

Somalia Initial Rapid Needs Assessment (SIRNA)

Middle Shabelle | November 2015



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Introduction

The evaluation was conducted by REACH as part of its partnership with OCHA and the ICCG and through funding from ECHO and USAID. All of the reports, maps, and factsheets can be accessed directly from the REACH Resource Centre: www.reachresourcecentre.org.

This assessment would not have been possible without the generous support of the 13 organizations who supported data collection: ACDO, CED, DRC, EVSO, Farjano Foundation, Interaid, INTERSOS, ORDO, SCC, SHARDO, TARDO, WARDI, WOCCA, and ZAMZAM.

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Cover photo: SIRNA assessment team



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Acronyms

FCS	Food Consumption Score
ICCG	Inter Cluster Coordination Group
IDP	Internally Displaced Persons
IM	Information Management
IMC	International Medical Corps
KII	Key Informant Interview
NFI	Non-Food Item
OCHA	Office for the Coordination of Humanitarian Affairs
OTP	Out-patient Therapeutic Care Programme
SC	Stabilization Centre
SIRNA	Somalia Initial Rapid Needs Assessment
TSFP	Targeted Supplementary Feeding Programme
WFP	World Food Programme

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Background & Rationale

Deyr seasonal rains started in Middle Shabelle in October with flooding reported to have started by 22 October. The Middle Shabelle area was reported to be most affected by flash floods at the time of the assessment; however, riverine flooding was a growing concern due to the rising river levels from heavy regional rains and those in the Ethiopian highlands which flow into the nearby Shabelle River.

An estimated 4,899 households were reported to be affected by the recent river floods and approximately 5,406 households by flash floods. The majority of this population are small-scale farmers and livestock producers and traders. Ongoing breakages and overflow were reported in Tuugaareey, Magaay, Raqeyle, and Hawadley villages. Displacement to nearby communities was reported as a result of both flash flooding (ex. Mahaday) and river breakage (ex. Tuugaareey).

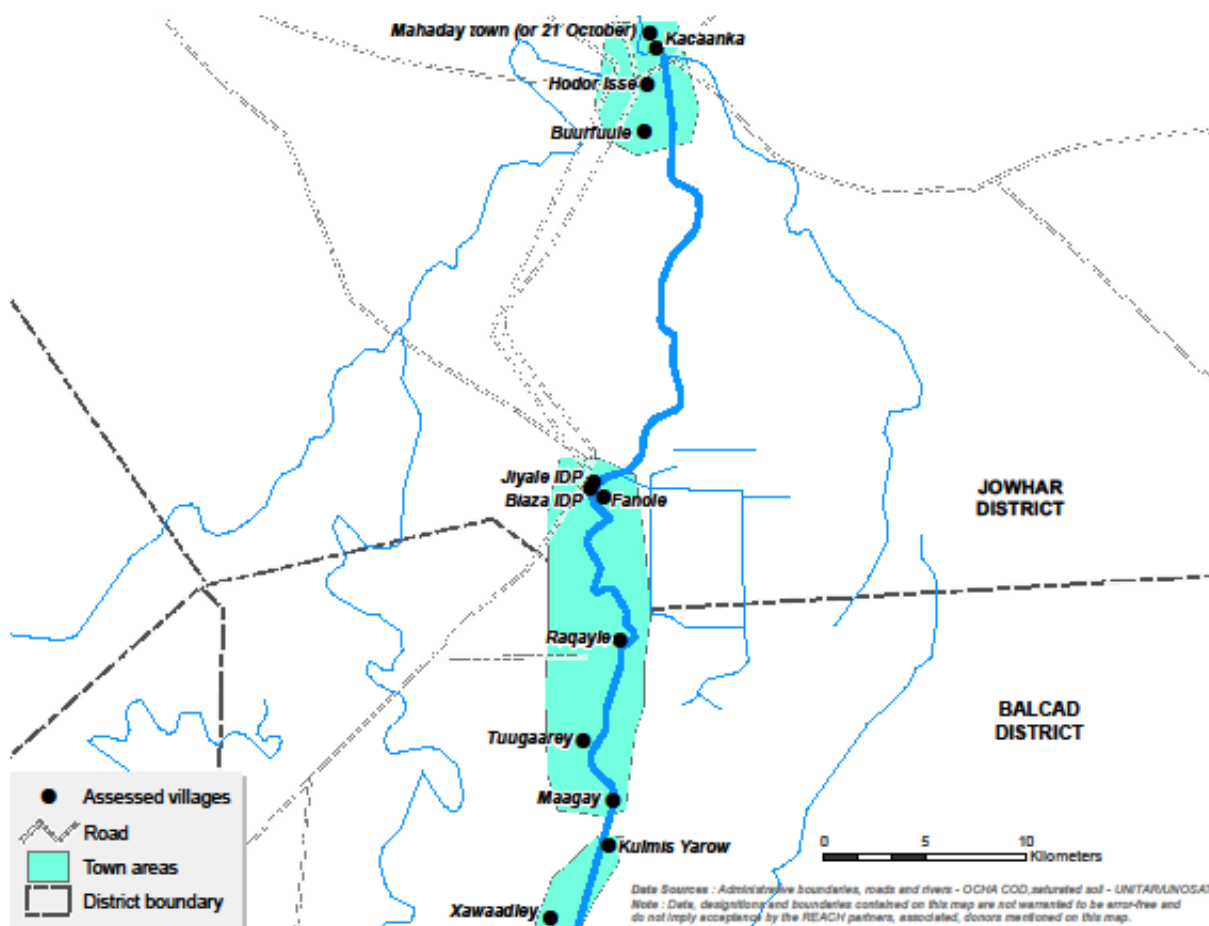
Health and WASH were the primary immediate concerns, as sanitation conditions had reportedly worsened from the existing deterioration of last Gu's rains. Anecdotal evidence indicated an increasing number of diarrheal cases in communities downstream from dislodged latrines. Households were reportedly defecating at community defecation points in (ex. Tuugaareey community in Jowhar) or river banks (ex. Kumis Weyne community in Mahaday), whereas IDP camps had private or shared pit latrines which may have experienced overflow. Operational partners also highlighted that, aside from Tuugaareey which received soap, no hygiene-related distribution has been conducted.

Updated information remains limited and siloed, which has furthered the need for an inclusive assessment in the area. Response has been largely limited to responding to breakages – bag provision (WFP, Farjano Foundation, and PAH), and canal digging and river embankment (PAH). However, some preparedness training (PAH – hygiene promoters in Jowhar) and awareness messages (Farjano Foundation – radio messaging) have been reported.

Through expressed interest from the Inter-Cluster Coordinating Group (ICCG), upon a trigger request by the WASH Cluster, OCHA requested REACH to initiate a Somalia Initial Rapid Needs Assessment (SIRNA) for the Deyr 2015 related flood affected areas in Middle Shabelle, Somalia.

Facilitated by REACH, and funded by European Commission's Humanitarian Aid and Civil Protection department (ECHO) and the United States Agency for International Development (USAID), the SIRNA was rolled out in 14 communities in the most affected area – Balcad, Jowhar and Mahaday Town areas – between 9 and 12 November 2015.

The purpose of this assessment is to inform response within the communities most impacted by both types of floods – riverine and flash flooding. Secondary and key informant data may improve general understanding of the displacement, but it will not be a central feature of this assessment, unless relocation included a community which the assessment is targeting.

Map 1: Assessed communities by area

Methodology

In order to collect statistically significant data for each of the most affected areas, a randomised sampling methodology was selected at the level of an estimated total population of the communities. Two communities were assessed only through Key Informant Interviews (KIIs) (Shidlo Bari and Kulmis Weyne) as field team were not able to access these areas in order to conduct data collection. The remaining 12 communities were divided and sampled as three groups based on their geographic location: Balcad Town area (two communities), Jowhar town area (six communities), and Mahaday Town Area (four communities). This grouping was chosen through discussions with the clusters and operational partners, who wanted to ensure that communities were analysed based on geographic location and likely cause of flooding. The information presented in this report can be generalised across each of the three geographic areas with a 95% confidence and 10% margin of error.

Mapping and geographic analysis was conducted using available imagery and geographic data. Primary data was collected from 9 to 12 November 2015, using several survey tools based on the KOBO mobile platform. Findings are drawn from 384 household interviews, 14 KIIs, and facility mapping of the 12 directly assessed communities. Exact figures of the sample collected are available in Annex I, together with estimated populations of each community, as illustrated in Map 2.

Both enumerators and team leaders were, as much as possible, already trained on the SIRNA processes in June. Enumerators were recruited through cluster agencies operational in Middle Shabelle and trained by REACH on interview technique, bias, and the use of mobile phones

for data collection. Team leaders, who also received training on methodology, tools, and planning data collection, were each responsible for six enumerators. WOCCA generously provided the use of its boat to facilitate access to communities that were inaccessible by road.

Data collected was uploaded directly from the mobile phones onto the KOBO online platform. Information was analysed by REACH teams based in Nairobi and reviewed by the Assessment, Information Management (AIM) Working group, OCHA's Information Management Unit, and the clusters. The clean assessment database, detailed methodology and data collection tools are available upon request, with sensitive information removed where necessary.

Table 1: Estimated population and sample size

Area	Estimated population	Sample
Balcad Town Area	2270	112
Kulmisyarow	570	30
Xawadleey	1700	82
Jowhar Town Area	4365	141
Biaza	648	20
Fanole	1569	49
Jilyale	218	10
Maagaay	560	20
Raqeyle	760	21
Tuugaarev	610	21
Mahaday Town Area	1513	131
Buurfule	587	56
Huddurisse	284	34
Kacaanka	402	31
Kulmis Weyn	123	-
Mahaday town (21 October)	123	10
Shidlo Bari	256	-
Total	8148	384

Challenges and Limitations

Where possible, findings attempt to distinguish community and area needs. However, the SIRNA methodology and sampling strategy did not always permit the comparative analysis of the situation of communities. Throughout this report, secondary data and anecdotal evidence are used to support assumptions regarding specific community needs, where necessary.

Due to access constraints, household data was not collected for the communities of Shidlo Bari and Kulmis Weyne, which were also reported to be affected by the flooding. Findings from the assessed areas can therefore not be generalised across these communities, but may be indicative of the effect of the flooding.

The purpose of this assessment is to inform response within the communities most affected by the floods through primary data collection within those communities. This, however, limited the ability of the assessment to capture household level information from households displaced outside of the assessed communities.

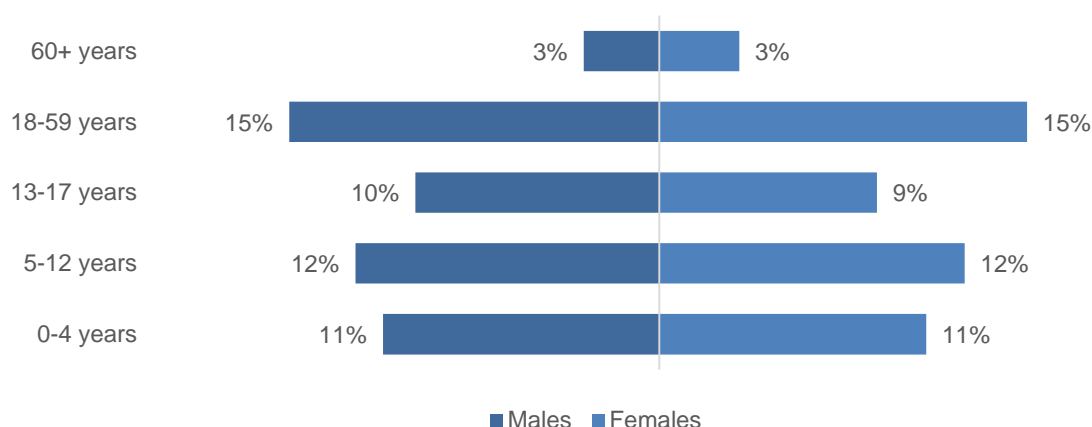
Key Findings

Demographics

Household Characteristics

Within the assessed area the household population was higher than the country average of 5.9 persons per household,¹ as the majority of the households assessed were in rural areas this indicated a higher degree of resource sharing than in urban areas. **Across the sampled population the average household size was 8.69 persons, with the highest in the Mahaday town area (9.11 persons per household). There was a large reported child population, with those under 18 years of age comprising 64% of the total population. This contributes to a high dependency ratio of 2.4, meaning for every adult of working age there are 2.4 elderly (over 60 years) and child (under 18 years) members.**

Figure 1: Population pyramid



A high proportion of female headed households (37%) was also identified. The proportion of female headed households was above 30% in all three assessed areas, but was highest in the Balcad town area, where 44% of households self-identified as being female-headed. The high proportion of female headed households can be biased by various factors, including temporary migration of male household members, as well as perceptions among respondents of what they believe humanitarian actors consider to be indicators of vulnerability.

22% of respondents indicated that there had been an increase in vulnerable members within their household in the last month, with a large proportion of all households indicating that there was a specific problem in caring for sick children (11%) and elderly members (10%). 10% also indicated they were caring for pregnant or lactating women, with a higher proportion in the Balcad Town Area (18%) than in Mahaday Town Area (11%) and Jowhar Town Area (4%).

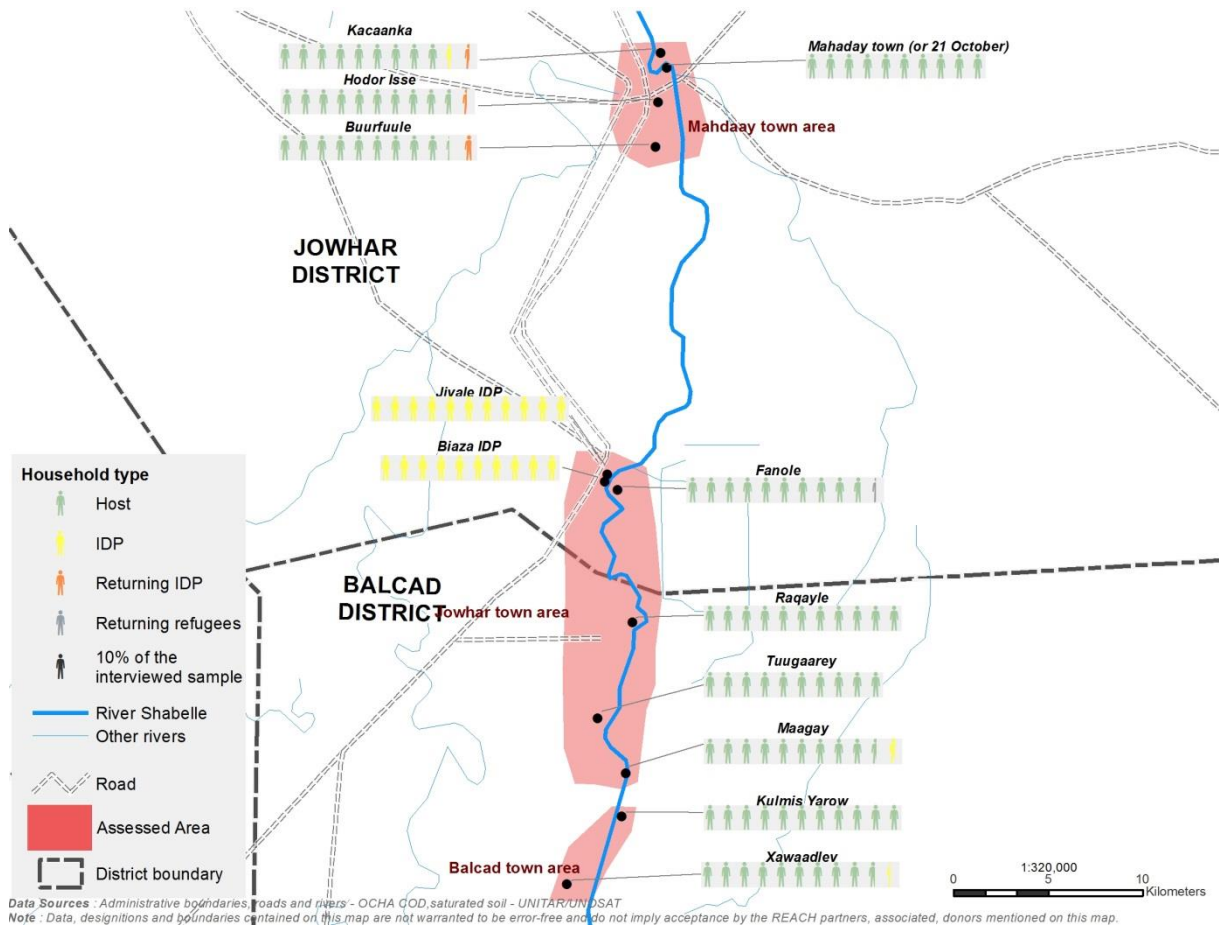
Displacement

The majority of households interviewed had been displaced only locally as a result of the flooding. 95% of households reported that they were in their current district of origin, with 89% identifying themselves as the host community whilst only 9% reported identifying themselves as IDPs. However, 48% of respondents were living in a spontaneous settlement, 24% were living in a planned settlement, and 27% lived with a host family. This

¹ UNFPA, Population Estimation Survey 2014, p.48

suggests that while people are leaving their usual homes, they are not travelling outside of or far from their community of origin, and do not consider themselves to be IDPs. This illustrates the difference between the standard humanitarian definitions of displacement, and the colloquial understanding of the term.

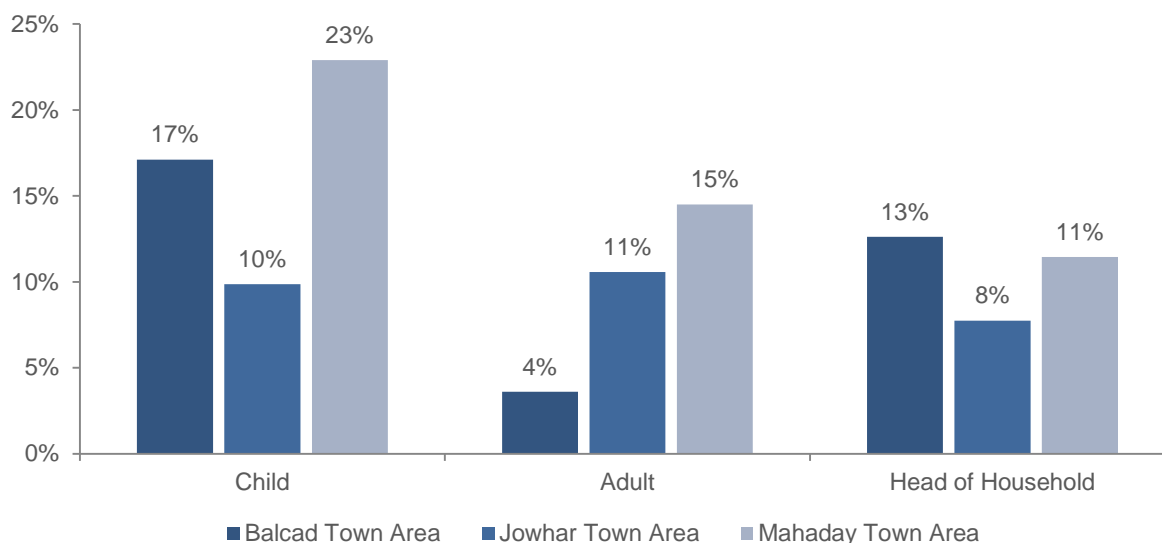
Map 2: Household type by assessed community



Protection

The majority of communities (71%) reported having a community structure in place, such as community leaders or elders or committees to whom communal concerns can be raised. There were notable exceptions of Buurfule, Fanole, Jilyale IDP and Kacaanka. Of the communities reporting community structures, all but 21 October (Mahaday Town), Biaza IDP and Raqayle reported that the community structure addressed education concerns; and all but Biaza IDP, Tuugaarey, and Raqayle reported that security related issues were addressed within the community structure.

No community key informants reported that they are aware of children being recruited into armed forces within the last month. However, 27%, 23%, and 44% of households from Balcad, Jowhar, and Mahaday Town areas, respectively, reported that one or more family members had become separated from the household in the last month. Figure 2 shows the reported household members which had been separated from the household, of which children were the most commonly reported.

Figure 2: Members of the household which has become separated in the past month

Most households in Balcad town area (51%) reported there were no sources of insecurity in the community, compared to 49% in Jowhar and 29% of households in Mahaday town area. Nevertheless a high proportion of households reported community leaders as a source of insecurity (18%) though the data does not indicate what type of insecurity. This is also true of the high proportion of households reporting an unspecified “other” source of insecurity (17%). A very low proportion (less than 2% in Jowhar Town Area, and none in Mahaday and Balcad town areas) reported their household had experienced violence during displacement. Table 2 highlights the areas of safety concern for men, boys, women and girls. The areas of concern for men and boys vary slightly within the region, with the health centre being the primary area of concern in Balcad Town Area while bathing is the primary area of concern for Jowhar and Mahaday Town areas. A less significant variance exist for women and girls, as concerns at the market, water point, and bathing are reported throughout. However a particularly high proportion of woman (30%) reported feeding centres as an area in which they feel insecure, while in Mahaday town area a high proportion of households reported that women and girls felt unsafe at waterpoints (25%). When asked where women and girls most often go when they have been victims of some form of violence, households overwhelmingly selected community leaders – 88% in Balcad Town Area, 70% in Jowhar Town area, and 73% in Mahaday town area – rather than the other available options of a medical centre, police, NGO, or UN Agency.

Table 2: Areas of concern by location and gender

Area of concern	Men and boys			Women and girls		
	Balcad Town Area	Jowhar Town Area	Mahaday Town Area	Balcad Town Area	Jowhar Town Area	Mahaday Town Area
In shelters	5%	1%	5%	6%	2%	2%
At water points	19%	14%	15%	25%	19%	28%
At bathing sites	1%	7%	18%	11%	9%	24%
At markets	8%	10%	30%	24%	17%	27%
At schools	7%	1%	1%	6%	1%	0%
At health centres	13%	5%	6%	8%	5%	5%
At distribution Centres	2%	0%	2%	17%	1%	3%
No safety concerns	65%	55%	42%	51%	48%	37%

Adult key informants reported that lack of food (71%) was the most common trigger for stress in children, followed by losing belongings (43%), no school (36%), and a lack of shelter (36%). Coping strategies for child stress were varied but included provision of food and shelter as well as recreation or child friendly spaces. Further assessments should look into the relationship between household food consumption coping strategies and their implications on children's stress. Positive coping strategies for children, including recreation and child friendly spaces, were not commonly reported.

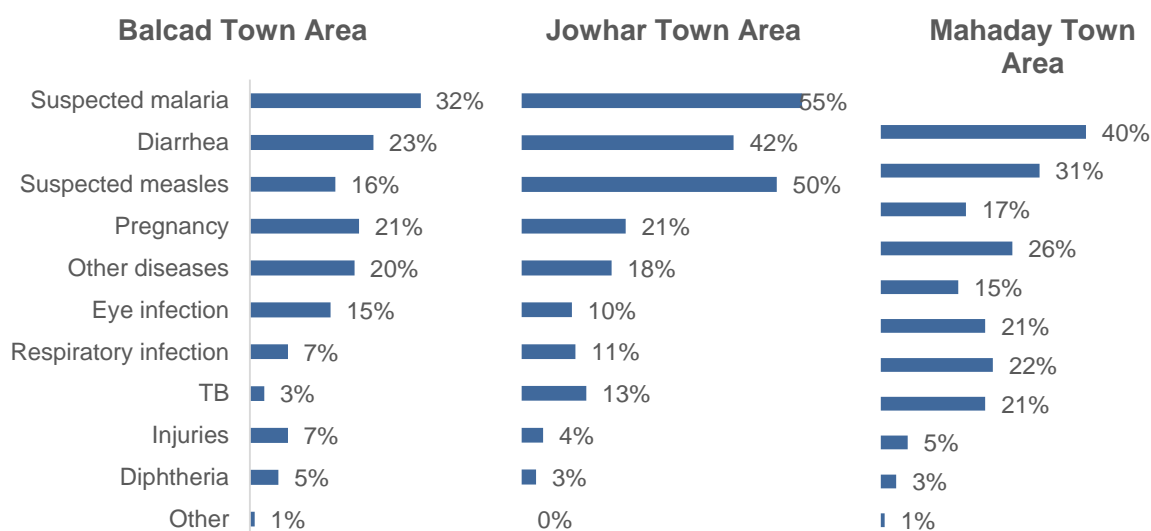
Health

At the time of assessment, the only functioning health facilities captured within the perimeters of the assessed communities were, one in 21 October and one in Hawadley. A primary healthcare unit was captured in Kulmis Yarow, though its level of functionality was unclear. However, it is worth noting that the methodology for identifying a facility was limited to those found within the community perimeter as such any mobile health or nutrition service provider or provider outside of the community perimeter was not captured. In this case secondary data has been crucial to understand other available health services (particularly for mobile services or facilities which may cross community perimeters such as health facilities and schools). **Secondary data provided by INTERSOS in June 2015 indicated multiple additional mobile health facilities and other stationary health facilities active in the**

vicinity of the accessed areas – INTERSOS Shidlo Clinic, IMC Kulmis & Buulo Sheik Health Centers, INTERSOS Jowhar Regional Hospital, and IMC Maternity Hospital. These facilities were not captured in the SIRNA assessment because they are mobile or because their location is outside the perimeter of the assessed communities.

During household data collection, around half of all households reported new or worsening health problem in the household in the last month. See Figure 3, for the most frequently reported health problem from households reporting new or worsening health problems within the last month. As likely to occur in flooding, **households reported an increase in suspected malaria and diarrhea.** Anomalous, however, is the suspected cases of measles, reported by 50% of households in Jowhar Town area. Further evidence will be needed to confirm the existence and determine the cause of these findings. A potential contributing factor could be the increased in household density, as Maagaay and Tuugaarey communities have anecdotal evidence and KI corroboration of an increase in displaced households within these communities. However, it is important to note that the symptoms of measles are similar to those of other illnesses and misdiagnosis by households is a possibility.

Figure 3: Reported health concerns of households in the case of increased health concerns in the last month, by area



While all three health facilities captured reported an increase in utilisation of services, around **half of all household in Jowhar and Mahaday Town areas reported negative change in the ability to access health services in the last month.** Respondents also reported an average travel time of 56, 72, and 60 minutes from Balcad, Jowhar, and Mahaday Town areas, respectively. However Balcad Town reported a lower proportion 35%, of negative change in access to health facilities. Health actors should further investigate the low percentage of households reporting access to health facilities, as many of the communities assessed are situated within the immediate catchment areas (within 5km) of these health facilities. The low reporting of health facility access could be a result of low awareness of existing services, or could arise from physical impediments to access of services as a result of flooding.

Reported household expenditure on healthcare in the areas assessed was averaged to five USD in Balcad Town Area, one USD in Jowhar Town area, and two USD in Mahaday Town area. Households also largely reported spending less in healthcare within the last month than

in previous months – 63%, 85%, and 76% in Balcad, Jowhar and Mahaday Town areas, respectively. **Overall household spending on healthcare was directly correlated to reported access to health facilities, suggesting that the reduction in health expenditure may reflect the reduced overall utilization of healthcare services due to impeded access rather than reduced need.** The available household data suggests that many households have existing healthcare needs but are not accessing services or spending on healthcare. This suggests that considering only those accessing services when calculating the need for healthcare interventions, will exclude those households who need health assistance, but are unable to travel to services, are unaware of available services, or who lack financial resources to travel to or pay for services.

Mobile health clinics, already present in Middle Shabelle, may be able to address the gap in access if able to bring healthcare services directly to households, as access constraints cannot be overcome by only considering distance to service, rather than physical impediments that may exist even within 5 km distances. Awareness of available services, of both mobile and permanent healthcare facilities, may not be well known to communities as only 29%, 11%, and 14% of households in Balcad, Jowhar and Mahaday confirmed that immunizations were provided at available healthcare facilities, despite the fact that all healthcare facilities are providing immunisation services.

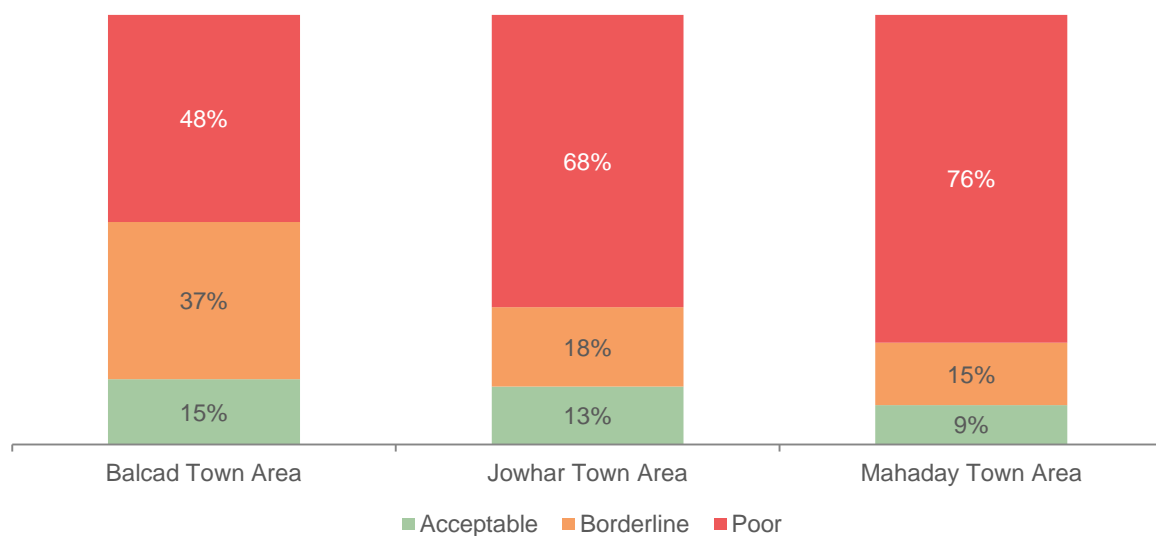
Food Security and Livelihoods

Based on an analysis of the Food Consumption Score,² Mahaday Town area reported the highest (76%) prevalence of poor food consumption scores (FCSs) followed closely by Jowhar Town area (68%). Balcad Town area, however, reported that 48% of the population had poor FCSs. Figure 4, illustrates the variance in reported FCSs across respondents from assessed areas.. There is a direct correlation between food consumption score and household expenditure on food, as household who report spending more money on food were more likely to report a higher FCS³. **When disaggregating further by livelihood, it follows logically that agro-pastoralists have the highest rate of poor FSC (92%), followed by business (71%) and agriculturalists (63).** As agro-pastoralists depend on both livestock and agriculture, the destruction caused by the floods may have contributed to the reported low FCSs. People who gained an income from businesses 29% reported acceptable FCSs.

² Food consumption score is calculated by asking households the number of days in the past weeks that certain food groups have been consumed. Scores of 21 and below are categorised as "Poor", scores of 21.5-35 are "Borderline" and scores of above 35 are "Acceptable". See the technical guidance note for more details: <http://foodsecuritycluster.net/sites/default/files/WFP%20FCS%20Guideline%20%281%29.pdf>

³ A positive moderate correlation (Pearson=0.466 and Spearman =0.471).

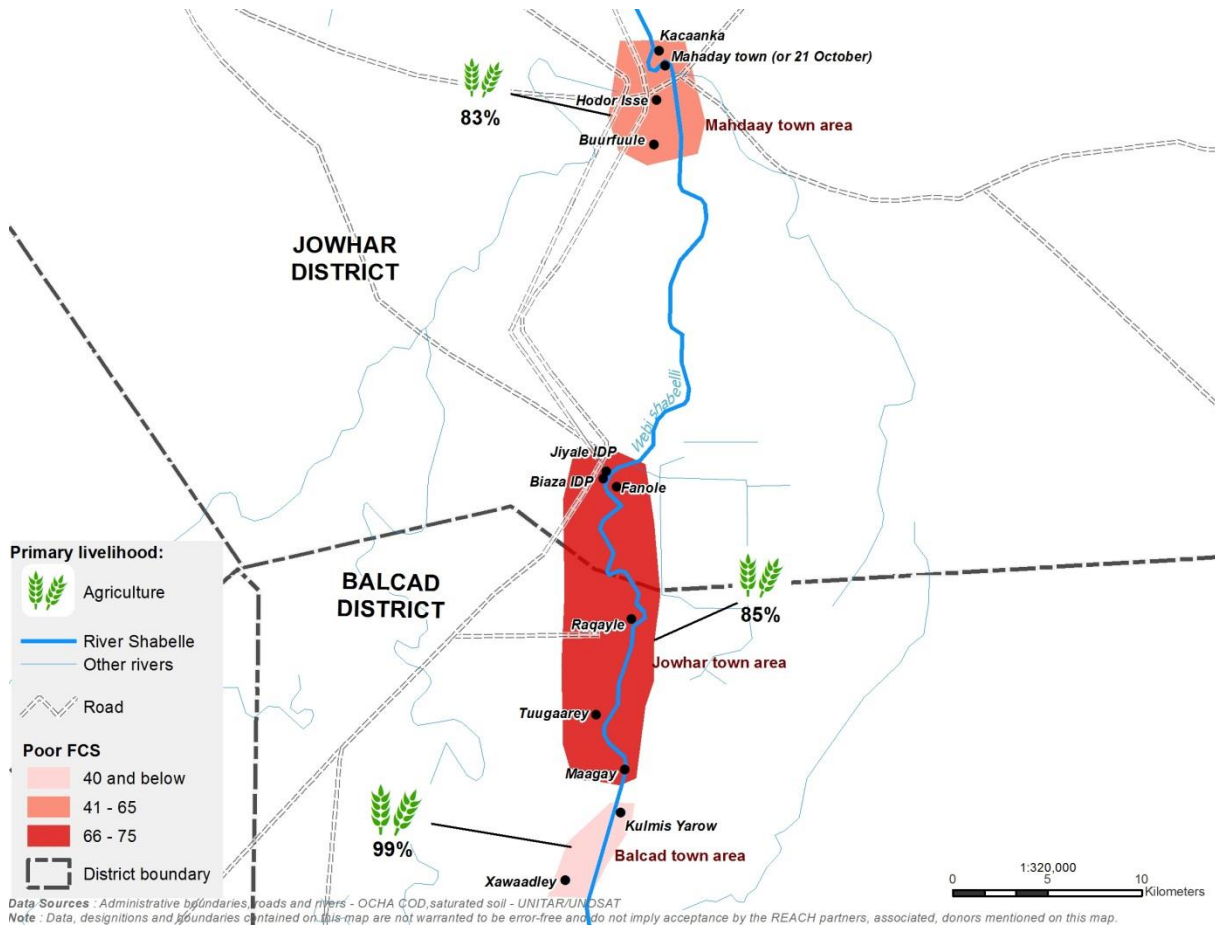
Figure 4: Food consumption scores, reported by area



The assessment integrated a condensed coping strategy index looking at household results and monthly frequency of occurrences when 1) there was no food due to a lack of resources, 2) at least one household member went to sleep hungry because there was not enough food, and 3) any member of the household went a whole day and night without eating anything at all because there was not enough food. Household food consumption coping strategies were most commonly reported in Jowhar (94%) and Mahaday (93%) Town Areas, with 77% of households from Balcad Town Area reporting to use household coping strategies. Households who reported coping strategies most often reported all three coping strategies, with having at least one household member going to sleep hungry because there was not enough food being the most commonly reporting strategy. Of those reporting coping strategies, most households – 50% Balcad, 61% Jowhar, and 81% Mahaday Town Areas- reported the utilization of these coping strategies within the last 30 days. This may be related to food consumption as well, bearing in mind that communities in Balcad (Kulmis Yarow and Hawadleey) have a higher percentage of households with acceptable food consumption than the majority of other communities.

Given the high-production riverine area, the majority of households reported agriculture as their primary livelihood (overall unweighted figure at 89%); the remaining households reported agro-pastoral, business, or another type of livelihood not mentioned in the survey. No households reported that their primary livelihood was livestock. However, the assessment captured the reported loss of livestock which is of particular relevance for agro-pastoralists. The highest instances of loss of livestock, as a result of the flood, were reported in Jowhar (9% averaging two livestock lost) and Mahaday (8% averaging four livestock lost) Town Areas, and only 1% of households in Balcad reported a loss of livestock. Given the proportion of agriculturalists, household stocks would be expected to be better equipped with food stock than those of most pastoralist's households; however, a negligible percent of households reported having food stocks that would last greater than one month. **Most households, 98%, 86%, and 83% in Balcad, Mahaday, and Jowhar towns, respectively, reported household stocks lasting less than seven days.**

Map 3: Percentage of households reporting agriculture as their primary livelihood, by reported poor Food Consumption Scores and district



While food availability on the market was largely well represented, households reported travelling an average of 45, 71, and 52 minutes to markets in Balcad, Jowhar, and Mahaday Town Areas, respectively. **When looking at the overall response and without weighting by district, households reported price increases of around 50% for sorghum (76%), cereals (60%), rice (67%) and milk (63%).** For cooking, all three districts reported wood as the most commonly used cooking fuel (99%). The most frequently sourced location for cooking fuel was around or outside the settlement – 82% Balcad, 85% Jowhar, and 83% Mahaday Town Area.

Nutrition

The Nutrition Cluster's primary quantitative focus in a rapid assessment is to determine ongoing or planned response, availability of nutrition services, and food consumption coping strategies. No households reported that infant milk products, baby bottles, or teats been distributed since the beginning of the emergency. The lack of received baby feeding items shows that lactating mothers are likely to have continued normal breast feeding practices during the floods. However, it is important to consider that 9% of households from Balcad Town area reported a serious problem in the community related to changes in feeding children under two in the last month (there was not a significant number of respondents reporting the same problem in the other areas.) Of the 9% the most frequently reported concerns were changes in breastfeeding practices (50%), reduction in number of times children under 24 months are fed (9%), problem in drinking water for children (9%), and lack of vitamin supplements (9%).

When disaggregated by area, 24% of households in Balcad Town area, 35% in Jowhar Town area, and 27% in Mahaday Town area reported a negative change access to nutrition services or facilities in the last month. Distance travelled to access nutrition services averaged 56, 63, and 55 minutes in Balcad Town, Jowhar Town, and Mahaday Town Area, respectively. Given the similar estimated distance and the known available nutrition facilities in the areas, this indicates households are in fact recording distances to healthcare facilities, as this is where nutrition services are most likely provided.

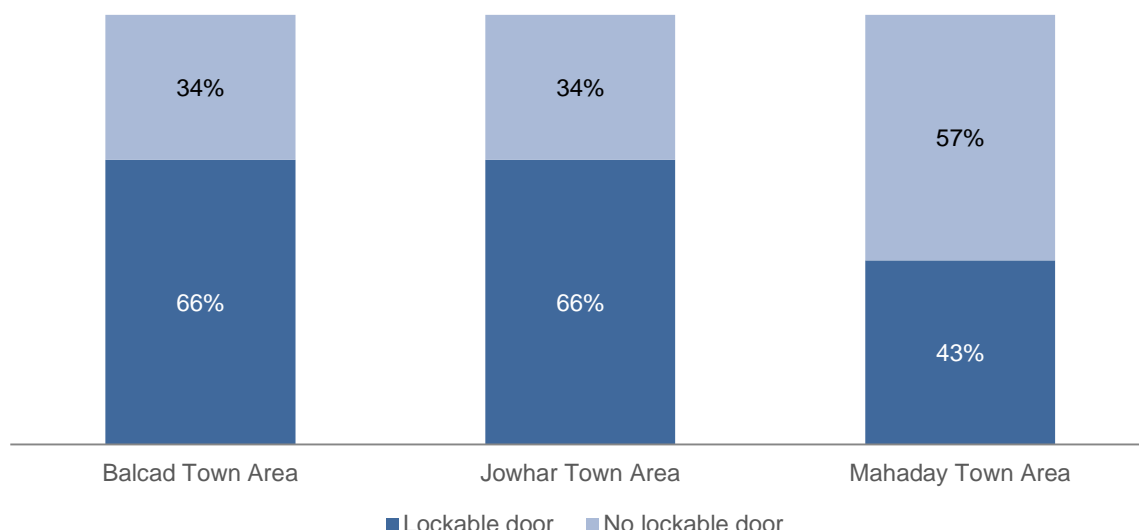
Similar to the lack of awareness of available healthcare services, households reported low rates of food and nutrition programs available to the households in the last month despite a reported availability of nutrition services within communities by the captured healthcare facilities. Aside from Out-patient Therapeutic Care Programme (OTP) and Targeted Supplementary Feeding Programme (TSFP), households were largely unaware of what nutrition services were available. Additionally, 33%, 30%, and 40% of households in Balcad Town, Jowhar Town, and Mahaday Town Areas, respectively, reported that none of the primary nutrition services were available.

Shelter

Shelter typology

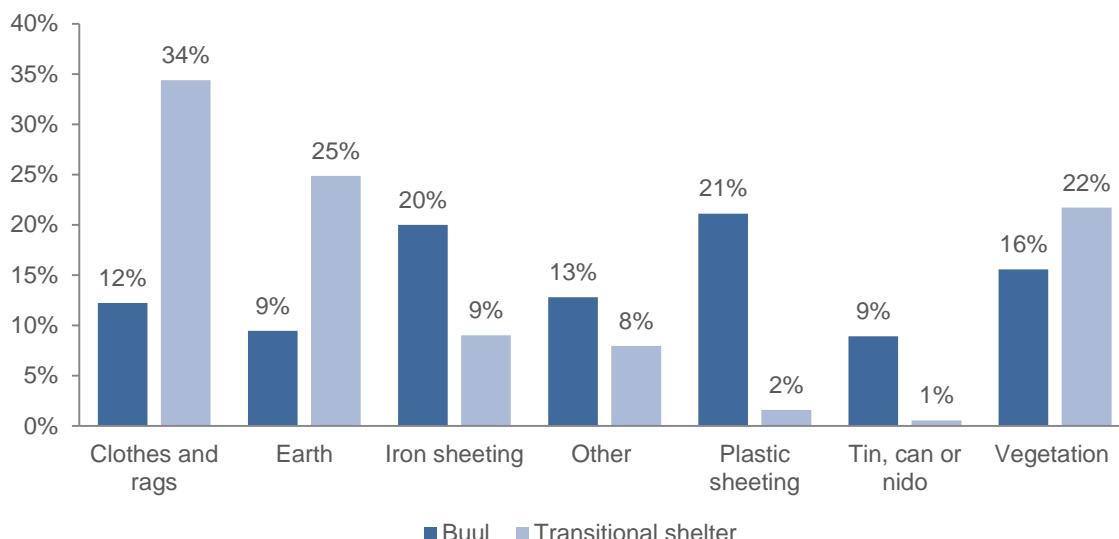
The primary shelter typologies across the sampled areas were transitional shelters (49%) and Buuls (47%), although it is worth noting that transitional shelter can cover a wide variety of shelter types, including emergency shelter, temporary shelter, semi-permanent shelter and permanent shelter. In Balcad Town area the most common shelter type was Buul (54%), whereas transitional shelter was the majority in Mahaday Town area (52%) and Jowhar Town area (50%).

The majority of households (76%) reported currently owning more than one shelter and most commonly households occupied two shelters (51%), with limited variation by area. In 58% of cases the main shelter available to the household had a door, with a higher proportion reporting such shelter in Balcad Town area (71%) than Jowhar (50%) and Mahaday (53%). In total 34% of households reported having a lockable door on their primary shelter, again with higher reports in Balcad (47%) than Jowhar (33%) and Mahaday (23%). Households occupying Buuls were less likely to report a lockable door on their main shelter (44%) than those in transitional shelter (68%).

Figure 5: Proportion of those reporting having a lockable door on their main shelter

30% of households also reported having no separation within their living quarters. The most commonly reported separation material was cloth (by 21% of households). 79% of households reported having no light source in their shelter at night, with particularly high reports in Jowhar Town Area (85%). There were minimal reports of theft within the last month, at 2% in Mahaday, 5% in Jowhar and 6% in Balcad. Less than 3% of households reported that they are currently paying rent, and while there were reports of threats received over non-payment of rent, the sample is too small to elaborate further.

Main shelter in all areas assessed was primarily reported to have an earth floor (76%). This was the primary floor material in all districts, and within the most common shelter types - Buuls (72%) and transitional shelters (85%). The only significant use of any other material was plastic sheeting, used by 15% of those in Balcad and 9% of households occupying Buuls. Wood was the primary structural material used in all districts (90%), and both for Buuls (97%) and transitional shelters (89%). There was a greater variation in the materials used for wall covering, with households in Balcad reporting vegetation (39%), households in Jowhar reporting clothes and rags (24%) and households in Mahaday reporting earth (25%) as the most common material used. In all districts clothes and rags were reported as the primary wall covering by just under one quarter of households (23%). Much of the variation is due to the different types of shelter typologies, with Buuls more likely to utilise more durable materials such as Iron sheeting (20%) and plastic sheeting (21%) than transitional shelters (9% and 2% respectively). As shown below, the use of clothes and rags (34%) and earth (25%) was more common in transitional shelters.

Figure 6: Materials used for wall covering by shelter type

Buuls were, on average, newer than transitional shelters, with 71% having been constructed within the last six months. Over half of transitional shelters (51%) were constructed more than two years ago. This implies no simple correlation between the age of a shelter and the use of more durable wall coverings, with a high majority of shelters over two years old using either clothes and rags (41%), or vegetation (32%).

Shelter damage

Only 14% of households reported that their shelter had been damaged, with a higher proportion reporting that their shelter had been damaged in Mahaday (22%) than Jowhar (11%) and Balcad (7%). Of those reporting shelter damage, flooding was the cause given in 87% of cases. Buuls reported less shelter damage (3%) than transitional shelters (19%). There was minor reports of specific issues to do with the condition of buuls, especially in Balcad where 16% of households living in buuls reported that they could see light through the roof, and 17% reported that there were large gaps in the wall material coverage. Both issues were reported less in Mahaday (2% and 5% respectively) and Jowhar (3% and 4%).

NFIs

Among those households assessed, the availability of sufficient NFIs to support household needs was low. Only 13% of households reported having any blankets available, 14% access to a wash basin, 14% had plastic sheeting and 30% reported having mats. While over half reported having cooking pots (55%), knives (64%) and jerry cans (71%), the capacity generally fell below household needs. While a majority reported having jerry cans, at an average of 2.12 per household, the capacity of jerry cans averaged only three litres per household member. Similarly, across all districts households reported on average having less than one usable mat or blanket per person.

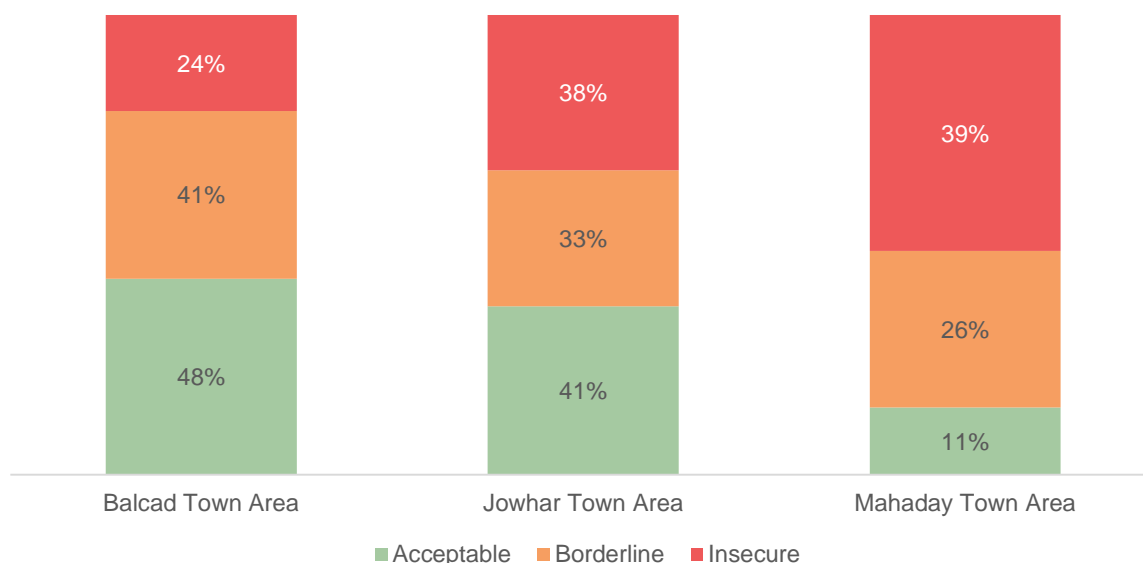
For the analysis of NFI coverage, this report has constructed a weighted NFI score in coordination with the shelter cluster. Please find the methodology in the annex of this report for a full breakdown of the score's construction. The range of NFI scores was 0-27, with 0 being highly lacking in NFIs and 27 representing that most NFIs were available. For the purposes of analysis those households with an NFI score of 0-8 (the lowest third of the range) are grouped into an "insecure" category, those with a score of 9-17 are grouped into a "borderline" category, whereas those with a score of 18 and above are grouped into an "acceptable" category (the

highest third of the range). According to this 71% are deemed to be NFI insecure across the assessed areas, with especially high insecurity in Mahaday Town area (79%), as shown below in Table 3.

Table 3: Distribution of households by NFI score

NFI group	NFI Score	Balcad Town Area	Jowhar Town Area	Mahaday Town Area
Insecure	0	2%	19%	17%
	1	1%	9%	8%
	2	5%	9%	16%
	3	7%	2%	6%
	4	4%	4%	3%
	5	5%	15%	9%
	6	2%	1%	4%
	7	10%	5%	3%
	8	21%	9%	15%
Borderline	9	12%	7%	8%
	10	12%	1%	0%
	11	1%	2%	3%
	12	0%	4%	1%
	13	2%	1%	1%
	14	2%	1%	2%
	15	3%	1%	0%
	16	0%	1%	2%
	17	1%	1%	2%
Secure	18	4%	0%	0%
	19	2%	2%	0%
	20	1%	1%	1%
	21	4%	2%	1%
	22	1%	0%	1%
	23	1%	1%	0%
	24	0%	1%	0%
	27	0%	1%	0%

Figure 7: NFI security group by district



The low NFI score was predominately connected to the low availability of wash basins mats, blankets and plastic sheeting. Only in Balcad town area did a majority of households report possessing sleeping mats – 63% compared to 16% in Jowhar and 17% in Mahaday. Only 13% of households across the assessment reported having blankets available for household use, and only 14% reported plastic sheeting. In addition, over all 14% reported having a wash basin available for households use, 18% in Balcad, 16% in Jowhar and 9% in Mahaday.

WASH

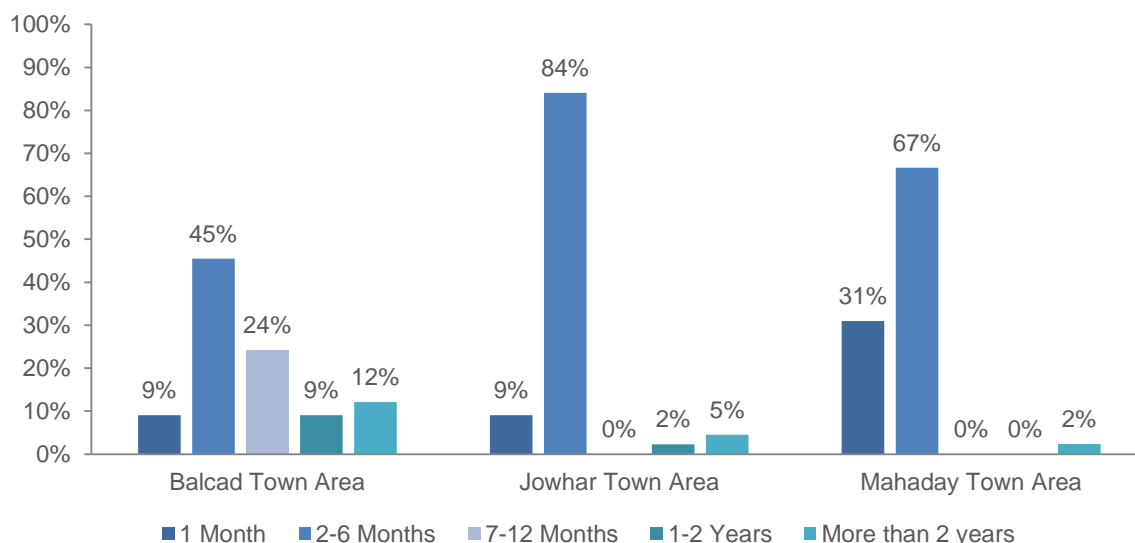
Household water source

The primary water source for households in the assessed areas of Middle Shabelle was reported to be the river with 79% of households giving this as their source of water. Other major water sources cited were unprotected wells (13%), a protected well with and without a pump (11% and 8% respectively), and water kiosks (7%). While the sample for IDPs is too low to draw statistically representative conclusions, there were a higher proportion reporting water kiosks as a water source (58%), which may be indicative. The majority of households reported that there were no problems with their water point (68%), with no significant variation by assessed area. The source of water had no significant impact on reported problems with the water point.

Of the 32% of households reporting problems with their water point, 72% said there was a problem with the quantity and 89% with the quality of water. The problems were generally not directly linked to the recent floods, with only 17% of those saying there were problems with the water source indicating that the problems had begun in the last month. **The majority (68%) indicated the problems had started two to six months ago.** There was variation between the districts, with a higher proportion of respondents in the Mahaday Town area indicating that the problems had begun in the last month (31%), while respondents in the Balcad Town area more frequently responded that the issues had begun more than six months ago (45%) than in Jowhar (7%) or Mahaday (2%). This is reflected in the reported average

time since water source problem began in Balcad being considerable longer at 11 months, than in Jowhar (five months) and Mahaday (three months).

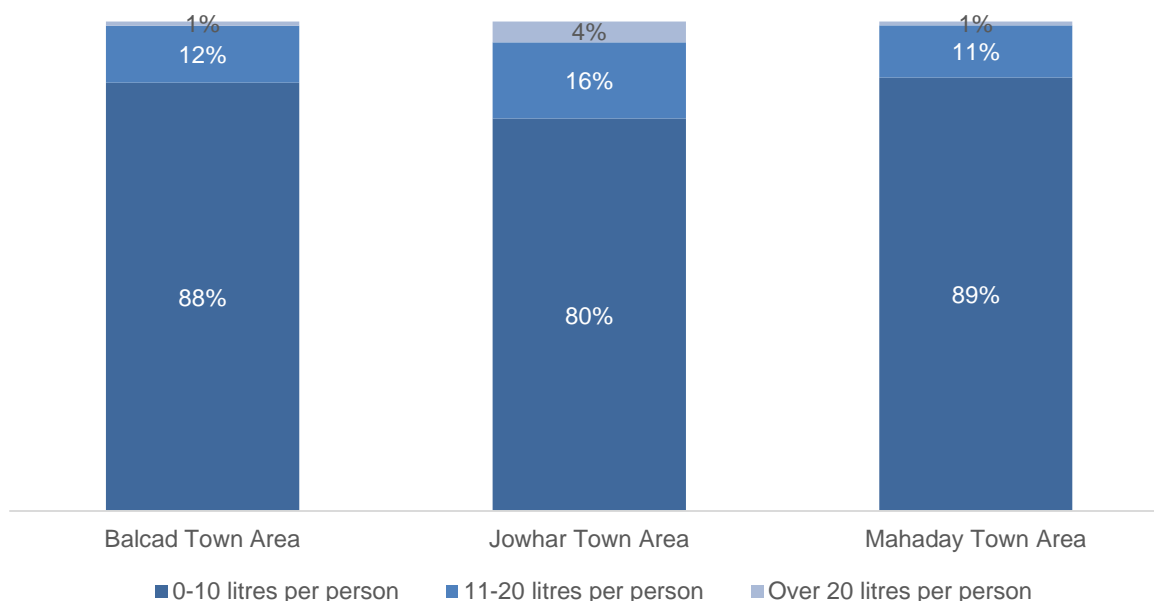
Figure 8: Reported time since water problems began by district



A majority of households reported using the water source for drinking (94%), washing (85%) and cooking (85%). A smaller proportion also use the water for agriculture (23%), although this figure was higher in Balcad (46%) than in Jowhar (21%) and Mahaday (6%). While most areas of the Middle Shabelle have irrigation canals to feed agriculture, the high use of normal household water sources for farming in Balcad suggests there may be issues with the irrigation in that area.

96% of households indicated they do not pay for drinking water, reflecting the use of river and well water as drinking water. Of those surveyed, 11% of households indicated that they treat their drinking water mainly either by boiling (4% of all households) or by using a cloth filter (5%). A higher proportion of those in Jowhar reported treating their drinking water (18%), and this was the only area surveyed where chlorination was reported as a water treatment method, by 4% of households. Almost all (99%) indicated that their water treatment behaviours had not changed in the last month.

The amount of available water reported by households is significantly below humanitarian standards. Households reported on average 50 litres per day for the entire household, this means that **only 2% of households reported having more than 20 litres per person per day, and 85% reported having less than 10 litres per day.** 65% of households reported that there was less water available at the time of assessment than the last month, indicating water access has decreased since the flooding. 33% indicated that the amount of water available had not changed over the past month. Figure 9 shows the breakdown of the number of litres of water per person by district.

Figure 9: Number of litres of water per person per day, by district

Almost all (91%) of the households surveyed indicated that they did not have access to a latrine. Of those who do have access, most are private latrines, but the statistical significance of this is low given the low reporting of latrine access. The alternative defecation point most respondents gave was “in the open, away from the home” (66% of all households). 9% use a community defecation point, 7% an open area next to the home, 9% gave an “other” response. This pattern was similar across the assessed areas, although a higher proportion reported access to a latrine in Jowhar Town (18%) than Balcad (7%) and Mahaday (1%). Almost all, 97% of respondents, indicated that the household’s defecation behaviours had not changed in the past month.

Just over half (55%) of households reported using the same storage container for drinking and washing water, with a significant variation by area. In Jowhar 41% used the same container for drinking and washing water, compared to 73% in Balcad and 54% in Mahaday. The majority of respondents (85%) reported using a Jerry can for water storage, with 15% reporting using a bucket with a lid. These proportions were similar across the assessed areas, although the households using jerry cans was lower in Mahaday (72%) than in Balcad (100%) and Jowhar (85%).

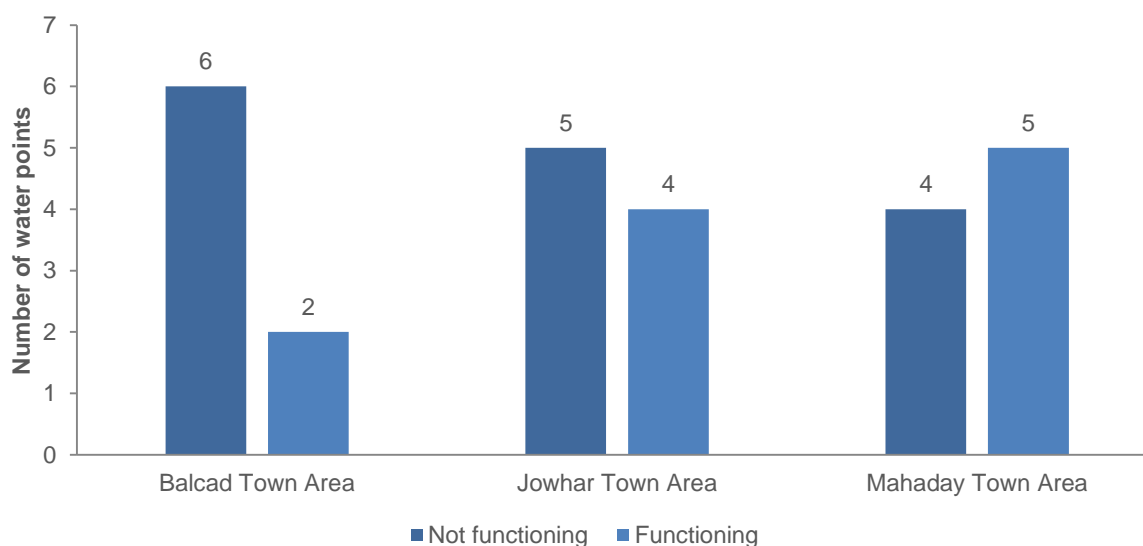
Of those surveyed only 5% reported receiving hygiene items in the last three months, likely a result of both low assistance⁴ in the region, and the fact that most of those surveyed were still in their home community. While soap, shampoo and detergent were all cited as hygiene items received, results are not representative with so few households reporting to receive these. A higher proportion (10%) said they had received hygiene items in Jowhar (9%) than Mahaday (2%) and Balcad (3%). Only 6% of households indicated that they bathe with soap, and only 3% indicated they use soap when washing their hands. The low reporting of handwashing with ash – 2% in Balcad, 1% in Jowhar and 0% in Mahaday – requires particular attention, as current messaging from the WASH Cluster is focused on encouraging this practice.

⁴ Low assistance was reported by KIs and on the ground observations further confirmed by the clusters and ground actors

Figure 10: Hand washing behaviours, by district

Water facilities

26 water points were identified within the assessed communities. Of these only four (two in Jowhar town areas and two in Mahaday area) were connected to a municipal water system. The most common source of water for the water points was a river (eight water points) followed by protected wells with and without pumps (six each). The storage capacity of twelve of the water points was not known by those at the site, eight held less than one cubic metre, three had a capacity between one and five cubic metres, and three held over ten cubic metres.

Figure 11: Functioning and non-functioning water points, by area

Over half of the water points were not functioning at the time of the assessment, as shown by figure 11. The reason for water points not functioning varied between facilities, with a high proportion in Balcad reporting broken taps (67%), while 50% in Mahaday town area had water contamination issues. In total 16 out of 26 water points assessed had drinkable water.

Sixteen of the water points had no working taps, including all eight of the water points assessed in the Mahaday Town Area. Across all areas four water points that were still functioning had no taps available.

Education

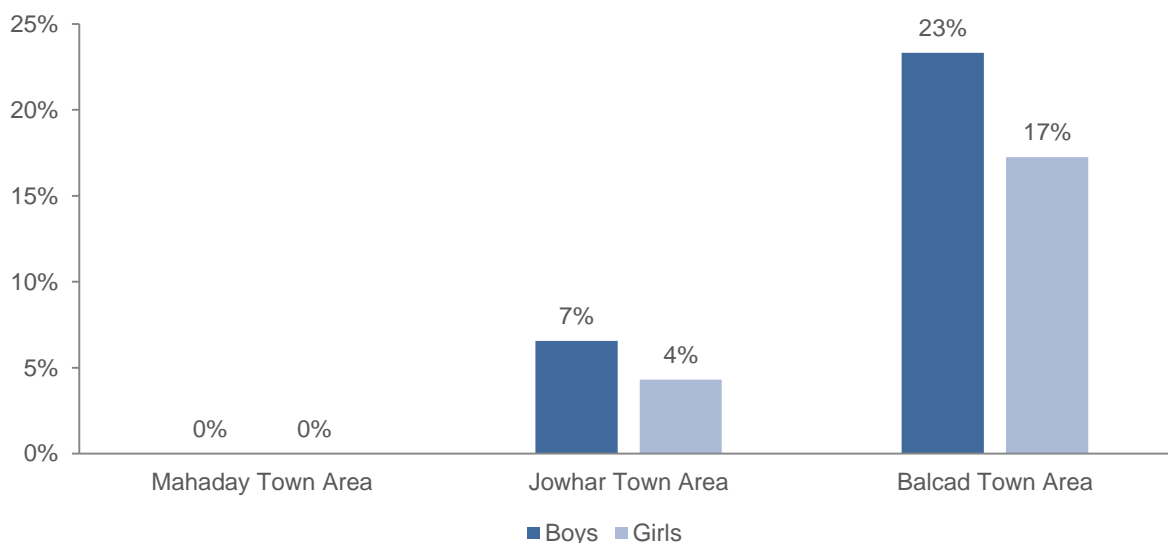
Field teams identified five educational facilities within the assessed communities, of which only one was currently functioning, a primary school in the Mahaday Town Area. There were two closed schools in the Mahaday Town Area, and one school each in the Balcad Town Area and Jowhar Town Area, neither of which were functioning.

The functioning school in the Mahaday town area reported 350 female and 460 male students attending and six teachers: meaning that there are 135 students to each teacher. There were also four classrooms currently usable. The two closed schools in the Mahaday Town Area consisted of another ten classrooms and eight teachers. While one of these schools was reported to have closed because of the flooding, the other had been closed prior to the flooding in the Middle Shabelle region. In the Jowhar Town area the closed school had six classrooms and four teachers, but had closed as a result of the flooding. The Balcad Town area school had closed as a result of the floods, although the number of teachers who were teaching there is unknown.

All five surveyed schools were observed to have been damaged by the latest flooding in the area. The foundations in the Balcad Town area and two of the Mahaday Town area schools had been damaged. Latrines in two schools in the Mahaday Town Area and one schools in the Jowhar Town Area have also been damaged.

Regardless of the facility access, attendance rates reported by households were very low. Only 10% of school aged males and 7% of school aged females reporting attending school. The highest rates were in Balcad Town Area with 24% of boys and 17% of girls attending. The most common reported educational level was primary, reported by 10% of households, with the highest levels in Balcad (23% of assessed households). In the Balcad Town area 13% of households also reported attending a Quranic education facility.

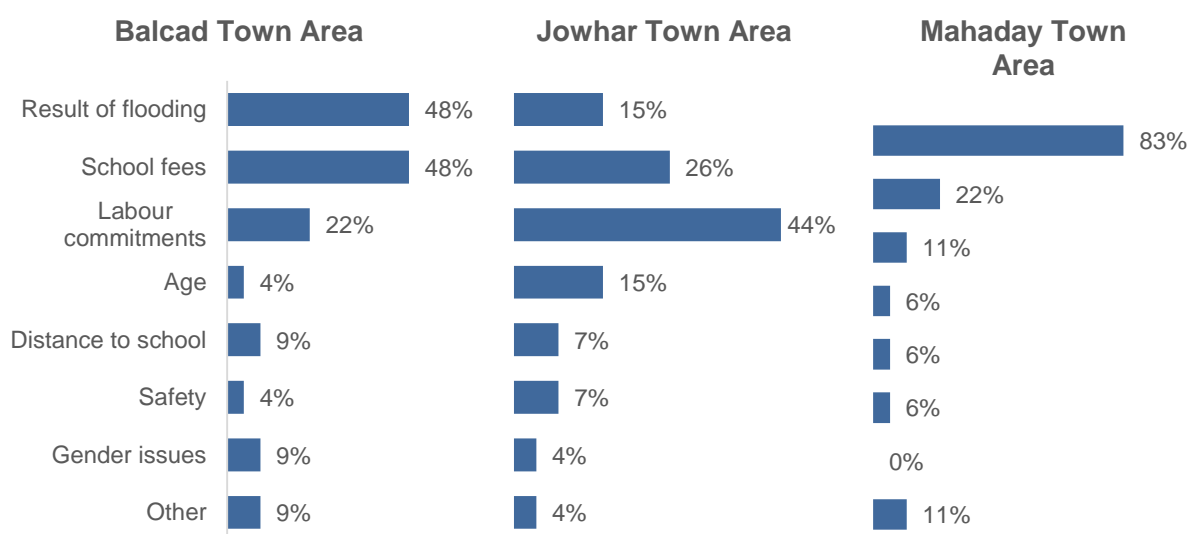
Figure 12: Percentage of boys and girls attending education



83% of households in the Mahaday Town Area reported that a major reason children did not attend school was because of the flooding, also reported by 44% of households in the Balcad Town Area, compared to only 15% in the Jowhar Town Area. This reflects the information gathered from the facilities assessment, which indicated that schools in both the Mahaday Town and Balcad Town areas had been closed as a result of the flooding, whereas the school in Jowhar Town area already been closed. **Furthermore a high proportion of households in the Jowhar Town reported that children did not attend school because of labour commitments (44%)** – double the rate reported in Balcad Town area (22%) and four times the number of households in the Mahaday Town area (11%).

37% of households indicated that children in the household not currently attending school had had some form of education in the past, with the majority (76%) of these households reporting primary level education. There was a high variation between the assessed areas on when these children had stopped attending school – on average one month prior to the assessment in the Mahaday town area, where the facility assessment identified two closed schools, one of which had closed as a direct result of flooding. By contrast, in the Jowhar town area households, on average, reported that children had stopped attending school six months prior, and in the Balcad town area four months prior to the assessment. No households reported children who had attended at a secondary or vocational level. 44% of households reported that children not currently attending any form of education had previously attended Quranic education, including over half in the Mahaday town area (71%), 45% in the Jowhar Town area and 14% in the Balcad Town Area.

Figure 13: Reported reasons for why children were not attending school



Safety issues in schools were not widely reported by respondents. Only 3% of households reported that boys did not feel safe in school, and only 2% reported that girls did not feel safe in school. Reports of safety related issues in school was higher in Balcad, where 7% of households reported boys did not feel safe, and 6% reported girls not feel safe. Key informants in seven locations reported that community structures exist which support education. Conversely key informants in the other seven locations reported that there are no community structures that support education.

Conclusion

Low humanitarian standards are related to generally low community resilience, and the assessment clearly demonstrates that the affected communities are in need of humanitarian intervention. In particular, areas around Mahaday Town demonstrate high levels of vulnerability that appear to have been exacerbated by flooding. However overall the assessment found that there was limited impact on living conditions and humanitarian indicators directly as a result of flooding. Across sectors, while there was a prevalence of food insecurity, use of coping strategies, poor wash and hygiene practices and limited shelter conditions, these were rarely reported to have begun in the month prior to the assessment, and thus cannot be considered in all cases to be directly correlated to the recent flooding.

The flooding in the Middle Shabelle areas has caused limited and highly localised displacement. Most households surveyed were within their home community, either in settlements or with other host community members. Only 9% of those surveyed were IDPs from elsewhere. While this is possibly the reason for low reporting of security concerns, communal areas such as markets and water points were highlighted as concerns for women and girls. A high proportion reported families having been separated in the last month with 27% in Balcad, 23% in Jowhar and 44% in Mahaday; the latter area generally reporting more concern in all sectors as a result of flooding.

Both facilities mapping and household surveys revealed a limited immediate access to health services, although secondary data suggests the issues may be with awareness of health facilities in surrounding areas, rather than availability. Similarly households were not aware of accessible nutrition facilities, when known services are available in the area. Primary health concerns raised were suspected malaria and diarrhea, but a high reporting of suspected measles in Jowhar will need to be investigated further.

Food consumption patterns suggest that the communities assessed already suffered from poor diet prior to flooding, with poor Food Consumption Scores (FCS) reported by more than 70% of respondents in Mahaday and Jowhar areas, in which areas food related coping strategies were also reported by over 90% of households. Agro-pastoralists appear to have the highest reporting of poor FCS, possible as a result of flooding damage to livestock and agriculture. Across all assessed areas food prices were rising: households reported price increases of around 50% for sorghum (76%), cereals (60%), rice (67%) and milk (63%).

Shelter conditions also appear to have had a relatively low baseline condition, with most households in basic shelter consisting of earth floor and wood structures, with limited internal and external separation. Basic covering of rag and cloth was also commonly reported in transitional shelters. **Direct damage as a result of the flood was low, with higher reports in Mahaday than Balcad and Jowhar,** reflecting this areas increased impact from flooding. Households reported a widespread insufficiency of NFIs, with the reported possession of jerry cans, mats and blankets falling well below household needs.

Issues with water quality and quantity were widely reported, although only in Mahaday were water problems commonly linked directly to recent flooding. **85% of households reported having less than 10 litres of water per person, per day.** Again, this reflects very low baseline coverage of WASH. Similarly there is a common practice of open-air defecation, which predates the recent flooding.

Lastly all school facilities assessed in the target communities had some level of damage as a result of the flooding. However only one out of five schools was open at the time of the

assessment and only the closure of the school in Mahaday was linked to flooding. The lack of basic education services is reflected in the low attendance rates, currently reported at zero in Mahaday town area.

Annexes

Annex I: NFI Scoring

As part of the assessment, the Shelter Cluster Somalia requested the inclusion of an NFI scoring system. An NFI scoring system has been used in the Democratic Republic of Congo (DRC), and the system presented here is an extrapolation from this. The system, unlike that of the DRC, takes into account both number of household items in the possession of the household, and weights items due to their importance in a given emergency context. The scoring system is experimental, and is not a global standard. The scoring system takes into account:

Jerry cans: Calculated for litres per person in the household, as a proportion of the ideal capacity of 20 litres per person, multiplied by the weighting.

Cooking pots: Calculated as whether the household has at least one cooking pot of at least five litres, multiplied by the weighting.

Wash basins: Calculated as whether the household has at least one wash basin, multiplied by the weighting.

Sleeping mats: Calculated for mats per person, capped at one mat per person, multiplied by the weighting.

Blankets: Calculated for blankets per person, capped at one blanket per person, multiplied by the weighting.

Knives: Calculated as whether the household has at least one knife, multiplied by the weighting.

Plastic sheeting: Calculated as whether the household has plastic sheeting, multiplied by the weighting.

Weightings were agreed with the Shelter Cluster based on expected needs in flood related situations. Weightings will be adjusted for other humanitarian crises. The weightings applied to each item are:

Item	Weight
Jerry cans	4
Cooking pots	5
Wash basins	3
Sleeping mats	6
Blankets	7
Knives	2
Plastic sheeting	8

The total NFI score is the sum of the above calculation, rounded to the nearest whole number. NFI score severity is then grouped, in this case by the bottom third of the range being NFI insecure, the top third of the range being secure, and the middle third being borderline.