Emergency Transboundary Outbreak Pest (ETOP) Situation Report for August with a Forecast till mid-October, 2011

Summary

The desert Locust (SGR) situation remained relatively calm in August in the summer breeding areas in the Sahel, North Africa, the Red Sea region and Southwest Asia. Only a few adults were detected in parts of Sahel West Africa, the Red Sea region and along the Indo-Pakistan borders. Small-scale breeding is underway in parts of Mauritania and a similar situation may also exist in northern Mali, northern Niger, and eastern Chad, the interior of Sudan, western Eritrea and Yemen. Ground operations treated 1,215 ha in Morocco and Algeria south of the Atlas Mountains. Surveys were hampered by the on going insecurity situation in the Yemen, Libya, Mali and Niger during this period (CNLA/Mauritania, CNLAA/ Morocco, DLCO-EA, DPPQS/India, FAO-DLIS, INPV/Algeria, PPD/Ethiopia and PPD/Sudan).

Forecast: Small-scale breeding will likely increase locust numbers in the summer breeding areas in Sahel West Africa, Central and East Africa, the interior of Yemen and along the Indo-Pakistan borders during the forecast period. Active surveillance and monitoring are essential.

Other ETOPs

Red (Nomadic) Locust (NSE): NSE situation remained relatively calm in August. The seasonal grass burning, which has been in progress forced locusts to concentrate and form groups in smaller unburned areas over the past months (IRLCO-CSA).

Forecast: Significant concentrations of NSE are expected in the outbreak areas in Tanzania, Malawi, Mozambique, and Zambia. The International Red Locust Control Organization for Central and Southern Africa (IRLCO-CSA) will be conducting surveys in these countries during the forecast period to assess locust populations and undertake control operations as necessary.

Madagascar Migratory Locust (LMC): The Malagasy crop protection and armed forces picked up the locust operations from the end tail of the FAO-CNL joint operations after mid-June and continued survey and aerial operations with two aircraft.

Forecast: Ecological conditions are favorable in some places where locusts are over-seasoning. Should the seasonal rains fall, locust breeding will commence and create a condition that will likely require rapid and early interventions to disrupt the outbreak cycle (FAO-CNL).

Note: The United States Agency for International through its Office of Foreign Disaster Assistance (OFDA) responded in time and favorably to the appeal issued by FAO to support the locust emergency campaign operations spearheaded by the FAO-CNA. End note.

Moroccan (DMA), **Italian (CIT)** and **Migratory (LMI)** locusts in Central Asia and the Caucasus (CAC): No new update was received on the locust situation in CAC at the time this report was compiled.

However, on September 9, AELGA Senior Technical Advisor detected mixed populations composed of immature and mature adults and various stages of hoppers in the vicinity of an archeological site northeast of Gabala city in Azerbaijan. The Acridid populations were in grassland and not seen posing threats to crops (AELGA).

Armyworm (AAW): AAW outbreaks continued in Tigray and parts of the Amhara regions of northern Ethiopia where control operations were extended into August. There were no reports of AAW outbreaks in any of IRLCO-CSA or other countries during this period.

Forecast: AAW season is expected to come to an end by September in northern Ethiopia and activities will likely concentrate in southern Eritrea. AAW activities will likely occur in Kenya and Tanzania with the onset of the rains in October and by the end of November most IRLCO-CSA countries will likely experience AAW outbreaks (DLCO-EA and IRLCO-CSA, PPD/Ethiopia).

Quelea (QQU): QQU activities continued in Konso, southwestern Ethiopia where DLCO-EA aircraft carried out spray operations on August 10, 13 and 14 and treated more than 175 ha of acacia trees where the birds were seen roosting. Sorghum, wheat and Barley crops were protected against the bird. Quelea outbreaks were also reported in Nyandarua, Nakuru and Kisumu districts in Kenya where the birds were seen attacking wheat and rice. Quelea roosts were also reported in Shurugwi district of the Midlands province in Zimbabwe as well as in Morogoro and Arusha regions in Tanzania (DLCO-EA, IRLCO-CSA).

Forecast: Quelea birds will likely continue causing problems to wheat and rice in Kenya and to irrigated winter wheat crops in Zimbabwe (IRLOC-CSA).

OFDA/AELGA (Assistance for Emergency Locust and Grasshopper Abatement**)** will continue monitoring ETOP situations in all regions and issue updates and advices as often as necessary. **End summary**

Progress in SGR Frontline Countries:

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

Funds provided by the African Development Bank, the World Bank, USAID, France, FAO, host-governments, neighboring countries and others enabled the FCs to equip CNLAs with necessary tools, materials and infrastructure as well as help train staff to prevent and respond to DL outbreaks and avoid the threats they pose to food security and livelihoods of vulnerable communities.

CNLAs' efforts *to aver, mitigate or respond to potentially devastating DL outbreaks and invasions* need to be supported and encouraged.

OFDA ETOP Activities

- OFDA/TAG continues its initiatives in pesticide risk reduction through stewardship network (PRRSN) to ensure safety of

vulnerable people as well as protect their assets and the environment against pesticide pollution. OFDA/TAG successfully launched two sub-regional PRRSNs in Eastern Africa and the Horn. The Horn of Africa PRRSN initiative has created a sub-set Association under the rubric of Pesticide Stewardship Association and registered in Ethiopia (PSA-E). Prospective partners have begun expressing interests to dub or work with the association. PSA-E will likely serve as a blue print or a guinea pig for similar structures in the future.

- Discussions that began several months ago to launch similar PRR initiatives in North Africa and the Middle East were halted by the ongoing situation in the regions. A dialogue is underway in other regions.

- OFDA continues its assistance for capacity strengthening to mitigate, prevent, respond to and reduce risks of ETOP emergencies and associated human health threats as well as environmental pollutions.

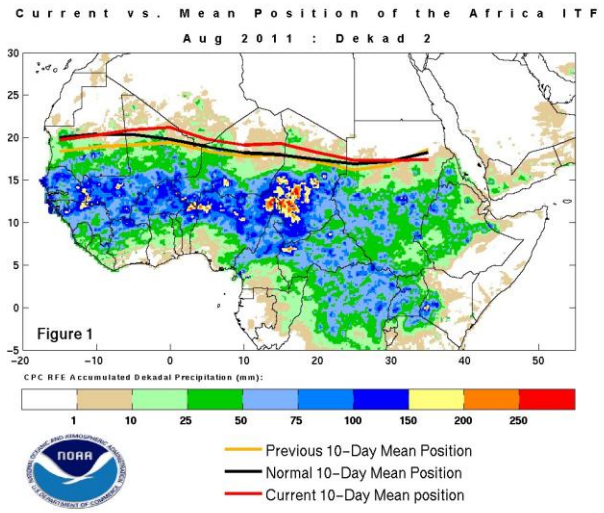
- OFDA I supporting through FAO a program to strengthen national and regional capacities to coordinate locust monitoring, reporting, prevention and mitigation efforts to abate the threats they pose to food security and livelihoods of vulnerable communities in Central Asia and the Caucasus (CAC).

All SITREPs can be accessed on our website at:

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

Weather and ecological conditions

From August 11-20, 2011, the ITF experienced a significant advancement across its central portion and is now ahead of the climatological mean position during this time of the year. This was due to enhanced moisture influx and easterly wave activities in West Africa during the second dekad of August. The mean western portion of the ITF was located at 20.3N, up by 0.8 degree. In the eastern portion, it approximated at 17.5N, ahead of the mean position by only 0.1 degree.



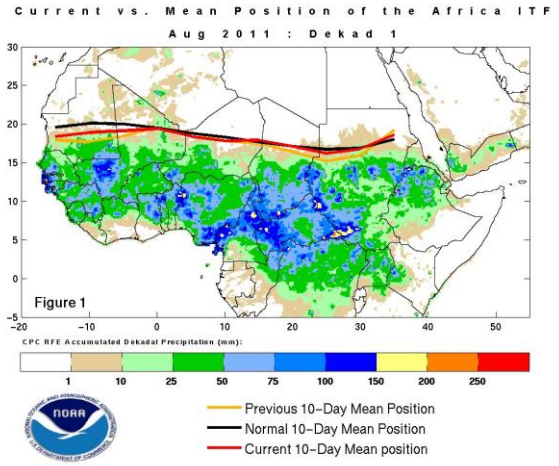
The anomalous position in the eastern portion was associated with an enhanced moisture convergence in the region since the past several dekads (see map).

Seasonal rains have been relatively good in August in most of the summer breeding areas from Mauritania to western Eritrea, the interior of Yemen and along the Indo-Pakistan borders. Cloudy and humid weather prevailed in eastern Ethiopia during this period. Medium to heavy rains (~30 mm) were reported in Dire Dawa and surrounding areas and good rains fell in parts of northwestern Somalia, particularly in areas bordering eastern Ethiopia and adjacent areas in Djibouti. Reports of localized rains were also received from coastal and sub-coastal areas of Somalia where solitary adult locusts are often observed. Good rain was reported and

vegetation has begun greening in the plateau areas surrounding Hargeissa and Boroma (DLCO-EA).

In Algeria, August was characterized by movement of the ITF in the south generating light rains (1-9 mm) in Timiaouine and Bordj Badji Mokhtar, Tamanrasset, Ziza and Amguid and Bordj El Haoues (INPV/Algeria).

During the first dekad of August, the ITF moved northwards over far western and eastern portions of Africa. In the western portion, the ITF was approximated at 18.7N, 0.6 degrees behind the climatology mean. The northward movement of the ITF is attributed to an increase in easterly wave activity across West Africa. However, the overall position of the Front across West Africa remains south leading to dryness in Senegal, Mali and Mauritania.



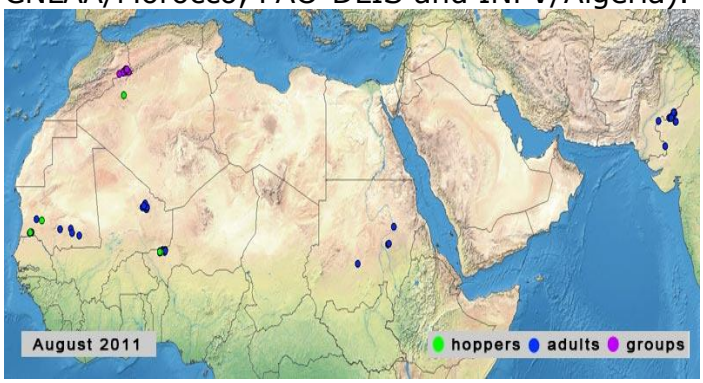
The eastern portion of the ITF was around 17.2 N, similar to the climatology mean across eastern Africa and remained above the mean position over far eastern portions of Africa due to a consistently moist and strong southwesterly wind that prevailed during the first dekad (NOAA, 8/2011).

Dry and warm weather conditions prevailed in most IRLCO-CSA Member Countries in August. The dry conditions further accelerated vegetation drying and created Favorable conditions for grass burning and distraction of the NSE habitat (IRLCO)

***Note**: Changes in the weather patterns and the shift in the ecology of landscape are believed to exacerbate the risk of pest outbreaks and resurgence. Regular monitoring and reporting are essential. **End note**.*

Detailed accounts of ETOP situation, activities and ecological conditions are presented below.

SGR - Western Outbreak Region: The desert Locust (SGR) situation remained relatively calm in August in the summer breeding areas in the Sahel and North Africa. Only low numbers of adults were detected in southwestern and central Mauritania and eastern Chad where small-scale breeding was detected. A similar situation may exist in northern Mali and western and northern Niger. A population composed of scattered mature adults and hoppers was observed over an area of 40 ha near cultivated fields in Lahmar zone, in Algeria where preventive control was carried out against the locusts. A total of 1,310 ha have been treated in Algeria since January 2011 (CNLA/Mauritania, CNLAA/Morocco, FAO-DLIS and INPV/Algeria).



SGR breeding observed in summer breeding areas, FAO-DLIS, 9/2011)

Forecast: Good rains that started falling in the summer breeding areas in southern and central Mauritania and northern Mali and Niger as well as western Chad created favorable conditions for locusts to breed. Small-scale breeding will continue in areas of recent rainfall in Mauritania,

Niger, Mali and Chad and locust numbers will slightly increase during the forecast period (CNLA/ Mauritania, CNLAA/Morocco, FAO-DLIS and INPV/Algeria).

SGR - Central Outbreak Region: The SGR situation remained fairly calm in August in the summer breeding areas in the Red Sea region. Only low numbers of adults were detected in northern Sudan and a similar situation is likely in western Eritrea and the interior of Yemen were surveys were not carried out (DLCO-EA, FAO-DLIS, PPD/Ethiopia, and PPD/Sudan).

Forecast: Small-scale breeding will likely cause locust number to increase slightly in the interior of Sudan, western Eritrea and perhaps in the interior of Yemen during the forecast period. Although good rains were recorded in the Horn of Africa since mid-July and ecological conditions are becoming favorable, significant developments are not expected and the situation will likely remain calm during the forecast period, however, vigilance should be maintained to prevent any unforeseen developments (DLCO-EA, FAO-DLIS, and PPD/Sudan).

SGR - Eastern Outbreak Region: The SGR situation remained relatively calm in August in the summer breeding areas in Southwest Asia. Only low numbers of adults were reported along both sides of the Indo-Pakistan borders in Cholistan and Rajasthan in August.

Forecast: Given that ecological conditions have began improving along the Indo-Pakistan borders due to the monsoon rains, locust numbers will likely increase and more adults will start breeding and forming small groups during the forecast period. Vigilance should be maintained and necessary actions taken to avoid further developments (DPPQS/India, FAO-DLIS)

Red (Nomadic) Locust (NSE): The NSE situation remained relatively calm in August, partly due to the control operations undertaken in Tanzania in May/June 2011. The seasonal grass burning, which has been in progress likely forced locusts to concentrate and form groups in unburned areas during the past few months. Significant concentrations of Red Locusts are therefore expected in Malagarasi Basin, Ikuu-Katavi and Wembere plains in Tanzania, Buzi-Gorongosa and Dimba plains in Mozambique, Lake Chilwa/Lake Chiuta plains in Malawi and Kafue flats in Zambia. IRLCO-CSA has planned to carry out surveys in Zambia, Malawi and Tanzania to assess locust populations and undertake control operations before the start of the cropping season.

Forecast: During the forecast period, groups of NSE will be seen on unburned vegetation and may form swarmlets in some areas. Rains which are expected in late October in some areas will trigger breeding and egg laying. By the end of November, most outbreak areas are expected to have received some rains and breeding will have commenced. There is a high probability of widespread egg laying in Malagarasi, Ikuu-Katavi and Wembere of Tanzania due to significant parental populations in these outbreak areas. Considerable numbers of locusts that were found in Buzi-Gorongosa and Dimba of Mozambique during July are expected to persist and begin breeding with the onset of the rains in November. In other outbreak areas of Malawi and Zambia, high concentrations of pre-breeding populations and large-scale egg laying are likely.

Madagascar Migratory Locust (LMC): The Malagasy crop protection and armed forces picked up the locust operations from the end tail of the FAO-CNL after June and continued survey and aerial operations with two aircraft. Aerial and ground operations continued survey and control operations.

Forecast: Ecological conditions are favorable in some places where locusts are over-seasoning.

Should the seasonal rains fall in time, this will likely create a condition that could require rapid and early interventions to break the cycle. FAO cautioned in its news release that hundreds of thousands of ha will likely need treatments during the 2011-2012 campaign (FAO-CNL).

Moroccan (DMA), **Italian (CIT)** and **Migratory (LMI)** in Central Asia and the Caucasus (CAC): No new update was received on the locust situation in CAC at the time this report was compiled. On September 9, AELGA Senior Technical Advisor observed mixed populations of immature and mature adults and various stages of hoppers in the vicinity of an archeological site northeast of Gabala in Azerbaijan. The acridids were detected in grasses and posing no threats to crops.

(Locust prone CAC countries, FAO)

Australian Plague Locust (APL): No new information was obtained at the time this report was compiled, but most of the eggs that were laid during April will remain dormant until hatching begins sometime in October (AELGA, APLC).


(Australian plague locust, source: APLC)

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

Armyworm (AAW): AAW outbreaks continued in Tigray and parts of the Amhara regions of northern Ethiopia where control operations continued in August. There were no reports of AAW outbreaks in any of IRLCO-CSA or other DLCO-EA member countries during August.

Forecast: AAW season is expected to come to an end by September in northern Ethiopia and activities will likely concentrate in southern Eritrea. In the southern and south-central regions Kenya and Tanzania, AAW activities will likely occur with the onset of the rains in October. By end of November most IRLCO-CSA countries will likely experience AAW outbreaks. IRLCO-CSA has started providing pheromone traps and lures to member States to assist in monitoring moth occurrences and forecasting outbreaks. Armyworm trap operators are requested to service their traps in preparation to the 2011/2012 Armyworm season that commences in October with onset of the rains (DLCO-EA, IRLCO-CSA, and PPD/Ethiopia).

Quelea (QQU): QQU control continued in Konso, southwestern Ethiopia where DLCO-EA aircraft sprayed Fenthion on August 10, 13 and 14 on more than 175 ha of acacia trees where the birds were seen roosting. Sorghum, wheat and Barley crops were protected against a QQU threat. QQU outbreaks were also reported in Nyandarua, Nakuru and Kisumu districts in Kenya where they were seen attacking wheat and rice. In Zimbabwe, Quelea roosts were reported in Shurugwi district of the Midlands province and in Tanzania, outbreaks were reported in Morogoro and Arusha regions (DLCO-EA, IRLCO-CSA).

Forecast: Quelea birds will likely continue causing problems to wheat and rice in Kenya and to irrigated winter wheat crops in Zimbabwe (IRLOC-CSA).

(A QQU roost, a file photo; free encyclopedia)

***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 colony composed of a million birds (very common) is capable of consuming and destroying 7-10 tons of seeds/day (enough to feed 15,000-20,000 people for a day).*

Rodents: No rodent outbreak or infestation was reported during this month, but the pest remains a constant threat to both pre- and post-harvest crops and produces in many countries around the globe.
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 outbreaks and a period of lull.

Front-line countries are advised to remain vigilant. Countries in the invasion zones should maintain the capacity to 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.

Inventories of Acridid Pesticide Stocks

A cumulative total of 1,215 l of pesticides were used in August in Algeria and Morocco.

Mindful of the fact that pesticides become obsolete once past their shelf-lives, ETOP-prone countries, particularly those with large stocks, but are less likely to use them within a reasonable time, are encouraged to test their inventories regularly and determine whether they should use, retain, share or discard them immediately. All options should be explored to avoid severe human health impacts as well as huge environmental and financial burdens associated with handling and disposing of large stocks of obsolete pesticides.

A judiciously executed triangulation of stocks from countries with large inventory to where the need exists is a double-edged alternative that is worth considering.

Note: *The core message of* ***pesticide stewardship [networking] Program*** *is to strengthen the national and regional pesticide delivery systems by linking partners at different levels and thereby reduce pesticide related health risks, avoid environmental pollution and improve food security as well as ultimately contribute to the national economy.* ***End note****.*

Estimated (acridid) pesticide inventories

Country	Quantities in '000l/kg[$]
Algeria	1,800~
Chad	108.09~
Eritrea	43.90~
Egypt	Data not available
Ethiopia	15.78
Libya	Data not available
Madagascar	1.6c + 0.00g + 1.10b
Mali	209d~
Mauritania	435.3~

Morocco	4,100~
Niger	28.24+
Senegal	519~
Saudi Arabia	Date not available
Sudan	860.00"
Tunisia	167.60~
Yemen	33.00 + .527 kg GM

These quantities include ULV, EC and dust formulations
~ data not necessarily current
l = Mali donated 21,000 l for RL in Malawi, ɔzambique 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 (**S**podoptera **ex**pempta - SEX)*
AELGA	*Assistance for Emergency Locust Grasshopper Abatement*
AME	***A**nacridium **me**lanorhodon*
APL	*Australian Plague Locust*
APLC	*Australian Plague Locust Commission*
CAC	*Central Asia and the Caucasus*
CERF	*Central Emergency Response Fund*
CIT	*Calliptamus italicus*
CLCPRO	*Commission de Lutte Contre le Criquet Pélerin 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	*Chortoicetes terminifera*
DDLC	*Department of Desert Locust Control*
DL	*Desert Locust*
DLCO-EA	*Desert Locust Control Organization for Eastern Africa*
DMA	*Dociostaurus maroccanus*
DPPQS	*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*
GM	*Green Muscle (a fungal-based biopesticide)*
ha	*hectare (= 10,000 sq. meters, about 2.471 acres)*
IRIN	*Integrated Regional Information Networks*
IRLCO-CSA	*International Red Locust Control Organization for Central and Southern Africa*
ITCZ	*Inter-Tropical Convergence Zone*
ITF	*Inter-Tropical Convergence Front = ITCZ)*
FAO-DLIS	*Food and Agriculture Organizations' Desert Locust Information Service*
Kg	*Kilogram (~2.2 pound)*
L	*Liter (1.057 quarts or 0.264 gallon or 33.814 US fluid ounces)*
LMC	*Locusta migratoriacapito*
LMM	*Locusta migratoria migratorioides (African Migratory Locust)*
LPA	*Locustana pardalina*
MoAFSC	*Ministry of Agriculture, Food Security and Cooperatives*

MoARD	*Ministry of Agriculture and Rural Development*
NOAA	*National Oceanic and Aeronautic Administration*
NSE	*Nomadacris septemfasciata*
OFDA	*Office of U.S. Foreign Disaster Assistance*
PHD/S	*Plant Health Directorate/ Services*
PPD	*Plant Protection Department*
PPSD	*Plant Protection Services Division/Department*
PRRSN	*Pesticide Risk Reduction through Stewardship Network*
QQU	*Quelea quelea*
SGR	*Schistoseca gregaria*
SWAC	*South West Asia DL Commission*
TAG	*Technical Assistance Group*
USAID	*Unites States Agency for International Development*
UN	*the United Nations*
ZEL	*Zonocerus elegans, elegant grasshopper*

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

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