

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

Summary

The Desert Locust (SGR¹) situation continued developing in October in north central and north western **Mauritania** where ground operations controlled more than 2,990 ha during the month. Vigilance remains critical to avoid larger outbreaks. In **Mali** locusts were not detected during surveys carried out in the western and central parts of the country, but the situation in the north is not clear. In **Niger**, breeding was reported in Tamesna Plains and Air Mountains where hoppers and adults were controlled on 110 ha during this month. **Morocco** remained calm and no locusts were reported in other countries in Sahel West Africa or North Africa (OFDA/AELGA, CNLA/Chad, CNLA/Mali, CNLA/Mauritania, CNLAA/Morocco, DLCC/Libya, FAO-DLIS).

The locust situation in **Yemen** remained serious. Swarms formed in the interior of the country in October and moved to the Red Sea coastal plains and Gulf of Aden and began laying eggs and hoppers were seen forming. Ground operations controlled locusts on 1,400 ha from 27 September to 8 October in Shabwah and Marib provinces. A few adult groups have moved to adjacent areas along the coastal areas in **Saudi Arabia** where control operations treated 210 ha, but local breeding is in progress on the

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

central Red Sea coast. There may be an outbreak in the interior of **Sudan** where vegetation dried out and forced adults form groups and move (CRC, FAO-DLIS, PPD/Oman).

In **Sudan** control operations treated 240 ha and groups of locusts from the summer breeding in the interior of the country moved to the winter breeding areas in the northeast and the Red Sea coast and laid eggs.

Locust numbers declined in the summer breeding areas along the **Indo-Pakistan** borders where dry weather persisted during the month.

Forecast: Breeding will continue in **Yemen**, northwest **Mauritania** and northeast **Sudan** and locust numbers will increase in November. Hatching will occur in early November and hopper groups will form in northeast **Sudan** and southeast **Egypt** where good rains fell in late October. The Indo-Pakistan region will remain calm during the forecast period. Vigilance and active surveillance remain critical to avoid a repeat of the 203-5 upsurges that affected dozens of countries in the Sahel and other regions and required hundreds of millions of dollars to control (AELGA, CNLA/Chad, CNLA/Mauritania, CNLAA/Morocco, DLCO-EA, DPPOS/India, FAO-DLIS, INPV/Algeria, PPD/Oman, PPD/Sudan).

Other ETOPs

Red (Nomadic) Locust (NSE):

Significant populations were reported in Ikuu-Katavi and Wembere plains as well as Malagarasi Basin in Tanzania in October. Similar situations were reported

in Malawi, parts of Mozambique and Zambia during this period. Egg-laying may have commenced in some areas in Buzi-Gorongosa and Dimba plains in Mozambique; Malagarasi Basin in Tanzania and Kafue Flats in Zambia where good rain fell early October (IRLCO-CSA).

Forecast: Breeding is expected to continue in areas where it has already started in Tanzania and commence in November as well as in Malawi, Mozambique and parts of Tanzania where parental populations are present. Active surveillance and preventive interventions remain essential to avert any threats to food security in the region (IRLCO-CSA, OFDA/AELGA).

Madagascar Migratory Locust (LMC): Swarms were reported moving from the southwest outbreak areas to the western and northeastern invasion areas. Egg-laying was detected in Ranohira and Vavalovo in the central outbreak areas and crop damage was reported in Maintirano, Tsiroanomandidy, Soavinandriana and Faratsiho areas during September (FAO-DPV/LWU).

Forecast: Breeding and hatching are expected to begin at the onset of the seasonal rains which already started during the last dekad of September and continued in October. Vigilance, timely reporting and preventive interventions remain crucial.

Moroccan (DMA), Italian (CIT), Migratory (LMI) Locusts in Central Asia and the Caucasus (CAC): A late received update indicated that locust activities have diminished in the CAC

region expect the CIT situation in Armenia where mating was observed during September. No operations were reported during September or October and the situation had largely ended for this breeding season (FAO-ECLO, OFDA/AELGA).

Forecast: Locust activities will likely commence in March, 2014 (FAO-ECLO, OFDA/AELGA).

Tree Locust (Anacridium sp.): The Tree outbreak that was reported earlier in Turkana County in **Kenya** was controlled successfully with the help of DLCO-EA spray aircraft and material provided by MoA/Kenya (IRLCO-CSA).

African Armyworm (AAW): AAW outbreaks were not reported in DLCO-EA or IRLCO-CSA member countries in October (DLCO-EA, IRLCO-CSA, OFDA/AELGA).

Forecast: Armyworm outbreaks will likely begin sometime in November following the seasonal rains in the IRLCO-CSA member-countries. AAW forecasters are advised to maintain monitoring and track movements of moths. Pheromone traps must be pre-positioned and preventive interventions considered as necessary (DLCO-EA, IRLCO-CSA, OFDA/AELGA).

Quelea (QU): QU bird outbreaks were reported in Oromya and Amhara regions of **Ethiopia** during October and control operations treated colonies and roosts over 350 ha through 26 October. QU bird outbreaks were also reported causing damage to rice in Mwea irrigation scheme in Kirinyaga district in

Kenya. No QU activities were reported in October in other DLCO-EA or IRLCO-CSA member-countries (DLCO-EA, IRLCO-CSA).

Forecast: QU bird outbreaks will likely persist in the rice growing areas in Kenya but ease up in other IRLCO-CSA member-countries as they will enter the seasonal breeding cycle (DLCO-EA, IRLCO-CSA).

OFDA/TAG, through its Pest and Pesticide Monitoring, Reporting and Response unit (=Assistance for Emergency Pest [Locust/Grasshopper] Abatement) will continue monitoring ETOP situations closely in all regions and issue dekadal alerts and monthly updates as well as provide 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 Advisor for Pests and Pesticides participated in a regional workshop and field visits to assess progresses and constraints of the Pesticide Stock Management System (PSPM) in the Western and Northern Africa region. During the workshop and the field visits, the Advisor noted progresses as well as challenges and constraints of the program and critiqued and provided comments and suggestions. The workshop was jointly organized by CLCPRO and FAO Pesticide Unit and was held in Agadir Morocco from 30 September to October 4th, 2013 (more info is forthcoming).
- Thanks to OFDA's contributions and contributions from other donors, PSMS has enabled dozens of participating countries to conduct regular inventories and make informed decisions to prevent unnecessary accumulation of obsolete stocks as well as avoid costly disposal operations, ensure safety of their citizens and protect the shared environment.

- OFDA-sponsored, three year program on scaling up community-based armyworm monitoring, forecasting and early warning which began in FY 2013 is progressing well. 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. DLCO-EA recently reported that it has successfully launched a mobile based information collection
- OFDA continues its assistance to 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 and the shared environment against pesticide contamination. 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 viewed as a boiler plate for future initiatives.
- Discussions that began several months ago to launch similar PRR initiatives in North Africa and the Middle East were delayed by the ongoing situation in the regions. An effort is being made to resume dialogue with partners.
- OFDA continued its assistance for capacity strengthening as part of its DRR programs through a cooperative

agreement with FAO to mitigate, prevent, and respond to and reduce the risk of ETOP emergencies and avoid misuse and mishandling of pesticides, pesticide-incorporated materials and application platforms in the western, central and eastern regions.

- OFDA supported DRR program aimed at strengthening national and regional capacities for ETOP operations in Central Asia and the Caucasus (CAC) is in progress. The program focuses on improving national and regional capacities to better coordinate locust monitoring and reporting as well as joint plans for survey and prevention to minimize the threats they pose to food security and livelihoods of vulnerable populations.

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

<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/

Detailed accounts of the weather, ETOP and a forecast for the next six weeks are described below.

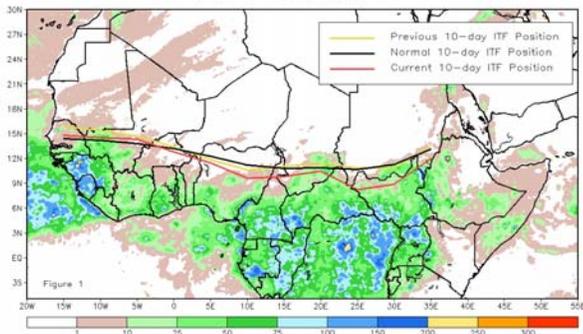
Weather and ecological conditions

From October 21-31, 2013, the ITF migrated farther south and 12.5N across far western Africa (10W-10E). This resulted in above-

average rains over Guinea Conakry, eastern Senegal, and western Mali and below-average rains across Nigeria and parts of southern Sudan and western South Sudan during this period. The mean eastern (20E-35E) portion of the ITF was approximated at 9.9N, which was south of the mean position by 1.6 degrees and south of the past year position by 1.3 degrees (see dekad 3 map, NOAA, 10/2013).

The mean western portion of the Front was located near 13.2N, 1.3 degrees south of its long-term average position. The mean eastern portion of the ITF was around 11.6N, 1.3 degrees south of the climatological position for this period of the year. The strong southward migration of the Front could be attributed to stronger than average northerly components of the low-level winds, pushing the rain-belt farther south (see dekad 2 map. NOAA, 10/2013).

Current vs. Normal Dekadal ITF Position and RFE Accumulated Precipitation (mm) October 2013, Dekad 3

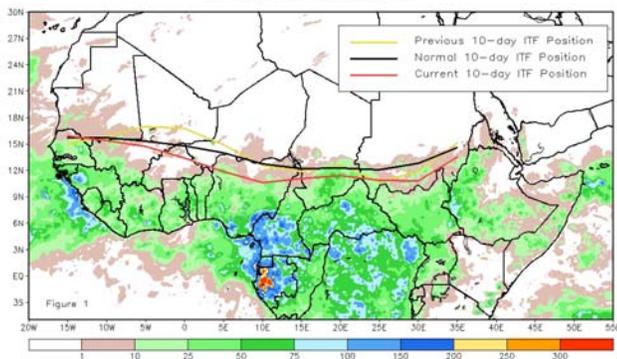


The map above shows the ITF position for the 3rd dekad of October relative to its long-term average position for this period and its position during the first dekad of the month (NOAA, 10/2013).

During the 1st dekad of October, ITF rapidly moved south across Africa due to intensive northern and southern Hemisphere highs. Its mean position for the western part (10W-10E) was at 15.4N, 0.4 degree south of the climatological and from 20E-35E, its position was located at 12.6N, 1.4 degree above the long-term average position. The southward migration of the ITF still brought above-average rainfall over central Sahel, but the northern position of the Front in the East resulted in below-average rainfall over Sudan and northern South Sudan during this period (see dekad 1 map, NOAA, 10/2013).

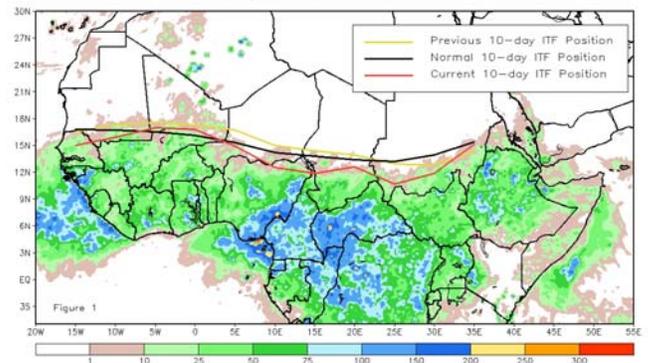
During the 2nd dekad of October, the Front continued rapid southern retreat across Africa and resulted in mostly below-average rainfall across the western and eastern portions of the continent.

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



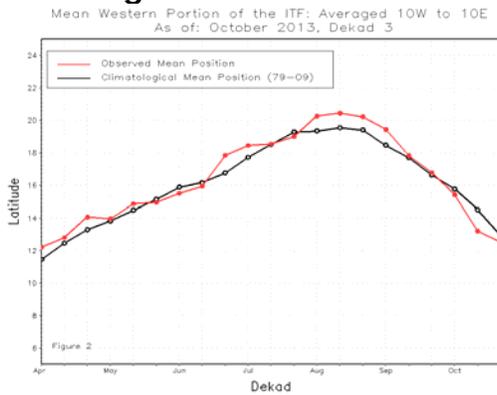
The map above shows the position of the ITF during the 2nd dekad of October relative to its long-term average position during the same period and its position during the first dekad (NOAA, 10/2013).

Current vs. Normal Dekadal ITF Position and RFE Accumulated Precipitation (mm) October 2013, Dekad 1



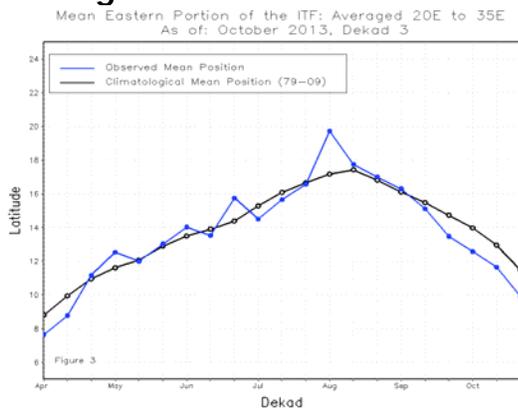
The above map shows the position of the ITF during the first dekad of October relative to its long-term average positions for this period and during the first last dekad of September (NOAA, 10/2013).

Western Region



This and the below 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



Light to moderate rainfall was reported in **Oman**, but vegetation could not be verified due to lack of important data from NOAA during the partial government shut down.

The **NSE** outbreak areas - Buzi-Gorongosa (Mafambizi 102 mm, Gorongosa 103 mm), Dimba plains (43 mm) in Mozambique, the Malagarasi Basin in Tanzania (42.4 mm) and Kafue Flats in Zambia (74.1 mm) received significant amounts of rainfall during October, but rainfall distribution was uneven and dry and hot conditions prevailed in several place most days of the month.

In **Mali**, good rains fell and ecological conditions remained favorable in the western

and central parts of the country in October. The situation is still unclear in the primary locust breeding in the north - Tombouctou, Kidal and Gao regions where surveys are hampered by the ongoing insecurity situation, but it is likely similar to that of Northern Niger. In **Niger**, ecological conditions are favorable in parts of Tamesna Plains and Air Mountains where breeding was reported. In **Morocco**, ecological conditions were favorable in October in the southern part of the country where light rain fell in September. In **Chad**, the ITF retreated southward and reached 14N to 16N over most of the country and 13N in the east in early October causing rainfall to diminish in the gregarious areas. Dry southerly and sometimes northwesterly winds dominated the dekad and ecological conditions deteriorated.

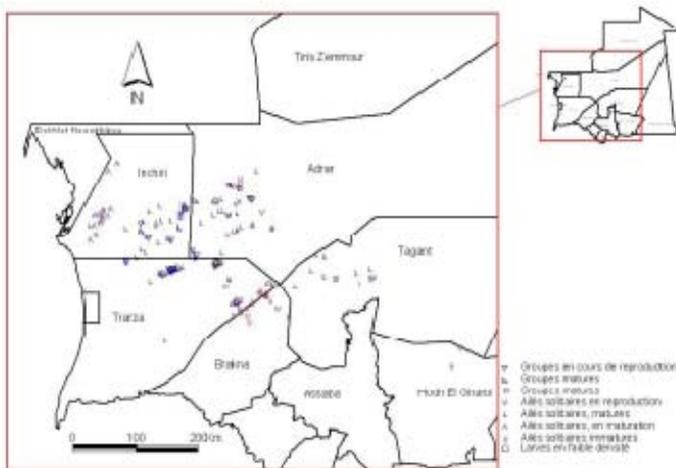
Madagascar: Light to moderate rain was reported during the 1st and 2nd dekads of October increasing percentage of green vegetation. Mandabe, Manja Befandriana South, Horombe Plateau, Belomotra, Ankazoabo, Bero-roha, etc., may also have substantial green vegetation suitable for the locusts to develop.

The summer breeding areas along the **Indo-Pakistan** borders remained dry and only light showers were reported in Barmer, India during October.

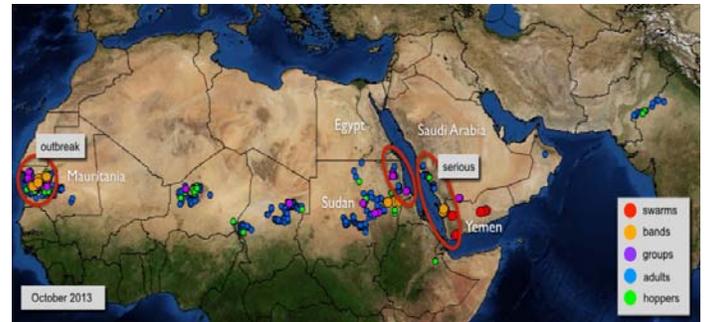
In **Central Asia and Caucasus (CAC)** Rainfall has ended and the temperature has dropped gradually and the vegetation has dried or is drying (FAO-ECLO).

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 continued developing in October in Sahel West Africa. In **Mauritania** breeding occurred over vast areas in northern central and north western parts of the country from local populations as well as swarms that arrived from the south. The infestations are located at (1) Inchiri on the Nouakchott-Akjoujt Lejwad, Khat N'Tamadi Ould Beynina, Louweibda route, (2) Adrar Yagref, Marveg Gleitat and Seil and (3) Trarza in the far north (see map below) (NLA/Mauritania). Hoppers and bands formed from egg-laying that occurred in September. Ground teams have treated some 2,990 ha in October.



Mauritania launched preventive interventions in time to abate a major upsurge. So far, it has deployed fifteen (15) survey, control, logistics, health and environmental monitoring and support teams to affected areas in the Nouakchott-Akjoujt axis as well as Inchiri, Adrar and northern Trarza (**Note:** Mauritania is one of the counties in Sahel West Africa that have benefited a great deal from supports provided by USAID/OFDA and others to strengthen its capacity for the prevention and control of locust invasions) (CNLA/Mauritania, FAO-DLIS, OFDA/AELGA,).



Desert locust situation, October, 2013, FAO-DLIS)

In **Mali**, no locusts were reported in Kayes, Koulikoro, Mopti regions where surveys were carried out in October. However, surveys were not possible in the outbreak areas in the north due to the security situation. In **Niger**, breeding was reported in parts of Tamesna Plains and the Air Mountains where solitary hoppers and adults persisted and control operations treated 110 ha during October. In **Morocco**, the situation remained calm during and no reports were received from **Algeria** and no locusts were reported in **Libya** or other countries in the region. In **Chad**, the situation remained calm during October. Only low density mature and immature solitary adults mixed with 4th and 5th instar hoppers were detected near Fada 16°57'20"N/21°12'32"E. A few solitary adults were also detected in the Lake Region and southwest Kanem. No locusts were detected in Ouaddai Kalait, Arada, northern Batha and Nokou during this period (CNLA/Mali, CNLAA/Morocco, CNLA/Niger, FAO-DLIS).

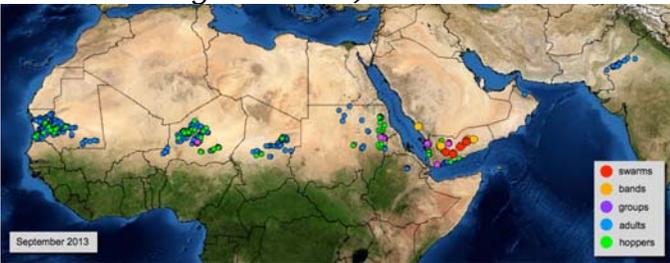
Forecast: Breeding will continue in northern, central and northwestern parts of **Mauritania** and form hoppers as well as immature and mature adult groups. The situation is getting more and more serious and requires elevated attention, active surveillance and rapid interventions in the coming days and weeks.



Copulating adult groups of locusts in Inchiri, Mauritania, 10.2013 (source: CNLA/Mauritania)

In **Mali**, ground surveys will continue during the coming months in areas accessible to the locust team. For the northern region, teams will have to rely on proxy data from adjacent areas in Niger. In **Niger**, locusts will likely continue breeding in parts of the Tamesna Plains and Air Mountains where ecological conditions are favorable and low numbers of solitary hoppers and adults will persist and form a few small groups and move north to the winter breeding areas during the forecast period. In **Chad**, the locust situation will gradually diminish as vegetation dries up and ecological conditions will not sustain further developments (CNLA/Chad, CNLA/Mali, CNLA/Mauritania, CNLA/Niger CNLAA/Morocco, FAO-DLIS).

Aggressive surveillance is critical to avoid a repeat of the 203-5 upsurges that affected dozens of countries and required hundreds of millions of USD to abate (Note: OFDA stood up a month long DART and deployed 7 aircraft during that time).



(Locust situation in September, FAO-DLIS, 10/2013)

SGR (Desert Locust) - Central Outbreak Region: The locust situation continued developing in **Yemen** during October. As recently as October 28th a swarm composed of immature and mature adults was reported in Gulf of Aden, perhaps coming from the interior of the country. Some adults from the interior of the country also moved to the winter breeding areas along the Red Sea coast where egg-laying and hoppers were reported. Solitary and transient hoppers were also reported in Wadi Al-Rega'a of Lahij Governorate which suggests the presence of new infestations in Gulf of Aden in addition to the outbreak reported in Tihama Coastal Plain in the north. Control operations only treated 1,400 ha from 27 September through 8 October in Shabwah and Marib provinces largely due to lack of resources, insecurity and resentments from beekeepers (**Note:** DLCC's facilities were among the victims of the ongoing insecurity situation, see picture below).



The Yemen locust control center was ransacked and the buildings charred by the rebels. The DLCC staff was forced to move to the PPD facilities (Source: FAO/CRC).

A few adult groups have moved to adjacent areas along the coastal areas in **Saudi Arabia** and controlled on 210 ha, but local breeding is in progress on the central Red Sea coast (**Note:** the 2007 locust outbreak that invaded the Horn of Africa started here). In **Sudan** SGR situation developed in the summer breeding areas where late instar hopper bands and gregarious adults were detected along Atbara River basin. Adult locust groups were controlled in 240

ha in the northern part of Kassala State. Surveys were in progress in most of the summer and winter breeding areas and all affected States have been advised to stand ready for any eventualities (PPD/Sudan). An outbreak may have also occurred in the interior of the country where dry vegetation may have forced adults and form groups and bands. Solitary, scattered groups of adult locusts were detected during surveys carried out in Shinile Zone, Somale Region in eastern Ethiopia were localized hopper outbreaks were reported in September. Adult locusts were also reported in Hare and Aysha northeast of Dire Dawa eastern Ethiopia (DLCO-EA, FAO-DLIS, PPD/Sudan).

Forecast: In **Yemen**, swarms will continue appearing in winter breeding areas in Tihama and Gulf of Aden and Red Sea coastal plains where ecological condition are favorable for the locusts to persist and breed. In **Sudan** adults will likely move from the summer breeding in the interior of the country to the Red Sea coast and begin breeding with the onset of the rains during the forecast period. Other countries in the region will remain relatively calm but need to be on the watch out for locusts coming from **Yemen, Sudan** or **Saudi Arabia** during the forecast period (DLCC/Yemen, DLCO-EA, FAO-DLIS, PPD/Oman, PPD/Sudan).

SGR - Eastern Outbreak Region: Locust number declined in the summer breeding areas along the **Indo-Pakistan** borders where dry weather persisted during October (DPPQS/India, FAO-DLIS).

Forecast: The Indo-Pakistan borders will likely remain calm during the forecast period (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 report locust sightings to DPPQS staff. This*

approach is aimed at improving locust monitoring and reporting by DPPQS staff.

Red (Nomadic) Locust (NSE): Large populations of the NSE persisted in Ikuu-Katavi and Wembere plains as well as Malagarasi Basin in Tanzania. Good rains that fell during the first dekad of October in Malagarasi Basin created favorable conditions for breeding and may have likely caused egg-laying. Medium to high density swarms constituting a large parental population persisted in the Lake Chilwa/Lake Chiuta plains in Malawi. Low to medium size populations persisted in other outbreak areas in Mozambique, Zambia and Tanzania. Egg-laying may have commenced in some areas in Buzi-Gorongosa and Dimba plains in Mozambique; Malagarasi Basin in Tanzania and Kafue Flats in Zambia where significant rainfall was recorded in October (IRLCO-CSA, OFDA/AELGA).

Forecast: Egg-laying may have commenced in some areas where rains have fallen, including Buzi-Gorongosa and Dimba plains in **Mozambique**; Malagarasi Basin in **Tanzania** and Kafue Flats in **Zambia** where significant rainfall was recorded in October. Mating and egg-laying will likely follow the seasonal rains in November. Other areas including Ikuu-Katavi, Wembere and Rukwa Valley plains in Tanzania and Lake Chilwa/Lake Chiuta plains in Malawi will witness egg-laying. Hopper bands and swarms will likely develop during the forecast period and require interventions to avoid crop/pasture damage (IRLCO-CSA, OFDA/AELGA).

Madagascar Migratory Locust (LMC) and Red (Nomadic) Locust (NSE): Egg-laying was reported in Ranohira and Vavalovo in the central part of the outbreak area. Low density (250-600 insects/ha) populations mixed with the Red locust (2,500 adults/ha) were observed during aerial surveys in Miantsoarivo, Tsinjoarivo,

Bemahatazana and Ankarahara from 12 to 15 October 2013. Four swarms measuring up to 12 km x 3 km were reported on some 3,600 ha in the mid-central invasion areas where mature and copulating adults were observed. Swarms were also observed in Mandoto, Tsiroanomandidy and the foothills of west Itremo in the central outbreak areas. The swarms were heading southwest. A mature swarm measuring 400 ha was reported north of Horombe Soamatasy in the North Bay initial multiplication area and another composed of sexually mature and gregarious individuals was observed north of Manja (DPV-FAO-LWU).

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

Malagasy Locust Campaign:

The 2013-2016 locust campaign was officially launched on September 20 and as of the third dekad of September FAO reported USD 23.1 million received from donors and international organizations. On October 2nd, **Morocco** airlifted 64,000 l of the pesticides to **Madagascar** and an additional 136,000 l are expected to arrive in the country in the next months. An additional 75,000 l are anticipated from **Algeria, Mauritania** and **Senegal**. It is worth noting that FAO is negotiating and coordinating the donations through triangulation (see list of acronyms on page 13 for definition) and arranges for transportation (CNLAA/Morocco, CNLA/Mauritania, DPV-FAO-LWU, DPV/Senegal, INPV/Algeria, OFDA/AELGA,).

The latest locust information from FAO-DPV/Madagascar is available on:

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

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

Moroccan (DMA), Italian (CIT), Migratory (LMI) Locusts in Central Asia and the Caucasus (CAC): A late received update indicated that locust activities have diminished in the CAC region except the CIT situation in Armenia where mating was observed during September. No operations were reported during September or October and the situation had largely ended for this breeding season (FAO-ECLO, OFDA/AELGA).



(Locust prone CAC countries, FAO)

Forecast: Locust activities will likely commence in March, 2014 (FAO-ECLO, OFDA/AELGA).

Tree Locust (Anacridium sp.): Tree outbreak that was reported earlier in Turkana County in Kenya was controlled successfully. DLCO-EA provided spray aircraft and a pilot and MoA/Kenya supplied material and ground support (IRLCO-CSA).

Timor and South Pacific: No update was received in Timor and South Pacific in October (OFDA/AELGA).

African Armyworm (AAW): AAW

outbreaks were not reported in DLCO-EA or IRLCO-CSA member countries in October (DLCO-EA, IRLCO-CSA, OFDA/AELGA).

Forecast: AAW outbreaks will likely begin at the onset of the seasonal rains from late October/November on. Kenya and Tanzania will likely experience early invasions associated with the short rains. National Forecasting Services, including community forecasters where available and trap operators are advised to maintain fully operational pheromone traps to monitor moth presence and movements and report to concerned authorities and alert farmers on a timely fashion (DLCO-EA, IRLCO-CSA, OFDA/AELGA).

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 outbreaks were reported in Zeway/Meki areas in East Shewa and Arsi Zones of Oromya region where aerial control commenced on the 19th of October and treated colonies and roosts over 350 ha through 26 October. QU outbreaks were also reported in Fedis and Babile in eastern Oromya region as well as in the Amhara region in the central and north during this month. Damages from QU bird outbreaks were also reported in October in

Mwea rice irrigation scheme in Kirinyaga District in **Kenya**. The Mwea Scheme produces **80 per cent** of the rice consumed in **Kenya** and any pest damage to the scheme means a significant impact on the country's rice produce (DLCO-EA, IRLCO-CSA).

Forecast: QU bird outbreaks will likely persist in the rice growing areas in **Kenya** before they enter the seasonal breeding cycle. The situation will ease up in other IRLCO-CSA member-countries as birds go into a seasonal breeding cycle during the forecast period. Active surveillance, timely reporting and preventive interventions remain essential (DLCO-EA, IRLCO-CSA, OFDA/AELGA).

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 October. However, rodents remain a constant threat to cereal and other crops and produces in many outbreak and invasion areas and require regular surveillance and preventive interventions (OFDA/AELGA).

Note: *Several predatory 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 advised to remain vigilant. Invasion countries are cautioned to stay on the lookout and monitor to avoid any 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

Pesticide inventories did not change much during October and only some 4,950 ha were treated in Mauritania (2,990), Niger (110), Saudi Arabia (210), Sudan (240) and Yemen (1,400) during this period (see table below).

Note: Some of the inventories shown below are not necessarily current, as many countries tend to draw down their inventories for controlling other agricultural pests and often report late or rarely. **End note.**

Mindful of the risk of pesticides gradually becoming obsolete once passed their shelf-life (usefulness) and posing serious health and environmental threats, ETOP-prone countries, particularly those with large inventories, but 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.

With the support from USIAD/OFDA, Japan, the Netherlands and others, FAO has been able to install a web-based tracking system – Pesticide Stock Management System (PSMS) in more than 50 countries around the globe. The System has enabled countries to identify stocks that require testing, put to an immediate use, shared or disposed.

OFDA/AELGA encourages countries to continue exploring options that are proven safe and effective in preventing the risks pesticides stockpiling could pose to humans, the

environment, beneficial organisms and minimizing financial burdens associated with disposal of obsolete 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 control of ETOPs.

Keeping its promises, **Morocco** airlifted 63,600 l of pesticides on October 2, and will be shipping another 136,400 l to support the ongoing locust campaign in **Madagascar**. Other countries, including **Mauritania**, **Algeria** and **Senegal** pledged large quantities of pesticides to **Madagascar**. This kind of solidarity is a good example of a win-win situation where by countries that are donating the pesticides are not only assisting receiving countries, but also avoiding a potential threat that could otherwise cost millions of dollars to dispose.

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 pollution, and thereby 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 as of October, 2013

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	Receiving donations, but current data not available; 128,610
Mali	32,000 D
Mauritania	150,330~*
Morocco	3,957,000~*
Niger	42,805~
Oman	20,000
Senegal	156,000~
Saudi Arabia	Data not available
Sudan	839.760~
Tunisia	167.6~
Yemen	26,400 + .527 kg GM~
<p>^{\$}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 and received 32,000 l from Morocco GM = <i>GreenMuscle</i>TM (fungal-based bio-pesticide)</p>	

CLCPRO	<i>Commission de Lutte Contre le Criquet Pélerin dans la Région Occidentale (Commission for the Desert Locust Control in the Western Region)</i>
CNLA/CNLAA	<i>Centre National de Lutte Antiacridienne (National Locust Control Center)</i>
CRC	<i>Commission for Controlling Desert Locust in the Central Region</i>
CTE	<i>Chortoicetes terminifera</i>
DDL	<i>Department of Desert Locust Control</i>
DL	
DLCO-EA	<i>Desert Locust Control Organization for Eastern Africa</i>
DMA	<i>Dociostaurus maroccanus</i>
DPPQS	<i>Department of Plant Protection and Quarantine Services</i>
DPV	<i>Département Protection des Végétaux (Department of Plant Protection)</i>
ELO	<i>EMPRES Liaison Officers</i>
EMPRES	<i>Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases</i>
ETOP	<i>Emergency Transboundary Outbreak Pest</i>
Fledgling	<i>immature adult locust /grasshopper that has pretty much the same phenology as mature adults, but lacks fully developed reproductive organs and hence cannot breed</i>
GM	<i>Green Muscle (a fungal-based biopesticide)</i>
ha	<i>hectare (= 10,000 sq. meters, about 2.471 acres)</i>
IRLCO-CSA	<i>Integrated Regional Information Networks International Red Locust Control Organization for Central and Southern Africa</i>
ITCZ	<i>Inter-Tropical Convergence Zone</i>
ITF	<i>Inter-Tropical Convergence Front = ITCZ)</i>

LIST OF ACRONYMS

AAW	<i>African armyworm (Spodoptera exempta - SEX)</i>
AELGA	<i>Assistance for Emergency Locust Grasshopper Abatement</i>
AFCS	<i>Armyworm Forecasting and Control Services, Tanzania</i>
AfDB	<i>African Development Bank</i>
AME	<i>Anacridium melanorhodon</i>
APLC	<i>Australian Plague Locust Commission</i>
APLC	<i>Australian Plague Locust Commission</i>
CAC	<i>Central Asia and the Caucasus</i>
CBAMFEW	<i>Community-based armyworm monitoring, forecasting and early warning</i>
CERF	<i>Central Emergency Response Fund</i>
CIT	<i>Calliptamus italicus</i>

FAO-DLIS	Food and Agriculture Organizations' Desert Locust Information Service			
Hoppers	young, wingless locusts/grasshoppers (Latin synonym = nymphs or larvae)			countries with obvious and desperate needs and a third party takes on the negotiation role and assists with arranging shipments, etc. Usually FAO plays the third party role.
Hopper bands	groups of hoppers aggregated and marching in unison and pretty much in the same direction	USAID		Unites States Agency for International Development
Kg	Kilogram (~2.2 pound)	UN		the United Nations
L	Liter (1.057 quarts or 0.264 gallon or 33.814 US fluid ounces)	ZEL		Zonocerus elegans, the elegant grasshopper
LMC	Locusta migratoriacapito	ZVA		Zonocerus variegatus, the variegated grasshopper; this insect is believed to be emerging as a fairly new
LMM	Locusta migratoria migratorioides (African Migratory Locust)			distractive dry season pest, largely due to the clearing of its natural habitat through
LPA	Locustana pardalina			deforestation, i.e. land clearing for agricultural and other
MoAFSC	Ministry of Agriculture, Food Security and Cooperatives			development efforts.
MoARD	Ministry of Agriculture and Rural Development			
NOAA	National Oceanic and Aeronautic Administration			
NSD	Republic of North Sudan			
NSE	Nomadacris septemfasciata			
OFDA	Office of U.S. Foreign Disaster Assistance			
PHD	Plant Health Directorate			
PHS	Plant Health Services, MoA Tanzania			
PPD	Plant Protection Department			
PPSD	Plant Protection Services Division/Department			
PRRSN	Pesticide Risk Reduction through Stewardship Network			
QQU	Quelea quelea			
SARCOF	Southern Africa Region Climate Outlook Forum			
SGR	Schistoseca gregaria			
SWAC	South West Asia DL Commission			
TAG	Technical Assistance Group			
Triangulation (pesticide)	The process whereby pesticides are donated by a country or countries with large inventories, but no immediate need to a country or			

Who to Contact:

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