



Food and Agriculture
Organization of the
United Nations

DESERT LOCUST UPSURGE

Progress report on the response
in the Greater Horn of Africa
and Yemen

January–April 2021



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REQUIRED CITATION

FAO. 2021. *Desert locust upsurge – Progress report on the response in the Greater Horn of Africa and Yemen (January–April 2021)*. Rome.

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Contents

Foreword	1
At a glance	2
Curb the spread of desert locust	4
Continuous surveillance	4
Ground and aerial control operations	6
Outcomes under Component 1 of the programme	8
Safeguard livelihoods	9
Outcomes under Component 2 of the programme	9
Coordination and preparedness	11
Towards a regional conference on desert locust	11
What to expect in the next four months	13



Foreword

On 17 January 2020, in light of the demonstrated scale, complexity, urgency, capacities to respond and reputational risk, I took the decision to activate the Food and Agriculture Organization of the United Nations (FAO) thematic scale-up support for desert locust, in line with the Director-General's bulletin 2013/32 on FAO's Declaration and Response Protocol for Level 3 Emergencies. The activated scale-up has now been extended until 30 June 2021 in order to maintain the significant increase in operational capacity and fast-track procedures throughout the crisis.

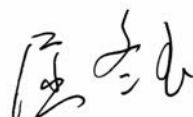
After months of combatting the most destructive migratory pest in the Greater Horn of Africa and Yemen, I am pleased to announce that we are receiving growing evidence that the upsurge is recessing. Concretely, this means that there are now fewer swarms and the sizes of the remaining swarms are much smaller compared with this time last year. This is the result of a concurrence of two main factors, namely (i) a massive joint surveillance and control operation co-led by governments and FAO, with the support of the Desert Locust Control Organization for Eastern Africa (DLCO-EA) and non-governmental organizations; and (ii) less favourable climate conditions for desert locust since late 2020.

This is encouraging news in a region that has been severely hit by multiple shocks in 2020, particularly the COVID-19 pandemic, climate extremes (floods in South Sudan and the Sudan, in particular) and desert locust.

But it is not yet time to declare the upsurge over. Desert locust are opportunistic insects. They can slow down their metabolism when conditions are unfavourable and breed fast when the right conditions are met. They can migrate quickly and far. As recent good rainfall has caused ecological conditions to become favourable once again for breeding, we must by all means maintain operational surveillance and control capacity in a flexible manner and in full transparency with all our partners.

As indicated in the recently released *Global Report on Food Crises*, 155 million people in 2020 were in Crisis or worse levels of acute food insecurity (Integrated Food Security Phase Classification [IPC] Phase 3 or above). The Greater Horn of Africa and Yemen account for close to 30 percent (46.2 million people) of the total. Furthermore, 155 000 people will likely face Catastrophe (IPC Phase 5) levels of acute food insecurity in two of these countries through mid-2021, with 108 000 in South Sudan and 47 000 in Yemen.

I am calling upon all humanitarian and development partners to respond to the *Global Humanitarian Overview 2021* with the same generosity that they demonstrated in responding to the FAO *Desert locust crisis appeal*. Only our combined efforts can reduce the suffering of vulnerable people.



Dr QU Dongyu

Director-General

Food and Agriculture Organization of the United Nations



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At a glance



Nearly **2 037 000 ha** of land controlled in the Greater Horn of Africa and Yemen since January 2020



Livelihoods of **36.9 million** people saved and food security protected



Outcome value of surveillance and control intervention estimated at **USD 1.57 billion** (crop and milk production saved)



305 517 households received livelihoods support through FAO since January 2020 (102% of target)

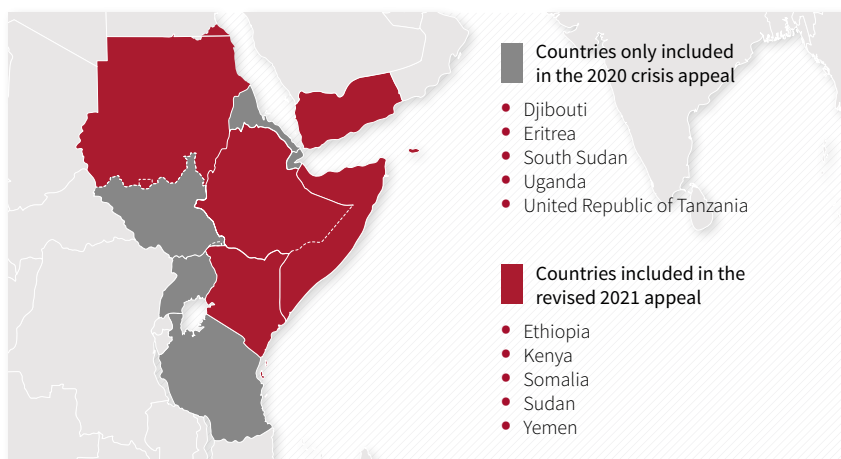


USD 218.95 million mobilized by FAO for rapid response and anticipatory action since January 2020

The fight against desert locust in the Greater Horn of Africa and Yemen has been raging for sixteen months – since January 2020. Governments, FAO and partners are responding to the worst upsurge in seventy years. An extraordinarily effective system has been put in place, from forecasting to responding, and from short-term coordinating to preparing for the medium and longer term.

Thanks to generous contributions from 29 partners, in addition to FAO's own resources, close to USD 219 million have been mobilized towards FAO's desert locust crisis appeal for the Greater Horn of Africa and Yemen. This is 95 percent of the total funding requirement, as per the revised appeal launched on 16 December 2020, covering the period January 2020 to June 2021.

Figure 1. Countries included in the revised 2021 crisis appeal for the Greater Horn of Africa and Yemen



Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. Final status of the Abyei area is not yet determined. Source: United Nations Geospatial. 2020. *World map* [online]. Washington, D.C., UN. [Cited 12 May 2021]. www.un.org/geospatial/content/map-world

Component 1: By the end of April 2021, nearly 2 037 000 ha had been treated in countries included in this report. This is slightly higher, but very much in line with, the target set at the time of the launch of the revised appeal (16 December 2020), confirming the accuracy of FAO's forecast.

A total of nearly 37 million people in rural areas have benefited from the surveillance and control operations, which have protected crop production and averted the loss of milk production. Based on regional prices for cereals and milk, FAO calculates that the commercial value of saved production exceeds USD 1.57 billion.

Furthermore, and based on resources available and dedicated to surveillance, control and coordination, FAO estimates that each USD 1 invested in Components 1 and 3 of the appeal contributed to saving USD 9.2 in production value. This does not reflect the cost of food assistance required if people were to lose their entire production, and if desert locust had multiplied exponentially in the absence of control.

Component 2: Nonetheless, these important interventions could not prevent up to 2.5 million people from being affected in 2020 and at least another 1 million in early 2021. To mitigate the devastating impact on livelihoods, FAO provided a combination of in-kind and/or cash support to 305 517 farming, agropastoral and pastoral households, while an additional 346 810 households were assisted by non-governmental organizations under the Regional Desert Locust Alliance (RDLA). Together these activities impacted at least 3.2 million people.

Component 3: Significant progress was made on reviewing current countries' and regional capacities and preparedness levels. The Intergovernmental Authority on Development (IGAD), the World Bank, the French Development Agency (AFD) and FAO led a consultation and dialogue process with IGAD Member States and regional institutions, i.e. DLCO-EA and the FAO Commission for Controlling the Desert Locust in the Central Region (CRC), that will lead to a regional conference on 25 May 2021. The European Commission Directorate-General for International Partnerships (DG INTPA), under the umbrella of the Global Network Against Food Crises, the United Kingdom Foreign, Commonwealth and Development Office (FCDO) and the United States Agency for International Development's Bureau for Humanitarian Assistance (BHA) contributed actively to the review and assessment exercises and the formulation of recommendations.

Curb the spread of desert locust

Under this component, FAO has appealed for a total of USD 151 158 160 (January 2020 to June 2021), of which USD 140 890 048 (93.2 percent) have been mobilized to-date, leaving a gap of USD 10 268 112.

Continuous surveillance

The surveillance strategy put into place in the region has proven extremely effective over the first four months of 2021. With the ground, air and human resources available, governments and FAO - with additional support from RDLA and communities - were able to cover all affected territories where access was possible. As such, collective efforts have been successful in further reducing damages caused by desert locust, as sightings were timely and more complete, allowing for the rapid deployment of control teams.

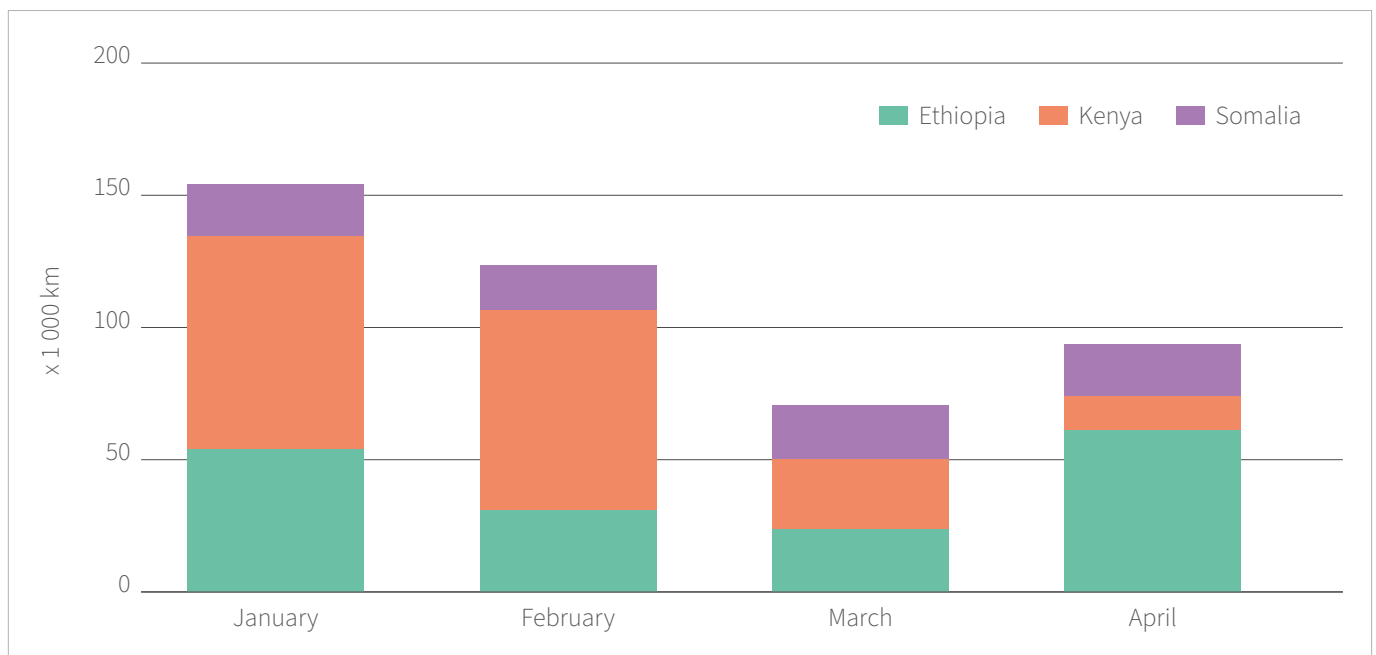
As new aerial companies were contracted and national personnel involved in surveillance, FAO continued to build capacity on effective survey and control methods using a series of three pocketbooks of standard operating procedures.

fao.org/ag/locusts/en/publicat/gl/sops/index.html

Ground and aerial teams systematically surveyed the areas where desert locust were sighted, including settlements, water bodies, and near livestock or wildlife. If safe spraying conditions were not met, control missions were delayed or aborted until swarms would migrate to safer areas for spraying.

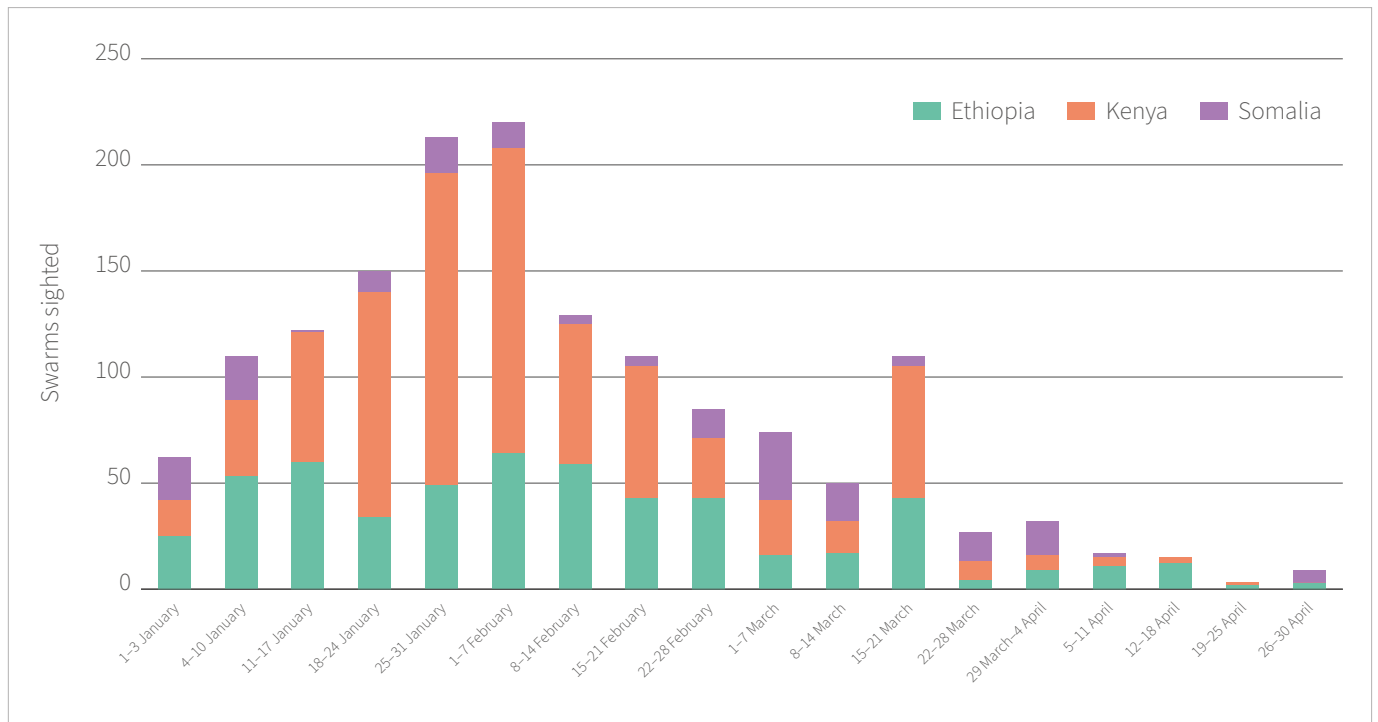
Desert locust populations are declining in eastern Africa and Yemen but vigilance must remain high as rains and the next generation of breeding have started.

Figure 2. Aerial survey (in km) in the three worst-affected countries (January to April 2021)



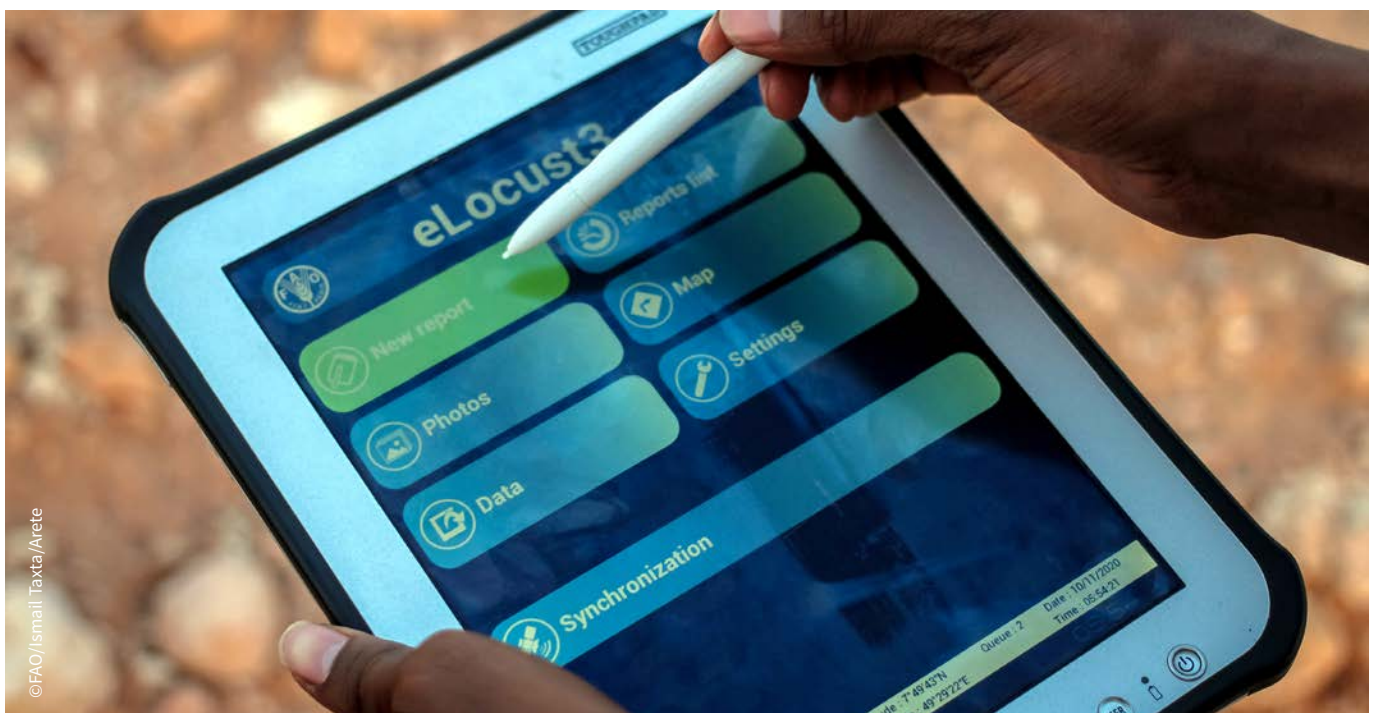
Source: FAO, May 2021.

Figure 3. Number of swarm and hopper band reports in the three worst-affected countries (January to April 2021)



Source: FAO, May 2021.

Although the rainy season has so far been below average, good rains from mid-April onwards triggered the development of fresh green vegetation in eastern Ethiopia, central Somalia and parts of northern Somalia. This was confirmed by the latest satellite-derived greenness maps provided by the European Commission's Joint Research Centre. These areas are likely to be potential locations for egg-laying by swarms, hatching and hopper band formation during May.



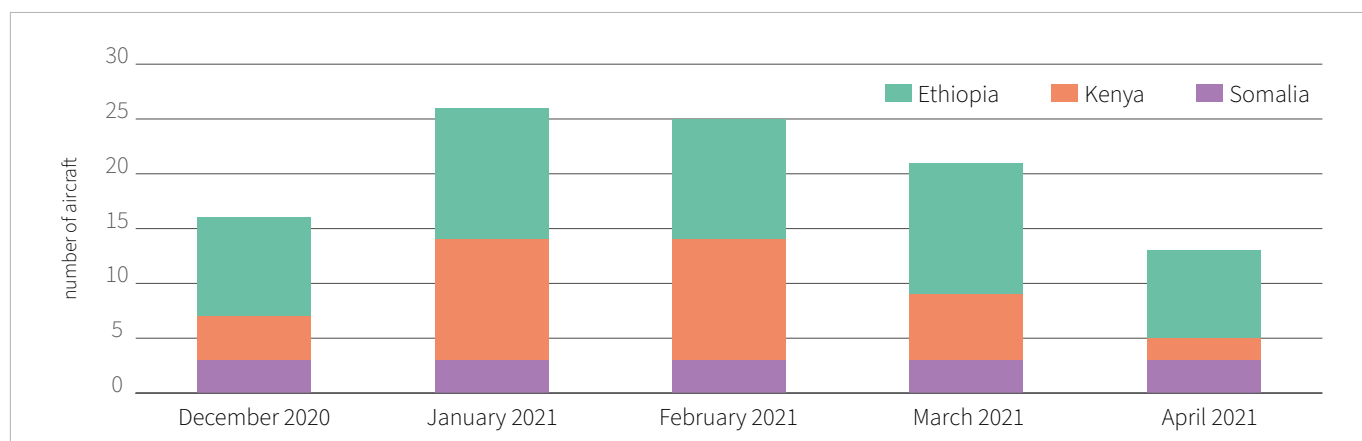
©FAO/Ismaïl Taxta/Arête

Ground and aerial control operations

Control operations continued during the period covered by this report. Timely contributions from resource partners prevented desert locust aerial assets from being grounded at the most critical time of the crisis (January and February 2021). Furthermore, the efficient surveillance and control systems put in place prevented desert locust from reaching Uganda and South Sudan. Nonetheless, some swarms migrated to northern United Republic of Tanzania where they were successfully controlled through a combined effort between the Government of the United Republic of Tanzania, FAO, DLCO-EA and the International Red Locust Control Organization for Central and Southern Africa.

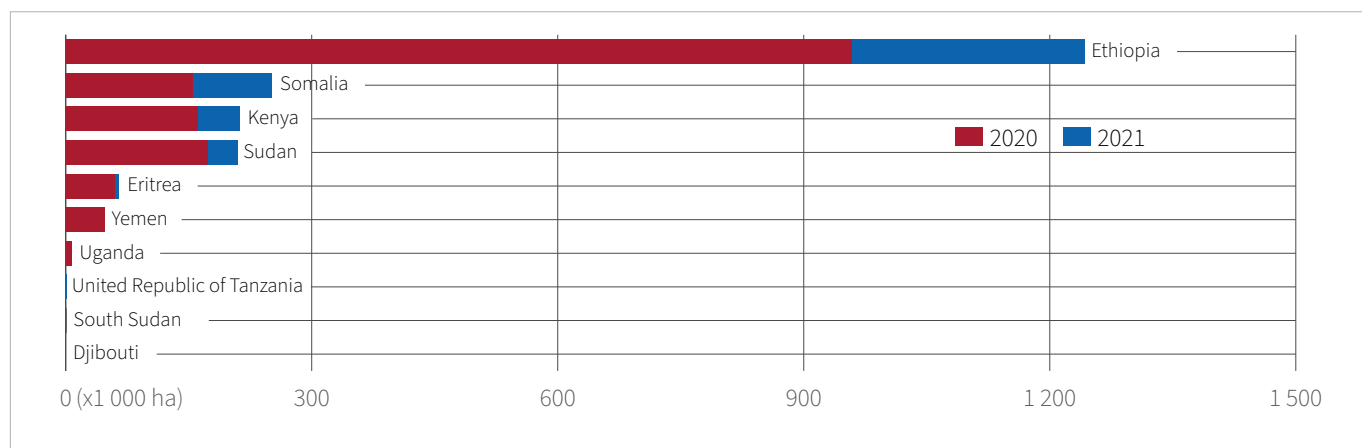
Using the new EarthRanger geospatial tracking system, aerial assets have been managed on a flexible scale-up and scale-down approach based on desert locust presence and forecasts. As of the end of April, 13 fixed-wing aircraft and helicopters were still contracted by FAO and governments, from the maximum of 26 in January. From May onwards, FAO is introducing a “pay-per-use” approach that provides further flexibility between the private sector and FAO in the management of the assets, especially in Kenya where there are currently no swarms but capacity to spray must remain intact in case of invasion.

Figure 4. Aerial assets (government and FAO) in the three worst-affected countries (December 2020 to April 2021)



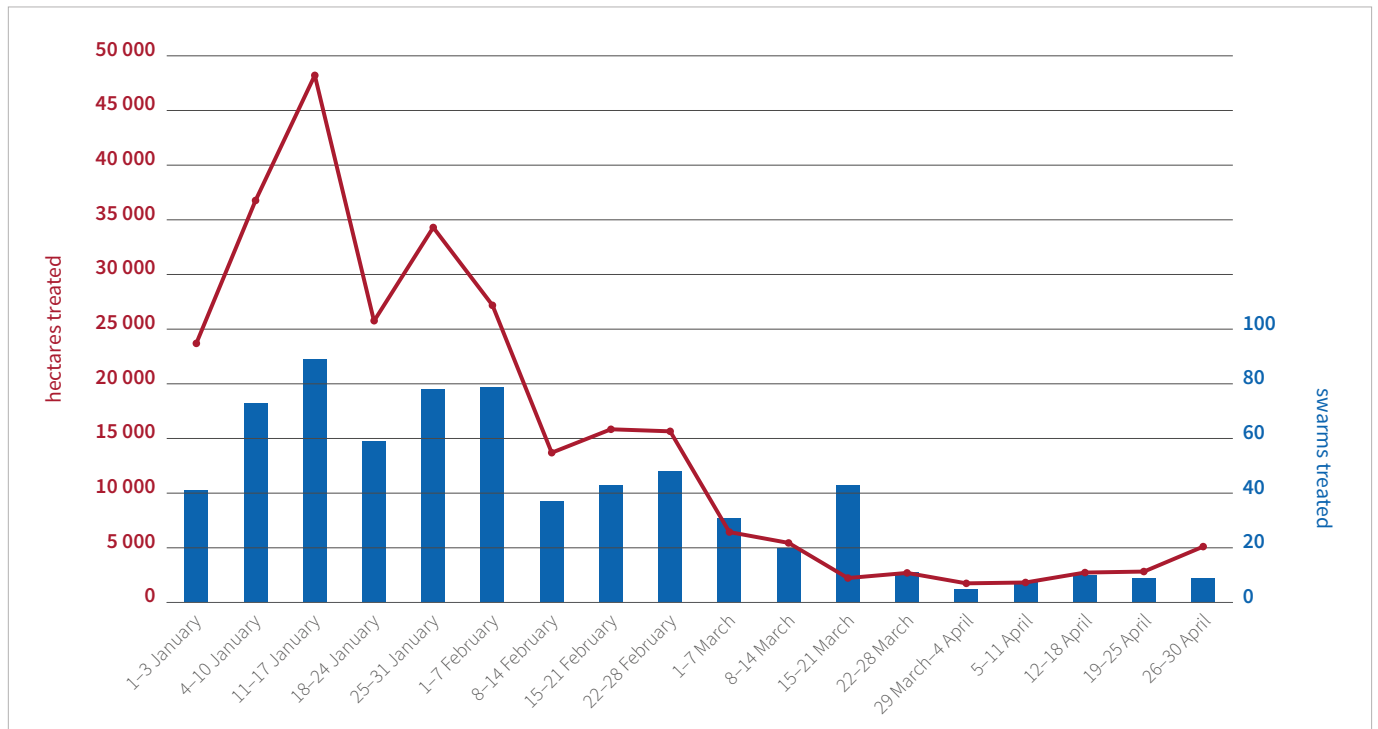
Source: FAO, May 2021.

Figure 5. Area treated by country since January 2020



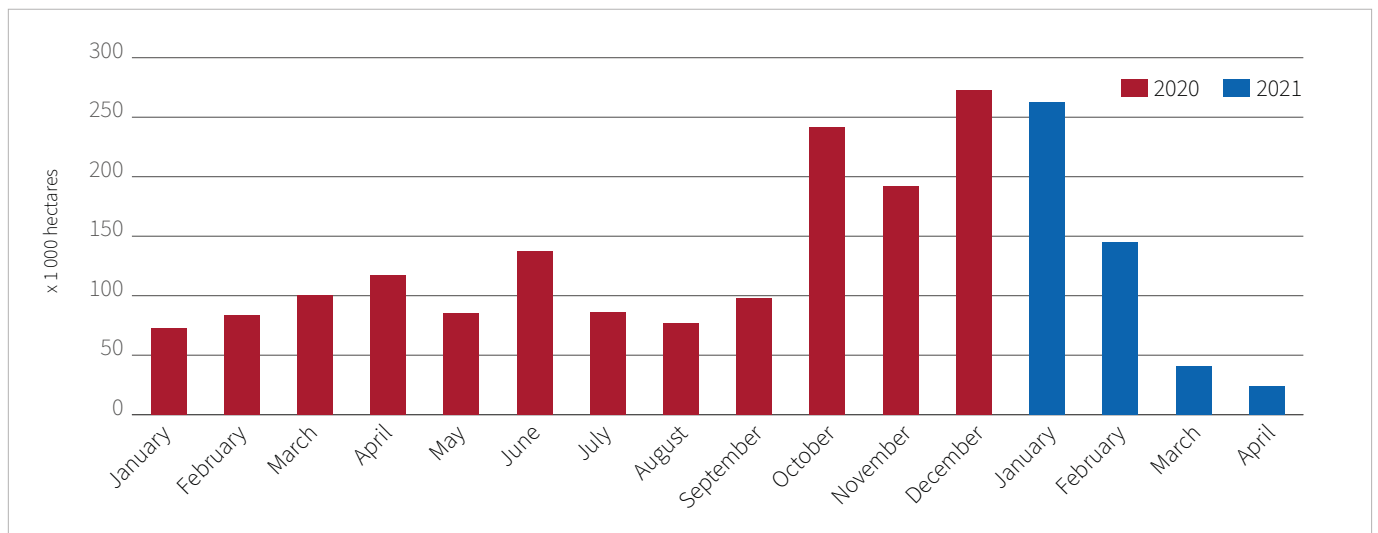
Source: FAO, May 2021.

Figure 6. Number of hectares and swarms treated by air in the three worst-affected countries (January to April 2021)



Source: FAO, May 2021.

Figure 7. Area treated in the Greater Horn of Africa and Yemen since January 2020

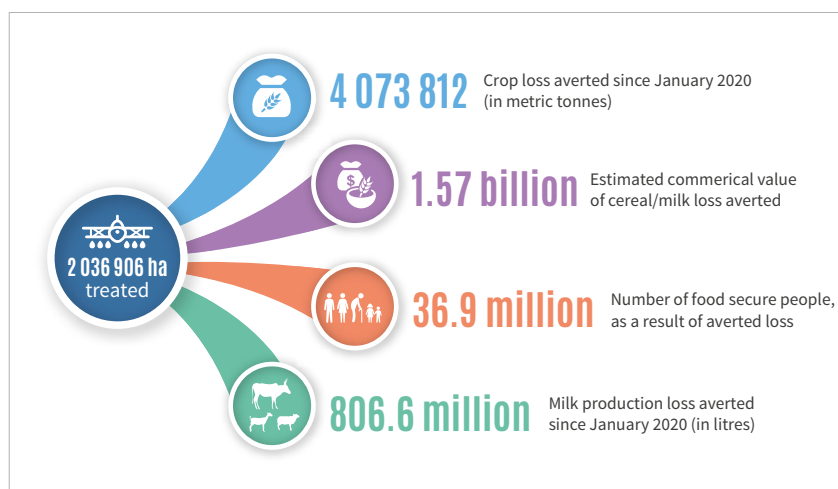


Source: FAO, May 2021.

Between January 2020 and April 2021, a total of 2 036 906 ha were treated in the Greater Horn of Africa and Yemen. In January 2021 alone, 262 923 ha were treated – 3.6 times more than in January 2020, and equivalent to the total hectares treated from January to March in 2020.

Outcomes under Component 1 of the programme

By treating 2 036 906 ha, FAO estimates that over 36.9 million people have been directly and positively impacted by Component 1 of FAO's desert locust response since January 2020, across the ten countries and three main livelihoods in the region (namely farming, agropastoralism and pastoralism). The early control of desert locust, which reduced damage on crops and rangeland, allowed rural communities to avert or significantly reduce crop and milk production losses. FAO estimates that around 4.1 million tonnes of cereal crops and some 806.6 million litres of milk were saved, thanks to the combined effort of governments, DLCO-EA and FAO. The commercial value of crops and milk productions saved is estimated at some USD 1.57 billion.



Safeguard livelihoods

Under this component of the revised crisis appeal (targeting five countries), FAO has appealed for a total of USD 67 925 426 between January 2020 and June 2021, of which USD 66 205 566 (97.5 percent) have been mobilized to-date, leaving a gap of USD 1 719 860 (only in Kenya).

In other countries of the revised appeal (Ethiopia, Somalia, the Sudan and Yemen), livelihood needs are part of the respective 2021 Humanitarian Response Plans coordinated by the United Nations Office for the Coordination of Humanitarian Affairs.

- **In Ethiopia**, the funding against the 2021 appeal is not yet tracked.
- **In Somalia**, 16.3 percent (or USD 64.5 million) of the Food Security Cluster's funding requirements are currently met.
- **In the Sudan**, 20.6 percent (or USD 107.3 million) of the Food Security and Livelihoods Cluster's funding requirements are currently met.
- **In Yemen**, 20.9 percent (or USD 357.7 million) of the Food Security and Agriculture Cluster's funding requirements are currently met.

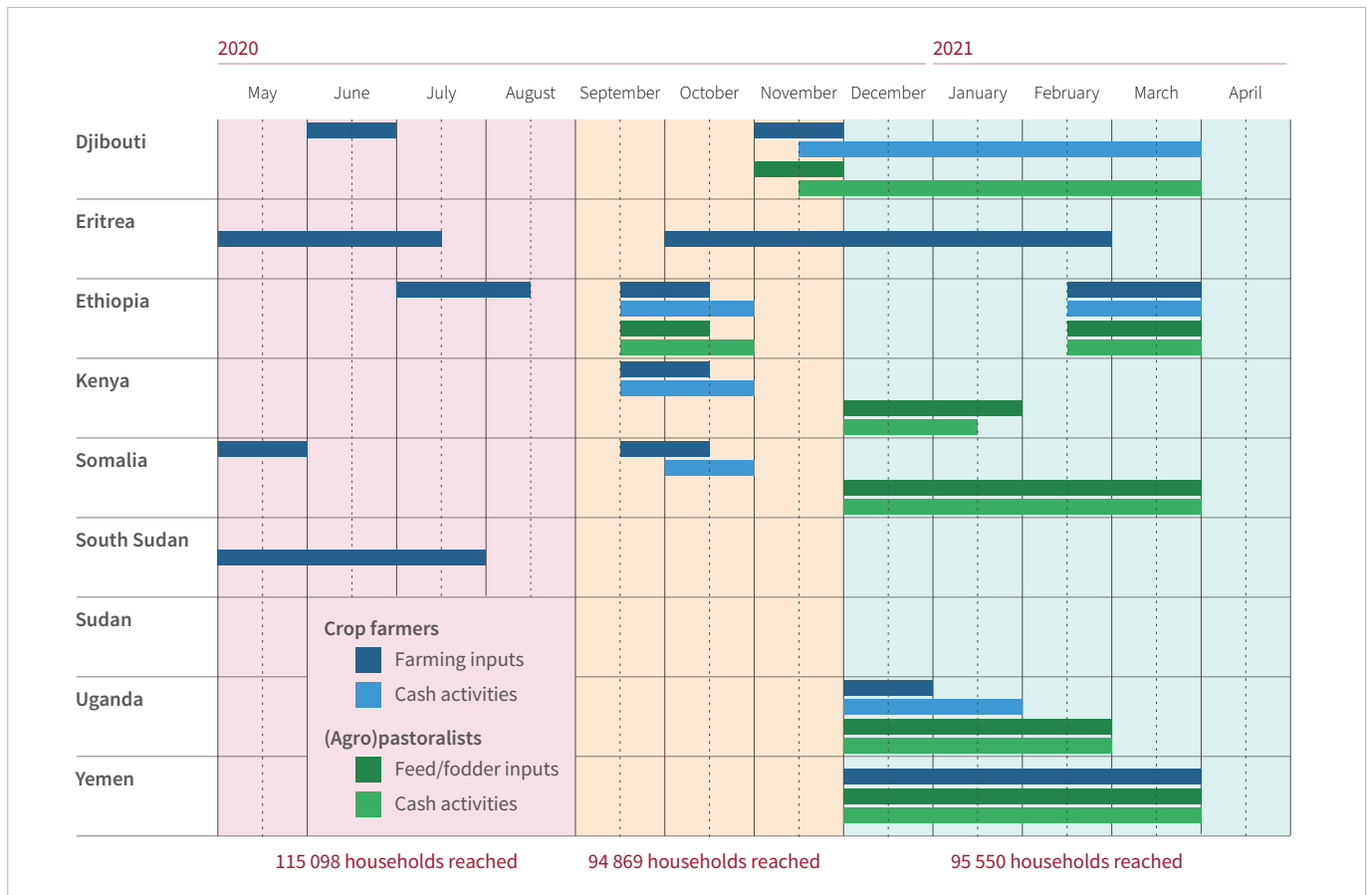
Outcomes under Component 2 of the programme

A total of 305 517 households have been assisted by FAO under the desert locust response plan with funding received against the May 2020 version of the appeal (covering ten countries). While the response plan provides a general conceptual framework, each country tailored the packages and the response to align with domestic priorities.

In Somalia and South Sudan, and as a result of the pre-existing number of people facing Crisis or worse levels of acute food insecurity (IPC Phase 3 or above), a fully-fledged anticipatory approach was prioritized, i.e. the forecast of desert locust movements and rainfall forecasts drove the interventions by geography and type ahead of the *Gu* season in Somalia and the long rainy season in South Sudan. Consequently, cash and/or input packages were distributed to farmers before the disaster struck.

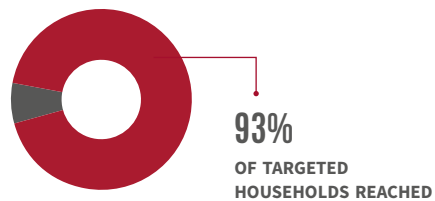
In other countries, the strategy was based on damage estimates (GeoPoll surveys) and subsequent calibrated compensatory mechanisms before losses translate into food insecurity.

Figure 8. Livelihoods-based anticipatory action (2020–2021)



FARMING HOUSEHOLDS

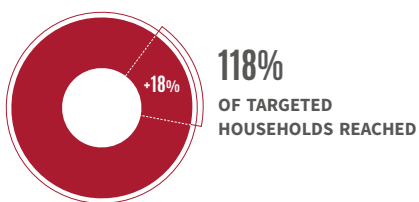
Targeted: **191 500 households**
Reached: **179 020 households**



Thanks to control actions, no farmers or (agro)pastoralists suffered the loss of their entire production since January 2020, although losses in the range of 50 percent in worst-affected areas have been reported. The compensatory mechanism established by FAO in coordination with governments, country food security clusters and RDLA allowed affected communities to withstand this shock. As a result, with the assistance provided, households avoided falling into a livelihood crisis or adopting unsustainable coping strategies such as the selling of assets, or abnormal migration that could have generated tension/conflict over natural resources.

(AGRO)PASTORAL HOUSEHOLDS

Targeted: **107 350 households**
Reached: **126 497 households**



- Cash distributions provided the means to purchase food or feed on markets and compensate for crop or milk production loss.
- Fodder/feed distributions allowed (agro)pastoralists to maintain livestock productivity.
- Seed distributions allowed farmers to either increase land cultivated (taking advantage of above-average rainfall during the first half of 2020), or save money from the purchase of inputs to cover other expenditures (including food).

Coordination and preparedness

Under this component of the revised response plan, FAO has not appealed for additional funds. A total of USD 11 854 087, slightly more than the USD 11 372 587 requested, have been mobilized since January 2020. The extra funding is intended to maintain the operation of information and EarthRanger coordination systems in Ethiopia, Kenya and Somalia and roll them out to other frontline countries in the region in partnership with 51 Degrees Ltd.

Towards a regional conference on desert locust

The desert locust upsurge in the Greater Horn of Africa highlighted the lack of initial capacities, readiness and preparedness in the region. It also raised a number of questions about the roles and responsibilities of regional institutions and bodies, namely IGAD, DLCO-EA, and CRC.

Figure 9. Process towards a regional strategy



STEP 1

FAO, the World Bank and AFD launched a number of exercises (real-time evaluation, FAO; country rapid assessments, World Bank; regional review, AFD) in order to stimulate, inform and guide a regional discussion and set of recommendations on mid-term strategic planning for the IGAD region vis-à-vis future desert locust outbreaks, upsurges and plagues.

STEP 2

In order to build consensus on actionable recommendations, IGAD, FAO, World Bank and AFD organized two virtual meetings in January and February 2021, where findings were presented and discussed with technical staff from relevant ministries from IGAD Member States, regional agencies involved in desert locust control and development partners.

STEP 3

With the support of DG INTPA, under the umbrella of the Global Network Against Food Crises, FCDO and BHA, findings and deliberations have been stratified and transformed into recommendations around three key priorities and six focus areas to frame actions moving forward.

The three key priorities are:

- Priority 1 – regional cooperation and coordination;
- Priority 2 – regional and national livelihoods response and recovery; and
- Priority 3 – regional and national preparedness and capacity enhancement interventions.

The six focus areas are:

- governance and coordination;
- capacity building;
- strategies and preparedness;
- research;
- operations, surveillance action and early warning including innovative technologies; and
- livelihood impact and support.

STEP 4

A final technical meeting is planned on 4–5 May 2021 ahead of the regional Desert Locust Conference planned for 25 May 2021.



What to expect in the next four months

While the situation is generally improving, desert locust can still find favourable conditions, breed and remain in the region. It is therefore imperative to keep our collective surveillance and response mechanisms and assets intact. This includes the existing partnership with 51 Degrees Ltd and the EarthRanger system used for real-time mapping of locust infestations and tracking of aerial assets.

Ethiopia. The second quadrimester (May–August 2021) will witness a new generation of desert locust in the northern part of Somali region and the northeastern part of Oromiya region. If unaddressed and if conditions are favourable, spring-bred desert locust swarms will migrate to Afar region for summer breeding that will commence in about July. Therefore, it is imperative to concentrate ground surveillance teams in areas where spring breeding will occur so that hopper bands are detected and treated before swarming and migrating to summer areas.

Kenya. Although the situation is expected to remain calm, there remains a strong possibility of small-scale breeding in the north during May and June by any residual populations. Therefore, flexible contracts will be established so that mobilization of air assets can take place rapidly if need be. FAO is finalizing “pay-per-use” contracts.

Somalia. Breeding will take place during May along the northern plateau, causing a new generation of desert locust that should be treated at the hopper band stage in order to reduce the eventual formation of swarms, which are likely to migrate to summer breeding areas in northeast Ethiopia in about July. Cross-border coordination with Ethiopia will be essential. Somalia will increase ground surveillance capacities by adding more vehicles and trained personnel, and will augment its fleet of aircrafts with the addition of one fixed-wing surveillance aircraft and one spray aircraft.

The Sudan. Small-scale breeding is expected to occur in the interior of the country during the summer. As a frontline country, the Government has the necessary capacity and expertise to survey traditional breeding areas and act in a timely manner. FAO replenished pesticide stocks ahead of the breeding season to ensure effective operations.

Yemen. Good rains have fallen recently in most of the interior which is where breeding can take place during the spring and summer. As a result, ecological conditions are improving, and breeding is expected to occur from June to at least August. This could give rise to important infestations that will require control. FAO is actively working with the Government to increase surveillance activities on the ground and ensure control operations, if needed, in those areas that can be accessed safely.



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.....
Plant Production and Protection Division –
Natural Resources and Sustainable Production
NSP-Director@fao.org
fao.org/agriculture/plant-production-and-protection
Rome, Italy

.....
Office of Emergencies and Resilience
OER-Director@fao.org | fao.org/emergencies
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