

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

Summary

The Desert Locust (SGR¹) situation improved in July in spring breeding areas in northwest Africa and winter breeding areas in the Red Sea coasts in Egypt, Sudan and Saudi Arabia and in the Arabian Peninsula. The situation remained a concern in the interior of Yemen where breeding increased locust numbers, but control operations were undermined by the insecurity situation.

Some solitary adults were reported in the summer breeding areas in Sahel West Africa, Sudan and along the Indo-Pakistan borders in July. Locusts were not detected during surveys carried out in Ethiopia and Oman and no reports were received from other countries, including Djibouti, Eritrea, and Somalia during this period (CNLA/Chad, CNLA/Mauritania, CNLAA/Morocco, DLCC/Yemen, DLCO-EA, DPPQS/ India, FAO-DLIS, PPD/Oman, PPD/Sudan).

Forecast: Small-scale breeding will cause locust numbers to increase slightly in the summer breeding areas in the Sahel West Africa, Sudan as well as along both sides of the Indo-Pakistan borders where low numbers of solitary adults appeared in July, but significant developments are not expected during the forecast period

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

(CNLA/Chad, CNLA/Mauritania, CNLAA/Morocco, DLCC/Yemen, DLCO-EA, DPPQS/India, FAO-DLIS, PPD/Oman, PPD/Sudan).



(Areas with some locust activities, FAO-DLIS 8/2013)

Other ETOPs

Red (Nomadic) Locust (NSE): NSE swarms and concentrations persisted in Ikuu-Katavi plains in Tanzania and in the Lake Chilwa/Lake Chiuta Plains in Malawi and Mozambique. NSE populations were expected in Dimba, Buzi-Gorongosa Plains of Mozambique and in the Kafue Flats and Lukanga swamps of Zambia. The situation requires serious attention (IRLCO-CSA).

Forecast: Grass burning that is in progress will force locusts to further concentrate and form swarmlets. With the increase in temperature over the coming months, some of the swarmlets will begin migrating to neighboring areas and invade. The situation requires serious attention to avoid any potential crop/pasture damage (AELGA, IRLCO-CSA).

Madagascar Migratory Locust (LMC): In early July, the Locust Watch Unit (LWU) established by the UN FAO, reported the presence of a swarm in Basalampy. On July 10th, a swarm was detected 30 km south of Antananarivo. The unusually warmer temperatures coupled with green vegetation and prevailing winds created ideal conditions for locusts to persist and

continued migrating up north, west along the coast, northeast, etc. LWU recently reported the presence of swarms in western Madagascar from Ambovombe to Basalampy in the Boeny region, particularly in Morafenobe and Melaky region. The Unit reported crop damage in some localities in Menabe region (LWU-DPV).

Socio-economic impacts of locust invasions:

In late July a Kapoka of rice cost between 400 and 550 MGA in the outbreak area and throughout the Deep South in general, Belo Tsiribihana to Ambovombe. In areas in the perimeter of Mangoky or Dabaraha, the price is 450 MGA (Kapoka is a measurement equivalent to a box or a cane carrying some 390 grams of concentrated milk) *(It is worth noting that the price of rice plays a major role in determining the well-being of the Island State.)*. The increase in the price of rice has led to a hike in the price of cassava (currently 300 MGA per kg). Similar trends were witnessed in other regions of the country, but the price increase was slightly lower in areas that were locust infestations were not reported. The recent price increase is also attributed to Hurricane Haruna that hit the southwestern part of the country in late February 2013 (LWU-DPV).

Forecast: Swarms will likely move from the highland areas to the central area in Betsiriy plain in Minandrivazo, Malaimbandy, Tsimazava, etc. and augment the existing populations. They will also continue invading most of the outbreak areas before they disperse to

the transitional gregarization and/or multiplication areas and join local populations. Egg laying will likely commence in the Horombe Plateau and in Zomandao plain during the first half of August. Should ecological conditions remain favorable, outbreaks could occur in early September. The same situation could be witnessed in the Manambien circle where favorable conditions exist for locusts to persist during the last decades of July. Vigilance, timely reporting and preventive and curative 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): A late received report indicated that the locust situation deteriorated during June in most of the Central Asian countries where suitable conditions allowed CIT and LMI hoppers to continue developing. Control operations treated more than 4.5 million ha during June and continued in July in the CAC regions.

Forecast: Given the large-scale egg laying by LMI in the Aral Sea flood plains in parts of Uzbekistan and adjacent countries last year, escalated hatching and invasions are likely during the forecast period. Massive hatchings of CIT are likely during the forecast period (FAO-ECLC). Increased surveillance and monitoring and timely preventive interventions must be maintained to avert any large-scale LMI

outbreaks and invasions (AELGA, FAO-ECLO).

African Armyworm (AAW): AAW outbreaks were not reported in the IRLCO-CSA member-countries and no reports were received in the DLCO-EA member-countries or elsewhere, but it is likely that some activities may have occurred in northern Ethiopia in July (AELGA, DLCO-EA, IRLCO-CSA).

Forecast: AAW will fade away from Ethiopia as the pest moves further north into southern Eritrea during the forecast period. No activities are expected in the southern outbreak zone during the forecast period. Trap operators are encouraged to report any catches to the appropriate authorities for a timely response (AELGA, DLCO-EA, IRLCO-CSA).

Quelea (QU): QU bird outbreaks were reported in Kisumu, Narok and Nakuru counties in Kenya and in Mara and Morogoro regions of Tanzania. Eleven roosts with an estimated 20.4 million birds were controlled in Kenya in July by ground and aerial sprayers and through other means (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, Tanzania, in winter wheat growing areas in Zimbabwe as well as in other invasion countries. Active surveillance and monitoring as well as timely reporting and interventions remain critical (AELGA, DLCO-EA, IRLCO-CSA).

OFDA/AELGA (Assistance for Emergency Pest [Locust/Grasshopper] Abatement) will continue closely monitoring ETOP situations in all regions and issue dekadal and monthly updates and advise 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 train staff and help prevent and respond to SGR outbreaks. With these supports and with their own resources, FCs were able to minimize and avoid the threats the SGR poses to food security and livelihoods of vulnerable communities.

Although security situation continue undermining surveillance and preventive interventions in some of the locust outbreak areas, CNLAs' persistent efforts to *prevent, mitigate, avert and respond to potentially devastating SGR outbreaks and invasions* are a good example of **sustainable disaster risk reduction** that *deserves encouragements and support*.

OFDA ETOP Activities and Impacts

- OFDA's Senior Advisor for pesticides and pests participated in two back to back meetings at the 11th Technical Meeting and

the 7th Executive Committee meetings of the CLCPRO in Agadir Morocco from 10 – 14th June 2013. The meetings discussed technical, management and strategic policy issues as related to the desert locust situation in 10 (ten) northern 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 in 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 (AAW) monitoring, forecasting and early warning is progressing well. The program aims at reducing the risk of AAW threats to food security and livelihoods of rural communities and vulnerable populations. Activities are being coordinated by the

DLCO-EA in collaboration with MoA partners in Ethiopia, Kenya and Tanzania. As of June 2013, partners have completed 18 (eighteen) milestones, including publishing AAW monitoring and forecasting booklets and identification posters in Amharic, English and KiSwahili. The booklets and posters will be used by farmer forecasters and field agents and help identify and report on AAW sightings and issue alerts and warning ahead of potentially devastating outbreaks.

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

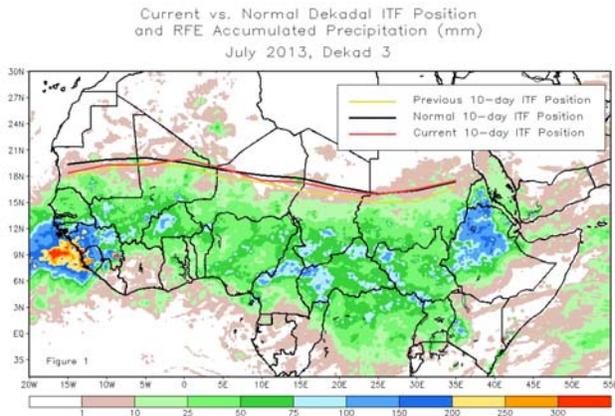
<http://www.usaid.gov/what-we-do/working-crises-and-conflict/responding-times-crisis/how-we-do-it/humanitarian-sectors/agriculture-and-food-security/pest-and-pesticide-monitoring> **end note.**

Detailed accounts of the ETOP situation and forecast for the next six weeks are presented hereafter.

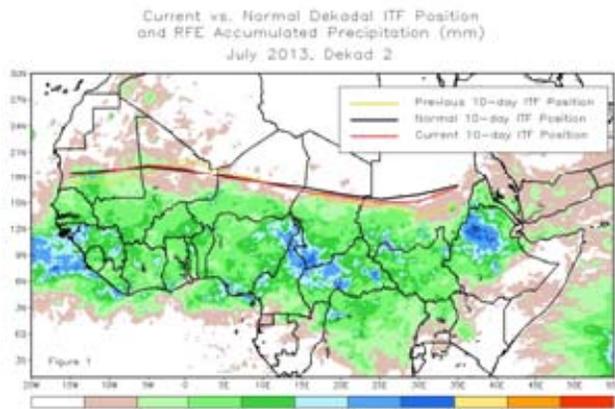
Weather and ecological conditions

During the third dekad of July (21-31 July), the Inter-Tropical Front (ITF) advanced further north and nearly coincided with its long-term average position across Africa. Strong southerly winds and enhanced moisture resulted in above-average rainfall during the period across portions of far West Africa, including northern Senegal and southern Mauritania. Farther east, strong southerly winds also pushed moisture to the north, bringing seasonable rain over western Sudan and moderate to heavy rain across Eritrea. The ITFs mean eastern portion was located approximately at 16.5N, slightly south of the mean

position by 0.1 degree (see Map, NOAA, 8/2013).



During the second dekad of July, the Inter-Tropical Front (ITF) moved slightly north of its previous position across Africa and almost coincided with its long-term climatological mean.

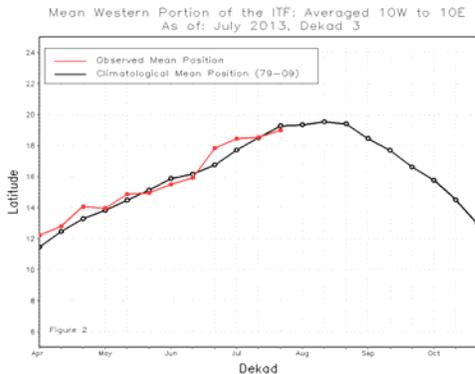


Its mean western portion was around 18.5N, but the center for its mean position for the eastern segment was below-average at near 15.6N lagging behind its climatological mean position by half a degree. The near-average position of the ITF across the western parts of West Africa resulted in heavy and above-average rain in southern Mauritania, whereas its slightly below-average position in eastern Africa brought another below-average rain over eastern Sudan (NOAA).

Light to heavy rain was recorded in spring breeding areas in eastern Ethiopia in June. Vegetation was green in most of the locust

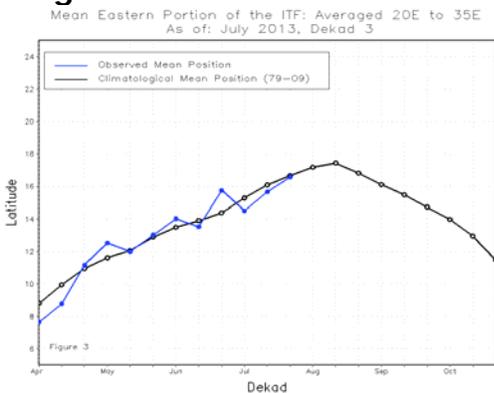
breeding areas and conditions have become favorable for solitary adult locusts to persist. Adjacent areas in northern Somalia and some places in the eastern lowlands of the country as well as a few places in Djibouti also experienced similar rainfall during this period (DLCO).

Western Regions



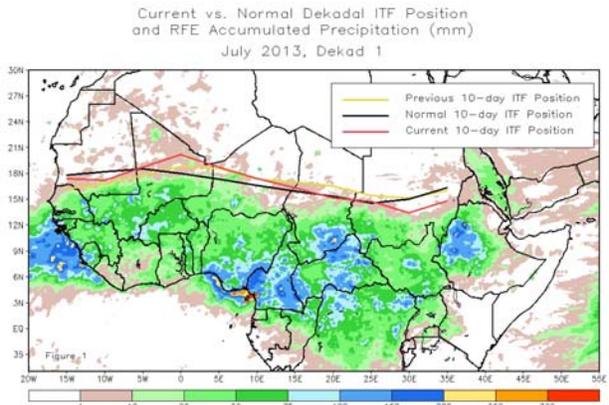
Light to moderate rains fell in some of the SGR breeding areas in the Southern and Northern part of Oman during the 1st and 2nd dekads of July. Hence, vegetation was green to greening, but the soil was dry in areas surveyed during this month (PPD/Oman).

East Region



During the 1st dekad of July, the ITF pushed further north across West Africa bringing above-average rainfall over many areas of the Sahel, including coastal Senegal, southern Mauritania, eastern Mali, Burkina Faso, and portions of western Niger. The mean western portion of the ITF was located near 18.4N, ahead of the mean

position by 0.7 degree. In the eastern portion, at 14.5N the ITF lagged behind the average climatological for this time of year by 0.8 degree and resulted in below-average rainfall across western South Sudan, southern Sudan, and along the borders between eastern Sudan, northwestern Ethiopia, and south-western Eritrea during this period (see map below for the comparison of the current ITF position relative to the long-term average position during the first dekad of July and its previous position during the third dekad of June below) (NOAA). The following 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.



In Mauritania, stormy weather was reported in July in the south and southeastern regions, including Assaba and Guidimaka where ecological conditions have begun improving for locusts to breed and further develop (CNLA/Mauritania).

Unusually good and widespread monsoon rains were recorded in the summer breeding areas along both sides of the Indo-Pakistan border (FAO-DLIS). The Red Locust outbreak areas remained generally dry with cool temperatures. Extensive vegetation burning took place in most of these areas (AELGA, IRLCO-CSA).

In Madagascar, dry weather persisted and rainfall was either very low or none in the outbreak and invasion areas in June and July.

However, even the low rainfall level enabled vegetation to remain green in some of the locust affected areas. This was particularly important for the locusts in the central part of the Manabien circle in the South Bay transient area. Vegetation coverage was about 15% in several 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. A decrease in temperatures was observed in some places in June and July further slowing down locust activities. The prevailing wind in July was mainly blowing south towards Androy (FAO-Antananarivo-DPV/Madagascar).

In Central Asia and the Caucasus (CAC) the weather conditions improved with the exception of a brief dip in temperature in late April where locust activities began developing and will continue during the coming months (FAO-ECLO).

Note: *The 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: SRG situation slowed down in northwest Africa in July. A few solitary adults were reported in southern, southeastern and central Mauritania. A similar situation may be present in Mali and a localized breeding was reported in southeastern Air Mountains in northern Niger. In Morocco, the situation was generally calm and ground operations only treated small groups of L5 larvae, fledglings and immature adults on 796 ha south of Guelmim in Ras Agouyam and Ait

Touflit Mhand during the first two dekads of July (14,214.5 ha have been treated since the current operations began in December, 2012). Control operations launched by CNLAA significantly reduced locust numbers and kept the situation under check.

In Chad ecological conditions remained favorable during the first and second dekad of July, but the SGR situation remained calm. Only a few isolated low density mature solitary adults were detected in a few places in the southwest of Kanem, near Nigerian border and in Kalait during surveys were conducted points (CNLA/Mauritania, CNLA/Chad, CNLAA/Morocco, DLCC/Libya, FAO-SDLIS).

Forecast: With ecological conditions continue improving, some areas may experience an increase in locust numbers from small-scale breeding and/or new arrivals from elsewhere during the forecast period (CNLA/Chad, CNLAA/Morocco, CNLA/Mauritania, DLCC/Libya, FAO-DLIS).

SGR - Central Outbreak Region: The SGR situation remained generally calm in the central region and only a swarm was sighted in Wadi Hadhramout in the eastern part of the summer breeding areas in the interior of Yemen where breeding occurred in June and July and caused locust numbers to increase slightly, but control operations were undermined by the insecurity situation. A few adult groups were reported in spring breeding areas in Saudi Arabia. Scattered adults persisted in the Nile Valley in northern Sudan and an unconfirmed sighting of hoppers was reported in northern Somalia (DLCO-EA, FAO-DLIS, PPD/Oman, and PPD/Sudan).

Forecast: Locust numbers will increase in Yemen and perhaps in western Eritrea and Sudan during the forecast period. In Oman, low numbers of adults may begin appearing in areas of recent rainfall and breed on a small-scale. Other countries in the region will likely remain calm during the coming several weeks. Locust numbers will increase and hoppers and small

swarms may develop in the summer breeding areas in the coming months. Active surveillance and monitoring remain crucial to avoid any major problem in the coming months (DLCO-EA, FAO-DLIS, PPD/Oman, PPD/Sudan, PPD/Yemen).

SGR - Eastern Outbreak Region:

Isolated scattered low density (5-35 insects/ha) immature and mature adults were observed in 5 locations in summer breeding areas in India during surveys that covered 20,000 ha in the first dekad of July. Patches of green vegetation were observed in Barmer, Jadhpur and Nagaur India during this period. Solitary adults appeared in the summer breeding areas along both sides of the Indo-Pakistan borders where unusually heavy monsoon rains were reported in June (DPPQS/India, FAO-DLIS).

Forecast: Small-scale breeding will occur and increase locust numbers slightly in Rajasthan and Cholistan along the Indo-Pakistan borders during the forecast period (DPPQ/India, FAO-DLIS).

Red (Nomadic) Locust (NSE): the NSE situation remained serious and swarms persisted in the Lake Chilwa/Lake Chiuta plains in Malawi and Mozambique. Dead locusts were on sale in towns near the outbreak areas in Liwonde and Blantyre in Malawi. In Tanzania swarms and adult concentrations persisted in the Ikuu-Katavi plains. Although not yet confirmed, it is likely that substantial numbers of NSE are present in Wembere and Rukwa plains as well as Malagarasi Basin. Extensive vegetation burning continued throughout July and was in progress at the time this report was compiled (IRLCO-CSA).

In Mozambique, NSE is expected to be present in the Dimba and Buzi-Gorongosa plains as well as in the Kafue Flats and Lukanga Swamps of Zambia. NSE activities

were not reported in other countries during this period (AAELGA, IRLCO-CSA).

Forecast: As vegetation burning escalates and day temperature continue rising, swarms will begin leaving the outbreak areas and invade neighboring areas.



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

Active surveillance and monitoring as well as timely reporting and interventions remain essential to avoid any major crop and pasture damages. Member-countries are encouraged to make efforts to avail necessary resources for survey and preventive interventions in time to avoid a potentially much serious situation (IRLCO-CSA).

Madagascar Migratory Locust (LMC) and Red (Nomadic) Locust (NSE): The winter weather slows down locust movements, particularly in the highland areas where the temperatures are lower. In early July, the Locust Watch Unit (LWU) established by the UN FAO, reported a swarm in Basalampy confirming a previous prediction of locusts reaching Boeny region in the north-western part of the country between July and August 2013. On July 10th, a swarm was detected 30 km south of Antananarivo and was expected to move west into warmer areas or stay for a while. The unusually mild temperatures in the over-seasoning areas coupled with green vegetation and aided by prevailing winds created ideal

conditions for locusts to move around - up north along the coast and west.

LWU recently reported 40 swarms, mostly in the western part of the country from Ambovombe to Basalampy in the Boeny region in Morafenobe and Melaky. The presence of dense swarms in Morafenobe in Melaky and Menabe regions where 50-90% of rice crops sustained localized damage was also reported.



Large areas in Itremo plateau and Ikalamavony plain in the North Central zone, in Ankaramena in the South Central zone and in Ambatofinandrahana, Ambalavao Fianarantsoa outbreak area in the Central East witnessed the presence of locusts. Swarms and adult groups are present in the Central zone, in the Middle West and in the invasion areas in the highlands where at least 15% of the vegetation is still green. Immature swarms continue to circulate in the highlands and the Central and Northern Gregarization Areas. Some locusts have already matured

or are maturing where ecological conditions are favorable (LWU-DPV).

Forecast:

Swarms will likely move from the highland areas to the central invasion area in Betsiriy plain in Minandrivazo, Malaimbandy, Tsimazava, etc. and reinforce the existing populations during the forecast period. In the outbreak areas, swarms will continue to invade before they disperse to the transitional gregarization or multiplication areas where they will reinforce the existing populations. Swarms and adult groups are present in the Horombe Plateau and in Zomandao plain where conditions remained favorable. Egg laying will likely commence in these areas during the first half of August. Should ecological conditions remain favorable, locust activities could increase by early September. A similar situation could be witnessed in the Manambien circle where conditions were favorable during the last decades of July for locusts to persist. Vigilance, timely reporting and preventive interventions remain crucial (LWU-DPV).

Socio-economic impacts of locust invasions:

According to information received from the LWU, the locust invasions have impacted the price of rice on the market. In late July a Kapoka of rice cost between 400 and 550 MGA in the outbreak area and throughout the Deep South in general, Belo Tsiribihana to Ambovombe. In areas in the perimeter of Mangoky or Dabaraha, the price is 450 MGA (Kapoka is a measurement equivalent to a box or a cane carrying some 390 grams of concentrated milk). However, this price increase is also attributed to Hurricane Haruna that hit the country in February 2013. The increase in the price of rice has also led a hike in the cost of cassava (currently 300 MGA per kg). Similar trends were witnessed in other regions, though the increase was slightly lower in the latter.

The national authorities' role in the emergency locust control campaign

The Ministry of Agriculture (MoA) took the lead and declared a *State of locust emergency and public disaster for the whole country* in November 2012 and fielded the National Locust Control Center (CNA) to survey, monitor and control operations to the extent possible.

With a limited budget of its own MoA worked its way through and secured strong support from other Ministries for the GoM to allocate emergency funds for locust operations. By the end of May, the Ministry of Finance announced that it would contribute 2 billion MGA (~USD 1 million) to the locust crisis. These funds would have been allocated to the CNA led control operations as well as for pesticides, equipment, salaries, etc.

In addition to financial contributions, the GoM has also agreed to facilitate the implementation of the locust project and assist FAO to obtain small warehouses for storage and office spaces in the regions where the project will be operating as well as for other project related facilities. The GoM has agreed to grant tax exemption for all imports of machinery and equipment necessary for the execution of the project and provide flight clearances for locust survey and control operations. It has also agreed to facilitate other official administrative processes to ensure timely implementation of the locust emergency response project (FAO-Antananarivo).

Pledges and Contributions:

As of July 31st, USD 12.38 million has been confirmed or contributed by donors and international organizations, but all funds have not been received or contracts/ agreements signed yet. Discussions are underway with the European Union, the

African Development Bank and the UN CERF for the amount of USD 11.2 million. If all pledges materialize, a total of USD 24.58 could be available (including the 2 billion MGA or ~USD 1 million from the Malagasy Ministry of Finance) by the time the next breeding season begins after the October/ November rains. That leaves a gap of USD 16.92 million for the estimated total of USD 41.5 million for the three year project jointly developed by FAO and GoM. This amount exceeds the estimated USD 22.4 for the first phase or year one of the project (*note: These figures are incomplete and will be updated as more info becomes available*) (FAO-Antananarivo).

<http://www.fao.org/news/story/en/item/178657/icode/>.

Forecast: Given favorable ecological conditions and lack of timely and effective control interventions, large numbers of locust swarms were able to migrate further north into northern and north-central parts of the country crossing the 18th parallel. This will likely allow potentially much larger and more intense breeding and invasions during the 2013/14 breeding season which begins during the last quarter of 2013 (AELAG, FAO, DPV/Madagascar, FEWS).

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): A late received update indicated the CIT situation in Georgia, Kazakhstan and Tajikistan as a threat, but a caution for Kyrgyzstan in June. In most of the Central Asian countries, the locust situation was reported deteriorating as CIT and LMI hoppers continued developing. Control operations treated more than 4.5 M ha during this month. DMA was reported developing in Georgia and

Tajikistan, but was calm elsewhere in the region. All three locust species are developing and being a threat in the Russian Federation (FAO-ECLO)

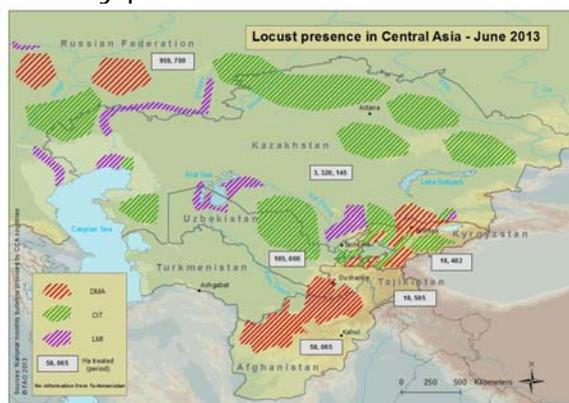
In the Caucasus in June, DMA hoppers continued fledging and mating started in Azerbaijan and Georgia where CIT also started fledging. CIT started hatching in Armenia in June and controlled on 26,000 ha in the region.

In Central Asia, DMA matured in June throughout the region and laid eggs in some countries. CIT started fledging in Kazakhstan, Kyrgyzstan, Russia, Tajikistan and Uzbekistan during this month and LMI hoppers continued development in Kazakhstan, Russia and Uzbekistan.



(FAO-ECLO, 7/2013)

Forecast: CIT, DMA and LMI will continue further developing in CAC countries. Hoppers, bands, and swarms will be seen in many places.



(FAO-ECLO, 7/2013)

Control operations will likely progress in most of the Central Asian countries where the situation is still considered very serious. The Caucasus will also experience serious locust threats. Increased surveillance and monitoring as well as timely preventive and curative interventions remain essential to avert any large-scale locust threats (AELGA, FAO-ECLO).

(Australian Plague Locust (APL): No update was available at the time this report was compiled, but major activities were not expected during July (AELGA, APLC).



(Australian plague locust, source: APLC)

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

African Armyworm (AAW): AAW outbreaks that were reported in southern and eastern Ethiopia were controlled and no major damage was reported. AAW activities were not reported from the northern and eastern outbreak areas, and the southern outbreak areas remained free from the pest during July (AELGA, IRLCO-CSA).

Forecast: AAW activities will likely fade away in northern Ethiopia and the pest will likely migrate northward into southern Eritrea during the forecast period. As always, trap operators, including those from the community based armyworm monitoring, forecasting and early warning (CBAMFEW) must remain vigilant and report trap catches to the appropriate authorities on a timely bases (AELGA, DLCO-EA, IRLCO-CSA).

NOTE: The first seasonal AAW outbreaks were detected and reported by farmers' forecasters who were trained and equipped through OFDA-sponsored community-based armyworm monitoring, forecasting and early warning (CBAMFEW) project after issuing an alert on a possible AAW outbreak in Fedis, Babilay and the surrounding Woredas (districts). The occurrence of the outbreaks reinforced 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 Kisumu, Narok and Nakuru Counties in Kenya where they were observed attacking rice (Kisumu County) and wheat (Narok and Nakuru counties). Control operations were carried out by Crop Protection Services Division using ground operations and spray aircraft from DLCO-EA. In Tanzania, QU outbreaks were reported in Mara and Kilimanjaro regions and aerial control operations were awaiting the arrival of a DLCO-EA spray aircraft. QU activities were not reported in Malawi, Mozambique or Zambia and no reports were received from other outbreak areas during this period (IRLCO-CSA).

Forecast: QU birds are likely to continue being a problem to small grain cereal growers in Kisumu, Siaya, Narok, Nakuru and Machakos counties of Kenya; Mara, Morogoro and Kiimanjaro regions of Tanzania, in Zimbabwe where winter wheat is grown as well as in other small grain cereal growing areas (AELGA, 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 July. However, rodents remain a constant threat to cereal and other produces in many outbreak and invasion areas, and hence regular surveillance and preventive interventions are 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 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 information with partners and other stakeholders as often as possible. Lead farmers and community forecasters are encouraged to remain vigilant and report any ETOP sightings to field agents and other contact persons.

Inventories of National Pesticide Stocks

Pesticide inventories of the national crop protection departments barely changed in July given that only less than 1,600 ha were sprayed during this period (see table below for estimated quantities of each country). Mindful of the risk of pesticides becoming obsolete once passed their usability, 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.

USAID/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.

Countries that have PSMS effectively monitor and regulate their pesticide inventory, easily identify stocks that require testing, immediate use, sharing, disposal etc.

AELGA encourages all options to be explored to avoid the risks that old stocks could pose to the human health, the environment, and non-target organisms as well as the huge financial and environmental burdens associated with disposal of obsolete and unusable stocks.

A judiciously executed triangulation of usable stocks from countries with large inventories to where there are immediate needs is a win-win situation worth considering.

During the recent CLCPRO technical and executive committee meetings, member countries agreed to maintain the spirit of sharing pesticides to control the desert locust 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 from unnecessary accumulations of obsolete pesticides and thereby save resource that could otherwise be spent 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 and thereby reduce pesticide related health risks and environmental pollution and improve food security as well as contribute to the national economy. **End note.***

Estimated quantities of ETOP pesticide in host-countries

Country	Quantities in '000 l/kg ^s
Algeria	1,190~
Chad	43.9
Eritrea	43.7~
Egypt	Data not available
Ethiopia	1.6+~
Libya	25
Madagascar	Data not available
Mali	208.8d~
Mauritania	155.4+~
Morocco	4,097~
Niger	45.00~
Oman	20
Senegal	156~
Saudi Arabia	Date not available
Sudan	460.00
NSD	860"
Tunisia	167.6~
Yemen	33.00 + .527 kg GM~

These quantities include ULV, EC and dust formulations
 ~ data not necessarily current
 d = Mali donated 21,000 l for RL in Malawi, Mozambique and Tanzania late last year and FAO facilitated the triangulation
 + quantity reported in Agadez @ left-over stocks of Chlopyrifos from the 2003-5 DL campaign was tested for quality and found to be usable through 2012
 This includes EC, ULV and Dust for all crop protection uses
 GM = GreenMuscle
 b = biopesticide (Madagascar)
 c = conventional pesticides (Madagascar)
 g = insect growth regulator (Madagascar)

LIST OF ACRONYMS

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

APLC	Australian Plague Locust Commission		much the same phenology as mature adults, but lacks fully developed reproductive organs and hence cannot breed
APLC	Australian Plague Locust Commission		
CAC	Central Asia and the Caucasus	GM	Green Muscle (a fungal-based biopesticide)
CBAMFEW	Community-based armyworm monitoring, forecasting and early warning	ha	hectare (= 10,000 sq. meters, about 2.471 acres) Integrated Regional Information Networks
CERF	Central Emergency Response Fund	IRLCO-CSA	International Red Locust Control Organization for Central and Southern Africa
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)	ITCZ ITF	Inter-Tropical Convergence Zone Inter-Tropical Convergence Front = ITCZ)
CNLA/CNLAA	Centre National de Lutte Antiacridienne (National Locust Control Center)	FAO-DLIS	Food and Agriculture Organizations' Desert Locust Information Service
CRC	Commission for Controlling Desert Locust in the Central Region	Hoppers	young, wingless locusts/grasshoppers (Latin synonym = nymphs or larvae)
CTE	<i>Chortoicetes terminifera</i>	Hopper bands	groups of hoppers aggregated and marching in unison and pretty much in the same direction
DDLC	Department of Desert Locust Control	Kg	Kilogram (~2.2 pound)
DL	Desert Locust	L	Liter (1.057 quarts or 0.264 gallon or 33.814 US fluid ounces)
DLCO-EA	Desert Locust Control Organization for Eastern Africa	LMC	<i>Locusta migratoriacapito</i>
DMA	<i>Dociostaurus maroccanus</i>	LMM	<i>Locusta migratoria migratorioides</i> (African Migratory Locust)
DPPQS	Department of Plant Protection and Quarantine Services	LPA	<i>Locustana pardalina</i>
DPV	Département Protection des Végétaux (Department of Plant Protection)	MoAFSC	Ministry of Agriculture, Food Security and Cooperatives
ELO	EMPRES Liaison Officers	MoARD	Ministry of Agriculture and Rural Development
EMPRES	Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases	NOAA	National Oceanic and Aeronautic Administration
ETOP	Emergency Transboundary Outbreak Pest	NSD	Republic of North Sudan
Fledgling	immature adult locust /grasshopper that has pretty	NSE	<i>Nomadacris septemfasciata</i>
		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

<i>PRRSN</i>	<i>Pesticide Risk Reduction through Stewardship Network</i>
<i>QQU</i>	<i>Quelea quelea</i>
<i>SARCOF</i>	<i>Southern Africa Region Climate Outlook Forum</i>
<i>SGR</i>	<i>Schistoseca gregaria</i>
<i>SWAC</i>	<i>South West Asia DL Commission</i>
<i>TAG</i>	<i>Technical Assistance Group</i>
<i>USAID</i>	<i>United States Agency for International Development</i>
<i>UN</i>	<i>the United Nations</i>
<i>ZEL</i>	<i>Zonocerus elegans, the elegant grasshopper</i>
<i>ZVA</i>	<i>Zonocerus variegatus, variegated grasshopper (This insect is emerging as a fairly new dry season pest largely due to the destruction of its natural habitat through deforestation.)</i>

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To learn more about our activities and programs, please, visit us at:

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