

East Africa Regional Desert Locust Impact Monitoring

Round 2

KEY MESSAGES

- The Food Security and Nutrition Working Group (FSNWG) recently conducted a regional Desert Locust impact assessment in Ethiopia, Kenya, and Somalia using a harmonized approach. The assessment interviewed 7,871 agricultural respondents across Desert Locust-affected areas of the region between October and early December 2020.
- The assessment found that roughly one third of cropping households and a half of livestock-rearing households experienced Desert Locust-related pasture and crop losses.
- For impacted households, Desert Locust losses were often quite large. More specifically, nearly 7 out of every 10 impacted cropping and livestock-rearing respondents experienced high or very high losses to their crops and rangeland.
- Considering only areas included in both Round 1 (conducted in June/July) and Round 2 (conducted in October/November/December), a comparison of the two round's data shows significant declines in the percentage of respondents observing Desert Locusts and related losses in Kenya, relative stability or slight declines in Ethiopia, and mixed results in Somalia.
- Beyond direct crop and rangeland impacts, Desert Locust affected respondents also commonly expressed concerns that Desert Locusts were driving increased food insecurity/malnutrition, emotional stress/anxiety, issues relating to animal and human health, environmental impacts, and high costs of control.
- Due to multiple, compounding hazards (e.g. Desert Locusts, below-average rains, etc.), there was general pessimism amongst respondents (both those affected by Desert Locusts and those who were not) about harvest prospects and current rangeland conditions. In the areas where the highest percentage of respondents reported poor pasture availability or that harvests would be below average, Desert Locusts were identified as a key driver of current conditions.
- Food insecurity amongst the interviewed agricultural respondents was found to be high with more than 20 percent of respondents in most of the assessed areas reported a reduced Coping Strategies Index (rCSI) exceeding 18, the threshold for Crisis (IPC Phase 3) or worse. The highest prevalences of food insecurity were observed in ten administrative areas in Ethiopia (Nogob, Jarar, Shabelle, Korahe, Borena, West Harerge, Doolo, Siti, Fafan, and South Omo). Additionally, major deteriorations in food insecurity amongst agricultural households were found between Round 1 (conducted in June/July) and Round 2 (conducted in October/November/December) in Awdal, Galgaduud, and Woqooyi Galbeed in Somalia and in Guji, Hareri, Korahe, Siti, and South Omo in Ethiopia. Given already high levels of food insecurity, current challenges to crop and livestock production threaten to drive further food security deteriorations.

Assessment funded by:



Food and Agriculture
Organization of the
United Nations

For questions and /or any other feedback, please contact the FSNWG Secretariat through:

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METHODOLOGY

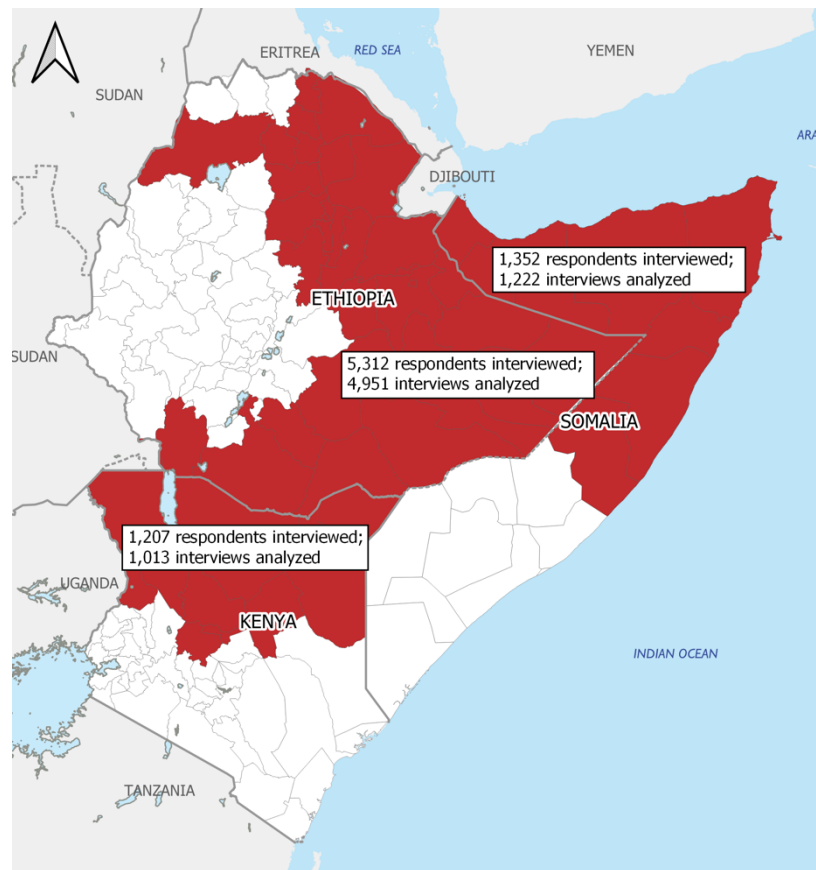
The assessment interviewed 7,871 respondents across Desert Locust-affected areas of Ethiopia, Kenya, and Somalia (Figure 1) who indicated that their household was active in agricultural activities (cropping or livestock rearing) during the past 12 months. Desert Locust-affected areas were defined as administrative units where either 1) Desert Locusts were reported between June and August, based on eLocust3M data, or 2) there was reasonable evidence to believe that Desert Locusts were likely present in the area despite a lack of data due to inadequate coverage of eLocust3M.

Data collection was conducted between October and early December 2020, during the short/*deyr* cropping season in most areas (Figure 2), using a cell phone-based household survey approach. The

assessment was deployed by a service provider (GeoPoll) and interviewed respondents were selected using a random sampling approach. In each administrative unit assessed, the team aimed to interview at least 150 respondents and this goal was reached in all areas.

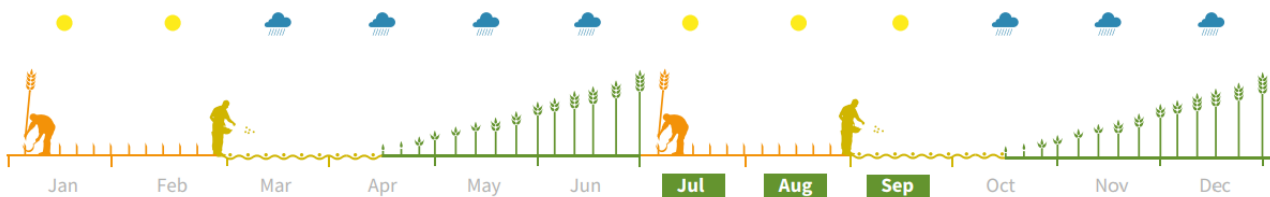
After data collection was completed in all countries, the data was cleaned. During this process, 685 respondents were dropped from the analysis due to data quality issues. This resulted in 7,186 interviews being included in the final analysis.

Figure 1. Assessed Desert Locust affected areas



Source: FSNWG

Figure 2. Seasonal calendar for the Horn of Africa



Source: FAO

KEY FINDINGS

Regional analysis

Demographics

The assessment included cropping, agropastoral, and pastoral regions of East Africa and aimed to interview households with both cropping and livestock incomes. In total, 5,744 respondents had income from crop sales during the past year, of which 5,151 (90 percent) had crops in the field at

the time of the survey. Additionally, 4,768 respondents had income from livestock or livestock product sales during the past year. Other common income sources amongst the assessed respondents were petty trade, salaries/wages, and agricultural wage labour.

Amongst cropping households, the most commonly reported crops that respondents were growing were maize, pulses, wheat, teff, sorghum, and fruits/vegetables. For livestock-rearing households, cattle, goats, sheep, poultry, donkeys, and camels were the most common types of animals owned.

For cropping households who reported that they did not currently have crops in the field, 87 percent indicated that they would, in a normal year, typically have crops in their field at this time of the year. Amongst this group who was not cultivating, the most commonly reported reasons were weather conditions, crop pests (including Desert Locusts), lack of credit, and lost access to land. The highest percentage of households reporting that they were not currently cultivating but typically would be was observed in Somalia (20 percent) followed by Kenya (11 percent) and Ethiopia (6 percent). Very few livestock-rearing households indicated that they had dropped out of livestock-related activities during the past 12 months.

The average age of the respondents interviewed was 35 years old. Twenty one percent of respondents were female while 79 percent were male.

Awareness of Desert Locusts

Awareness of Desert Locusts amongst respondents was high across the surveyed areas with 97 percent of respondents indicating that they had heard of Desert Locusts. The most common sources of information were 1) observation of Desert Locusts, 2) radio, 3) television, and 4) fellow farmers. There were no significant differences between genders with regards to awareness levels or information sources.

Desert Locust observations and losses

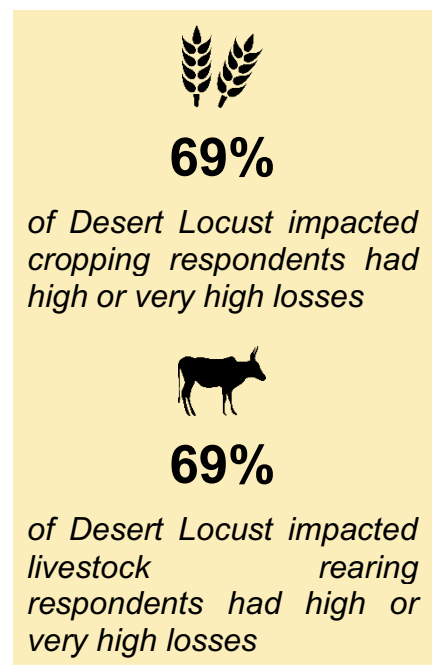
Amongst the 5,151 respondents who had crops in the field at the time of the survey, 46 percent of respondents indicated that they had seen Desert Locusts in their fields, and 38 percent reported Desert Locust-related losses to their crops.

For those who reported losses, Desert Locust impacts were in many cases significant. More specifically, 69 percent of cropping households who experienced losses indicating that their losses were high or very high, factoring in reported area affected and the severity of damages within fields that were impacted. Additionally, 55 percent thought that the current condition of their most important crop was poor, and 72 percent reported that upcoming harvests of this crop would be below average.

The most commonly reported crop stages when Desert Locust damages occurred, according to respondents, were the seed filling and flowering stages. Damages occurring during the seedling, germination, vegetative, and harvesting periods were much less commonly reported.

For livestock-rearing households, 56 percent of respondents indicated that they had observed Desert Locusts in their rangelands, and 48 percent indicated that the Desert Locusts caused rangeland losses.

Similar to affected cropping households, losses for affected livestock-rearing households were often significant. More specifically, 69 percent of affected respondents indicating that they had high or very high losses to their rangeland. Additionally, 79 percent of respondents with losses thought that



the current availability of pasture was below average while 78 percent thought their livestock were in either fair or poor condition. Of particular concern, 49 percent indicated that their livestock were in poor condition. This finding would not typically be expected for the rainy season period when livestock body conditions would normally be relatively good due to the high availability of pasture and water resources.

The highest percentage of cropping respondents observing Desert Locusts and reporting related losses were observed in Ethiopia while Kenyan respondents reported much lower levels (Table 1). Meanwhile for livestock-rearing respondents, Kenya had the lowest percentage of respondents observing Desert Locusts and related losses while percentages for Ethiopia and Somalia were both much higher and relatively similar. Additionally, the magnitude of crop and rangeland losses reported by affected respondents were higher in Ethiopia and Somalia in comparison to Kenya (Table 2).

Table 1. Percentage of respondents reporting having observed Desert Locusts and experiencing losses, by country and livelihood activity.

Country	Cropping Respondents		Livestock Respondents	
	% Observed DL	% DL Losses	% Observed DL	% DL Losses
Ethiopia	52%	44%	61%	52%
Kenya	23%	16%	32%	24%
Somalia	29%	27%	65%	59%
Total	46%	38%	56%	48%

Source: FSNWG Desert Locust impact assessment results

Table 2. Reported losses by country amongst respondents who indicated that they experienced Desert Locust losses to their crops or rangelands

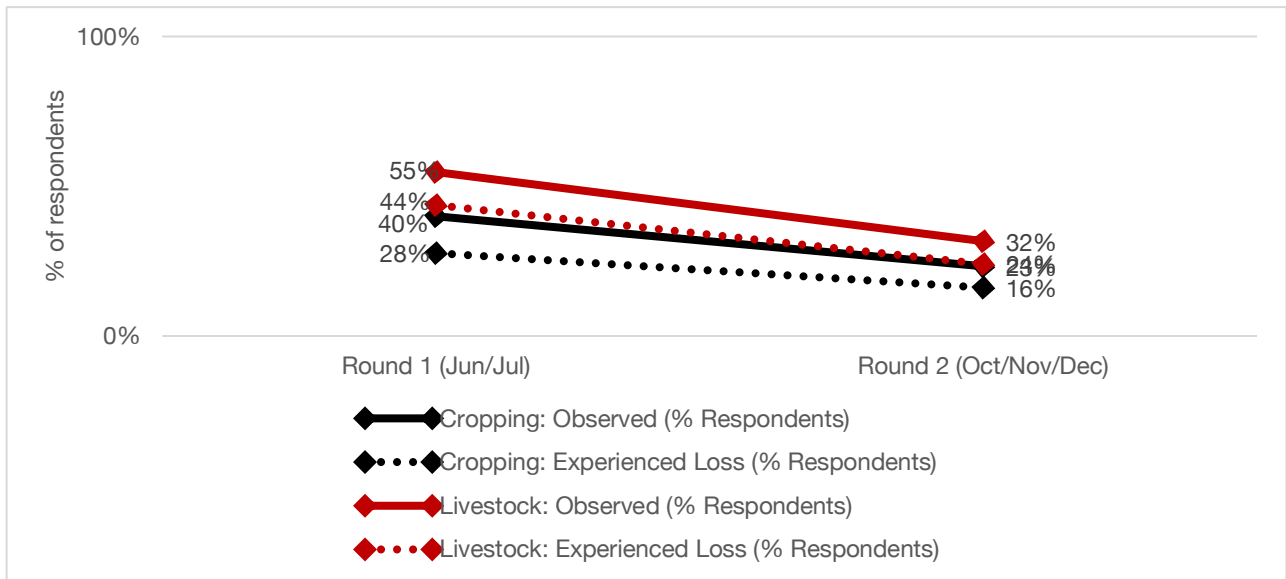
	Ethiopia	Kenya	Somalia
Of cropping respondents who reported crop losses....	<ul style="list-style-type: none"> 70% had high or very high losses 78% thought harvests of their most important crop would be below average 	<ul style="list-style-type: none"> 35% had high or very high losses 34% thought harvests of their most important crop would be below average 	<ul style="list-style-type: none"> 75% had high or very high losses 37% thought harvests of their most important crop would be below average
Of livestock-rearing respondents reporting rangeland losses...	<ul style="list-style-type: none"> 71% had high or very high losses 78% thought their livestock were in either fair or poor condition (48% in poor condition) 	<ul style="list-style-type: none"> 52% had high or very high losses 63% thought their livestock were in either fair or poor condition (21% in poor condition) 	<ul style="list-style-type: none"> 70% had high or very high losses 91% thought their livestock were in either fair or poor condition (74% in poor condition)

Source: FSNWG Desert Locust impact assessment results

Considering only areas included in both Round 1 (conducted in June/July) and Round 2 (conducted in October/November/December), a comparison of the two round's data shows significant declines in the percentage of respondents observing Desert Locusts and related losses in Kenya, relative stability or slight declines in Ethiopia, and mixed results in Somalia. More specifically:

- In Kenya, the percentage of cropping households observing Desert Locusts in only areas covered by both surveys declined from 40 percent to 23 percent between Round 1 and 2, while the percentage with losses declined from 28 percent to 16 percent. For livestock rearing households, meanwhile, the percentage observing Desert Locusts declined from 55 percent to 32 percent while the percentage with losses declined from 44 percent to 24 percent.

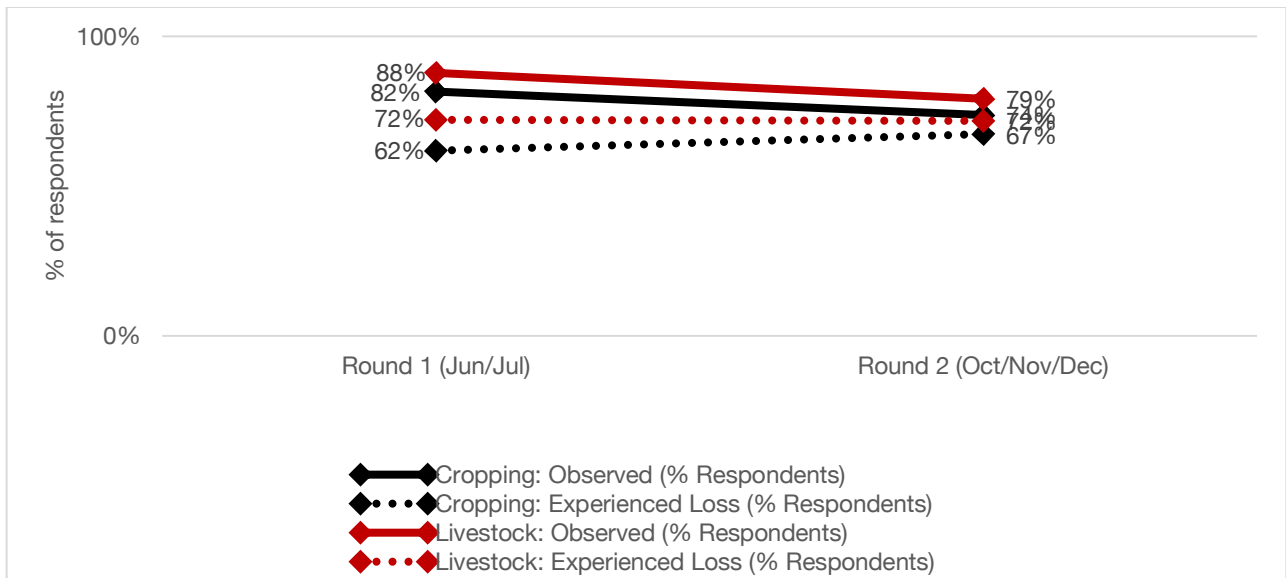
Figure 3. Changes in the percentage of respondents observing Desert Locusts and reporting related losses between Round 1 and Round 2 of data collection in Kenya



Source: FSNWG Desert Locust impact assessment results

- In Ethiopia, the percentage of cropping households observing Desert Locusts in only areas covered by both surveys declined from 82 percent to 74 percent between Round 1 and 2, while the percentage with losses increased slightly from 62 percent to 67 percent. Similarly, for livestock rearing households, the percentage observing Desert Locusts declined slightly from 88 percent to 79 percent while the percentage with losses remained stable at 72 percent.

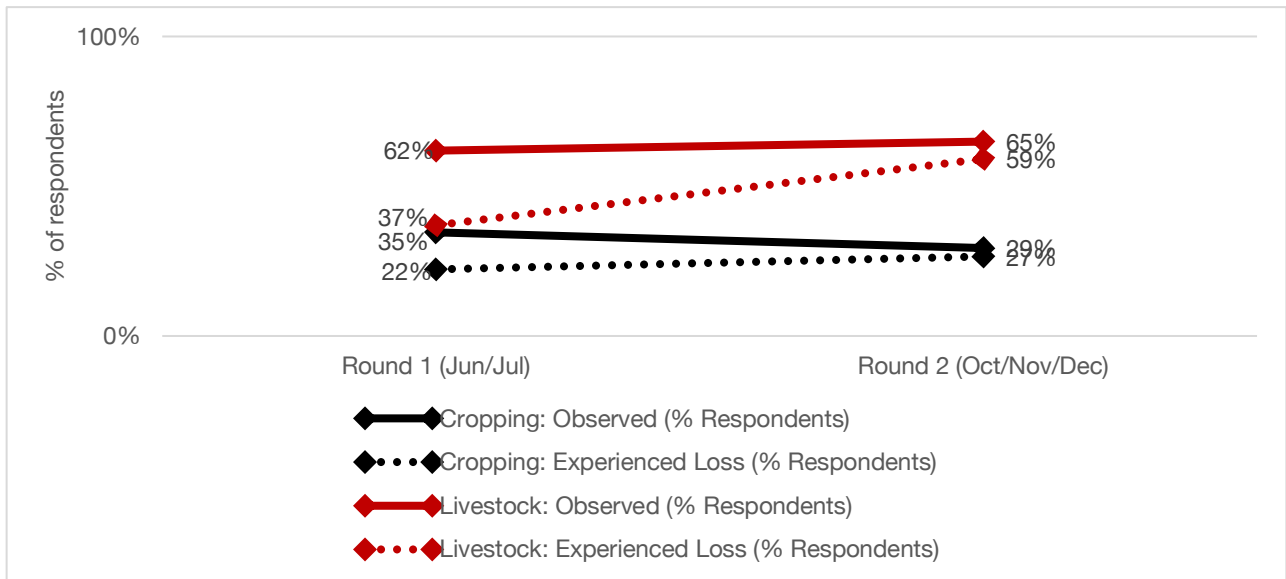
Figure 4. Changes in the percentage of respondents observing Desert Locusts and reporting related losses between Round 1 and Round 2 of data collection in Ethiopia



Source: FSNWG Desert Locust impact assessment results

- In Somalia, the percentage of cropping households observing Desert Locusts in only areas covered by both surveys declined slightly (from 35 percent to 29 percent) between Round 1 and 2, while the percentage with losses increased slightly (22 percent to 27 percent). For livestock rearing households, meanwhile, the percentage observing Desert Locusts remained relatively stable (62 percent to 65 percent) though the percentage with losses increased from 37 percent to 59 percent.

Figure 5. Changes in the percentage of respondents observing Desert Locusts and reporting related losses between Round 1 and Round 2 of data collection in Somalia

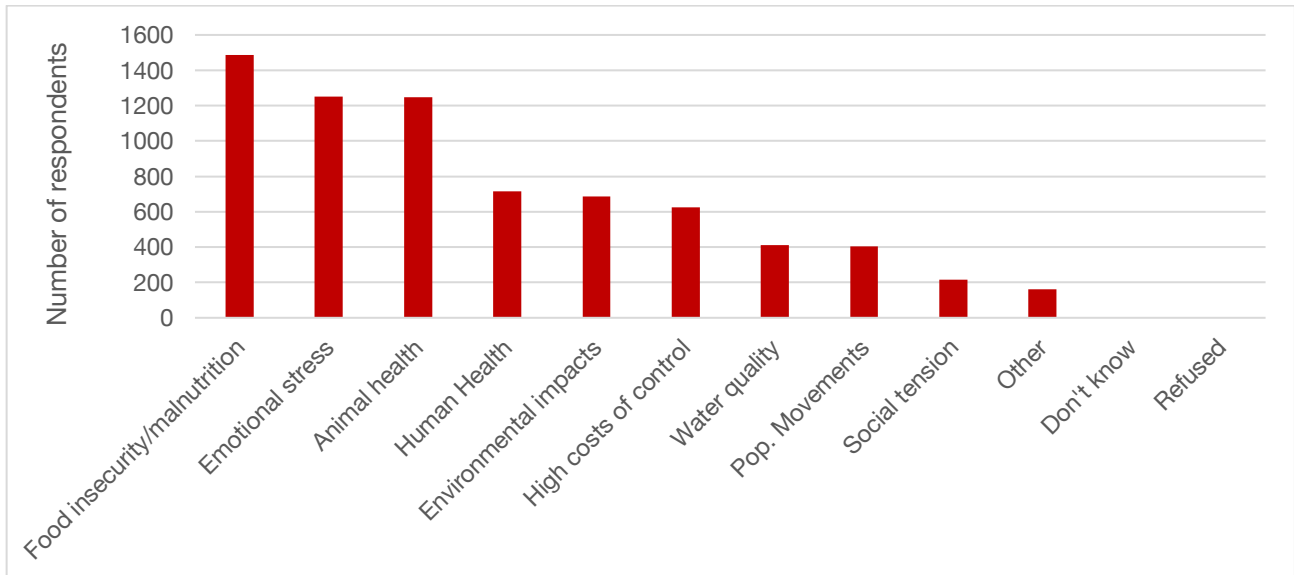


Source: FSNWG Desert Locust impact assessment results

Other Desert Locust impacts

Seventy-two percent of respondents who had observed Desert Locusts also indicated that their household experienced Desert Locust-related impacts beyond direct losses to crops and pasture. Within this population, the most commonly reported impacts were increased food insecurity/malnutrition, emotional stress/anxiety, issues relating to animal and human health, environmental impacts, and high costs of control. By country, increased food insecurity/malnutrition was the most common concern by respondents in Ethiopia and Somalia while environmental impacts were the largest concern amongst respondents in Kenya.

Figure 6. Other Desert Locust impacts (number of respondents reporting)



Source: FSNWG Desert Locust impact assessment results

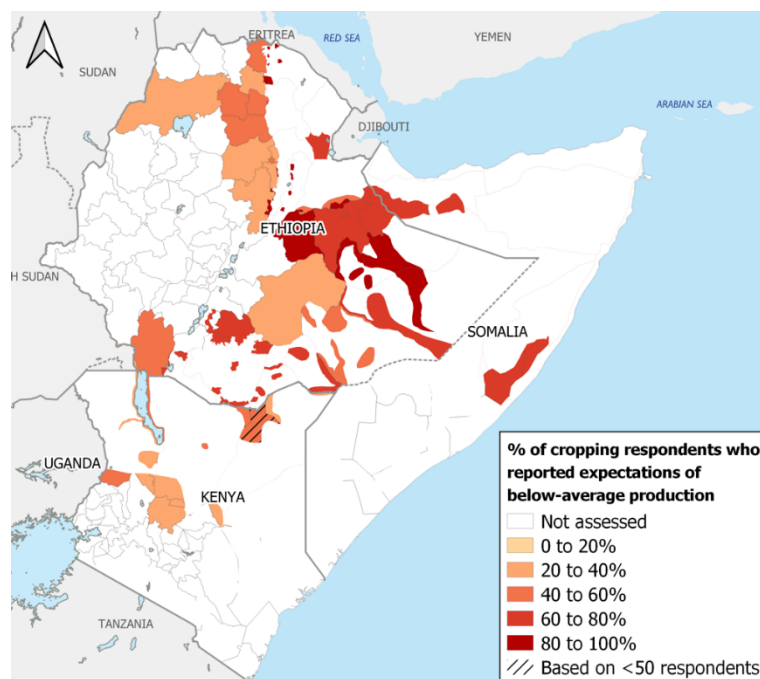
Current crop conditions and drivers

All cropping respondents, regardless of whether they saw Desert Locusts or experienced related losses, were interviewed about the current state of their most important crop, as well as their expectations for the upcoming harvest.

As shown by Figure 7, there was general pessimism amongst the respondents about upcoming harvests, particularly in Ethiopia and Somalia where in many areas, the majority of cropping respondents thought that their production would be below average. Across the region as a whole, the most commonly reported drivers of current crop conditions were Desert Locusts, below-average rains, and average rains. Reports of expected below-average production are consistent with current information and projections from FEWS NET indicating that ongoing/upcoming harvests will likely be below average in parts of Somalia, Ethiopia, and Kenya due to the combined effects of these drivers.

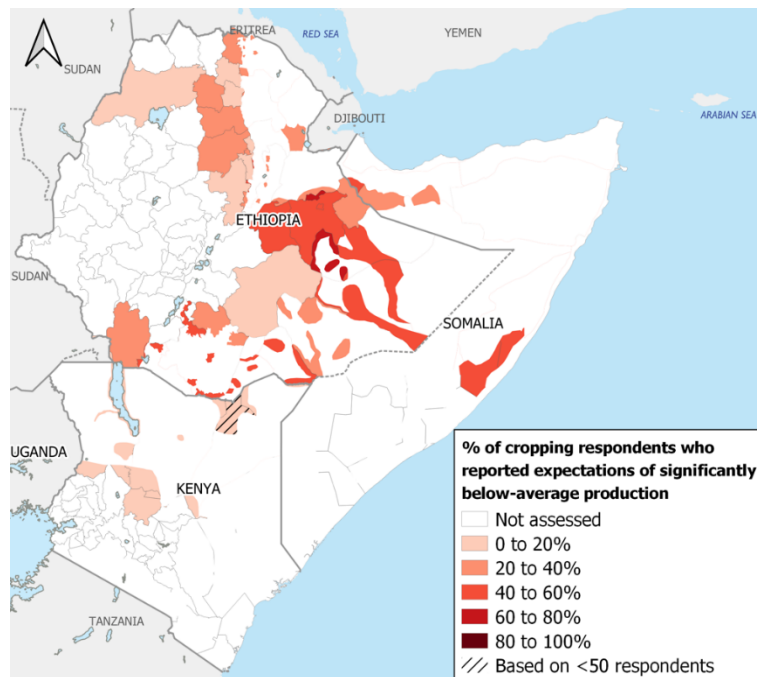
Dira Dawa, Gabi, Jarar, Kilbati, Korahe, Nogob, and West Harerge in Ethiopia had more than 80 percent of cropping respondents indicating that they thought that their production would be below average. Table 3 shows that Desert Locusts were the most important driver of current crop conditions in all these areas.

Figure 7. Percentage of respondents who indicated that they expected upcoming harvests for their most important crop to be below average (including mask to show only cropping and agropastoral areas)



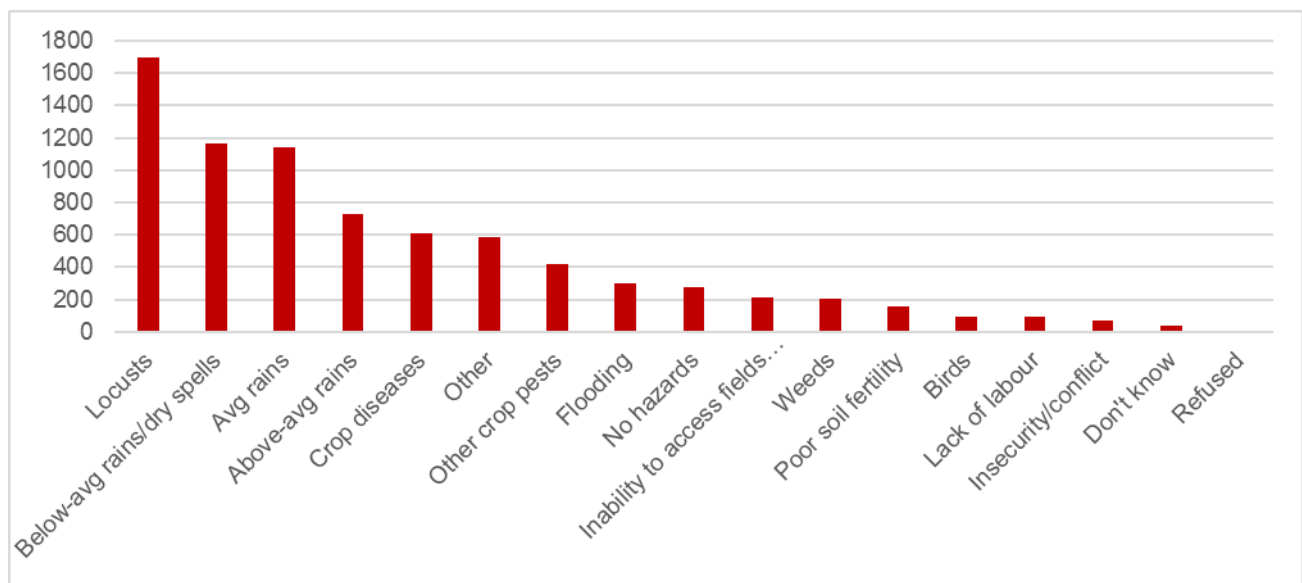
Source: FSNWG Desert Locust impact assessment results

Figure 8. Percentage of respondents who indicated that they expected upcoming harvests for their most important crop to be significantly below average (including mask to show only cropping and agropastoral areas)



Source: FSNWG Desert Locust impact assessment results

Figure 9. Drivers of current crop conditions (number of respondents reporting)



Source: FSNWG Desert Locust impact assessment results

Table 3. Drivers of current crop conditions in key areas of concern

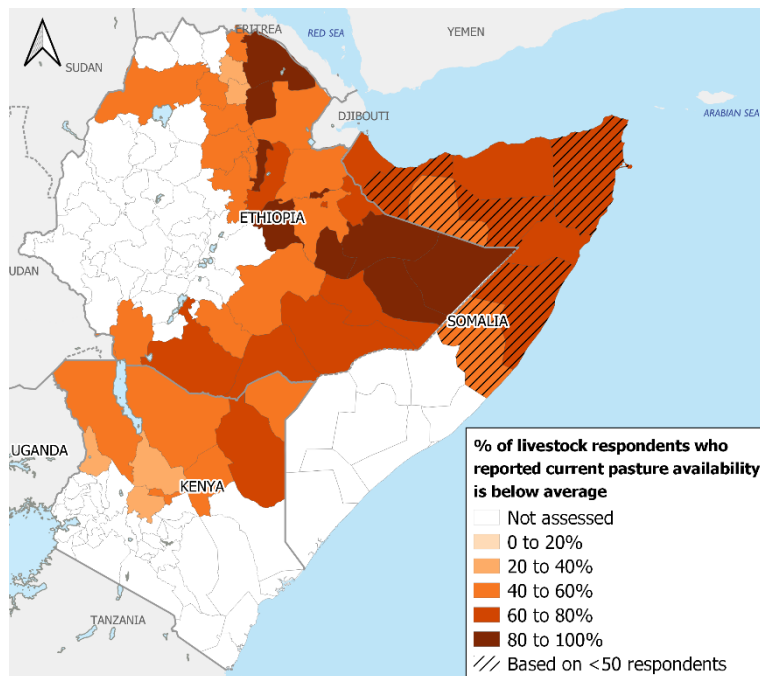
Administrative Unit	Key Drivers of Current Crop Conditions (in order of importance)
Dira Dawa, Ethiopia	Desert Locusts
Gabi, Ethiopia	Desert Locusts, flooding
Jarar, Ethiopia	Desert Locusts
Kilbati, Ethiopia	Desert Locusts
Korahe, Ethiopia	Desert Locusts
Nogob, Ethiopia	Desert Locusts, Lack of sufficient seeds/fertilizer
West Harerge, Ethiopia	Desert Locusts

Source: FSNWG Desert Locust impact assessment results

Current pasture availability and drivers

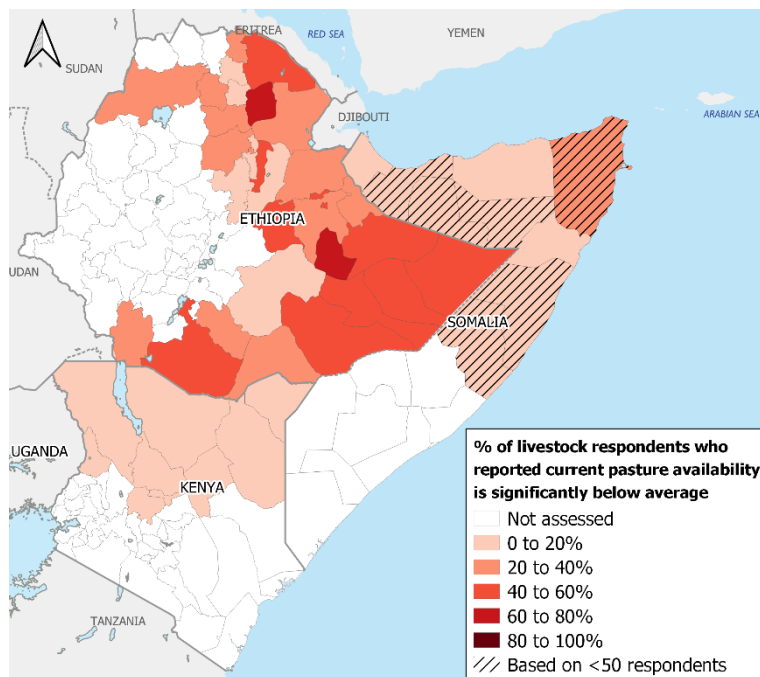
A high percentage of livestock-rearing respondents indicated that they believed current pasture availability was below average with many areas, particularly in Somalia and Ethiopia, having more than 40 percent of respondents indicating below-average availability.

Figure 10. Percentage of livestock-rearing respondents who indicated that current pasture availability is below average



Source: FSNWG Desert Locust impact assessment results

Figure 11. Percentage of livestock-rearing respondents who indicated that current pasture availability is significantly below average

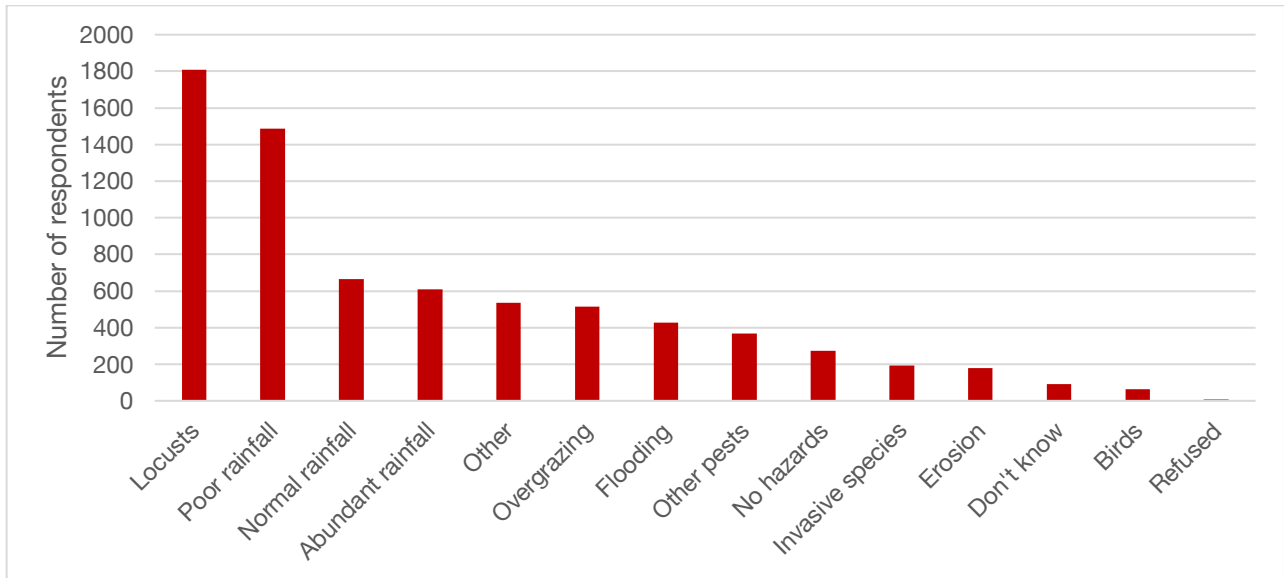


Source: FSNWG Desert Locust impact assessment results

Across the region, the most commonly reported drivers of current pasture availability were Desert Locusts and poor rainfall. With regards to the reports of poor rainfall, seasonal performance for the October to December 2020 rainy season was mixed, with below-average rains falling over much of eastern Ethiopia, northern and southern Somalia, and eastern and central Kenya. However, above-

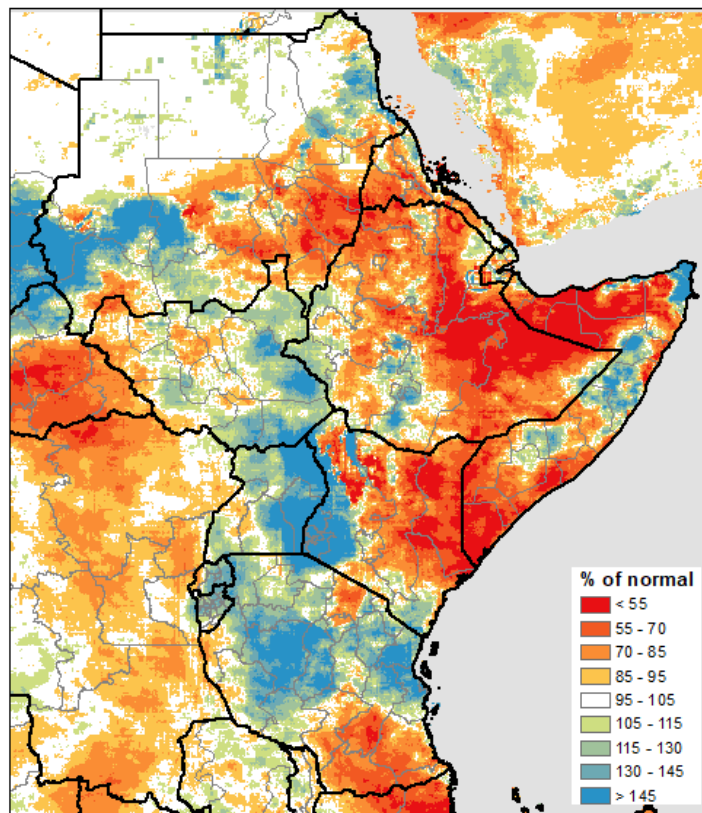
average rains earlier in the year as well as heavy rainfall episodes in late October and early November over parts of the region has meant that observed vegetation (as shown by Normalized Difference Vegetation Index (NDVI) anomalies in Figure 14) in many areas that experienced poor rains, such as eastern Kenya and southern Somalia, still remains favorable. However, in line with the reports by interviewed respondents, widespread negative NDVI anomalies have been observed over Ethiopia, as well as in more localized areas of both Somalia and Kenya. Current reports from FEWS NET also indicate mixed pasture conditions across the region, with below-average pasture availability highlighted in some areas, particularly in many pastoral areas of Ethiopia.

Figure 12. Drivers of current pasture availability (number of respondents reporting)



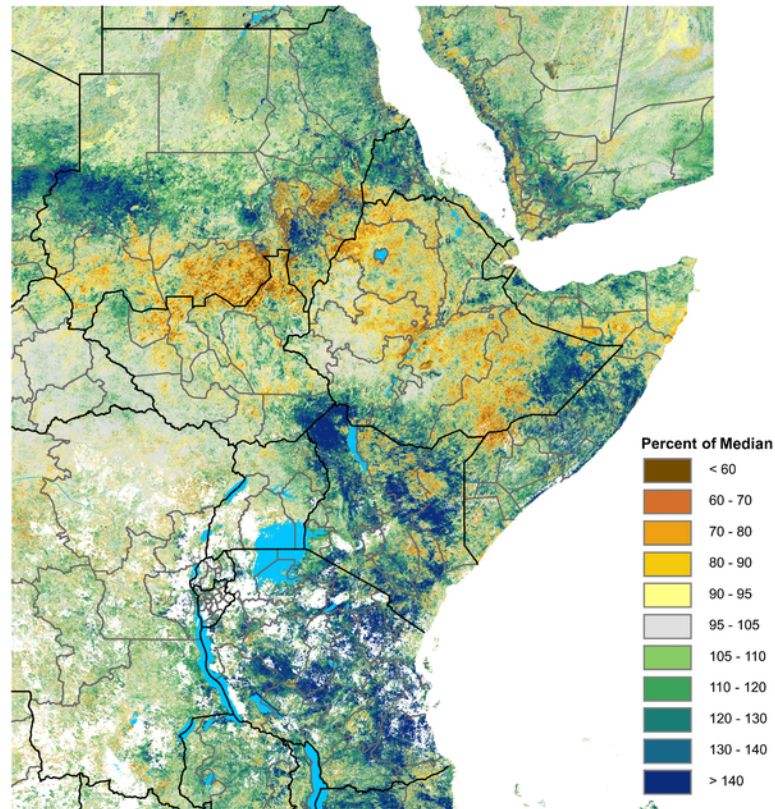
Source: FSNWG Desert Locust impact assessment results

Figure 13. Seasonal rainfall accumulation (percent of normal), 1 October to 25 December 2020



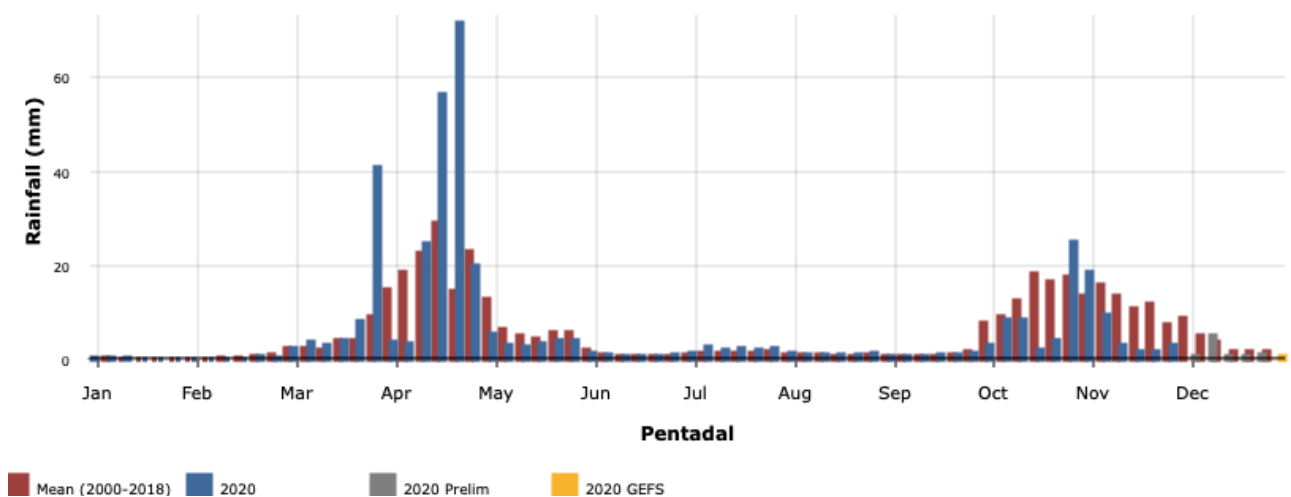
Source: FEWS NET/USGS

Figure 14. Normalized Difference Vegetation Index (NDVI) anomaly, 11 – 20 November 2020



Source: FEWS NET/USGS

Figure 15. Rainfall distribution during the March to May 2020 season for Gedo, Somalia showing below-average rains during the season except for in late October/early November



Source: FEWS NET/USGS

Key areas of concern with regards to pasture availability are areas where more than 60 percent of the respondents indicated below-average availability. These areas include Dira Dawa, Doolo, Fenti, Hari, Jarar, Kilbati, Korah, Nogob, and West Harerge in Ethiopia. As shown by Table 4, Desert Locusts were identified as the most important driver of current pasture availability in these worst-affected areas. However, other drivers, including poor rainfall and flooding, were also commonly identified.

Table 4. Drivers of current pasture availability in key areas of concern

Administrative Unit	Key Drivers of Current Pasture Availability (in order of importance)
Dira Dawa, Ethiopia	Desert Locusts, poor rainfall
Doolo, Ethiopia	Desert Locusts, poor rainfall
Fenti, Ethiopia	Desert Locusts, flooding
Hari, Ethiopia	Desert Locusts
Jarar, Ethiopia	Desert Locusts, poor rainfall
Kilbati, Ethiopia	Desert Locusts, flooding
Korabe, Ethiopia	Poor rainfall, Desert Locusts
Nogob, Ethiopia	Poor rainfall, Desert Locusts
West Hargee, Ethiopia	Desert Locusts

Source: FSNWG Desert Locust impact assessment results

Food insecurity

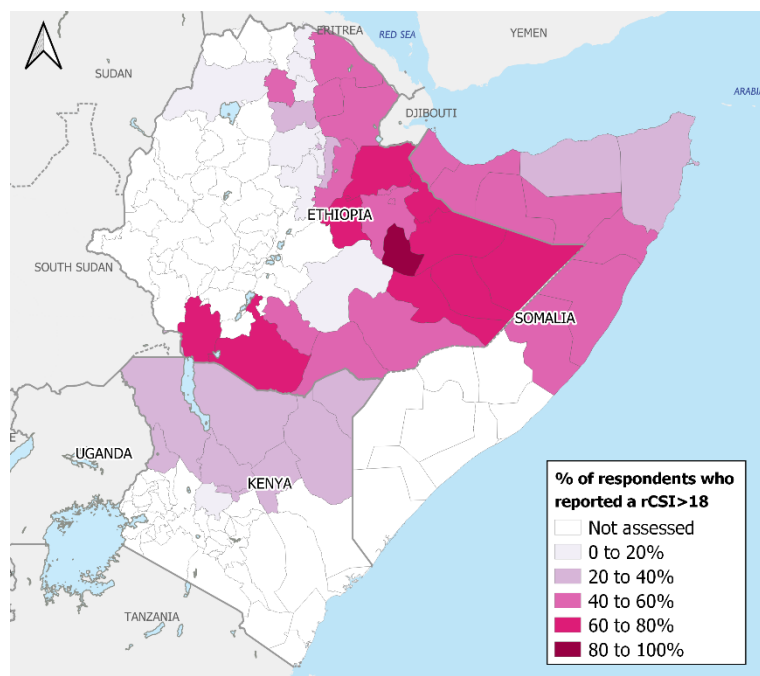
This Desert Locusts impact assessment was not intended to be a food security assessment. However, in order to get an understanding of existing food insecurity amongst respondents, one food security indicator, reduced coping strategy index (rCSI), was calculated.¹

The rCSI is a food security module, which asks respondents about the frequency, during the past 7 days, that they employed five common coping strategies: 1) eating less-preferred foods, 2) borrowing food/money from friends and relatives, 3) limiting portions at mealtime, 4) limiting adult intake, and 5) reducing the number of meals per day.² The reduced coping strategies index is a food security outcome indicator according to the IPC acute food security reference tables, with an rCSI exceeding 18 considered in line with Crisis (IPC Phase 3) or worse food insecurity.

As shown by Figure 16, more than 20 percent of respondents in most of the assessed areas reported an rCSI that exceeded 18. Of these administrative areas, more than 60 percent of respondents indicated an rCSI greater than 18 in ten areas of Ethiopia that are of particular concern: Nogob (86 percent), Jarar (77 percent), Shabelle (75 percent), Korahe (72 percent), Borena (70 percent), West Hargee (68 percent), Doolo (67 percent), Siti (65 percent), Fafan (62 percent), and South Omo (60 percent).

For areas included in both Round 1 (conducted in June/July) and Round 2 (conducted in October/November/December), a comparison of rCSI shows a major deterioration in food security, defined as an increase of 20+

Figure 16. Percentage of respondents reporting an rCSI greater than 18



Source: FSNWG Desert Locust impact assessment results

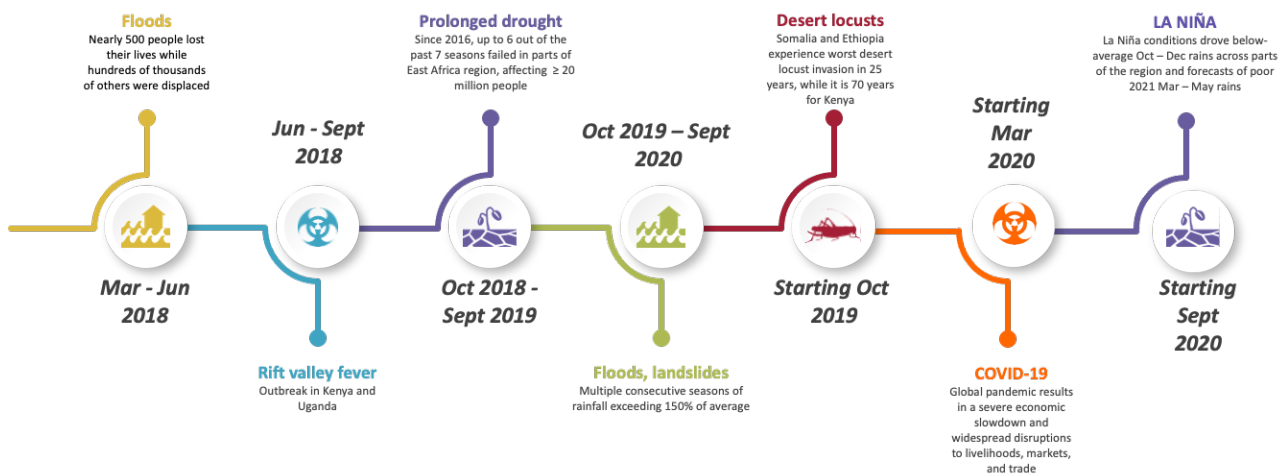
¹ Given that only households involved in crop and livestock production were interviewed by this assessment, the rCSI data only represents food insecurity amongst this population and is not representative of food insecurity levels across all populations living within the administrative unit.

² For more information about rCSI, please visit: https://documents.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp211058.pdf

percent of the agricultural population with a rCSI exceeding 18, in the following regions: Awdal, Somalia (change from 16 to 47 percent), Galgaduud, Somalia (17 to 50 percent), Woqooyi Galbeed, Somalia (17 to 41 percent), Guji, Ethiopia (33 to 59 percent), Hareri, Ethiopia (25 to 54 percent), Korahe, Ethiopia (33 to 72 percent), Siti (40 to 65 percent), and South Omo (36 to 60 percent).

Though the assessment did not explore the key causes of this food insecurity, the East Africa region has seen multiple current and recent threats to food security (Figure 17) that likely contributed to these very high figures.

Figure 17. Recent hazards affecting rural livelihoods in East Africa



Source: FAO

Country-level analysis

The following sections present key country-level facts and figures for Ethiopia, Kenya, and Somalia.

ETHIOPIA

Desert Locust observations and losses

Table 5. Percentage of respondents reporting having observed Desert Locusts and experiencing Desert Locust losses, by livelihood activity

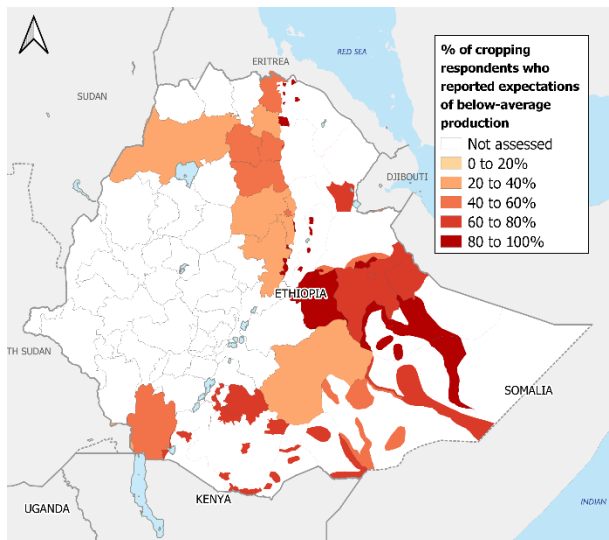
Cropping Respondents		Livestock Respondents	
% Observed DL	% DL Losses	% Observed DL	% DL Losses
52%	44%	61%	52%

Table 6. Reported losses amongst respondents who indicated that they experienced Desert Locust losses to their crops or rangeland

Of cropping respondents who reported crop losses....	<ul style="list-style-type: none"> 70% had high or very high losses 78% thought harvests of their most important crop would be below average
Of livestock-rearing respondents reporting rangeland losses...	<ul style="list-style-type: none"> 71% had high or very high losses 78% thought their livestock were in either fair or poor condition (48% in poor condition)

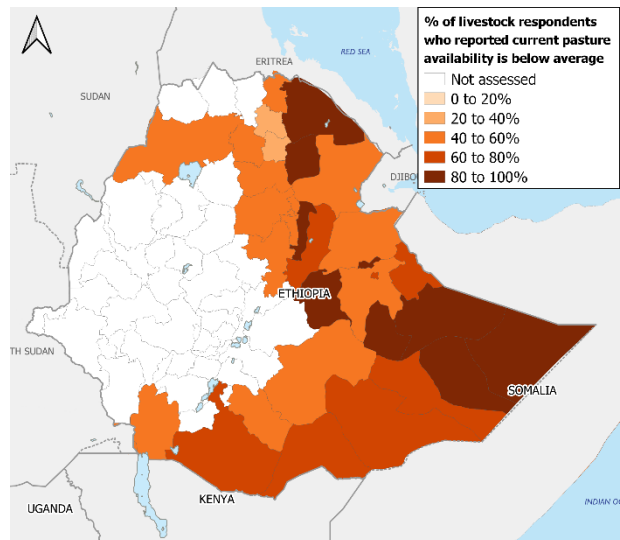
Current crop conditions

Figure 18. Percentage of respondents who indicated that they expected upcoming harvests for their most important crop to be below average



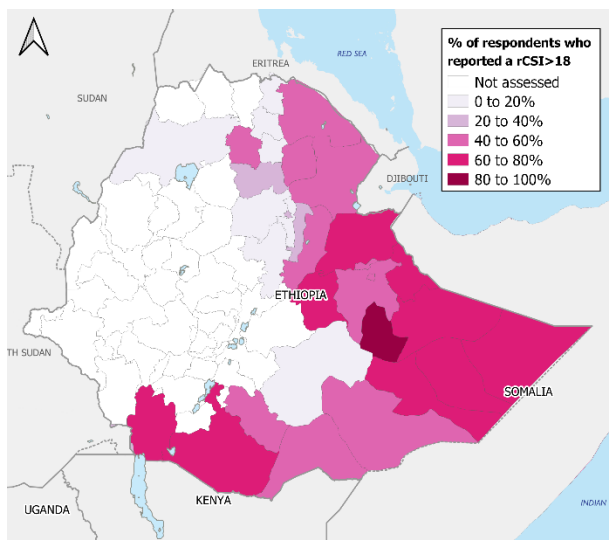
Current pasture availability

Figure 19. Percentage of livestock-rearing respondents who indicated that current pasture availability is below average



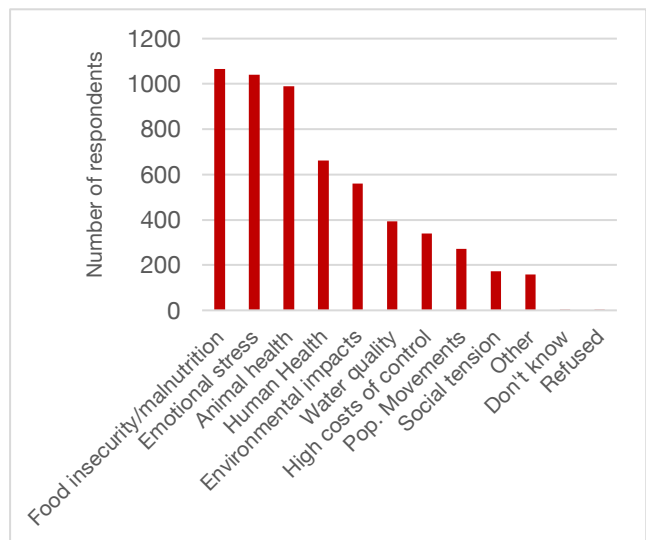
Food insecurity

Figure 20. Percentage of respondents reporting an rCSI greater than 18



Other Desert Locust impacts

Figure 21. Other Desert Locust impacts (number of respondents reporting)



KENYA

Desert Locust observations and losses

Table 7. Percentage of respondents reporting having observed Desert Locusts and experiencing Desert Locust losses, by livelihood activity

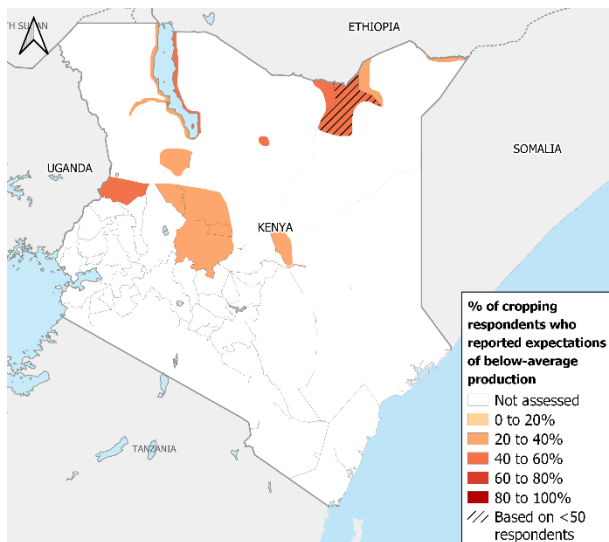
Cropping Respondents		Livestock Respondents	
% Observed DL	% DL Losses	% Observed DL	% DL Losses
23%	16%	32%	24%

Table 8. Reported losses amongst respondents who indicated that they experienced Desert Locust losses to their crops or rangeland

Of cropping respondents who reported crop losses....	<ul style="list-style-type: none"> • 35% had high or very high losses • 34% thought harvests of their most important crop would be below average
Of livestock-rearing respondents reporting rangeland losses...	<ul style="list-style-type: none"> • 52% had high or very high losses • 63% thought their livestock were in either fair or poor condition (21% in poor condition)

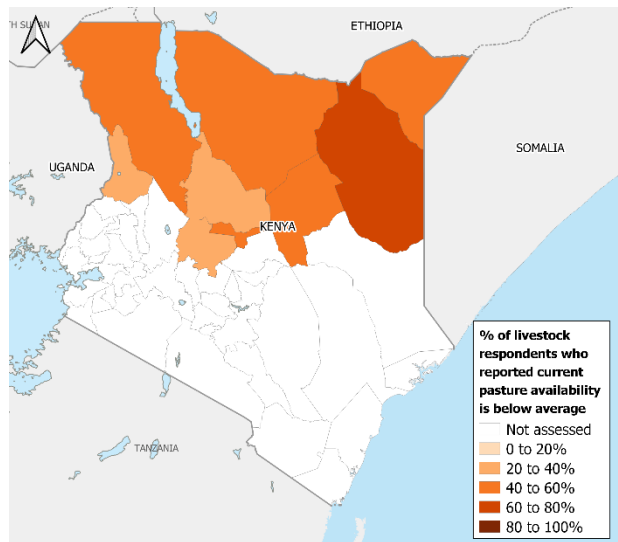
Current crop conditions

Figure 22. Percentage of respondents who indicated that they expected upcoming harvests for their most important crop to be below average (including mask to show only cropping and agropastoral areas)



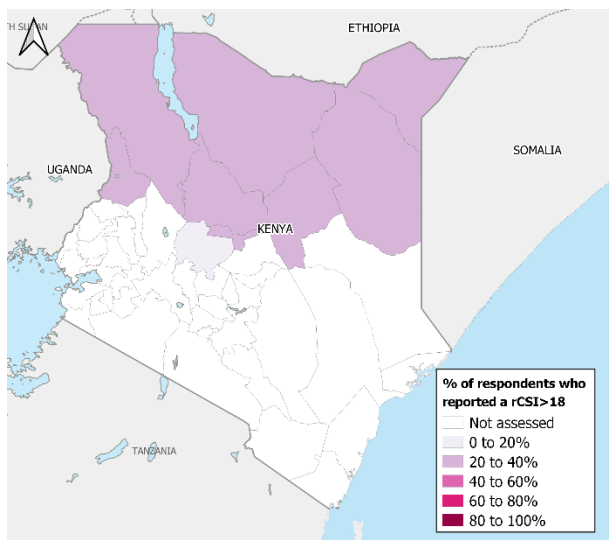
Current pasture availability

Figure 23. Percentage of livestock-rearing respondents who indicated that current pasture availability is below average



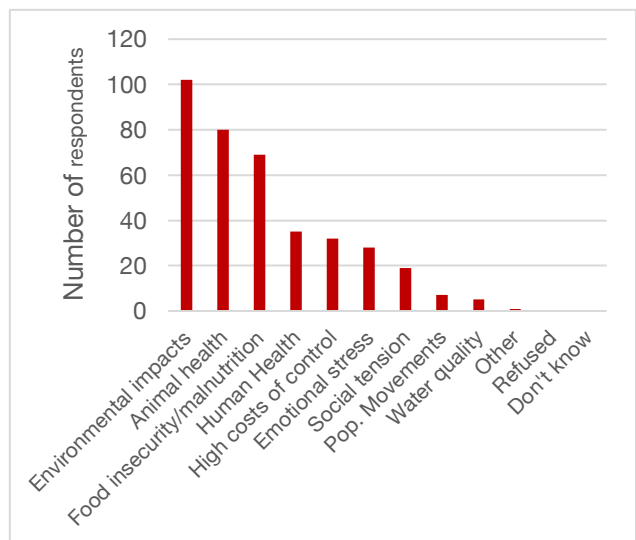
Food insecurity

Figure 24. Percentage of respondents reporting an rCSI greater than 18



Other Desert Locust impacts

Figure 25. Other Desert Locust impacts (number of respondents reporting)



SOMALIA

Desert Locust observations and losses

Table 9. Percentage of respondents reporting having observed Desert Locusts and experiencing Desert Locust losses, by livelihood activity

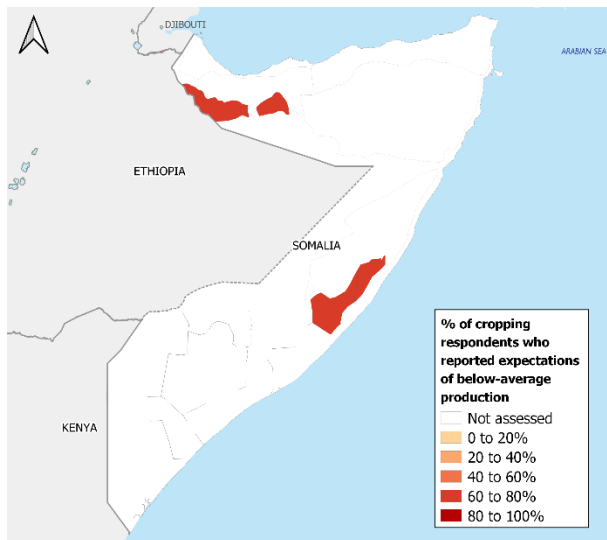
Cropping Respondents		Livestock Respondents	
% Observed DL	% DL Losses	% Observed DL	% DL Losses
29%	27%	65%	59%

Table 10. Reported losses amongst respondents who indicated that they experienced Desert Locust losses to their crops or rangeland

Of cropping respondents who reported crop losses....	<ul style="list-style-type: none"> 75% had high or very high losses 37% thought harvests of their most important crop would be below average
Of livestock-rearing respondents reporting rangeland losses...	<ul style="list-style-type: none"> 70% had high or very high losses 91% thought their livestock were in either fair or poor condition (74% in poor condition)

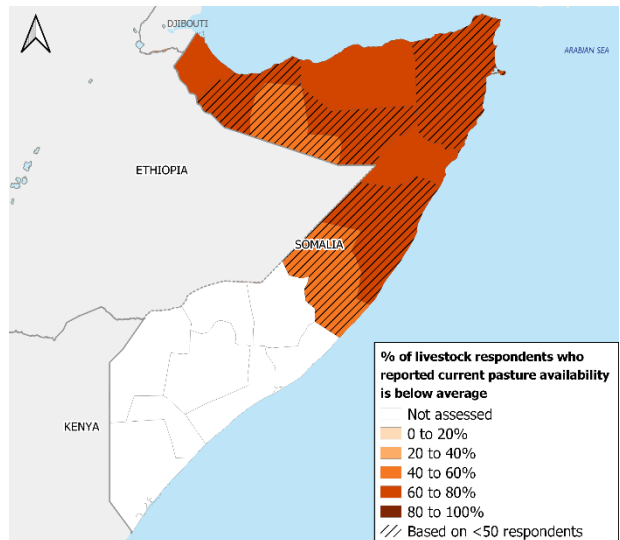
Current crop conditions

Figure 26. Percentage of respondents who indicated that they expected upcoming harvests for their most important crop to be below average (including mask to show only cropping and agropastoral areas)



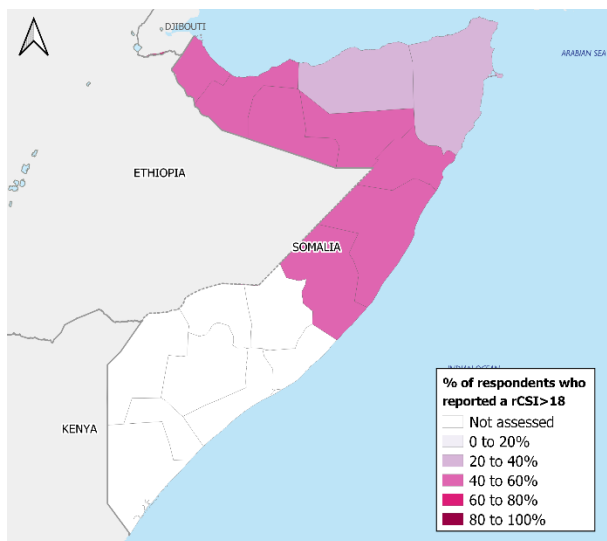
Current pasture availability

Figure 27. Percentage of livestock-rearing respondents who indicated that current pasture availability is below average



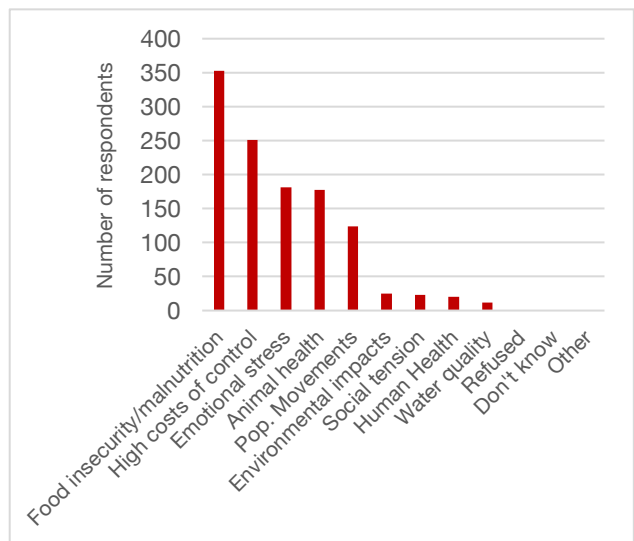
Food insecurity

Figure 28. Percentage of respondents reporting an rCSI greater than 18



Other Desert Locust impacts

Figure 29. Other Desert Locust impacts (number of respondents reporting)



CONCLUSIONS AND RECOMMENDATIONS

This assessment found that roughly one third of cropping households and a half of livestock-rearing households living in Desert Locust affected administrative units experienced related pasture and crop losses.

Though these percentages are not overly large, the impacts of Desert Locusts on households who did experience losses were in many cases quite significant. More specifically, nearly 7 out of every 10 impacted cropping and livestock-rearing respondents experienced high or very high losses to their crops and rangeland where their animals graze. Additionally, many Desert Locust impacted cropping and livestock-rearing respondents reported that they expected their forthcoming harvests for their most important crop to be below average and/or that their livestock were currently in poor or fair condition. Desert Locust-related impacts were found to be more severe in both Ethiopia and Somalia in comparison to Kenya.

Additionally, there was general pessimism amongst respondents (both amongst those affected by Desert Locusts and those who were not) about harvest prospects and rangeland conditions due to multiple, compounding hazards affecting rural livelihoods at this time (e.g. Desert Locusts, below-average rains, etc.) However, in areas where the highest percentage of respondents reported poor pasture availability or that harvests would be below average, Desert Locusts were identified as a key driver of current conditions.

Food insecurity amongst the interviewed agricultural respondents was found to be high with more than 20 percent of respondents in most of the assessed areas reported a reduced Coping Strategies Index (rCSI) exceeding 18, the threshold for Crisis (IPC Phase 3) or worse. The highest prevalences of food insecurity were observed in ten administrative areas in Ethiopia (Nogob, Jarar, Shabelle, Korahe, Borena, West Harerge, Doolo, Siti, Fafan, and South Omo). Additionally major deteriorations in food insecurity amongst agricultural households were found between Round 1 (conducted in June/July) and Round 2 (conducted in October/November/December) were observed in Awdal, Galgaduud, and Woqooyi Galbeed in Somalia and in Guji, Hareri, Korahe, Siti, and South Omo in Ethiopia. Given already high levels of food insecurity, current challenges to crop and livestock production threaten to drive further food security deteriorations.

Finally, beyond direct crop and rangeland losses, respondents also expressed concerns that Desert Locusts were driving increased food insecurity/malnutrition, emotional stress/anxiety, issues relating to animal and human health, environmental impacts, and high costs of control.

Given these key findings, the FSNWG would recommend the following actions:

- 1) **Immediate livelihood and food security support programmes to vulnerable Desert Locust affected households** are needed to ensure adequate access to food and rebuild household livelihoods with the aim of enabling rural cropping, agropastoral, and pastoral households to take full advantage of the upcoming rainy/agricultural seasons despite recent hazards that negatively impacted their livelihoods and assets. These programmes should be focused in areas with high level of existing food insecurity, as well as areas where crop and livestock production are expected to be below average.
- 2) **Continued Desert Locust surveillance and control operations** in order to identify and rapidly control new swarms and hopper bands to prevent further Desert Locust-related crop and pasture losses.
- 3) **Additional assessments to better understand the full extent of Desert Locust impacts** across the region. These assessments need to include 1) additional Desert Locust impact monitoring in East Africa to inform upcoming livelihood support programmes, 2) full on-the-ground Desert Locust impact assessments to produce quantitative estimates of Desert Locust losses, and 3) evaluations to further explore non-agricultural impacts of Desert

Locusts and control operations, including but not limited to, environmental impact assessments.

- 4) **Strengthened food security monitoring and early warning systems** with an increased focus on anticipatory action, given severe levels of existing food insecurity across East Africa and the high frequency of a variety of hazards (e.g. climatic, pests, conflict, economic, etc.) affecting vulnerable populations' food security.

ANNEX 1: ASSESSMENT SAMPLING

Admin Unit	# of respondents interviewed	# of respondents kept for analysis	% respondents with crop income	% of respondents with livestock income
Afder	152	130	49%	82%
Argobba	153	146	94%	45%
Awsi [Zone 1]	152	140	73%	87%
Bale	163	159	98%	62%
Borena	152	120	84%	91%
Dira Dawa	151	150	98%	77%
Doolo	151	145	37%	91%
East Harerge	150	146	97%	66%
Eastern	163	145	90%	47%
Fafan	155	148	80%	77%
Fenti [Zone 4]	154	134	51%	88%
Gabi [Zone 3]	151	140	89%	91%
Guji	150	117	99%	67%
Hareri	150	146	99%	76%
Hari [Zone 5]	155	143	50%	88%
Jarar	152	145	53%	90%
Kilbati [Zone 2]	155	127	60%	96%
Korahe	155	147	69%	86%
Liben	153	133	83%	63%
Nogob	152	122	82%	87%
North Gonder	418	411	88%	64%
North Shewa [R3]	234	233	85%	73%
North Wollo	168	167	96%	60%
Oromia	176	167	72%	81%
Shabelle	157	153	87%	68%
Siti	156	144	93%	48%
South East	154	150	94%	52%
South Omo	151	139	89%	62%
South Wollo	156	153	93%	58%
Southern	166	157	96%	56%
Wag Himra	151	145	99%	48%
West Harerge	156	149	99%	70%
Ethiopia	5312	4951		
Isiolo	151	129	72%	78%
Laikipia	150	127	85%	69%
Mandera	150	129	54%	84%
Marsabit	150	121	70%	82%
Samburu	154	134	66%	89%
Turkana	152	123	66%	76%
Wajir	150	123	52%	89%
West Pokot	150	127	82%	84%
Kenya	1207	1013		
Awdal	150	138	66%	49%
Bari	150	125	78%	27%
Galguduud	151	137	88%	30%
Mudug	150	135	87%	34%
Nugal	151	143	75%	38%
Sanaag	150	129	64%	44%
Sool	150	132	82%	30%
Togdheer	150	140	83%	35%
Woqooyi Galbeed	150	143	78%	31%
Somalia	1352	1222		
Grand Total	7871	7186		