

**Emergency Transboundary
Outbreak Pest (ETOP) Situation
Report for August with a Forecast
till mid-October, 2013**

Summary

Despite good rains that fell in **Sahel West Africa**, the Desert Locust (SGR¹) situation remained relatively calm in most of the breeding areas in the region during this period. Only 695 ha were treated against hoppers and adults in the Air Mountains in **Niger** and solitary mature and immature adults were detected in a few places in **Mali, Mauritania** and **Chad**. The situation remained calm in **North Africa** and only some immature adults were controlled on 10 ha near irrigated areas in Adrar in Central Sahara in **Algeria** in August (CNLA/Chad, CNLA/Mauritania, CNLAA/Morocco, INPV/Algeria, FAO-DLIS).

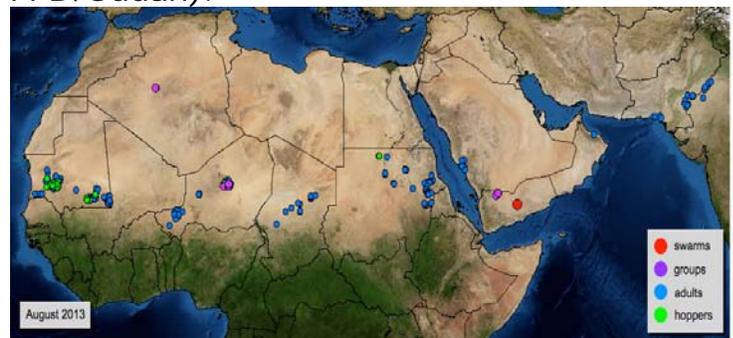
Locusts continued developing in **Yemen** where hoppers, adult groups and a swarm were reported in the interior of the country. Routine survey and control operations are limited due to inaccessibility of the outbreak areas as well as a concern from bee keepers. Only 120 ha were controlled on small farms during this period. Small-scale breed was reported in the central Red Sea coast of **Saudi Arabia** and low numbers of solitary adults were reported in the summer breeding areas in **Sudan**. A similar situation may be present in the western lowlands in

¹ Definitions of all acronyms can be found at the end of the report.

Eritrea, but updates were not available at the time this report was compiled. Other countries in these regions remained fairly calm during this period (DLCO-EA, FAO-DLIS, PPD/Oman, PPD/Sudan).

A few solitary adult SGR were reported along both sides of the **Indo-Pakistan** during August (DPPOS/ India, FAO-DLIS).

Forecast: Breeding will likely continue in air and commence in a few places in **Niger, Mali, Mauritania** and **Chad** and cause locust numbers to increase, but **North Africa** will likely remain calm during the forecast period. Breeding will also continue and increase locust numbers in several places in **Yemen**, the Central Red Sea coast in **Saudi Arabia** and the summer breeding areas in **Sudan** and cause a slight increase in locust numbers. The **Indo-Pakistan** borders will witness small-scale breeding and more locusts, but other countries in the region will remain calm during the forecast period (CNLA/Chad, CNLA/Mauritania, CNLAA/Morocco, DLCO-EA, DPPQS/India, FAO-DLIS, INPV/Algeria, PPD/Oman, PPD/Sudan).



(Areas showing some locust activities, FAO-DLIS 9/2013)

Other ETOPs

Red (Nomadic) Locust (NSE): NSE swarms and concentrations persisted in the Lake Chilwa/Lake Chiuta plains in Malawi and Mozambique, in the Ikuu-Katavi plains

in Tanzania and in Kafue Flats in Zambia in August where extensive vegetation burning forced locusts to concentrate further and form larger and denser swarms (IRLCO-CSA).

Forecast: Locust concentrations and swarms from vegetation burning will eventually escape into neighboring areas/countries where they could cause damage to crops/pasture. The situation requires vigilance and timely interventions to avoid unnecessary crop/pasture losses (AELGA, IRLCO-CSA).

Madagascar Migratory Locust (LMC): No update was received from Madagascar at the time this report was compiled.

Campaign Planning by FAO and its partners:

FAO, extensive aerial surveys are scheduled to commence during the 2nd half of September to assess the overall locust situation, identify and map areas of main locust populations and determine localities to establish aerial bases for control operations. The Organization is working with relevant host country ministries, partners and the private sector in preparation for the upcoming locust campaign. Plans are well underway to procure pesticides, vehicles and equipment for survey and control operations. Technical specialists are being recruited and an acridologist, environmental specialists, logisticians, a campaign coordinator, and a GIS expert are being deployed to Madagascar (FAO-ECLO).

Contributions:

FAO reported as of August 23rd, USD 17.3 million (~42% of the estimated USD 41.5 million requested) was received or confirmed from Austria, Belgium, UN/OCHA's Central Emergency Response Fund, France, Norway and the World Bank. Negotiations are also underway with the European Commission, the International Fund for Agricultural Development, the African Development Bank and USAID (FAO-ECLO).

Forecast: Breeding and hatching are expected to begin appearing at the foothills of the seasonal rains which should start sometime in late October/early November. Vigilance, timely reporting and preventive interventions remain crucial.

The latest locust information from FAO-DPV is available at:

<http://www.fao.org/emergencies/results/en/?keywords=Madagascar%20locust%20crisis>

and

<http://www.fao.org/emergencies/crisis/madagascar-locust/en/>

Moroccan (DMA), Italian (CIT), Migratory (LMI) Locusts in Central Asia and the Caucasus (CAC): No update was received at the time this report was compiled, but DMA and to some extent CIT activities are expected to have ended in most of the CAC region.

Forecast: Given the large-scale control operations in several countries in the region and due to the weather conditions, locust activities will progressively disappear in most if not all of the countries and the situation

will return to calmness by the end of the forecast period (AELGA, FAO-ECLO).

Tree Locust (*Anacridium* sp.): A tree locust outbreak was reported in Turkana County in Kenya where the pest was detected an estimated 14 square kilometers (1,400 ha). Aerial control operations were in progress at the time this report was compiled (IRLCO-CSA).

African Armyworm (AAW): AAW outbreaks were successfully controlled in northern and western Ethiopia and significant crop damage was avoided. Apart from this, AAW activities were not reported in DLCO-EA or IRLCO-CSA member countries in August (AELGA, DLCO-EA, IRLCO-CSA).

Forecast: AAW will fade away from northern Ethiopia and probably begin appearing in southern Eritrea, but AAW activities are not expected in the southern outbreak zone during the forecast period. Trap operators are encouraged to ready their traps where necessary and report any catches to the appropriate authorities in time for a response (AELGA, DLCO-EA, IRLCO-CSA).

Quelea (QU): QU bird control was carried out in SNNPR and Oromiya Regions in Ethiopia from late July to early August. QU outbreaks were reported in Kisumu, Narok and Nakuru counties in Kenya and in Mara and Morogoro regions of Tanzania during this period (DLCO-EA, IRLCO-CSA).

Forecast: QU birds are likely to continue posing a problem to wheat and rice growers in Rift Valley and Nyanza Provinces in Kenya and in Tanzania as well as to winter wheat in Zimbabwe. Active surveillance and timely reporting and interventions remain essential (DLCO-EA, IRLCO-CSA).

OFDA/TAG-AELGA (Assistance for Emergency Pest [Locust/Grasshopper] Abatement) will continue closely monitoring ETOP situations in all regions and issue dekadal alerts and monthly updates as well as provide technical advices as often as necessary. **End summary**

Progresses made in SGR Frontline Countries:

SGR frontline countries (FCs) in Sahel West Africa, namely **Chad, Mali, Mauritania, Niger, and Senegal (an invasion country)** have established autonomous national locust control units (CNLA) responsible for all DL activities.

Funds provided by the African Development Bank, USAID, the World Bank, France, FAO, host-governments as well as assistance from neighboring countries enabled FCs to equip CNLAs and build infrastructure as well as help train staff to prevent and respond to SGR outbreaks. With these supports and with their own resources, FCs was able to minimize and avoid the threats the SGR poses to food security and livelihoods of vulnerable communities.

CNLAs' continued efforts *to prevent, mitigate, avert and/or respond to potentially devastating SGR outbreaks and invasions* are good examples of **sustainable disaster risk reduction** that *deserve* encouragements and support.

OFDA ETOP Activities and Impacts

- OFDA Senior Advisor for Pesticides and Pests and AELGA Project Management is invited to participate, observe and assess a workshop on progresses and challenges of the Pesticide Stock Management System (PSPM) in the Western and Northern Africa. The workshop is jointly organized by CLCPRO and FAO Pesticide Unit and will be held in Agadir Morocco from 23-27 September, 2013.
- OFDA Senior Technical Advisor participated in the 11th Technical Meeting and the 8th Executive Committee meetings of the CLCPRO. The meetings were held in Agadir, Morocco from 10-14 June and discussed technical, management and strategic issues as related to the desert locust situation in 10 (ten) northern African and Sahel West African countries. The advisor was pleased with the rigor colleagues in Sahel West Africa and North Africa demonstrated in planning and developing preventive interventions as well as emergency responses. CLCPRO colleagues and member country representatives presented and reviewed recent DL activities and plans for the upcoming locust breeding seasons. Many of the countries that benefited from USAID assistance through FAO grants lauded USAID's support.
- OFDA/TAG continues its sustainable pesticide risk reduction initiatives through stewardship

network (SPRRSN) programs by strengthening capacities of host-countries and partners to ensure safety of vulnerable populations and protect their assets as well as their shared environment against pesticide poisoning and pollution. OFDA/TAG has successfully launched two sub-regional SPRRSNs in Eastern Africa and the Horn. The Horn of Africa SPRRSN initiative has created a "model" Association dubbed as Pesticide Stewardship Association-Ethiopia (PSA-E) which is being considered a boiler plate for similar future initiatives.

- Discussions that began several months ago to launch similar PRR initiatives in North Africa and the Middle East were delayed by the unrests. An effort is underway to resume dialogue with partners in these regions.
- OFDA continued its assistance for DRR capacity strengthening programs through a cooperative agreement with FAO to mitigate, prevent, and respond to and reduce the risk of ETOP emergencies and avoid unsafe use and mishandling of pesticides, pesticide-incorporated materials and application platforms.
- OFDA's assistance for obsolete pesticide prevention has enabled FAO to develop a pesticide stock managing system (PSMS) that has streamlined pesticide inventory monitoring and management. Thanks to OFDA's contributions, PSMS has enabled participating countries to conduct regular inventories and monitor and make informed decisions to prevent the accumulation of obsolete stocks and thereby avoid costly disposal operations.
- OFDA supported DRR program aimed at strengthening national and regional capacities for ETOP operations in Central

Asia and the Caucasus (CAC) is well underway. The program focuses on improving national and regional capacities to better coordinate locust monitoring and reporting as well as joint plans for survey, ETOP mitigation and prevention to minimize the threats they pose to food security and livelihoods of vulnerable populations.

- OFDA supported, three year program on scaling up community-based armyworm monitoring, forecasting and early warning is in progress. The program aims at reducing the risk of armyworm threats to food security and livelihoods of rural communities and vulnerable populations. Activities are being coordinated by the DLCO-EA in collaboration with partners in Ethiopia, Kenya and Tanzania.

Note: All ETOP SITREPs, including the current one can be accessed on our website:

<http://www.usaid.gov/what-we-do/working-crises-and-conflict/responding-times-crisis/how-we-do-it/humanitarian-sectors/agriculture-and-food-security/pest-and-pesticide-monitoring>

and

http://transition.usaid.gov/our_work/humanitarian_assistance/disaster_assistance/locust/

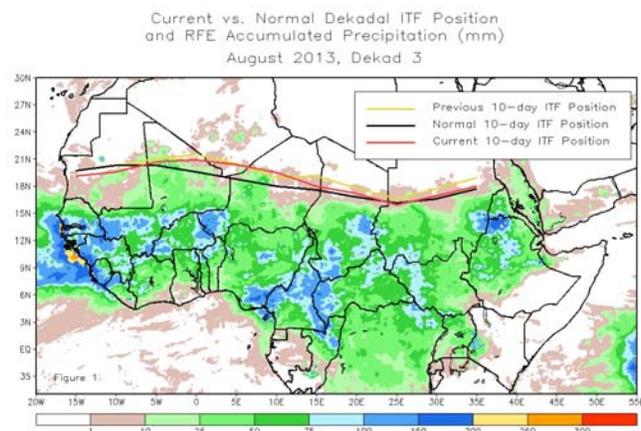
end note.

Detailed accounts of the weather, recent situation of ETOPs and a

forecast for the next six weeks are presented henceforth.

Weather and ecological conditions

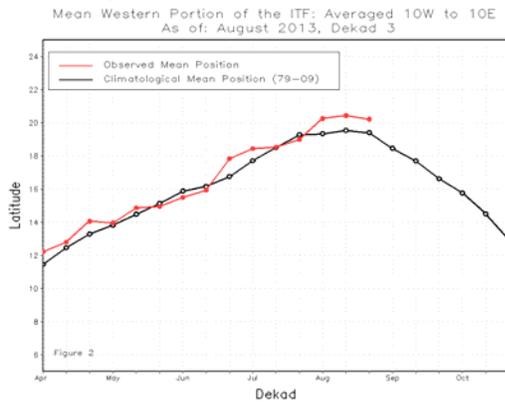
During the third dekad of August, from 21-31, 2013, the Inter-Tropical Front (ITF) remained northerly across West Africa while it continued retreating south in eastern Africa. The mean western portion of the ITF (10W-10E) was located approximately at 20.2N, nearly 0.8 degrees north of its mean climatological position and 0.2 degrees south of the previous dekad's position.



Map 1: Positions of the ITF - long-term average (black), current (red) and previous dekads (yellow),

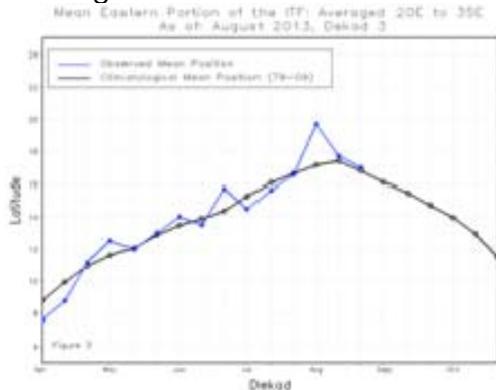
During August the Front was 0.9 degrees north of its average position causing anomalous above-average rainfall across **Mali**, **Burkina Faso** and **Niger**. The mean eastern portion of the ITF (20E-35E) was approximately at 17.0 N, 0.2 degrees north of the mean climatological position. For the second consecutive dekad, the ITF showed a southerly retreat across eastern Africa, but not as significant retreat as the second dekad of August (see maps for ITF's current position relative to its long-term average position during the third dekad of August and its previous position during the second dekad of August (NOAA, 9/2013).

Western Region



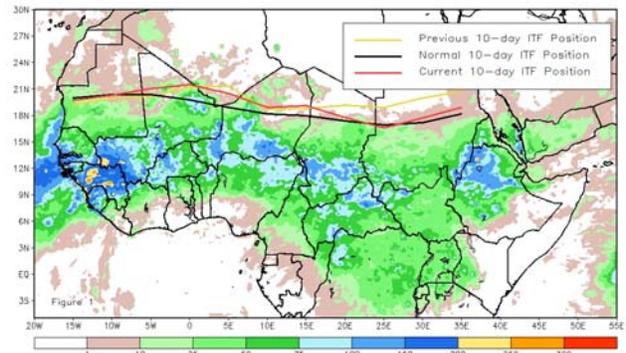
These graphs represent time series, displaying the mean latitudinal values of the western and eastern portion of the ITF, respectively, and their evolutions since April, 2013 (NOAA).

Eastern Region



During the second dekad of August, the Inter-Tropical Front (ITF) experienced an anomalously northern shift in parts of West Africa, while the eastern portion of the ITF returned closer towards its normal mean position in mid-August. From 10W to 10E, the mean western portion of the ITF was estimated near 20.4N, which was approximately 1.0 degree above its climatological mean position for this period. The ITF anomaly in the west was associated with strong lower-level convergence and heavy rainfall throughout parts of northern Mali and western Niger. From 20E to 35E, the mean eastern portion of the ITF was estimated 17.8N.

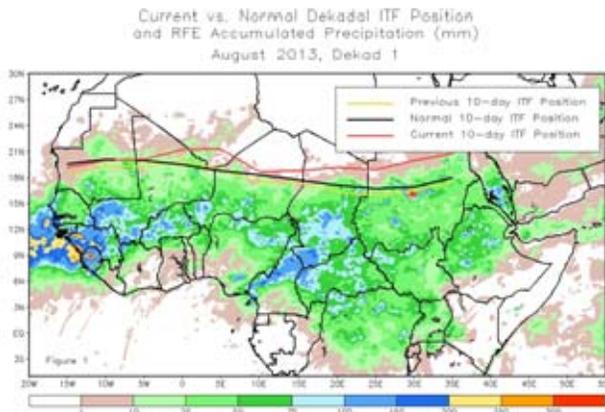
Current vs. Normal Dekadal ITF Position and RFE Accumulated Precipitation (mm) August 2013, Dekad 2



Map 2: Positions of the ITF - long-term average (black), current (red) and previous dekad (yellow),

In eastern Africa the ITF experienced a significant southerly retreat compared to its previous position during the first dekad of August, but its mean eastern portion remained nearly 0.5 degree above its normal position for mid-August. Figure 1 shows the current ITF position relative to the long-term average position during the second dekad of August and its previous position during the first dekad of August.

During the first dekad of August (1-10 August), the ITF significantly migrated northward across western and eastern portions of the Sahel. The mean western portion of the ITF was around 20.3N, 1 degree above its climatological mean position during early August. This was associated with abnormal rainfall across parts of Mauritania and Mali. The mean eastern portion of the Front was approximated at 19.7 degrees, 2.5 degrees above its climatological mean position, and over 3.0 degrees higher than its previous dekadal during late July; this is the highest position for the season, as well as, the highest in the last 5 years according to the ITF data record. The anomalous position was associated with prevailing southerly winds throughout the entire dekad and very heavy rainfall across central Sudan (see map, NOAA).



Map 3: Positions of the ITF - long-term average (black), current (red) and previous dekads (yellow),

In **Mauritania**, ecological conditions remained favorable for the survival and reproduction of SGR across much of the southern and the central parts of the country and to a lesser extent in the north during the 1st dekad of August (CNLA/Mauritania).

In **Chad**, the ITF moved further north and reached 20N during the 2nd dekad of August (the highest for this period in five years). As a result moderate to heavy rains fell in northern Kanem, Batha, Wadi Fira, southern Borkou, and most part of Ennedi. The mean temperature was relatively low and only reached 28°C during this period. Ecological conditions improved for SGR to breed and develop (CNLA/Chad).

Unusually good and widespread monsoon rains were recorded in the summer breeding areas along both sides of the **Indo-Pakistan** border (FAO-DLIS).

In the **NSE outbreak areas**, dry weather with high temperature and strong winds persisted in most days of August (IRLCO-CSA).

Madagascar: No update was received at the time this report was compiled, however, it is likely that dry weather

persisted in the outbreak and invasion areas. However, green vegetation may have been present in some places including Mandabe, Manja Befandriana South, Horombe Plateau, Belomotra, Ankazoabo, Bero-roha, etc. Grass/brush burning was reported in various areas, e.g., Mandoto, Miandrivazo Mandabe, Manja and Befandriana South causing locusts to migrate out of these areas. With the dry season continuing and temperatures gradually rising, locust activities will begin in some places.

No update was received in **Central Asia and Caucasus** (CAC) at the time this report was compiled, however, it is likely that the weather conditions remained warm but the heat that was reported previously may have begun cooling slowly and the vegetation drying up. Rains that persisted through the second half of July in Georgia had tapered off by August (FAO-ECLO).

Note:** Changes in the weather patterns contribute to ecological shift in ETOP habitats and can increase the risk of pest outbreaks and resurgence as well as emergence of new pests. Regular monitoring and reporting of anomalous manifestations in habitats and pest situation remain essential. **End note.

SGR - Western Outbreak Region:

The SGR situation remained relatively calm in most of the outbreak areas in Sahel West Africa and north Africa. Only 695 ha were treated against hoppers and adults in the Air Mountains southeast of Timia in **Niger**. The situation in adjacent areas in **Mali** where surveys were undermined by the ongoing insecurity remained unclear, but the areas that were surveyed in the western and central parts of the country remained calm in August. In **Mauritania**, scattered low density mature and immature adults mixed with a few low density solitary 1st to 3rd instar hoppers were observed during the 1st dekad of August, but overall the situation remained calm despite favorable conditions that persisted due to heavy rains during this month. In **Chad** four survey teams were deployed to the Lake region and Kanem, eastern Ennedi (Fada),

western Ennedi (Kalait) and Batha, Wadi Fira and Ouaddai and detected isolated solitary mature adults were near Beurkia in the northern Batha, and northwest. Immature adults were treated on 10 ha near irrigated cropping areas in Adrar in Central Sahara in **Algeria** during this period. Elsewhere the situation remained calm during this period (CNLA/Chad, CNLA/Mauritania, CNLAA/Morocco, FAO-DLIS, INPV/Algeria,).

Forecast: Breeding will likely progress in Kanem, Batha, Biltine and northeast **Chad**, in Tamesna and Air in **Niger**, in Adrad des Iforas, Tilemsi Valley and Tamesna in **Mali** and parts of the summer breeding in **Mauritania** and increase locust numbers, but other countries in the region will remain relatively calm during the forecast period (CNLA/Chad, CNLAA/Morocco, CNLA/Mauritania, FAO-DLIS, INPV/Algeria).

SGR (Desert Locust) - Central

Outbreak Region: SGR continued developing in **Yemen** where hoppers, adult groups and a swarm were reported in the interior of the country in August. On August 22nd a small mature swarm was detected copulating west of Wadi Hadhramaut in the al Wahad (1548N/4752E). Late instar hoppers and mature adult groups were seen near Saudi border south of al Buqa at (1720N/4436E). Regular survey and control are largely undermined by insecurity situation and a concern from bee keepers. Only 120 ha were reported treated on small farms during this period.

It is to be recalled that in July a maturing swarm was detected on some 100 ha in the interior of Yemen in Wadi Hadharmout (1535N/4811E) near Wadi Hurahidia and later on scattered immature and mature adults were located in the plateau to the northeast near Thamud (1717N/4955E)

and Rahima (1727N/5034E) and breeding also occurred near Thamud. Small-scale breed was reported in the central Red Sea coast of **Saudi Arabia**. The situation in the summer breeding areas in **Sudan** remained fairly calm and only low to medium density solitary adults were reported on 520 ha during surveys conducted on 50,150 ha in the fourth week of August. No reports were received from **Eritrea**, but the situation may be similar to that of the summer breeding areas in **Sudan**. In **Ethiopia** a few scattered solitary mature adults were reported in Hare locality in Shinile Zone in Somale in August. Other countries in the region remained calm during this period (DLCO-EA, FAO-DLIS, PPD/Sudan, PPD/Oman).

Forecast: Breeding will likely continue and locust numbers will increase in several places in **Yemen**, including al Jawf, Marib, Shabwah, Hadhramaut, and the Thamud plateau where favorable ecological conditions persisted. Locust numbers will also increase slightly in the Red Sea coast in **Saudi Arabia**. The summer breeding areas in Northern Darfur, Northern Kordofan, White Nile, Kassala, and Khartoum States in **Sudan** will experience a slight increase in locust numbers and a similar situation may occur in **Eritrea**. In **Oman**, low numbers of adults may begin appearing in areas of recent rainfall and could breed. Other countries in the region will remain relatively calm during the forecast period (DLCC/Yemen, DLCO-EA, FAO-DLIS, PPD/Oman, PPD/Sudan).

SGR - Eastern Outbreak Region: Isolated scattered low density (2.5-10 insects/ha) immature and mature adults were observed in six (6) locations in the summer breeding areas in Scheduled Desert Areas in Rajasthan and Gujarat, **India** in August. Patches of green vegetation were observed, particularly in Barmer and Jaisalmer where significant rainfall was recorded during the second dekad of August. Some green vegetation was also observed in Jodhpur, Ganganagar, Behuj, Deesa, Phalodi, and Bikanur in the SDA. Despite the unusually heavy monsoon rains that fell in previous month,

only low density adults were reported in **Pakistani** side of the border with **India** as well (DPPQS/India, FAO-DLIS).

[In July, 2013, the Directorate for Plant Protection, Quarantine and Storage (DPPQS) in India established locust control rooms in the SGR circle for local farmers to call and inform DPPQS staff the locust sightings via phone. This approach is aimed at improving locust monitoring and reporting] (DPPQS/India).

Forecast: The Indo-Pakistan borders will likely witness small-scale breeding and a slight increase in locust numbers during the forecast period (DPPQS/India, FAO-DLIS).

Red (Nomadic) Locust (NSE): NSE swarms and concentrations persisted in the Lake Chilwa/Lake Chiuta plains in **Malawi** and **Mozambique**, in the Ikuu-Katavi plains in **Tanzania** and in Kafue Flats and Lukanga Swamps in **Zambia**. Extensive vegetation burning contributed to the absence of green vegetation which in turn forced locusts to further concentrate and form larger and denser swarms. The situation in Malagarasi Basin as well as Wembere and Rukwa plains in Tanzania was not clear, but it is likely that substantial populations are present. Buzi-Gorongosa and Dimba plains in Mozambique remained relatively calm and only a few scattered populations were reported by the community-based locust monitors (CBLM) (IRLCO-CSA).

Forecast: Grass burning that is in progress will continue forcing locusts to further concentrate and form larger and denser swarms which will escape into neighboring areas/countries and may cause damage to crops/pasture. The situation requires serious vigilance and timely interventions to avoid unnecessary crop/pasture damage IRLCO-CSA reported

the challenges in making resources available to undertake aerial survey and control operations. The Organization is working closely with its Member Countries and looking for ways to overcome these challenges (IRLCO-CSA).



NSE outbreak countries and localities (yellow) and localities (red dots) (IRLCO-CSA)

Madagascar Migratory Locust (LMC) and Red (Nomadic) Locust (NSE): No update was received from Madagascar at the time this report was compiled.

Campaign Planning - FAO and partners:

FAO is working with relevant host country ministries, partners and the private sector in preparation for the upcoming locust campaign. According to FAO, extensive aerial surveys are scheduled to commence during the 2nd half of September to assess the overall situation, identify and map areas of main locust populations and determine strategic locations to establish aerial bases for control operations. As a lead agency for the locust campaign, FAO is working on procurement of pesticides, vehicles and equipment for survey and control operations as well as hiring technical specialists. FAO is fielding acridologists, environmental specialists, logisticians, a campaign coordinator, and a GIS expert in Madagascar (FAO-ECLO).

Contributions:

As of August 23rd, FAO reported USD 17.3 million as finalized/received from Austria, Belgium, UN/OCHA's Central Emergency Response Fund, France, Norway and the World Bank. It also reported that negotiations are underway with the European Commission, the International Fund for Agricultural Development, the African Development Bank and USAID.

Forecast: Locusts are expected to begin breeding and hatching after the seasonal rains commence sometime in late October to early November, 2013. Active surveillance and timely reporting and preventive and curative interventions remain crucial.

The latest Malagasy locust information from FAO-DPV is available at:

<http://www.fao.org/emergencies/results/en/?keywords=Madagascar%20locust%20crisis>

and

<http://www.fao.org/emergencies/crisis/madagascar-locust/en/>

Moroccan (DMA), Italian (CIT) and Migratory (LMI) locusts in Central Asia and the Caucasus (CAC): No update was received at the time this report was compiled, however, a late received report indicated that the 2013 DMA campaign against had ended in July in most of the CAC, but some CIT and LMI activities were expected to continue in August some countries including the Russian Federation (FAO-ECLO).

Forecast: By the end of the forecast period, locust activities will have progressively disappeared and the

situation will have gradually returned to calmness (AELGA, FAO-ECLO).



(Locust prone CAC countries, FAO)

Tree Locust (*Anacridium sp.*)

A Tree Locust (*Anacridium sp.*) outbreak was reported on some 14 km² (1,400 ha with 500 insects/tree) in Turkana County in Kenya in August. The pest was seen feeding on acacia trees, the main source of fodder for grazing animals. IRLCO-EA reported that Crop Protection Services Division of the Kenya Ministry of Agriculture, Livestock and Fisheries launched aerial control operations with aerial assistance from the DLCO-EA.

Australian Plague Locust (APL): No update was received at the time this report was compiled and no major activities are expected (AELGA, APLC).



(Australian plague locust, source: APLC)

Timor and South Pacific: No update was received in Timor and South Pacific in August (AELGA).

African Armyworm (AAW): AAW outbreaks were successfully controlled in the northern and western parts of **Ethiopia** and the pest was prevented from causing significant crop damage (DLCO). AAW activities were not reported elsewhere during this period (AELGA, IRLCO-CSA).

Forecast: AAW activities will fade away in Ethiopia where control operations were launched in previous months. The IRLCO-CSA region will likely remain free from AAW outbreaks during the forecast period. AAW trap operators, including those from the community based armyworm monitoring, forecasting and early warning, particularly in IRLCO-CSA region, are advised to have their traps ready before the onset of the rains (AELGA, DLCO-EA, IRLCO-CSA).

NOTE: *It is worth noting that the first seasonal AAW outbreaks in Ethiopia were detected and reported by farmers' forecasters who were trained and equipped by DLCO-EA with the support of OFDA-sponsored as part of the community-based armyworm monitoring, forecasting and early warning (CBAMFEW) project. The farmer forecasters issued an alert to farmers in Fedis, Babilay and the surrounding Woredas (districts) on a possible AAW outbreak prior to reporting the situation to the regional agricultural offices. The occurrence of the outbreaks vindicated the relevance of the CBAMFEW program and earned the forecasters trust among the farming communities and other partners. END NOTE.*

Quelea (QU): QU bird control operations which were launched in several locations in SNNPR (Segen - Amaro, Konso) and

Oromiya (Borena - Teltele) Regions in southwestern **Ethiopia** from 29 July through early August were concluded by August 6th. QU bird attacks were reported in wheat crops in Rongai area in Nakuru County and rice crops in Kisumu County in **Kenya**. Control operations were in progress at the time this report was compiled.

In Mara and Morogoro Regions in **Tanzania**, the bird was reported attacking rice and preparations were underway to launch aerial control operations. QU birds were also reported attacking irrigated wheat in Mashonaland East and Mashonaland Central Provinces in **Zimbabwe**. Ground control operations were in progress at the time this report was compiled. QU activities were not reported in **Malawi**, **Mozambique** or **Zambia** and no reports were received from other invasion or outbreak areas during this period (DLCO-EA, IRLCO-CSA).

Forecast: QU birds will likely continue threatening small grain crops in Kisumu, Siaya, Kirinyaga and Nakuru counties in **Kenya**. A similar situation may occur in Mara, Morogoro and Kilimanjaro Regions in **Tanzania** and in winter wheat growing areas in Zimbabwe. QU activities are not expected in **Ethiopia** or other countries in the region during the forecast period (AELGA, DLCO-EA, IRLCO-CSA).

Facts: *QQU birds can travel ~100 km/day looking for food. An adult QQU bird can consume 3-5 g of grain and perhaps destroy the same amount each day. A QQU colony can contain a million birds (very common) and is capable of consuming and destroying 6,000 to 10,000 kg of seeds/day, enough to feed 12,000-20,000 people for a day.*

Rodents: No reports of rodent outbreaks were received during August. However, rodents remain a constant threat to cereal and other produces in many outbreak and invasion areas, and required regular surveillance and preventive interventions remain essential (AELGA).

Note: Several raptor birds, such as barn owl, *Tyto Alba* and other animals are known nature's biological control agents that contribute to maintaining the balance between moderate rodent outbreaks and a period of lull. **End note.**

Front-line countries are encouraged and advised to remain vigilant. Invasion countries are cautioned to maintain the capacity to monitor and avoid any unexpected surprises. DLCO-EA, IRLCO-CSA, national PPDs, CNLAs, DPVs, ELOs, and others are encouraged to continue sharing with partners and stakeholders the valuable information they obtain from the field through various means as often as possible. Lead farmers and community forecasters are encouraged to remain vigilance and report any ETOP sightings to field agents and other contact persons.

Inventories of National Stocks of Acridid Pesticides

As a result of limited control operations undertaken in August, 695 ha in **Niger**, 120 ha in **Yemen** and 10 ha in **Algeria**, pesticide inventories of the national crop protection departments showed only a minor change during this time (see table blow for details).

Note: It is worth noting that the inventories shown below are not necessarily current, as many countries tend to draw down their inventories for controlling other agricultural pests, but report late or never. **End note.**

Mindful of the risk of pesticides gradually becoming obsolete once passed their shelf-life (usefulness) and posing serious health threats, ETOP-prone countries, particularly those with large inventories, but are less likely to use them within a reasonable time period, are encouraged to test their stocks regularly and determine whether they

should use, retain, share or discard them immediately. OFDA through a cooperative agreement with FAO, assisted dozens of ETOP affected countries to streamline their inventory of pesticides by installing a computer based tracking system – Pesticide Stock Management System (PSMS). Currently, PSMS has been installed in several countries and become instrumental in assisting countries effectively monitor and regulate their inventories. The System has enabled countries to easily identify stocks that require testing, put to an immediate use, shared or disposed.

OFDA/AELGA promotes options that are proven safer and effective in preventing the risks they pose to human health hazards, environmental contaminations, eliminating adverse effects to non-target and beneficial organisms as well as minimizing financial burdens associated with disposal of obsolete and unusable pesticide stocks. It promotes IPM at all times.

A judiciously executed triangulation of usable stocks from countries with large inventories to where they are much needed is a win-win situation worth considering.

During the June , 2013 CLCPRO technical and executive committee meetings, member countries agreed to maintain the spirit of sharing pesticides to during the control of SGR across national boundaries and beyond. This kind of solidarity is a good example of a win-win situation where by donating countries are not only assisting receiving countries, but also help themselves by avoiding a potential threat that unnecessary accumulations of obsolete pesticides could pose and also save resources that could be wasted otherwise in costly disposal operations.

Note: *The core message of sustainable Pesticide Stewardship Program is to strengthen the national and regional pesticide delivery systems by linking partners at different levels to help reduce pesticide related health risks as well as minimize and prevent environmental contamination,*

improve food security and ultimately contribute to the national and regional economy. **End note.**

Estimated quantities of pesticides available for ETOP operations in frontline countries

Country	Quantities l/kg ^s
Algeria	1,190,090~
Chad	43,400
Eritrea	43,700~
Egypt	Data not available
Ethiopia	1,600~
Libya	25,000
Madagascar	Data not available
Mali	208,800d~ D
Mauritania	155,400~
Morocco	4,097,000~
Niger	44,305~
Oman	20,000
Senegal	156,000~
Saudi Arabia	Data not available
Sudan	840.00~
Tunisia	167.6~
Yemen	32,820 + .527 kg GM~

Include different kinds of pesticides in ULV, EC and dust formulations
~ data not current
D = Mali donated 21,000 l for NSE in Malawi, Mozambique and Tanzania in 2012 and FAO facilitated the triangulation process
GM = *GreenMuscle*TM (fungal-based bio-pesticide)

LIST OF ACRONYMS

AAW	African armyworm (<i>Spodoptera expempta</i> - SEX)
AELGA	Assistance for Emergency Locust Grasshopper Abatement
AFCS	Armyworm Forecasting and Control Services, Tanzania
AfDB	African Development Bank

AME	Anacridium melanorhodon
APLC	Australian Plague Locust Commission
APLC	Australian Plague Locust Commission
CAC	Central Asia and the Caucasus
CBAMFEW	Community-based armyworm monitoring, forecasting and early warning
CERF	Central Emergency Response Fund
CIT	<i>Calliptamus italicus</i>
CLCPRO	Commission de Lutte Contre le Criquet Pèlerin dans la Région Occidentale (Commission for the Desert Locust Control in the Western Region)
CNLA/CNLAA	Centre National de Lutte Antiacridienne (National Locust Control Center)
CRC	Commission for Controlling Desert Locust in the Central Region
CTE	<i>Chortoicetes terminifera</i>
DDLC	Department of Desert Locust Control
DL	Desert Locust
DLCO-EA	Desert Locust Control Organization for Eastern Africa
DMA	<i>Dociostaurus maroccanus</i>
DPPOS	Department of Plant Protection and Quarantine Services
DPV	Département Protection des Végétaux (Department of Plant Protection)
ELO	EMPRES Liaison Officers
EMPRES	Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases
ETOP	Emergency Transboundary Outbreak Pest
Fledgling	immature adult locust /grasshopper that has pretty much the same phenology as mature adults, but lacks fully developed reproductive organs and hence cannot breed
GM	Green Muscle (a fungal-based biopesticide)

<i>ha</i>	<i>hectare (= 10,000 sq. meters, about 2.471 acres)</i>	<i>PRRSN</i>	<i>Pesticide Risk Reduction through Stewardship Network</i>
	<i>Integrated Regional Information Networks</i>	<i>QQU</i>	<i>Quelea quelea</i>
<i>IRLCO-CSA</i>	<i>International Red Locust Control Organization for Central and Southern Africa</i>	<i>SARCOF</i>	<i>Southern Africa Region Climate Outlook Forum</i>
		<i>SGR</i>	<i>Schistoseca gregaria</i>
<i>ITCZ</i>	<i>Inter-Tropical Convergence Zone</i>	<i>SWAC</i>	<i>South West Asia DL Commission</i>
		<i>TAG</i>	<i>Technical Assistance Group</i>
<i>ITF</i>	<i>Inter-Tropical Convergence Front = ITCZ)</i>	<i>USAID</i>	<i>Unites States Agency for International Development</i>
<i>FAO-DLIS</i>	<i>Food and Agriculture Organizations' Desert Locust Information Service</i>	<i>UN</i>	<i>the United Nations</i>
<i>Hoppers</i>	<i>young, wingless locusts/grasshoppers (Latin synonym = nymphs or larvae)</i>	<i>ZEL</i>	<i>Zonocerus elegans, the elegant grasshopper</i>
<i>Hopper bands</i>	<i>groups of hoppers aggregated and marching in unison and pretty much in the same direction</i>	<i>ZVA</i>	<i>Zonocerus variegatus, the variegated grasshopper; this insect is believed to be emerging as a fairly new distractive dry season pest, largely due to the clearing of its natural habitat through deforestation, i.e. land clearing for agricultural and other development efforts.</i>
<i>Kg</i>	<i>Kilogram (~2.2 pound)</i>		
<i>L</i>	<i>Liter (1.057 quarts or 0.264 gallon or 33.814 US fluid ounces)</i>		
<i>LMC</i>	<i>Locusta migratoriacapito</i>		
<i>LMM</i>	<i>Locusta migratoria migratorioides (African Migratory Locust)</i>		
<i>LPA</i>	<i>Locustana pardalina</i>		
<i>MoAFSC</i>	<i>Ministry of Agriculture, Food Security and Cooperatives</i>		
<i>MoARD</i>	<i>Ministry of Agriculture and Rural Development</i>		
<i>NOAA</i>	<i>National Oceanic and Aeronautic Administration</i>		
<i>NSD</i>	<i>Republic of North Sudan</i>		
<i>NSE</i>	<i>Nomadacris septemfasciata</i>		
<i>OFDA</i>	<i>Office of U.S. Foreign Disaster Assistance</i>		
<i>PHD</i>	<i>Plant Health Directorate</i>		
<i>PHS</i>	<i>Plant Health Services, MoA Tanzania</i>		
<i>PPD</i>	<i>Plant Protection Department</i>		
<i>PPSD</i>	<i>Plant Protection Services Division/Department</i>		

Who to Contact:

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