Joint Multi-Cluster Needs Assessment
Waqooyi Galbeed, Somalia
August 2019

CONTEXT

Somalia has been experiencing a multi-layered, complex, and protracted crisis over the past three decades; insecurity and conflict continue to exacerbate the effects of periodic natural shocks, such as droughts and flooding. The compound nature of the crisis influences displacement patterns and constrains the availability of resources, while the presence of armed groups severely impedes the level of access of humanitarian actors. There is an imperative for a harmonised humanitarian response plan to continue supporting drought- and displacement-focused interventions, and for continued nationally-representative needs assessments. To this end, REACH supported the Somalia Assessment Working Group and Somalia Information Management Working Group in conducting the third Joint Multi-Cluster Needs Assessment (JMCNA) in Somalia.

The JMCNA aims to facilitate a harmonised response plan at the operationally relevant district level; it relies on the coordinated efforts of partners to encourage joint planning, data collection, analysis and interpretation of results.

METHODOLOGY

Households were sampled at the district level using stratified cluster sampling with households in IDP settlements and non-IDP settlements as strata, a 90% confidence interval, a 10% margin of error, and a buffer of 15%. Data was collected between 23 June and 31 July 2019. Primary data was collected by means of a household-level survey that was co-designed with the humanitarian clusters in Somalia. Cluster leads outlined information gaps and the type of data required to inform their strategic plans. Key indicators were developed by REACH with the substantive input of participating partners, and subsequently validated by clusters. The analysis is based on an analytical approach proposed by REACH for the 2019 MSNA, which incorporates elements of the draft Joint Inter-sectoral Analysis Framework (JIAF). As part of this approach, findings for sectoral pillars (living standard gaps per sector) and cross-sectoral pillars (capacity gap, vulnerability, impact of the crisis) are generated and presented in this factsheet. Returnees and refugees were interviewed but since they were not sampled for, they are not included in the results in this factsheet.

To provide a local, context-specific overview, this factsheet presents a summary of findings of assessed settlements in Waqooyi Galbeed region only. The nation-wide, sectoral factsheets are available here.

Assessment sample

Households: 595
- IDP settlement: 155
- Non-IDP settlement: 429
- Returnee*: 11
- Refugee*: 0

Demographics

<table>
<thead>
<tr>
<th>Female (47%)</th>
<th>Age</th>
<th>Male (53%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2%</td>
<td>60+</td>
<td>2%</td>
</tr>
<tr>
<td>22%</td>
<td>18-59</td>
<td>21%</td>
</tr>
<tr>
<td>15%</td>
<td>6-17</td>
<td>19%</td>
</tr>
<tr>
<td>8%</td>
<td>0-5</td>
<td>11%</td>
</tr>
</tbody>
</table>

Average household size: 7

General household information

Reported proportion of number of household members engaged in paid work at the time of the data collection:

<table>
<thead>
<tr>
<th>No one</th>
<th>1 person</th>
<th>2 persons</th>
<th>3 persons or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41%</td>
<td>52%</td>
<td>6%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Proportion of households with at least one person who lost their job in the 3 months prior data collection: 9%

Displacement

Top three reported reasons for leaving previous location:

1. Actual conflict in community 49%
2. Drought 23%
3. Lack of health services 20%

Top three reported reasons for coming to current location:

1. Availability of work/ income opportunities 24%
2. Presence of health services 21%
3. Shelter 21%

Persons with disability

Proportion of households with at least one person with a disability and/or cognitive difficulties in the household: 12%

Proportion of households by category of disability:

<table>
<thead>
<tr>
<th>% categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>2% No difficulty carrying out daily activities</td>
</tr>
<tr>
<td>3% Minor difficulties carrying daily activities but does not need assistance or attention</td>
</tr>
<tr>
<td>6% Some difficulties carrying daily activities and needs some assistance and attention</td>
</tr>
<tr>
<td>6% A lot of difficulty carrying daily activities and needs quite a bit of assistance and attention</td>
</tr>
<tr>
<td>6% Cannot carry out daily activities independently and needs permanent assistance and attention</td>
</tr>
</tbody>
</table>

*For e.g. mobility, hearing, sight, communicating, etc. which impacts their ability to carry out daily activities such as working, studying, walking, getting dressed, remembering.

Proportion of households who believe they can repay household debt over the next year:

<table>
<thead>
<tr>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes 35%</td>
</tr>
<tr>
<td>No 47%</td>
</tr>
<tr>
<td>Do not know 18%</td>
</tr>
</tbody>
</table>

1. While refugee and returnee households were encountered during data collection and surveyed, they were not included as strata in the sample. As a result, they were excluded from the analysis. The results in the factsheet are based on a total of 584 households interviewed (displaced and non-displaced) and no inferences may be drawn on refugee and returnee households.

2. The respondents were able to select only two responses.

3. Findings related to 155 IDP households.

4. Proportion of the overall population.
% of households per WASH LSG severity score:

![Bar Chart]

% of households with a WASH LSG severity score of at least 3, per population group:

<table>
<thead>
<tr>
<th>Population Group</th>
<th>IDP Settlement</th>
<th>Non-IDP Settlement</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>3%</td>
<td>3%</td>
</tr>
</tbody>
</table>

The WASH severity score is comprised of the following (composite) indicators: 1) access to an improved water source, 2) access to sufficient water, 3) safe storage of water, 4) latrine use, 5) access to safe and dignified latrines, 6) access to environmental sanitation, 7) availability of hygiene products 9) access to hand-washing facilities, and 10) accountability to affected populations regarding the participations of communities in the design and implementation of WASH programming. The WASH severity score for assessed households in Waqooyi Galbeed was primarily driven by a lack of access to an improved water source and dignified latrines.

Core findings related to WASH:

- **Most common source of drinking water reported by households:**
  - IDP settlement: Vendors or shop (57%)
  - Non-IDP settlement: Piped System (29%)

- **Proportion of households reporting lack of enough water for drinking and cooking:**
  - IDP settlement: 22%
  - Non-IDP settlement: 12%

- **Proportion of households reporting no access to soap:**
  - IDP settlement: 30%
  - Non-IDP settlement: 37%

- **Proportion of households reporting a change in the amount they paid for water:**
  - IDP settlement:
    - Amount has increased: 68%
    - No change: 8%
    - Amount has decreased: 24%
  - Non-IDP settlement:
    - Amount has increased: 54%
    - No change: 41%
    - Amount has decreased: 4%

- **Type of latrine households have access to:**
  - IDP settlement:
    - Flush to the open: 18%
    - Flush to a tank: 34%
    - Pit latrine with slab: 9%
    - Pit latrine without slab: 29%
  - Non-IDP settlement:
    - Flush to the open: 17%
    - Flush to a tank: 18%
    - Pit latrine with slab: 12%
    - Pit latrine without slab: 52%

% of households with a WASH LSG severity score of at least 3, per district:

<table>
<thead>
<tr>
<th>District</th>
<th>Extre (4)</th>
<th>Seve (3)</th>
<th>Stres (2)</th>
<th>Mnimal (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hargeysa</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Berbera</td>
<td>2%</td>
<td>4%</td>
<td>12%</td>
<td>84%</td>
</tr>
<tr>
<td>Gebiley</td>
<td>8%</td>
<td>32%</td>
<td>60%</td>
<td>0%</td>
</tr>
<tr>
<td>Awd Al</td>
<td>2%</td>
<td>4%</td>
<td>94%</td>
<td>0%</td>
</tr>
<tr>
<td>Togdheer</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Woqooyi Galbeed</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
</tr>
</tbody>
</table>

*Findings related to 439 households that reported having access to private or shared latrine.*
HEALTH LIVING STANDARDS GAP (LSG)

% of households per health LSG severity score:

- 0% Extreme (severity score 4)
- 1% Severe (severity score 3)
- 12% Stress (severity score 2)
- 87% No or minimal (severity score 1)

% of households with a health LSG severity score of at least 3, per population group:

| IDP settlement | 0% |
| Non-IDP settlement | 1% |

The health LSG severity score is comprised of the following indicators: 1) the burden of disease for children under 5, pregnant and lactating women, and adults, 2) access to treatment, 3) the prevalence of mental health issues, 4) vaccination coverage, 5) the availability of healthcare, 6) access to healthcare, and 7) the type of healthcare facilities that households visit. Findings indicate that the health LSG severity score for households in assessed communities in Waqooyi Galbeed was primarily driven by cost of healthcare services and the limited availability of health care services.

% of households with a health LSG severity score of at least 3, per population group:

| IDP settlement | 0% |
| Non-IDP settlement | 1% |

Core findings related to healthcare:

- Proportion of households reporting they were not able to access a healthcare facility for children:
  - IDP settlement: 55%
  - Non-IDP settlement: 58%

- Proportion of adults reporting no access to a healthcare facility:
  - IDP settlement: 37%
  - Non-IDP settlement: 57%

Average travel time to the nearest health facility reported:

<table>
<thead>
<tr>
<th>Less than 15 minutes</th>
<th>15-30 minutes</th>
<th>30-60 minutes</th>
<th>1-3 hours</th>
<th>More than 3 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDP settlement</td>
<td>47%</td>
<td>37%</td>
<td>15%</td>
<td>0%</td>
</tr>
<tr>
<td>Non-IDP settlement</td>
<td>29%</td>
<td>37%</td>
<td>16%</td>
<td>9%</td>
</tr>
</tbody>
</table>

% of IDP settlement

% of Non-IDP settlement

Of the 42% of households reporting at least one member with perceived mental health issue(s), main health profiles reported by households:

<table>
<thead>
<tr>
<th>IDP settlement</th>
<th>Categories</th>
<th>Non-IDP settlement</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>At least 5 issues related to Depression or at least 3 issues related to Schizophrenia</td>
<td>1%</td>
</tr>
<tr>
<td>0%</td>
<td>At least 3 issues related to Depression or at least 2 issues related to Schizophrenia</td>
<td>3%</td>
</tr>
<tr>
<td>0%</td>
<td>At least 5 mental health stressors</td>
<td>1%</td>
</tr>
<tr>
<td>0%</td>
<td>At least 3 mental health stressors and history of chaining</td>
<td>0%</td>
</tr>
<tr>
<td>1%</td>
<td>At least 3 mental health stressors</td>
<td>1%</td>
</tr>
<tr>
<td>1%</td>
<td>At least 2 mental health stressors</td>
<td>5%</td>
</tr>
<tr>
<td>4%</td>
<td>One issue reported and history of chaining</td>
<td>3%</td>
</tr>
<tr>
<td>94%</td>
<td>One issue reported</td>
<td>86%</td>
</tr>
</tbody>
</table>

Findings related to 94 households with pregnant/lactating household members.

% of households per health LSG severity score, per population group:

- Extreme (4): 0%
- Severe (3): 25%
- Stress (2): 50%
- Minimal (1): 75%
- 100%

% of households per district:

- Hargeysa: 93%
- Berbera: 7%
- Gebiley: 0%
- Togdheer: 9%
- Woqooyi Galbeed: 9%

% of IDP settlement

% of Non-IDP settlement
The shelter and NFI severity score is composed of the following indicators: 1) shelter occupational density, 2) shelter quality measured by means of proxies such as primary construction materials for the structure, walls, roof, door, and floor, 3) security conditions within the shelter, 4) long-term shelter damage, 5) security of tenure and housing, land, and property issues, and 6) possession of basic NFIs. The shelter and NFI LSG score in assessed communities in Waqooyi Galbeed was primarily driven by shelter damage and security of tenure indicators.

Core findings related to shelter:

- **Proportion of households reporting incidents of theft within their household in the 3 months prior data collection:**
  - IDP settlement: 8%
  - Non-IDP settlement: 19%

- **Proportion of households reporting shelter damage in the 3 months prior data collection:**
  - IDP settlement: 20%
  - Non-IDP settlement: 13%

- **Proportion of households reporting that they had housing, land and property (HLP) dispute in the 3 months prior to data collection:**
  - IDP settlement: 6%
  - Non-IDP settlement: 3%

- **Proportion of households that reported not owning land:**
  - IDP settlement: 54%
  - Non-IDP settlement: 45%

Proportion of households reporting access to NFIs in usable condition:

<table>
<thead>
<tr>
<th>IDP settlement</th>
<th>Non-IDP settlement</th>
</tr>
</thead>
<tbody>
<tr>
<td>55% Cooking pot</td>
<td>63%</td>
</tr>
<tr>
<td>33% Blanket</td>
<td>54%</td>
</tr>
<tr>
<td>60% Knife</td>
<td>63%</td>
</tr>
<tr>
<td>66% Jerry can</td>
<td>67%</td>
</tr>
<tr>
<td>75% Sleeping mat</td>
<td>87%</td>
</tr>
<tr>
<td>47% Wash basin</td>
<td>59%</td>
</tr>
</tbody>
</table>

% of households per shelter LSG severity score, per population group:

- **IDP settlement:**
  - Extreme (4) 0%
  - Severe (3) 16%
  - Stress (2) 66%
  - No or minimal (1) 18%

- **Non-IDP settlement:**
  - Extreme (4) 0%
  - Severe (3) 0%
  - Stress (2) 20%
  - No or minimal (1) 16%

% of households with a shelter LSG severity score of at least 3, per population group:

- **IDP settlement:**
  - 20%
- **Non-IDP settlement:**
  - 16%

% of households with a shelter LSG severity score of at least 3, per district:

- **Waqooyi Galbeed:**
  - 0%
  - 16%
  - 66%
  - 18%

Proportion of households reporting a source of light at night in their shelter:

- **IDP settlement:** 56%
- **Non-IDP settlement:** 69%

Proportion of households reporting having internal locks on their shelter:

- **IDP settlement:** 74%
- **Non-IDP settlement:** 71%

Proportion of households reporting their shelter has internal separation:

- **IDP settlement:** 52%
- **Non-IDP settlement:** 73%

Proportion of households reporting access to NFIs in usable condition:

- **IDP settlement:**
  - Cooking pot 55%
  - Blanket 33%
  - Knife 60%
  - Jerry can 66%
  - Sleeping mat 75%
  - Wash basin 47%

- **Non-IDP settlement:**
  - Cooking pot 63%
  - Blanket 54%
  - Knife 63%
  - Jerry can 67%
  - Sleeping mat 87%
  - Wash basin 59%

% of IDP settlement vs % of Non-IDP settlement
Core findings related to education

IDP settlement Non-IDP settlement

Proportion of households reporting access to an education facility:

<table>
<thead>
<tr>
<th>Proportion</th>
<th>IDP settlement</th>
<th>Non-IDP settlement</th>
</tr>
</thead>
<tbody>
<tr>
<td>23%</td>
<td>Proportion of households reporting access to an education facility:</td>
<td>17%</td>
</tr>
</tbody>
</table>

Proportion of households reporting children dropped out of school in the 12 months prior the data collection:

<table>
<thead>
<tr>
<th>Proportion</th>
<th>IDP settlement</th>
<th>Non-IDP settlement</th>
</tr>
</thead>
<tbody>
<tr>
<td>81%</td>
<td>Proportion of households reporting children dropped out of school in the 12 months prior the data collection:</td>
<td>43%</td>
</tr>
<tr>
<td>13%</td>
<td>No change</td>
<td>51%</td>
</tr>
<tr>
<td>4%</td>
<td>Amount has decreased</td>
<td>1%</td>
</tr>
</tbody>
</table>

Proportion of households reporting a change in the amount they paid for education in the 3 months prior to data collection:

<table>
<thead>
<tr>
<th>Proportion</th>
<th>IDP settlement</th>
<th>Non-IDP settlement</th>
</tr>
</thead>
<tbody>
<tr>
<td>81% Amount has increased</td>
<td>43%</td>
<td></td>
</tr>
<tr>
<td>13% No change</td>
<td>51%</td>
<td></td>
</tr>
<tr>
<td>4% Amount has decreased</td>
<td>1%</td>
<td></td>
</tr>
</tbody>
</table>

Average travel time to the nearest education facility reported:

<table>
<thead>
<tr>
<th>Average travel time to the nearest education facility reported:</th>
<th>IDP settlement</th>
<th>Non-IDP settlement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 15 minutes</td>
<td>61%</td>
<td>58%</td>
</tr>
<tr>
<td>15-30 minutes</td>
<td>26%</td>
<td>32%</td>
</tr>
<tr>
<td>30-60 minutes</td>
<td>13%</td>
<td>7%</td>
</tr>
<tr>
<td>1-3 hours</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>More than 3 hours</td>
<td>0%</td>
<td>2%</td>
</tr>
</tbody>
</table>

% of households with an education LSG severity score of at least 3, per population group:

<table>
<thead>
<tr>
<th>Proportion</th>
<th>IDP settlement</th>
<th>Non-IDP settlement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1%</td>
<td>Proportion of households with an education LSG severity score of at least 3, per population group:</td>
<td>2%</td>
</tr>
</tbody>
</table>

% of households with an education LSG severity score of at least 3, per district:

<table>
<thead>
<tr>
<th>District</th>
<th>IDP settlement</th>
<th>Non-IDP settlement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hargeysa</td>
<td>81%</td>
<td>61%</td>
</tr>
<tr>
<td>Berbera</td>
<td>68%</td>
<td>43%</td>
</tr>
<tr>
<td>Gebiley</td>
<td>67%</td>
<td>41%</td>
</tr>
<tr>
<td>Awdal</td>
<td>66%</td>
<td>40%</td>
</tr>
<tr>
<td>Sanaag</td>
<td>65%</td>
<td>37%</td>
</tr>
<tr>
<td>Sool</td>
<td>64%</td>
<td>35%</td>
</tr>
<tr>
<td>Togdheer</td>
<td>63%</td>
<td>34%</td>
</tr>
<tr>
<td>Woqooyi Galbeed</td>
<td>62%</td>
<td>33%</td>
</tr>
</tbody>
</table>

Findings related to 467 households with school-aged children

Findings related to 345 households that reported paying for education
The protection LSG score measures a household’s general protection needs as well as their needs related to child protection, housing, land, and property (HLP), gender-based violence (GBV) and unexploded ordnance (UXO). The score is calculated on the basis of the following (composite) indicators: 1) freedom of movement, 2) family separation, 3) safety and security concerns, 4) hazardous or exploitative work, 5) HLP issues such as ownership, documentation, disputes, and the use of resolution mechanisms, 6) recourse for GBV and satisfaction with and use and awareness of referral pathways, 7) rule of law, 8) child protection and injuries to children, 9) exploitation, 10) representation of women, and 11) intra-communal relations. The protection LSG score for households in assessed communities in Waqooyi Galbeed was primarily driven by HLP and sexual and economic exploitation indicators.

1 Due to sensitivities around asking protection questions in a household survey setting, it is highly likely that concerns are under-reported so these findings should be considered as conservative estimates.
The capacity gap (CG) score measures a household’s resort to negative and/or unsustainable coping strategies to meet basic needs in the 3 months prior to data collection when unable to access water, sanitation, hygiene, food, shelter, non-food items, education, and healthcare. It is essential to measure capacity gaps as households may maintain living standards precisely because of their use of negative or unsustainable coping strategies. Strategies used by households are accorded a severity score depending on their level of (ir)reversibility or sustainability, and their level of harmfulness to the well-being and dignity of individuals. The CG severity score for households in assessed communities in Waqooyi Galbeed was primarily driven by health and sanitation related coping scores.
% of households with a vulnerability severity score of at least 3: **17%**

% of households per vulnerability severity score:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Severity Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>Extreme (4)</td>
</tr>
<tr>
<td>17%</td>
<td>Severe (3)</td>
</tr>
<tr>
<td>83%</td>
<td>Stress (2)</td>
</tr>
<tr>
<td>1%</td>
<td>No or minimal (1)</td>
</tr>
</tbody>
</table>

% of households with a vulnerability severity score of at least 3, per population group:

- **IDP settlement**: 33%
- **Non-IDP settlement**: 16%

The vulnerability score measures the exposure of households to the impact of a crisis. Indicators used to measure vulnerability include:
1. Household composition: vulnerable heads of households and primary income-earners, chronically-ill persons, pregnant and lactating women, and persons with disabilities.
2. Possession of legal documentation.
3. Dependency-levels measured by age-and-work-dependency ratios as well as time spent on caregiving tasks.
4. Poverty levels measured by household income per capita and debt-income ratios.
5. Level of household expenditure on basic goods and services.

The vulnerability score for households in assessed communities in Waqooyi Galbeed was driven by vulnerable heads of households score.

% of households with a vulnerability severity score of at least 3, per district:
The impact severity score measures the impact of the crisis. Indicators for impact on households include: 1) residing in a drought- or conflict-prone environment, measured by the mean anomaly of evapotranspiration and the number of attacks within a 10km radius of households, 3) separation of family members, 4) loss of employment, 5) reasons for displacement, and 6) damage to shelters. In addition, the Integrated Phase Classification is used as a proxy for the impact on systems and services and barriers to access humanitarian assistance is used as an indicator to estimate the impact on aid delivery. The impact severity score for assessed communities in Waqooyi Galbeed was primarily driven by the impact of drought and conflict.
The MSNI is a measure of a household’s overall severity of humanitarian needs. It is composed of the scores of three independent but inter-acting pillars: living standard gaps, capacity gaps (use of negative coping mechanisms) and impact of the crisis. It aims to estimate intensity (in terms of the severity of humanitarian needs) and magnitude (in terms of the proportion of households in each severity category) of the crisis.

The MSNI is an analytical approach proposed by REACH for the 2019 MSNAs, which incorporates some elements of the draft JIAF. The MSNI serves as an interim proposed solution for inter-sectoral analysis until the endorsed JIAF model becomes available.
% of households with at least one LSG severity score of at least 3: 42%

42% of households were found to have at least one LSG severity score and/or a CG severity score of at least 3:

41% of households were found to have at least one LSG severity score of at least 3 but a CG severity score lower than 3;

1% of households were found to have both at least one LSG severity score and a CG severity score of at least 3;

0% of households were found to have a CG severity score of at least 3, but no LSG severity scores higher than 3.
The overall JMCNA was conducted in 943 settlements, covering 17 of 18 regions, and 51 out of 74 districts. Some areas remained inaccessible due to security concerns, primarily in the South Central and South West States. Two important limitations of the assessment are the inaccessibility of certain areas and the potential bias in privileging surveys in urban areas relative to rural areas due to reasons relating to security, logistics, and access. A total of 10,467 households were surveyed. The survey results are representative for IDP settlement and Non-IDP settlement households; results are not representative for refugee and returnee households as the sampling frame was not stratified for those two population groups, therefore, refugee and returnee households were not included in this output. Households were sampled at the district level using stratified cluster sampling with probability proportional to population size, with displaced and Non-IDP settlement households as strata, a 90% confidence interval, a 10% margin of error, and a buffer of 15%. Data was collected between 23 June and 31 July 2019. In certain districts, two-stage simple random sampling was used instead of stratified cluster sampling for large urban centres as it proved to be more efficient and logistically-feasible for data collection. Primary data was collected by means of a household-level survey designed with the participation of the humanitarian clusters in Somalia. Cluster leads outlined information gaps and the type of data required to inform their strategic plans. Key indicators were developed by REACH with the substantive input of participating partners, and subsequently validated by clusters. REACH drafted the household survey through an iterative consultation process with cluster partners and OCHA.

The draft Joint Inter-sectoral Analytical Framework (JIAF) was used as a basis for the analysis of multi-sectoral needs. The JIAF builds on the examination of the underlying trends, drivers and pre-existing vulnerabilities as a first step, followed by an examination of the impact of the crisis on populations, systems and services, and access to humanitarian aid, and living standard gaps and capacity gaps. Vulnerabilities are defined as the pre-existing, underlying factors i.e. the processes or conditions that influence the degree of the shock and influence exposure, vulnerability or capacity of the affected household. Impact refers to the primary and secondary effects of the event/shock on the populations, systems and services, and humanitarian access. Living standard gaps measure the ability of a household to meet their basic needs in terms of quality, availability, access, and use of basic services, while capacity gaps measure a household’s use of negative coping strategies to overcome gaps in their living standards and meet basic needs. A decision tree approach was then used to combine the cluster-specific scores of the living standard gaps and capacity gaps. The multi-sectoral needs index (MSNI) is a measure indicating the likelihood that a household will tend to have a heightened level of morbidity or mortality. The MSNI was calculated by first identifying the indicators and thresholds to measure pre-existing vulnerabilities, impact of the crisis, living standard gaps, and capacity gaps. Second, households were classified in each aforementioned pillar by using a combination of a decision-tree and a scoring approach. Finally, the overall severity was estimated using a decision-tree approach. The decision-tree approach was used for estimating the MSNI is based on the assumption that food security and WASH needs are most likely to be the last to be eroded as they pertain to essential basic needs before a household starts to experience heightened morbidity or mortality as a result of the crisis. Therefore, food security and WASH needs are accorded priority within the decision-tree. However, severe needs occurring individually or jointly with health, protection, and shelter could also exacerbate the severity of needs. Finally, capacity gap scores are also factored in as a household may maintain living standards due to their recourse to negative coping strategies.

For a more detailed overview of the methodology and a comprehensive list of all the composite indicators that were used, you can access the terms of reference (ToR) here. The indicators and their respective thresholds are included in the annex section of the ToR, page 107-129.

**ANNEX 1: METHODOLOGY**

The overall JMCNA was conducted in 943 settlements, covering 17 of 18 regions, and 51 out of 74 districts. Some areas remained inaccessible due to security concerns, primarily in the South Central and South West States. Two important limitations of the assessment are the inaccessibility of certain areas and the potential bias in privileging surveys in urban areas relative to rural areas due to reasons relating to security, logistics, and access. A total of 10,467 households were surveyed. The survey results are representative for IDP settlement and Non-IDP settlement households; results are not representative for refugee and returnee households as the sampling frame was not stratified for those two population groups, therefore, refugee and returnee households were not included in this output. Households were sampled at the district level using stratified cluster sampling with probability proportional to population size, with displaced and Non-IDP settlement households as strata, a 90% confidence interval, a 10% margin of error, and a buffer of 15%. Data was collected between 23 June and 31 July 2019. In certain districts, two-stage simple random sampling was used instead of stratified cluster sampling for large urban centres as it proved to be more efficient and logistically-feasible for data collection. Primary data was collected by means of a household-level survey designed with the participation of the humanitarian clusters in Somalia. Cluster leads outlined information gaps and the type of data required to inform their strategic plans. Key indicators were developed by REACH with the substantive input of participating partners, and subsequently validated by clusters. REACH drafted the household survey through an iterative consultation process with cluster partners and OCHA.

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**MSNI decision tree:**

1. Take the largest individual LSG score between health/protection/shelter
2. Replace it with the household impact score, if lower than previous score
3. Replace it with the score of [health AND protection] OR [health AND shelter] OR [shelter AND protection], if higher than previous score
4. Replace it with the WASH, FSL OR capacity gap score, if higher than previous score
5. If final score is 1 but individual LSG score of health/protection/shelter/education is 3+, household score increased by one scale i.e. 1→2

**Rationale for MSNI decision tree - progressive deterioration of a household’s situation towards the worst possible humanitarian outcome:**

- **Initial shock hits household (HH)**
  - HH living standards affected (for e.g. shelter needs, security concerns, access to education or healthcare), but has resources/is coping to meet basic needs
- **Complete collapse of HH living standards and coping capacities used to meet basic needs**
  - HH living standards deteriorated to the extent that it is unable to meet day-to-day survival needs (i.e. food and water), or relying on severe, negative coping mechanisms to meet these needs
- **Increased risk to HH’s physical & mental well-being likelihood of heightened mortality within HH**

**Final MSNI score**
- 1 None/ Minimal
- 2 Stress
- 3 Severe
- 4 Extreme
The sunburst diagram shows hierarchical data. Every level of the hierarchy is represented by one ring or circle with the innermost circle as the top of the hierarchy.

The innermost circle represents the proportion of households categorised with a MSNI severity score of at least 3 (or, in the case of groups/areas of particular concern, the proportion of households categorised with the highest MSNI severity score).

The ring immediately surrounding the innermost circle shows the proportion of households whose MSNI severity score (of at least 3) was primarily driven by:

a) Living Standard Gap (LSG) in food security/ livelihoods and/or WASH; OR
b) Capacity gap; OR
c) Co-occurring LSGs in health and shelter, or health and protection, or shelter and protection; OR
d) LSG in health, or shelter, or protection and have been severely impacted by the event/shock;

The outer ring breaks down the primary divers of the MSNI severity score (above) even further, by showing the breakdown of the proportion of households:

i. Within a) (above) whose needs were driven by an LSG in food security, or WASH, or both;
ii. Within c) whose needs were driven by co-occurring LSGs in either health and shelter, or health and protection, or shelter and protection, or all three sectors
iii. Within d) whose needs were driven by an LSG in health, or shelter, or protection, in addition to an impact of the event/shock on households.

Example:

“In Banadir, 28% of households were found to have severe or extreme humanitarian needs (MSNI severity score 3 or 4). For approximately half (48%) of these households, this score was driven by a living standards gap (LSG) in FSL and/or WASH, while the needs of 41% of households were driven primarily by capacity gaps, indicating high reliance on coping strategies to cover needs. 11% of households have their scores primarily driven by the impact of the shock and a LSG in health, or shelter, or protection. 44% of all households had needs in WASH while 3% had needs in FSL and 2% had co-occurring needs in WASH and FSL.”
Somalia Assessment Working Group
Somalia Information Management Working Group

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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).