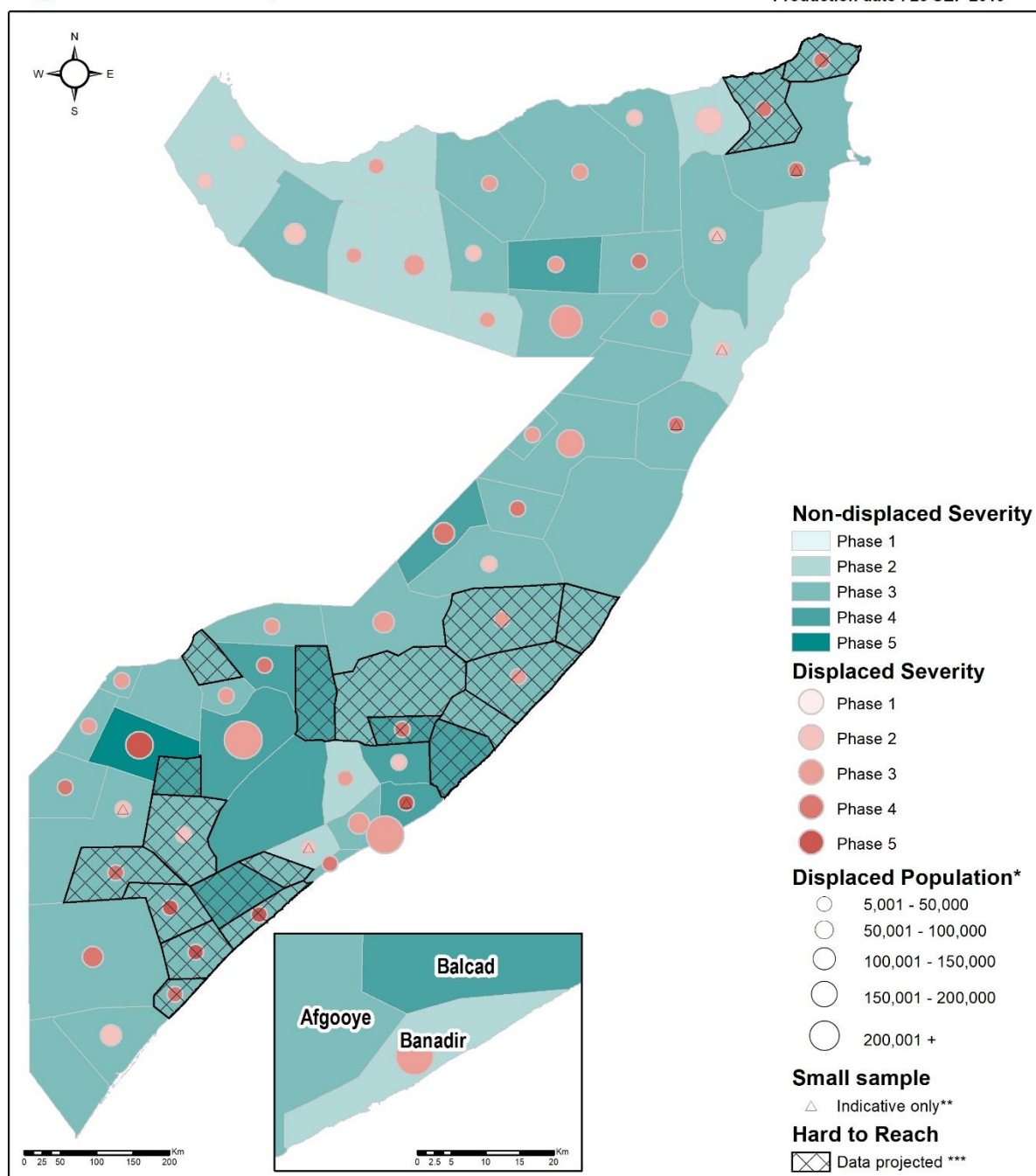
## Annex 11. Access to environmental sanitation severity score by district and displaced and non-displaced population.



**SOMALIA 2019**

**Severity - Access to environmental sanitation**

For humanitarian purposes only  
Production date : 25 SEP 2019



### Footnotes:

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Data sources: REACH JMNCA 2019  
Population estimates based on PESS 2014 and as used in the HNO 2020.

Coordinate System: GCS WGS 1984

File: REACH\_Somalia\_Map\_Somalia\_STM\_SeverityEnvSanitation\_01OCT2019\_A4



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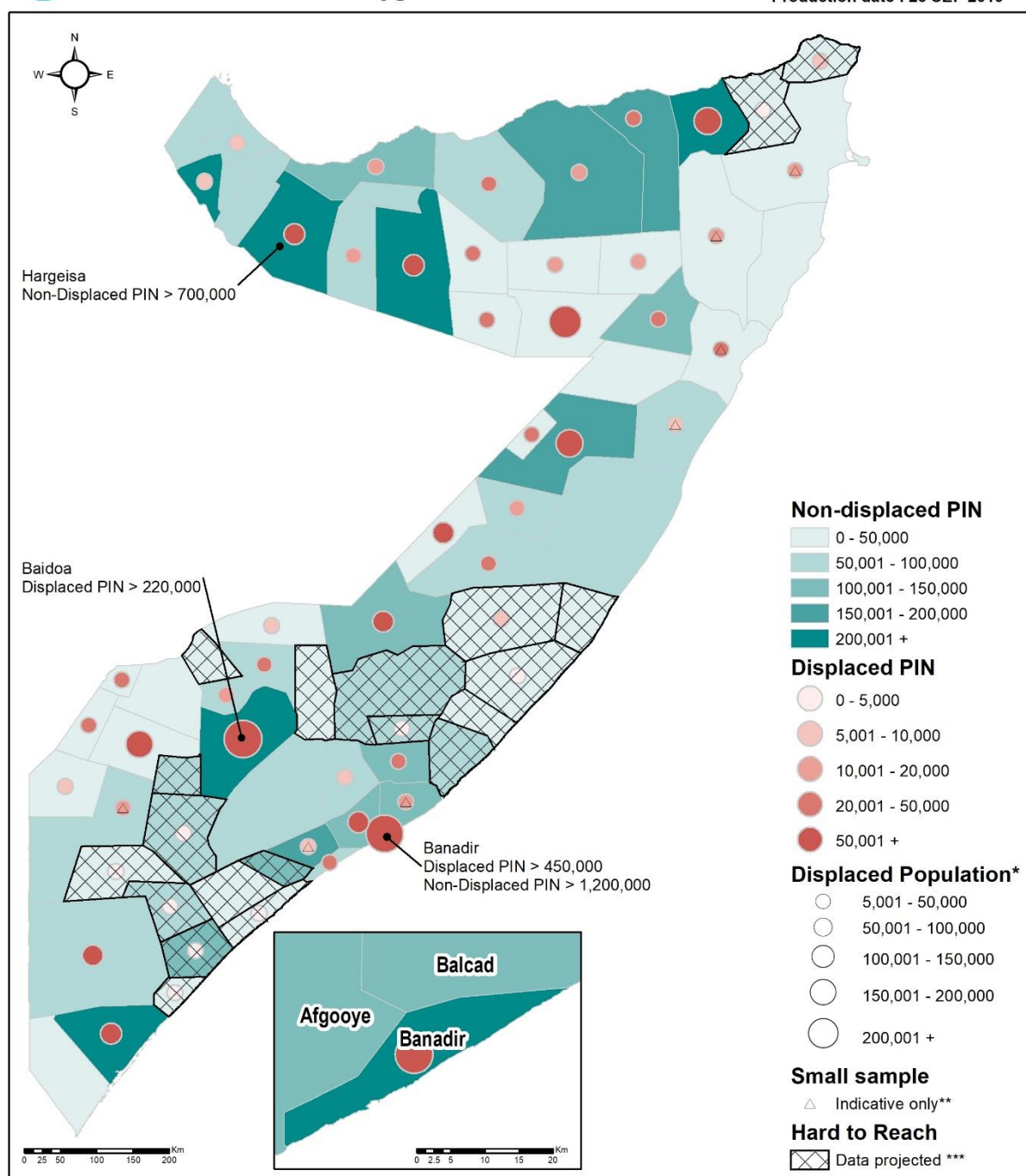
## Annex 12. Access to hygiene facilities and materials PIN by district and displaced and non-displaced population.



**SOMALIA 2019**

**PIN - Access to hygiene facilities and materials**

For humanitarian purposes only  
Production date : 25 SEP 2019



### Footnotes:

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Data sources: REACH JMNA 2019  
Population estimates based on PESS 2014 and as used in the HNO 2020.

Coordinate System: GCS WGS 1984

File: REACH\_Somalia\_Map\_Somalia\_STM\_PINHygiene\_01OCT2019\_A4



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## Annex 13. Access to hygiene facilities and materials severity score by district and displaced and non-displaced population.

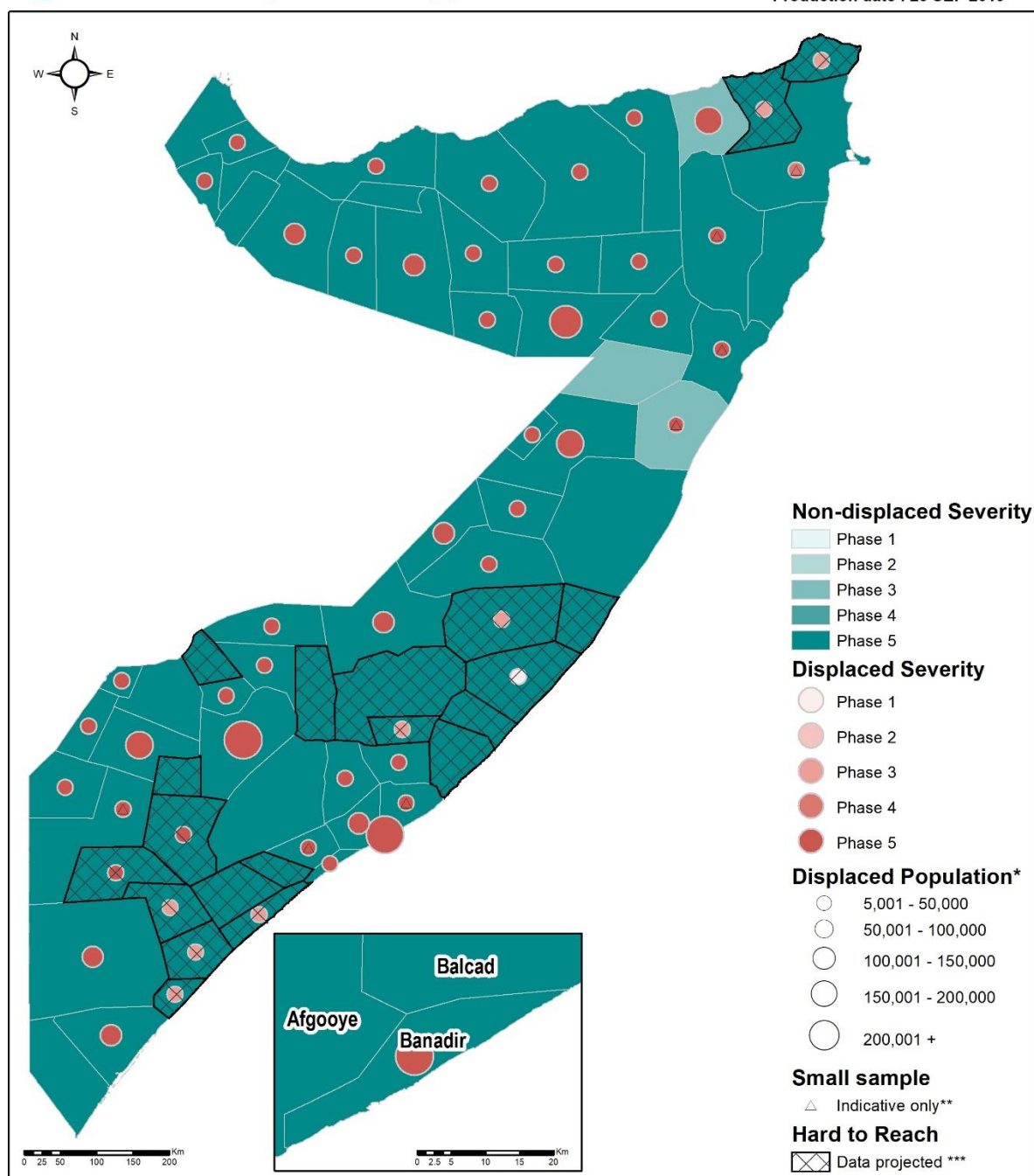


WASH Cluster  
Somalia

**SOMALIA 2019**

**Severity - Access to hygiene facilities and materials**

For humanitarian purposes only  
Production date : 25 SEP 2019



### Footnotes:

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Data sources: REACH JMNCA 2019  
Population estimates based on PESS 2014 and as used in the HNO 2020.

Coordinate System: GCS WGS 1984

File: REACH\_Somalia\_Map\_Somalia\_STM\_SeverityHygiene\_01OCT2019\_A4



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## Annex 14. WASH Safety Score PIN by district and displaced and non-displaced population.

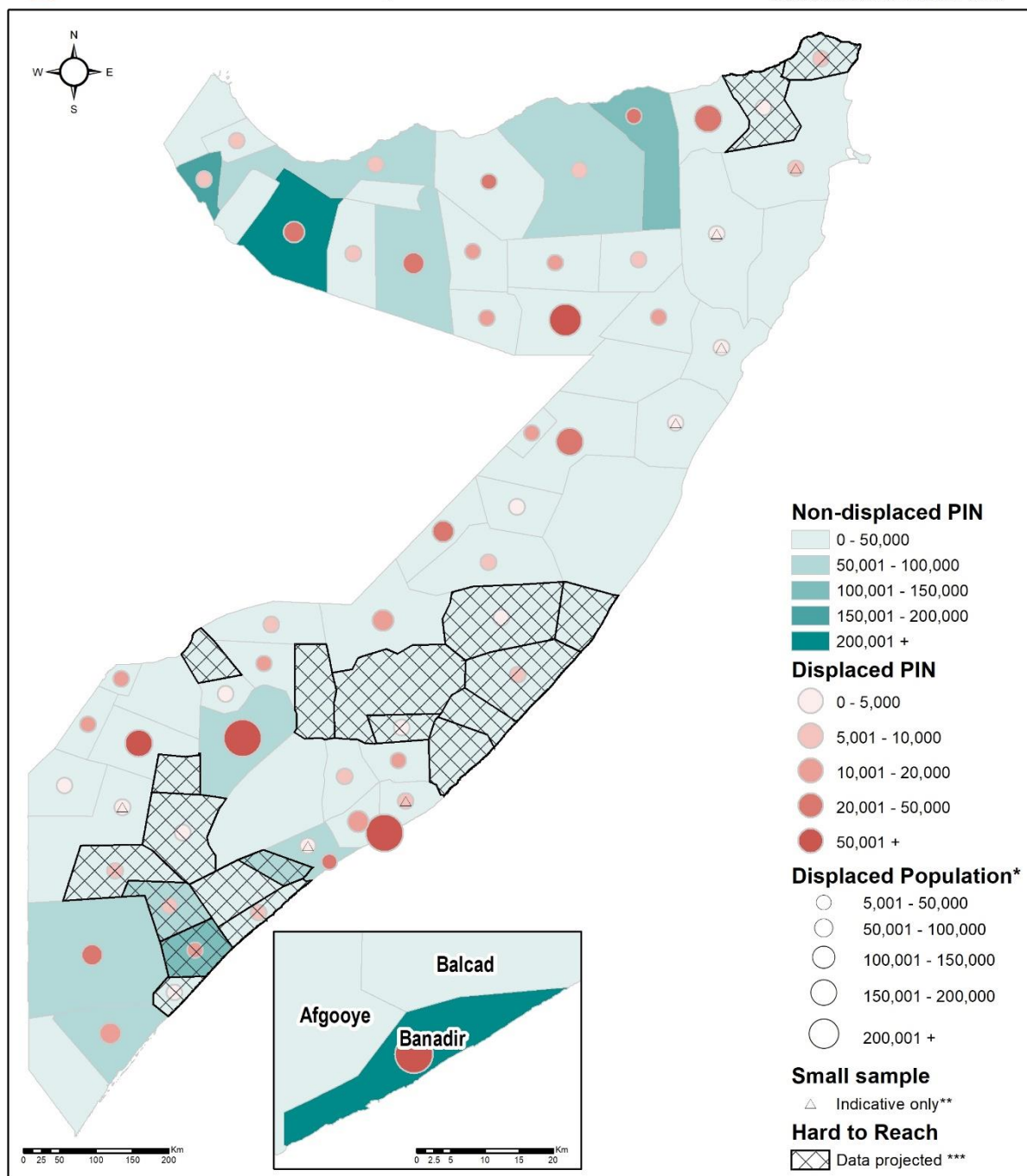


WASH Cluster  
Somalia

**SOMALIA 2019**

**PIN - WASH Safety Index**

For humanitarian purposes only  
Production date : 25 SEP 2019



### Footnotes:

\*For districts with IDP populations below 5,000, values are not displayed.

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Contact: reach.mapping@impact-initiatives.org

Note: Data, designations and boundaries contained on this map are not warranted to error-free and do not imply acceptance by the REACH partners, associated, donors mentioned on this map.

Data sources: REACH JMNCA 2019  
Population estimates based on PESS 2014 and as used in the HNO 2020.

Coordinate System: GCS WGS 1984

File: REACH\_Somalia\_Map\_Somalia\_STM\_PINWASHSafety\_01OCT2019\_A4



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## Annex 15. WASH Safety Score PIN by district and displaced and non-displaced population.

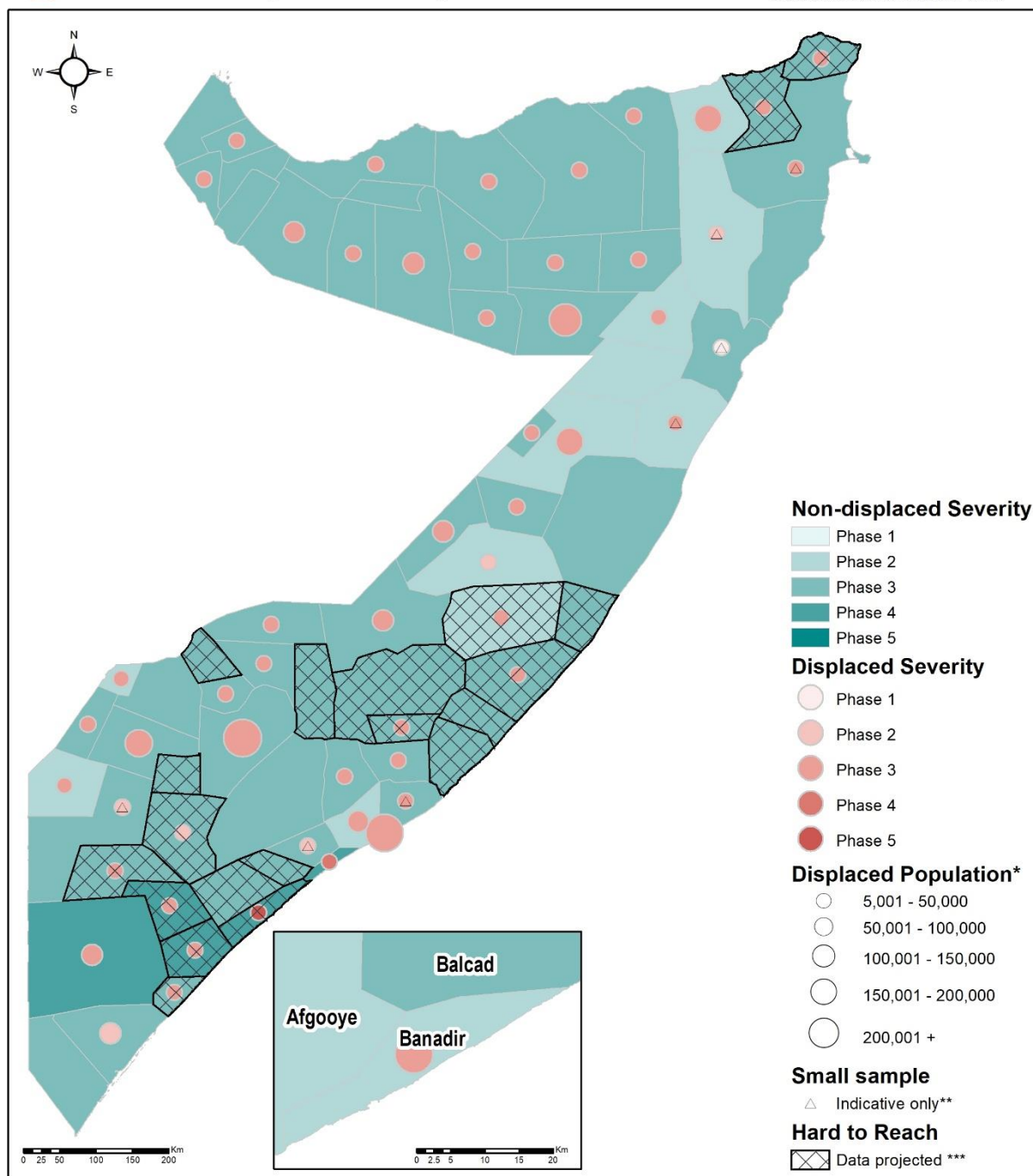


WASH Cluster  
Somalia

**SOMALIA 2019**

**Severity - WASH Safety Index**

For humanitarian purposes only  
Production date : 25 SEP 2019



### Footnotes:

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\*\*\*For Hard to Reach districts, where data was not collected, figures are projected as the median value of the adjacent districts.

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Note: Data, designations and boundaries contained on this map are not warranted to error-free and do not imply acceptance by the REACH partners, associated, donors mentioned on this map.

Data sources: REACH JMNA 2019  
Population estimates based on PESS 2014 and as used in the HNO 2020.

Coordinate System: GCS WGS 1984

File: REACH\_Somalia\_Map\_Somalia\_STM\_SeverityWASHSafety\_01OCT2019\_A4

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## Annex 16. Correlations between “Households having sufficient drinking water” and select water related indicators.

Coping strategy	% of population employing strategy	Correlation coefficient	p-value
Had enough water	48%	0.366	< .001
Reduce domestic water consumption	32%	-0.242	< .001
Reduce drinking water consumption	9%	-0.104	< .001
Rely on seasonal water sources	9%	-0.074	< .001
Send children to fetch water	8%	-0.103	< .001
Adults reduce consumption so that minors can drink	4%	-0.068	< .001
Borrow or share materials or borrow cash	4%	-0.04	< .001
Drink unsafe water, Borrow or share materials or borrow cash	3%	-0.065	< .001
Rely on humanitarian assistance	2%	-0.044	< .001
Adults work extra shifts/jobs	1%	-0.048	< .001
Use money otherwise used for other purchases	1%	-0.041	< .001
Sell assets otherwise used for other purposes	1%	-0.014	.142
Minors work	1%	-0.016	.101
Spend more time travelling/waiting (secure areas)	0%	-0.052	< .001
Adult members beg	0%	-0.043	< .001
Travel/Move to insecure or dangerous areas	0%	-0.025	.010
Minors beg	0%	-0.025	.011
Sexual, economic exploitation to access humanitarian assistance	0%	0.002	.803

## Annex 17. Correlations between “Latrine type category: No access” and select sanitation related indicators.

Coping strategy	% of population employing strategy	Correlation coefficient	p-value
Had access to sanitation	37%	0.198	< .001
Share facilities with other households	27%	0.002	.816
Open defecation	13%	-0.289	< .001
Use facilities which are unhygienic/not cleaned	13%	0.016	.100
Only use facilities at night or non-segregated latrines	8%	0.037	< .001
Rely on humanitarian assistance	7%	0.027	.005
Spend more time travelling/waiting (secure areas)	4%	0.023	.019
Use money otherwise used for other purchases	3%	0.016	.101
Travel/Move to insecure or dangerous areas	1%	-0.016	.099
Sexual, economic exploitation to access humanitarian assistance	0%	-0.004	.695

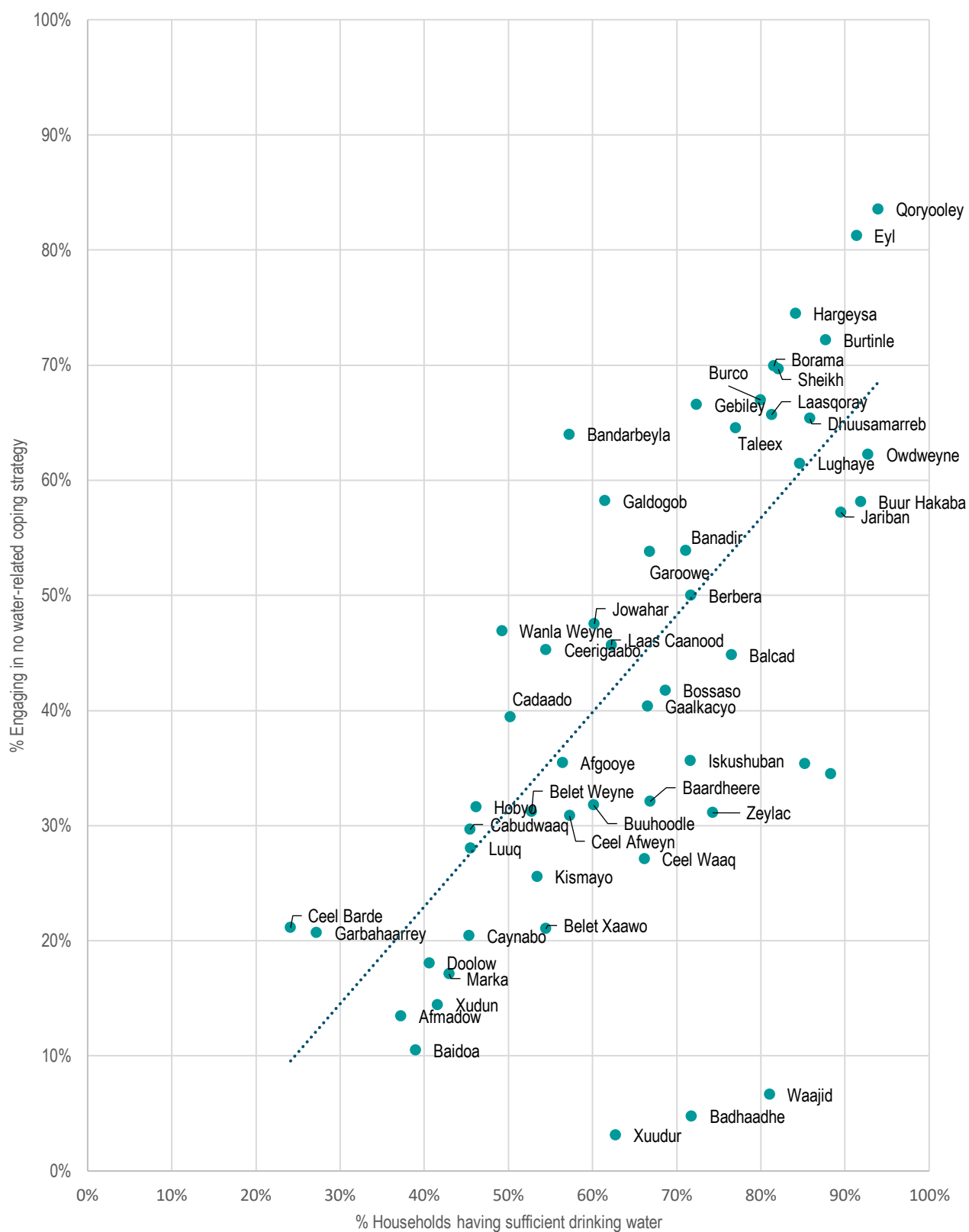
## Annex 18. Correlations between “Household has access to soap” and select hygiene related indicators.

Coping strategy	% of population employing strategy	Correlation coefficient	p-value
Had access to soap or menstrual hygienic materials	32%	0.335	< .001
Wash clothes with soap substitutes	18%	-0.014	.144
Wash hands with soap substitutes	14%	-0.010	.314
Do not wash hands with soap	10%	-0.143	< .001
Wash hands or menstrual materials less frequently	9%	-0.075	< .001
Wash menstrual materials with soap substitutes	8%	-0.035	< .001
Do not clean/re-use menstruation materials	5%	-0.078	< .001
Borrow or share materials or borrow cash	5%	-0.048	< .001
Do not use menstruation materials	3%	-0.060	< .001
Rely on humanitarian assistance	3%	-0.023	.018
Use latrines for bathing purposes	2%	-0.029	.003
Use money otherwise used for other purchases	2%	-0.011	.241
Do not wash hands at all	1%	-0.048	< .001
Sell assets otherwise used for other purposes	1%	-0.027	.006
Adults work extra shifts/jobs	1%	-0.042	< .001
Minors work	1%	-0.051	< .001
Adult members beg	1%	-0.045	< .001
Spend more time travelling/waiting (secure areas)	0%	-0.031	.001
Minors beg	0%	-0.040	< .001
Sexual, economic exploitation to access humanitarian assistance	0%	-0.022	.025
Travel/Move to insecure or dangerous areas	0%	-0.012	.217

## Annex 19. Correlations between malnutrition, mortality, and morbidity indicators and select WASH indicators.

	GAM (WHZ<-2)		Stunting (HAZ<-2)		CMR (Deaths/10,000/day)		AWD/AOD Prevalence	
	Correlation coefficient	p-value	Correlation coefficient	p-value	Correlation coefficient	p-value	Correlation coefficient	p-value
Households having sufficient drinking water	-0.426	0.001	-0.366	0.006	0.122	0.376	-0.175	0.201
Primary source of drinking water category: Improved	-0.379	0.004	0.037	0.791	0.208	0.128	-0.07	0.613
Travel time to water source: ≤15 minutes	-0.298	0.027	-0.097	0.482	0.095	0.492	0.151	0.271
Households having jerry cans	0.382	0.004	0.392	0.003	0.264	0.051	-0.233	0.086
Households treating their own drinking water	0.17	0.216	0.427	0.001	0.021	0.882	-0.168	0.221
Change in water price: Increase	0.316	0.019	-0.053	0.702	-0.059	0.671	0.02	0.882
Household expenditure on water (USD/Month): ≤\$10	-0.347	0.009	0.121	0.379	0.096	0.484	-0.026	0.853
Sharing latrine: Private	-0.338	0.012	-0.569	< .001	0.21	0.124	0.133	0.335
Latrine type category: No access	-0.092	0.506	-0.341	0.011	0.231	0.09	-0.01	0.944
Environmental sanitation problems: None	-0.512	< .001	-0.454	< .001	0.237	0.081	-0.068	0.624
Latrines have a functional handwashing facility	0.027	0.843	-0.194	0.155	-0.056	0.684	0.172	0.208
Household has access to soap	-0.31	0.021	-0.37	0.005	0.145	0.291	0.016	0.909
Travel time to handwashing facility: ≤15 minutes	-0.283	0.036	-0.328	0.014	0.101	0.464	0.246	0.07
Travel time to handwashing facility: 16-30 minutes	0.321	0.017	0.412	0.002	-0.081	0.555	-0.209	0.126
Self-reported hand washing times: After defecating	-0.015	0.913	-0.002	0.987	0.256	0.059	-0.137	0.317
Method of disposing of children's faeces: Burial	0.348	0.009	0.389	0.003	-0.108	0.434	-0.054	0.696
Method of disposing of children's faeces: Covered pit	-0.224	0.101	-0.345	0.01	-0.231	0.09	0.285	0.035
Travel time to health facility: 16-30 minutes	0.292	0.031	0.406	0.002	-0.029	0.831	-0.209	0.125
Travel time to health facility: >180 minutes	-0.307	0.023	-0.569	< .001	-0.094	0.495	0.113	0.413

**Annex 20. Relationship between the % of households having sufficient drinking water and the % of households engaging in no water-related coping strategy, represented by district population means.**



**Annex 21. Relationship between the % of households having sufficient drinking water and the % of households engaging in reduced domestic water consumption, represented by district population means.**

