Food and Agriculture Organization of the United Nations

Desert Locust Crisis
SOMALIA ACTION PLAN
January-December 2020

Part of FAO's Regional Appeal for Rapid Response and Anticipatory Action in the Greater Horn of Africa

April update

Ministry of Agriculture staff holds adult locust during control operation, Salal Region, Somaliland, March 2020. ©FAO/Isak Amin

WHY ACT NOW

In late 2019, Cyclone Pawan and severe floods in the Horn of Africa created a perfect storm for desert locust breeding. Desert locusts have spread to eight East African countries since December 2019 – Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Tanzania and Uganda. Trillions of locust are feeding and breeding in the region, and each new generation can produce a 20-time increase. Without a coordinated and rapid scale-up in locust control, there could be over a 400-time increase in desert locusts by June. The current upsurge risks becoming a plague before year end.

The human dimension of this locust crisis is equally pressing. The main cropping season begins in April. This will coincide with a new generation of swarms, presenting a massive food security threat in already vulnerable areas. Millions of farmers and herders risk losing their crops, pasture and income. The majority will be subsistence producers, with little or nothing to fall back on. Fortunately, the damage caused so far by the locusts is localized and limited: they invaded crop fields too late in the Deyr 2019 season to cause widespread damage and the recent heavy rains are helping affected pastures to regenerate. With the current scale of locust breeding, this luck will unlikely repeat between now and the end of 2020.

A desert locust upsurge is a dynamic and fast evolving emergency. There are key time windows to control its spread and to reduce its impacts. The early windows are far more effective, cost saving and soon closing. This includes funds needed to scale-up control operations and to protect lives and livelihoods where swarms are likely to invade. These and other crucial priorities are detailed in FAO's regional Desert Locust Appeal for rapid response and anticipatory action in the Greater Horn of Africa.

This Desert Locust Crisis Action Plan for Somalia supports Government efforts, led by the Federal Ministry of Agriculture and Irrigation (MoAI), and is part of FAO's coordinated cross-border effort to address the Desert Locust Crisis in the Greater Horn of Africa. This Plan's targets and funding requirements were revised in April with MoAI to include interventions planned for the second half of 2020, and will be reflected in the next revision of FAO's regional appeal in April/May.

TOP MESSAGES FROM SOMALIA

This Plan supports Government-led response to the desert locust upsurge in Somalia, declared a national emergency on 2 February 2020.

An estimated 19 000 tonnes of 2020 Gu/Karan production may be lost to desert locust, enough to feed over 281 000 people for 6 months (Source: FSNAU).

The most pressing funding needs in Somalia include:

- Desert locust control in and around the breeding areas and of adult swarms where needed,
- Livelihood protection and cash assistance in areas at high risk of invasion.

Locust control is necessary, possible and ongoing in Somalia. Operations must scale up to reduce new generations of swarms (especially in breeding areas) and control adult swarms where needed.

We must anticipate and mitigate the risks to rural livelihoods by equipping farmers and pastoralists to withstand an invasion, including supplies to replant invaded fields, supplementary feed to protect core livestock assets, as well as cash assistance to cope with inevitable losses.

SOMALIA CONTEXT UPDATE

Desert locusts have spread within the Horn of Africa and into East Africa – with Ethiopia, Kenya and Somalia worst affected and facing an unprecedented threat to food security and livelihoods. An increasing number of hopper bands and swarms will form in the Horn of Africa during April.

In Somalia, the desert locust situation remains critical with a second generation of adults laying a new batch of eggs. In neighbouring Ethiopia and Kenya, a new generation of immature adults have begun to form swarms that may reach Somalia during the main Gu cropping season, beginning in April. Crops that are already in the ground and pasture are at immediate risk. The impact of the swarms must be monitored closely, alongside efforts to manage the hopper bands that will form the third generation of desert locust in Somalia. Field surveys in Somaliland, Puntland and Galmudug in the last two weeks of March witnessed locust breeding and egg laying. Egg hatching is expected to occur in the first two weeks of April, calling for intensive surveys to track the developing nymphs that should be controlled by end of the month. Rains have begun in all breeding areas and this will ensure the availability of suitable vegetation to sustain the development of this third generation of desert locust in Somalia.

Despite localized and limited impacts to date, new desert locust swarms pose a significant risk of food insecurity throughout 2020 in north and south-central areas on the border with Ethiopia and Kenya. This coincides with a high risk of riverine floods during the Gu season. In the aftermath of recurrent climate shocks since 2016, poor households in locust-affected areas have a reduced ability to cope with the loss of agricultural labour income, loss of own-produced crops and costs of atypical livestock migration. Through September, the population in IPC 3 and 4 is expected to rise 40% percent to 1.61 million people, with a further 2.9 million in IPC 2. The deterioration is mainly in areas at risk of desert locust as described below.

FAO is monitoring the situation closely through its Desert Locust Information Service, Somalia Food Security and Nutrition Analysis Unit (FSNAU) and Somalia Water and Land Information Management (SWALIM) teams, in collaboration with Somalia Federal and State Ministries of Agriculture and Irrigation Development and Desert Locust Units in northern Somalia. Surveillance efforts are covering more ground, thanks also to NGO partners feeding data into FAO's Desert Locust early warning system.

Maturing hopper bands targeted by ground control operations on the outskirts of Garowe, Puntland, February 2020. ©FAO/Imail Taxta.

MOST LIKELY SCENARIO (Feb-Sep 2020)

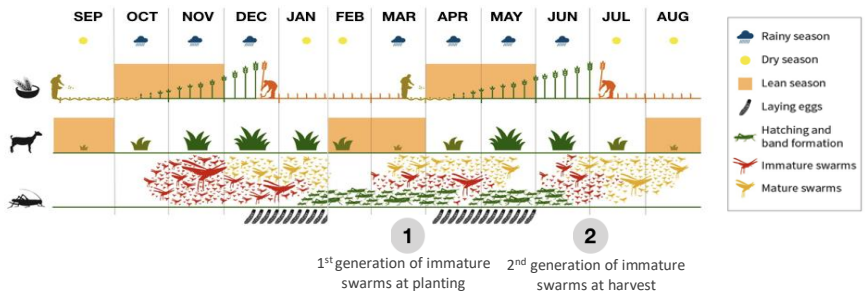
FSNAU-FEWS NET Somalia Food Security Outlook of 9 March 2020 presented a most likely scenario of desert locust damages in Somalia during the 2020 Gu season, also taking into account elevated flood risks in riverine areas. Desert locust impact was analysed separately for pastoral, agropastoral/riverine and rural IDP households.

Areas most at risk. Desert locust damage will be mostly confined to a buffer zone along the Somalia-Ethiopia and Somalia-Kenya borders as shown in the map. This includes 44 districts within 14 regions of northern, central and southern Somalia. These areas are considered most at risk as: (i) they have already experienced or are likely to experience desert locust infestation and upsurge; (ii) breeding sites have been confirmed or are suspected; and (iii) they are adjacent to an area where there have been significant desert locust infestation and no adequate control.

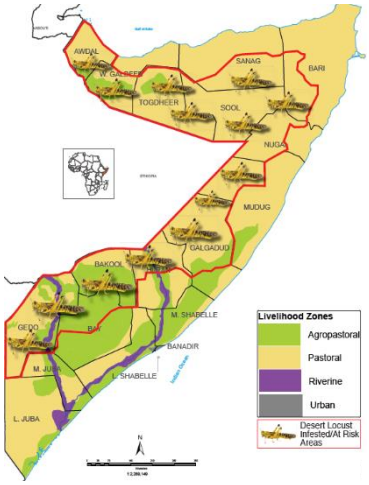
People most at risk. Rural areas and populations will be most affected by the infestation, including riverine farmers, agropastoralists, pastoralists and rural IDPs (displaced due to various factors and living among host communities in rural areas). Populations in urban areas are not likely to be directly impacted by the damages caused by desert locust including displaced populations living in urban settlements.

Most likely scenario. Desert locusts are expected to spread into agropastoral and riverine areas at a high risk of infestation during the vegetative growth stage of the main Gu season in April and May. Losses will likely be locally significant but limited on a national scale as most of Somalia's high production areas lie outside of the potential spread area. However, due to above-average Gu rains, estimated crop losses from desert locust (19 000 tonnes) will likely coincide with flood-induced crop losses in riverine areas (11 000 tonnes). Based on these factors, the national main and off-season Gu harvest from July to September is likely to be 15-25% below average. Further, due to a highly localized forecast of below-average Gu rainfall in Northwestern Agropastoral, below-average Gu/Karan production is most likely. In pastoral areas, Gu rainfall is expected to mitigate pasture losses by locusts in high risk areas through June, but faster-than-normal pasture deterioration is likely in the July to September Xagaa dry season. Livestock migration is likely to begin early and will intensify through September.

Agricultural calendar versus desert locust life cycle 2020



Areas infested/likely to be Infested by desert locust



Up to 30%

of farmers, pastoralists and rural IDPs unable to cope due to locust, Gu floods and past shocks

141% increase

in the IPC3-4 population in locust affected areas due to multiple factors, from February-September 2020

19 000 MT

estimated Gu/Karan production loss to locusts, enough to feed 281 481 people for 6 months

Desert Locust and Flood Damages in Somalia during Gu 2020 (Source: FSNAU)

Rural Livelihoods	Most Likely Scenario (localized to moderate damage)
Pastoral livelihoods	- Localized to moderate depletion of pasture in the affected pastoral areas (10-30%) - Abnormal livestock migration in the most affected areas - 5-30% of pastoral households unable to cope on their own
Agropastoral and riverine livelihoods	- Localized to moderate Gu season crop loss in affected areas - 20-50% Gu season cereal harvest loss due to desert locust - 5-30% Gu season cereal harvest loss due to flooding in riverine areas - 10-30% of agropastoral households unable to cope on their own
Rural IDPs	- 10-30% of rural IDP households unable to cope on their own
Populations in urban areas	- Little or no impact as food prices are expected to remain stable due to above average 2019 Deyr harvest and likely near average 2020 Gu harvest

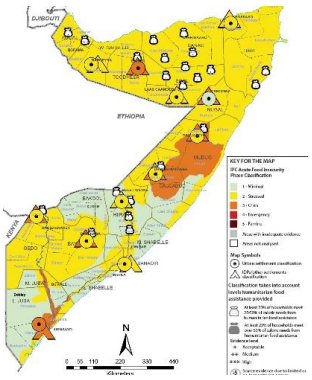
Estimated likely impact on Gu 2020 production in affected districts (Source: FSNAU)

Description	Metric tonnes
1995-2019 Gu/Karan season average production	152 000
2020 Gu/Karan season likely production loss due to desert locust (10-15%)	19 000
2020 Gu/Karan season likely production loss due to flooding (5-10%)	11 000
2020 Gu/Karan season likely production loss due to desert locust and flooding (15-25%)	30 000
Estimated 2020 2020 Gu/Karan season production after loss (15-25%)	122 000

Most likely food security outcomes, February to September 2020 (Source: FSNAU – FEWS NET)

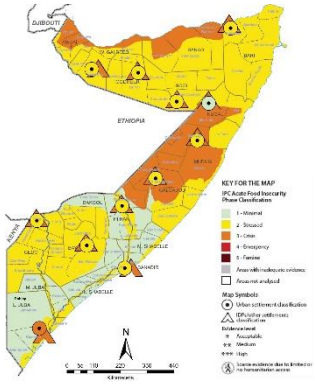
Timeframe	Stressed (IPC2)	Crisis (IPC 3)	Emergency (IPC 4)	Crisis & Emergency (IPC 3-4)	Stressed, Crisis & Emergency (IPC 2-4)
Current (Feb)	2 855 000	961 000	190 000	1 151 000	**4 006 000**
Projection (Feb-May)	2 889 000	1 256 000	250 000	1 506 000	**4 395 000**
Projection (Jun-Sep)	2 910 000	1 353 000	257 000	1 610 000	**4 520 000**

Current (Feb 2020)



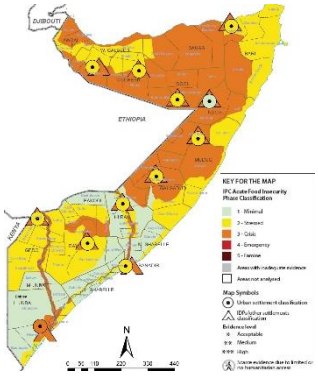
IPC 3-4: 1.15 million people

Projection (Feb-May 2020)



IPC 3-4: 1.51 million people

Projection (Jun-Sep 2020)



IPC 3-4: 1.61 million people

Through September, the population in IPC 3 and 4 is expected to rise 40% to 1.61 million people in both desert locust affected and non-affected areas. In percentage terms, the deterioration is greater in the geographic areas affected by desert locust (141%, from around 201 000 to 484 000 people) compared to areas not affected by locusts (19%, from around 950 000 to 1 127 000 people).

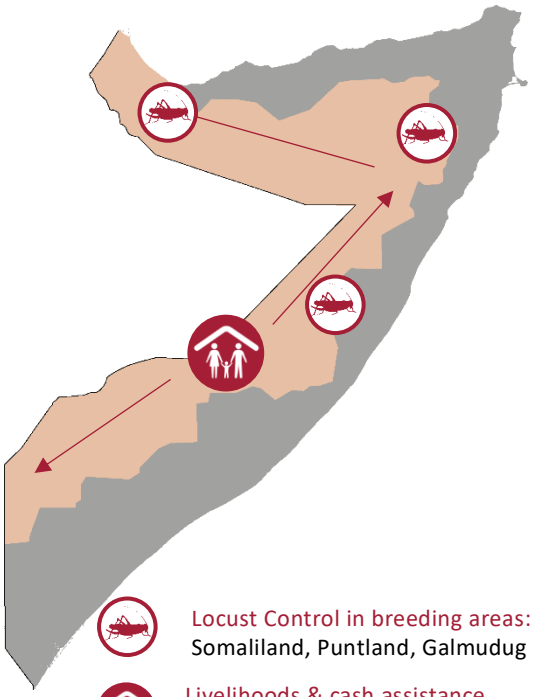
FAO PRIORITIES AND TARGETS

The desert locust crisis is currently a rural crisis, threatening the livelihood, food and income sources of farmers and herders. If not controlled, its impacts could spread into urban and peri-urban areas, by affecting local food availability and food prices and triggering displacement out of rural areas. We must act now to reduce and contain its impacts.

Response to the desert locusts in Somalia has two goals and a total funding requirement of USD 56.9 million through December 2020:

Control desert locusts, through scaled up surveillance, monitoring and control, and enhanced local capacity to carry out these operations safely and effectively.

Protect lives and livelihoods, by pre-positioning and delivering supplies to food-insecure households at risk of locust invasion, including planting and replanting packages, supplementary feed and integrated cash assistance and livelihood support where needed.



Locust Control in breeding areas: Somaliland, Puntland, Galmudug

Livelihoods & cash assistance (regions across the buffer zone)

FAO's Plan and livelihood targets considers the most likely scenario of localized to moderate damage presented above. If a worst-case scenario materializes, targets will be increased and additional funds sought. The Plan avoids duplication with the HRP and explicitly aims to reduce anticipated deteriorations to food security and livelihoods caused by the desert locust, as further explained in the sections below.

Elders discuss how recent locust infestations have affected their lives as pastoralists, Salal Region, Somaliland, March 2020. ©FAO/Isak Amin

GOAL 1: CONTROL DESERT LOCUSTS

22.6 million

Desert locust monitoring and control is extremely challenging, especially with an upsurge of this scale. Throughout the region, government capacity is overstretched and we know well that early control is by far the most effective.

This strategy for desert locust control in Somalia prioritizes both: (i) locust control measures, and (ii) the government capacities that must develop in parallel to safely and effectively carry out these operations in 2020 and beyond.

Desert locust control is necessary, ongoing and must scale up rapidly in Somalia, in support of Government-led efforts. The current strategy in Somalia has three components, with government capacity development cross-cutting:

- Continuous surveillance of desert locusts to provide early warning, inform effective control operations, and mobilize assistance to affected and at-risk communities.
- Control operations in and around the breeding areas, where control efforts can stop the next generation at their source, and the control of adult swarms where needed.
- Impact assessments on the effectiveness and safety of these efforts, and specific measures to reduce human and environmental risks.

Vehicle mounted spray operation in Geeresa, Somaliland, March 2020. ©FAO/Isak Amin

Continuous surveillance

3.4 million **Urgent**

Countrywide

250 community focal points trained to report locust sightings to Government (by phone)

Government surveillance of 30 000 ha in breeding areas (eLocust3)

Partner surveillance in swarm invasion areas (Open Data Kit)

Scaled up training to 50 government staff, including 7 DLIOs

Procurement and use of surveillance vehicles and equipment (eLocust3, hand-held GPS, radios, entomological kits, binoculars, camping supplies)

Regular and accurate surveillance is necessary to plan and coordinate effective desert locust control operations. Ministries, Desert Locust Information Officers (DLIOs), local partners and community members all play a fundamental role in early warning. It is a key chain of events: rural populations and partners site the locusts; ministry staff travel to these remote and difficult to reach areas to verify and monitor; verified sightings are reported to FAO's global Desert Locust Information Service using the eLocust3 suite of digital tools and Open Data Kit. Control operations depend on this information to be planned and executed.

Somalia's Desert Locust Units operating out of Hargeisa, Garowe and Guriel are not sufficiently staffed or equipped to survey and monitor an upsurge of this scale. They lack the resources to conduct field surveys, certified DLIOs to locally analyse incoming information, and enough well-trained scouts and other partners to carry out fieldwork with local communities. These vital teams need technical training, mobility and equipment to scale up rapidly. The information gathered and analysed through these efforts are central to ongoing regional efforts in combatting desert locust.

Ground and air control

17.8 million **Urgent**

Countrywide

Community sensitization

Treatment of 360 000 ha with trained government staff, and 180 000 ha with local partners and communities

12 300 kg bio-pesticide and 90 000 litres pesticide, related spray and safety equipment

Use of knapsack & handheld sprayers, vehicle-mounted sprayers, aircraft

Air operations based out of Hargeisa, Galkayo/ Dhusamahreb

Logistic bases in Mogadishu, Hargeisa, Galkayo/ Dhusamahreb

Intensive training on safe administration of chemical pesticide

Desert locust control operations will focus on reducing locust numbers in and around the breeding areas of north-central Somalia, while controlling adult swarms where needed. Sensitization campaigns will alert communities on why, when and where the control operations will take place, and how to protect the health of their families and livestock.

Treatment is fundamental in the breeding areas, where new locust generations are bred, born and can increase 20-fold with each new generation. The exceptionally wet conditions in late 2019 will allow locusts to breed twice this year by mid-2020, allowing for a potential 400-time increase by June. Adult swarms from within Somalia pose a severe threat to pasture and crops during Gu and Deyr 2020. From May to August, additional swarms are expected to arrive from Kenya on the prevailing southerly winds.

Control operations can have a high impact in the breeding areas where locusts congregate and are easier targets for ground control operations, which reduces the number of eggs laid before the old generation dies. This reduces the rate of increase of the next generation. After a new generation hatches, hoppers remain on the ground for 6 weeks before they take flight, and become more difficult to control. Therefore, hopper band control is an effective way to reduce the spread of locust beyond the breeding grounds.

Impact assessments, and Environment, Health and Safety

1.4 million **Urgent**

Assessments covering:

- Impact of the infestation
- Efficacy of control
- Impact on environment
- Impact on human health

Management and safe disposal of empty pesticides drums, related facilities and training.

Training and facilities to test for adverse health effects (allergies, mild poisoning, and Cholinesterase testing where chemical pesticide is applied)

Environmental impact assessment kits, and related training

Large-scale control operations of desert locusts can lead to unintended and undesirable consequences. Desert locust is generally found in delicate ecosystems, where they co-exist with people, livestock, vegetation and beneficial insects (e.g. pollinators). Although control operations are targeted at desert locusts and select the most compatible and safe products, there is always a risk of adverse effects to the environment, local communities and the control teams.

The response will support Government to responsibly handle and administer pesticide, reduce the associated risks and assess the positive and negative impacts of control interventions. This includes training and setting up basic facilities to monitor and address any issue that may arise from the control campaign, in line with FAO's Desert Locust Guidelines on Safety and Environmental Precautions. FAO will also support government to follow appropriate product and container disposal guidelines and provide environmental impact assessment kits.

Federal Minister of Agriculture Said Hussein Iid and FAO Director of Emergencies and Resilience Dominique Burgeon together in Puntland, where they lay foundation stones for a Desert Locust Control Centre, Feb 2020. ©FAO/Isak Amin

GOAL 2: PROTECT LIVES & LIVELIHOODS

34.3 million

Desert locusts pose a very high risk to rural food security and livelihoods in early 2020. We can act now to anticipate and reduce their likely impacts, or respond to their more costly consequences.

The Plan's approach to mitigate desert locust impacts is three-fold: i) preposition assistance, ii) monitor locust impacts, and iii) address real-time needs to protect food security and livelihoods. The Plan targets food-insecure households in areas affected by desert locust, under two components:

- Risk-reduction and re-engagement farming packages will support at-risk farmers to plant crops for the Gu and Deyr cropping seasons with greater assurances to secure a harvest and meet immediate food needs, including tailored planting and replanting packages, and cash assistance.
- Supplementary animal feed and pastoralist packages will help at-risk pastoralists protect their core livestock assets and deliver cash assistance where needed.

The Plan protects vulnerable people against a crisis not anticipated in the HRP, and delivers tailored assistance. Its targeting is based on the Most Likely Food Security Outcomes February to September 2020 in areas affected by and at risk of desert locust Infestation (FSNAU-FEWSNET Somalia Food Security Outlook, 9 March 2020).

Empowering farmers with the inputs and tools to secure a harvest and well-being. Baidoa, Dec. 2019. ©FAO/Ismail Taxta

Risk-reduction and re-engagement farming packages

26 million

Feb 2020 (Gu season)
Jul 2020 (Deyr season)

Gu and Gu/Karan 2020

At least 24 000 households at risk of locust invasion and already in IPC2-4 (northwest and south-central)

Two packages to support production and mitigate losses:

1) Gu planting package: seeds, tools, services and training ahead of Gu
2) Gu replanting seed package: released within 2-7 days of locust damage

Production of maize/sorghum, cowpea and vegetables

Combined with cash where needed and possible (3-6 monthly transfers)

Deyr 2020

14 350 households impacted by desert locusts in IPC 2-4 (south-central)

Deyr farming inputs and integrated cash assistance for 3 months (Cash+)

Forecasts cannot tell farmers exactly when and where locusts will invade fields during a cropping season. It is a risk, a gamble, which farmers in IPC 2-4 especially cannot afford. FAO will support and protect farmers' production and food security during both the Gu and Deyr 2020 cropping seasons with a combination of livelihood and cash assistance.

Gu and Gu/Karan 2020. During Somalia's main cropping season, FAO will provide households with the means to plant and greater assurances to meet their food needs. This includes: (i) planting packages, (ii) replanting packages where invaded fields can be re-sown in time, and (iii) cash assistance where damage is severe and replanting no longer possible. This phased assistance aims to reach 24 000 households during Gu, starting in April. During the season, replanting and/or cash assistance will be directed to households severely affected by locusts, within or outside of the initial target areas. FAO will closely monitor early development of beneficiaries' crops through dedicated field monitoring, real-time implementing partner updates with geo-tagged photos of damage, Hotline and Call Centre inquiries. Farmers who lose their crop too late for replanting will be prioritized for cash assistance under this Plan (21 600 households) or FAO's wider emergency cash programme. This includes farmers in northwest Somalia, for whom Gu/Karan is the only cropping season and the subsequent harvest will be November 2021.

Deyr 2020. During the Deyr short rains in southern and central Somalia (Oct-Dec 2020), FAO plans to assist an estimated 14 350 food insecure households that experienced severe Gu 2020 production losses. Through FAO's integrated cash and livelihood programming (Cash+), farmers will receive tailored input packages to re-engage in Deyr production alongside cash assistance to meet their food needs during the lean season, while their crops are growing. Deyr beneficiary targets are currently informed by the FSNAU-FEWSNET IPC projections for June-September 2020.

Pastoral livelihood assistance

8.3 million

Feb 2020 (feed)
May 2020 (Cash+)

Supplementary feed

Protecting 600 000 livestock belonging to 180 000 people (30 000 households) in northern and central Somalia

3 600 MT of rangeland cubes, containing protein, vitamins and minerals

120 kg per household (6 bags) to feed core livestock for 60 days, training and sensitization

Integrated livelihood and cash assistance (Cash+)

6 150 households severely impacted by desert locusts in northern and central Somalia

Deworming, mineral blocks, mazzican containers and integrated cash assistance for 6 months (Cash+)

Desert locust damage to pasture will especially impact poor pastoralists, who cannot afford to move their animals to unaffected pastures or purchase alternative feed sources. In northern and central Somalia, the atypically fast depletion of rangeland resources due to desert locusts during the Xagaa dry season (July-September) is expected to increasingly constrain poor households' food and income sources, and amplify existing food consumption gaps. In a most likely scenario, up to 30% of pastoral households will be unable to cope on their own (FSNAU).

Supplementary feed. FAO will position rangeland cubes in northern and central Somalia where locusts result in pasture loss and depletion. This will protect the core livestock and food sources of up to 30 000 poor pastoral households, and reduce the need to migrate in search of pasture. The feed contains key nutrients such as protein (15%), multivitamins, minerals and carbohydrates to supplement grazing and boost livestock production, especially milk yield. FAO will closely monitor pasture depletion to adjust targeting as the situation evolves.

Integrated livelihood and cash assistance (Cash+). FAO will provide integrated cash and livelihood assistance (Cash+) to 6 150 pastoral households whose livelihoods have been severely impacted by desert locust, including loss of livestock assets, production, and related food and income sources. The assistance package includes livelihood inputs and services to improve livestock health and production (deworming, mineral blocks and milk storage containers), and monthly cash transfers for 6 months, to address household food security while restoring livelihoods.

Sahra receives her first FAO mobile money payment, Somaliland, Sep 2019. ©FAO/Ali Jibril

FUNDS REQUIRED AND RECEIVED (AS OF APRIL)

ACTIVITY	REQUIRED	COMMITED	GAP
	(USD million)		
GOAL 1. CONTROL DESERT LOCUST			
1.1 Continuous surveillance	3.4	1.3	2.1
1.2 Air and ground control	17.8	11.6	6.2
1.3 Impact assessment, EHS	1.4	0.4	1.0
Subtotal	**22.6**	**13.3**	**9.3**
GOAL 2. PROTECT LIVES AND LIVELIHOODS			
2.1 Risk reduction and re-engagement farming packages	26.0	7.4	18.6
2.2 Pastoral livelihood assistance	8.3	3.6	4.7
Subtotal	**34.3**	**11.0**	**23.3**
TOTAL	**56.9**	**24.3**	**32.6**

* This Action Plan's funding requirements were revised in April to include interventions planned for the second half of 2020 and will be reflected in the next revision of FAO's regional Desert Locust Appeal for rapid response and anticipatory action in the Greater Horn of Africa.

RESOURCE PARTNERS

United Nations CERF Central Emergency Response Fund
Ministry of Foreign Affairs of the People's Republic of China
Humanitarian Aid and Civil Protection
AFD Agence Française de Développement
EuropeAid
Food and Agriculture Organization of the United Nations
Bill & Melinda Gates foundation
german cooperation Deutsche Zusammenarbeit
mastercard
SFERA
Sida
Schweizerische Eidgenossenschaft Confédération suisse Confederazione Svizzera Confederaziun svizra
Swiss Agency for Development and Cooperation SDC
UKaid from the British people
USAID From the American People

Saving livelihoods saves lives

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