

Emergency Transboundary Outbreak Pest (ETOP) Situation Report for September with a Forecast till mid-November, 2012

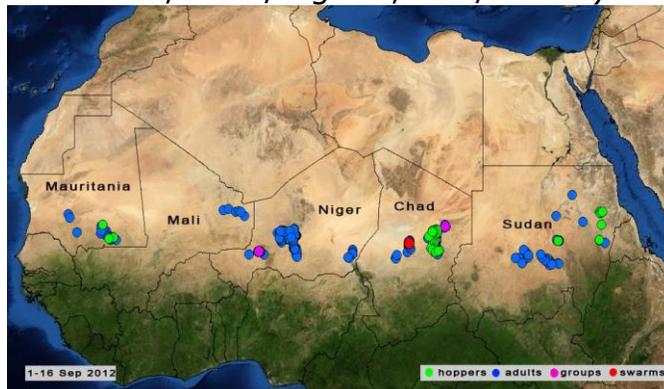
Summary

The Desert Locust (SGR¹) continued further developing and the second generation breeding commenced in September in northern Mali, Niger and Chad where hoppers and adult groups were detected. In Chad, the national locust control team treated 626 ha in the northeast. Small-scale breeding occurred in southeast and western Mauritania and a slight increase in locust numbers was reported in some places in the interior of Sudan where control operations treated locusts on 41 ha during this month. A few scattered adults were reported on farms in Saudi Arabia and some adults persisted in a few places in Rajasthan, India and adjacent areas in Pakistan where small-scale breeding occurred during September. Other countries remained calm during this period (DLCO-EA, DPPQS/India, FAO-DLIS, PPD/Sudan).

Forecast: With vegetation drying out in most of the outbreak area in the Sahel, adults will likely form small groups and swarms and begin migrating north towards southern Libya, southern Algeria and northwest Mauritania from late October onwards. Some locusts could reach as far north as Western Sahara and western Algeria while others may move into cropping

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

areas in Mali and Niger. Hopper groups and bands will likely form during the forecast period. With Monsoon rains winding down and vegetation drying up in the eastern outbreak areas, locust numbers will decline and the situation will remain calm during the forecast period (DLCO-EA, DPPQS/India, FAO-DLIS, INPV/Algeria, PPD/Sudan).



(DL adults and groups were reported in Niger, Chad, Mauritania, Mali and the interior of Sudan, FAO-DLIS, September, 2012)

Actions taken:

Survey and monitoring continued in areas accessible to the national locust control staff in Niger, Mauritania and Chad and to a lesser extent in Mali. Control operations treated locusts on some 626 ha in northeastern Chad and on 41 ha in the interior of Sudan during this month. So far crop and/or pasture damage has not been reported, but is likely in the coming weeks.

Surveys must continue and preventive interventions implemented to the extent possible in all frontline countries to minimize the threats the locusts pose to crops and pasture.

Funds and pledges:

As of this month, FAO has received USD 3.1 Million (31% of the original appeal for the locust crisis) from various donors. Of these,

OFDA contributed 2 Million, and France and UK each contributed USD 550,000. In addition, Niger has received USD 1,029,300 in bilateral assistance from various donors. Discussions are underway with other donors for additional assistance.

Algeria donated 50,000 liters of pesticides (*Lambda-cyhalothrin*) through a bilateral assistance to Niger during this month. Additional pesticide triangulations are being negotiated and processed for Mali and Chad.

The national locust control units in Sahel West Africa and North Africa are working closely with FAO updating the regional workplan that was developed in June 2012 at the 40th DLCC Session in Rome.

Other ETOPs

Red (Nomadic) Locust (NSE): NSE concentrations and low density small swarms were formed on patches of green vegetation due to extensive grass burning. Locust groups and swarms that were reported earlier in Lake Chilwa and Lake Chiuta on the Malawi and Mozambique borders persisted through the month (IRLCO-CSA).

Forecast: NSE groups are likely to remain in patches of green vegetation that escaped burning. Breeding will commence with the onset of the rains in late October into early November 2012 and hoppers will likely form in mid-January 2013 provided conditions remain favorable in the outbreak areas

where significant residual parental populations persisted (IRLCO-CSA).

Madagascar Migratory Locust (LMC):

No update was received on LMC at the time this report was compiled. The situation is expected to have further receded as conditions continued becoming unfavorable, but will commence with the onset of the seasonal rains in November/December (AELGA).

Moroccan (DMA), Italian (CIT) and Migratory (LMI) locusts in Central Asia and the Caucasus (CAC): No update was received at the time this report was compiled, however, locust activities are expected to have ended in the southern CAC and other areas, but some residual CIT and LMI activities may be present in some countries in the region, though they will likely recede progressively over the coming weeks (FAO-ECLO).

Tree locust (Anacridium sp.): A Tree locust outbreak was controlled using aerial spraying in Kainuk area, Turkana County in the Rift Valley Province in Kenya. The pest was reported defoliating *Acacia sp.*, a principal livestock feed in the dry and arid region of the country in August (IRLCO-CSA).

African Armyworm (AAW): AAW activities were not reported in the outbreaks countries in Southern Africa, the Horn and Eastern Africa in September (AELGA, DLCO-EA, IRLCO-CSA).

Forecast: AAW activities will likely commence from October/November on in the southern and south-central outbreak areas in the IRLCO-CSA member-countries. Trap operators are advised to set-up traps

prior to the onset of rains and begin monitoring AAW situation and provide accurate and timely forecast (AELGA, DLCO-EA, IRLCO-CSA).

Quelea (QQU): QQU birds were reported damaging small grain cereals in Nakuru in Kenya where roosts were controlled. The birds were also reported in western Eritrea where control operations began during the last week of September. Flocks of QQU birds were observed in Kilimanjaro and Arusha regions in Tanzania, but crop damage was not reported during this time (DLCO-EA).

Forecast: QQU birds will continue posing a threat to small grain growing areas in Kenya and Zimbabwe. PPD staff should remain vigilant (for more information on the potential impacts of QQU birds on crops, please, refer to page 7 below) (AELGA, IRLCO-CSA).

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

Progress in SGR Frontline Countries:

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

Funds provided by the African Development Bank, USAID, the World

Bank, France, FAO, host-governments, neighboring countries and others enabled the FCs to equip CNLAs with necessary tools, materials and strengthen the infrastructure as well as help train staff to prevent and respond to SGR outbreaks. This has helped frontline countries in the region to avoid the threats the SGR pose to food security and livelihoods of vulnerable communities.

However, the ongoing insecurity situation in the regional, particularly in northern Mali and parts of Niger continue undermining implementation of timely and effective survey and control interventions in these countries.

*CNLAs' efforts to avert mitigate or respond to potentially devastating SGR outbreaks and invasions deserve encouragements and support – a good example of **sustainable disaster risk reduction** with modest input.*

OFDA ETOP Activities and Impacts

- OFDA/TAG continues its initiatives in pesticide risk reduction through stewardship network (PRRSN) programs to ensure safety of vulnerable people and protect their assets and the shared 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 in Ethiopia (PSA-E).
- Discussions that began several months ago to launch similar PRR initiatives in North Africa and the Middle East were halted by the unrests manifested in the regions. An effort is underway to resume dialogue with partners in the region.

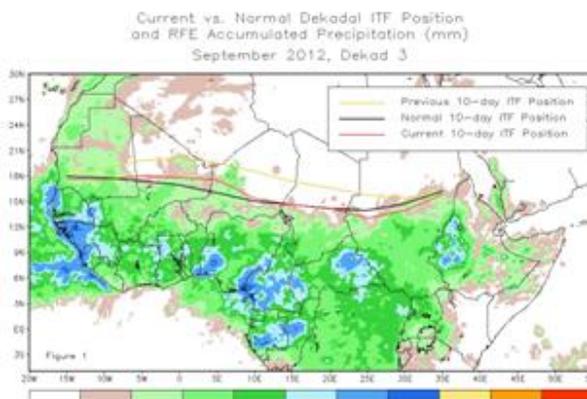
- OFDA continued its assistance for DRR through capacity strengthening programs with FAO to mitigate, prevent, and respond to and reduce the risk of ETOP emergencies.
- OFDA's assistance for obsolete pesticide prevention and management has enabled FAO to develop a system for monitoring, managing and reporting pesticide inventories (PSMS) in ETOP prone countries. Participating countries are able to conduct regular monitoring and make decisions concerning their stocks to prevent accumulation of obsolete stocks.
- For the first time, OFDA is supporting a program through FAO to strengthen national and regional capacities in Central Asia and the Caucasus (CAC) to coordinate locust monitoring and reporting and plan prevention and mitigation efforts to abate and minimize the threats they pose to food security and livelihoods of vulnerable populations.
- OFDA/TAG approved a three-year project on scaling up community-based armyworm monitoring, forecasting and early warning in Ethiopia, Kenya and Tanzania. The project is aimed at reducing the risk of AAW threats to food security and livelihoods of vulnerable populations and rural communities.

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

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

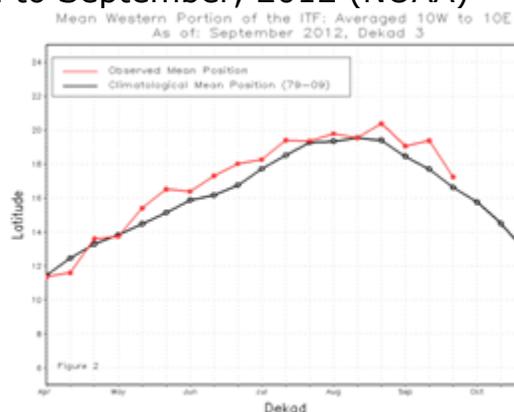
Weather and ecological conditions

During the third dekad of September, the Inter-Tropical Front (ITF) experienced a significant southern retreat. The mean western portion of the ITF (10W-10E) was located near 17.2N, 0.6 degrees north of the mean climatological position and 2.2 degrees south of its previous dekad position. Nevertheless, the Front remained in an above-average northerly position and resulted in above-average rains across the Sahel during the end of September.



The mean eastern portion (20E-35E) of the Front was located approximately at 14.2N and 0.5 degrees south of the mean climatological position and 1.8 degrees south of the previous dekad's position.

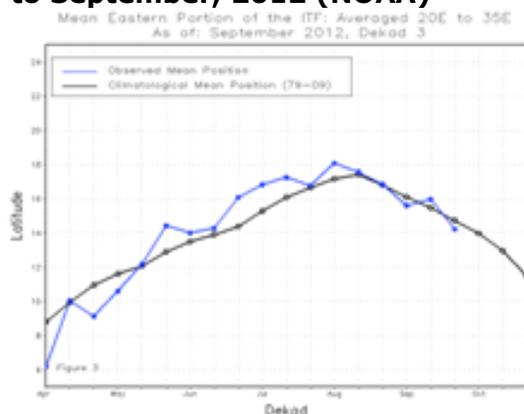
Western segment of the ITF positions from April to September, 2012 (NOAA)



An increase in dry northerly winds helped suppress the ITF across East Africa resulting in

below-average rains in Sudan and elsewhere in the region (see figures, NOAA, 9/2012).

Eastern segment of the ITF positions from April to September, 2012 (NOAA)



Hot and dry weather persisted during September in the Red Locust outbreak areas where grass burning was accelerated (IRLCO-CSA).

Note: The shift in the ecology of landscape and changes in the weather patterns are believed to exacerbate the risk of pest outbreaks and a resurgence and even emergence of new pests. Regular monitoring and reporting of anomalous pest situation are essential. End note.

Detailed accounts of the ETOP situation and predictions for the next six weeks are presented henceforth.

SGR - Western Outbreak Region:

As predicted earlier, a second generation breeding commenced in September in northeast **Mali** (Adrar des Iforas and Tamesna), in northern and central **Niger** (Tamesna and pasture zones) and in northeastern **Chad** (BET and Biltine) where unusually good rains resulted in favorable ecological (breeding) conditions. Control teams treated 626 ha in northeast Chad. Small-scale breeding occurred in southeast and western Mauritania during this period (FAO-DLIS).

Forecast: As vegetation dries out adult locusts will form small groups and swarms will begin migrating north into southern Libya, southern Algeria and northwest Mauritania from late October onwards. Some locusts could reach as far north as Western Sahara and western Algeria while others could move into cropping areas in Mali and Niger and likely cause damage. Hatching will likely commence in the coming days in these countries and form more hoppers well into October. Fledging could start by mid-October and increase locust numbers during the second half of October and into November (FAO-DLIS).

SGR - Central Outbreak Region:

In September, a small-scale breeding caused a slight increase in the number of locusts in several areas between Darfur and the Red Sea Hills in the interior of Sudan. Adult groups and swarms were controlled on 41 ha. A few adults were reported on farms in the interior of Saudi Arabia, but other areas in the region remained calm during this period (DLCO-EA, FAO-DLIS, PPD/Sudan).

Forecast: As vegetation dries out locusts will further concentrate and form more groups during the forecast period. Active surveillance must be maintained in all areas (DLCO-EA, FAO-DLIS, PPD/Sudan).

SGR - Eastern Outbreak Region:

Low numbers of adults persisted in a few places in Rajasthan, India and in adjacent areas in Pakistan where small-scale breeding occurred during September, but significant activities were not reported during this period (DPPQS/India, FAO-DLIS).

Forecast: With monsoon rains ending and vegetation drying up, locust numbers will decline and the situation will likely remain calm during the forecast period (DPPQS/India, FAO-DLIS).

Red (Nomadic) Locust (NSE): NSE concentrated and formed small low density

swarms on patches of green vegetation in areas where extensive grass burning took place. Concentrations and swarms that were previously reported in Lake Chilwa and Lake Chiuta in Mali-Mozambique persisted during this month (IRLCO-CSA).

Forecast: NSE groups will likely remain in patches of green vegetation that escaped burning. Breeding will commence with the onset of the rains in late October into early November 2012 and hoppers will likely form in mid-January 2013 provided conditions remain favorable in the outbreak areas where significant residual parental populations exist (IRLCO-CSA).



Red locust control operations, Aug., 2012 (IRLCO-CSA)

Tree locust (*Anacridium sp.*): A tree locust outbreak that was reported defoliating *Acacia sp.*, a principal livestock feed in the dry and arid region of the country, in August in Kainuk area, Turkana County in the Rift Valley Province in Kenya was controlled by aerial means (IRLCO-CSA).

Madagascar Migratory Locust (LMC): No update was received at the time this report was compiled and the situation is expected to have further receded as ecological conditions become unfavorable, however, scattered solitary adults may be present in primary recession areas (AELGA).

Forecast: The Malagasy locust will likely begin appearing in the outbreak areas as the seasonal rains commence in late November and early December. A well thought out strategy should be put in place beginning October 2012 for the 2012-13 campaign to abate the potential for locust populations to increase and threaten food security of vulnerable communities (AELGA).

Moroccan (DMA), Italian (CIT) and Migratory (LMI) locusts in Central Asia and the Caucasus (CAC): No update was received on DMA, CIT, or LMI at the time this report was compiled. However, DMA activities must have ended in the southern CAC and other areas (AELGA).

Forecast: CIT and LMI will progressively recede over the coming months and gradually and slowly ending in Kazakhstan, Kyrgyzstan and the Russian Federation (FAO-ECLO).



(Locust prone CAC countries, FAO)

Australian Plague Locust (APL): No update was received at the time this report was compiled and eggs that were laid from local populations from mid-March on and from redistributed adults will continue over seasoning till next spring (AELGA, APLC).

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



(Australian plague locust, source: APLC)

African Armyworm (AAW): AAW activities were not reported in September in the outbreak countries in Southern Africa, the Horn and Eastern Africa (AELGA, DLCO-EA, IRLCO-CSA).

Forecast: AAW activities are expected to commence in the southern and south-central outbreak areas in the IRLCO-CSA member-countries from October/November on. IRLCO-CSA has dispatched pheromone and Pheromone traps to its member States. Forecasters are advised to set-up traps prior to the onset of the rains to monitor the AAW situation and provide accurate and timely forecast to concerned people and authorities (AELGA, DLCO-EA, IRLCO-CSA).

Quelea (QQU): QQU birds were reported in September in Zoba, Gash-Barka in western Eritrea where breeding and roosting sites were located and control operations began during the last week of the month, but details were not available at the time this report was compiled. Flocks of QQU birds were reported in Kilimanjaro and Arusha regions in Tanzania during this month, but they were not seen posing a threat to crops and no systematic surveys were carried out during this period (DLCO-EA).

Forecast: QQU outbreaks may persist in small grain growing areas in Kenya and wheat growing areas in Zimbabwe. The birds will likely continue posing a problem

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

Rodents: No update was received on rodents in September, but the pest remains a constant threat to both pre- and post-harvest crops and produces in many countries around the globe (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 outbreaks and a period of lull. **End note.**

Front-line countries where ETOP outbreaks first occur are advised to remain vigilant. Invasion countries should 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 should be encouraged to remain vigilant and report any ETOP sightings to field agents and other contact persons.

Inventories of Acridid Pesticide Stocks

ETOP pesticide Inventory for ETOP pesticides changed slightly in September due to small control operations (667 ha) in Chad and Sudan during this month.

Mindful of the risk of pesticides becoming obsolete once passed their end-of-use, 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. All options should be explored to avoid the risks that old stocks pose to humans, the environment, and non-target organisms as well as the huge financial burden associated with disposing them.

A judiciously executed triangulation (**see page 1 for definition**) of stocks from countries with large inventory to where there are immediate needs is a double-edged alternative that is worth considering.

Note: *The core message of **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.***

Estimates of (ETOP-acridid) pesticide inventories

Country	Quantities in '000l/kg ^{\$}
Algeria	1,200~
Chad	107.46~
Eritrea	43.9~
Egypt	Data not available
Ethiopia	1.9+~
Libya	Data not available
Madagascar	Data not available
Mali	208.8d~
Mauritania	435.3~
Morocco	4,100~
Niger	27.25+
Senegal	156~~
Saudi Arabia	Date not available
Sudan	~
NSD	860"
Tunisia	167.6~
Yemen	33.00 + .527 kg GM

These quantities include ULV, EC and dust formulations
 ~ data not necessarily current
 ~~ as of September 28, 2011
 l = 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 expempta</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>
APL	Australian Plague Locust
APLC	Australian Plague Locust Commission
CAC	Central Asia and the Caucasus
CERF	Central Emergency Response Fund
CIT	<i>Calliptamus italicus</i>
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	<i>Chortoicetes terminifera</i>

DDLC	Department of Desert Locust Control	MoARD	Ministry of Agriculture and Rural Development
DL	Desert Locust	NOAA	National Oceanic and Aeronautic Administration
DLCO-EA	Desert Locust Control Organization for Eastern Africa	NSD	Republic of North Sudan
DMA	<i>Dociostaurus maroccanus</i>	NSE	<i>Nomadacris septemfasciata</i>
DPPQS	Department of Plant Protection and Quarantine Services	OFDA	Office of U.S. Foreign Disaster Assistance
DPV	Département Protection des Végétaux (Department of Plant Protection)	PHD	Plant Health Directorate
ELO	EMPRES Liaison Officers	PHS	Plant Health Services, MoA Tanzania
EMPRES	Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases	PPD	Plant Protection Department
ETOP	Emergency Transboundary Outbreak Pest	PPSD	Plant Protection Services Division/Department
GM	Green Muscle (a fungal-based biopesticide)	PRRSN	Pesticide Risk Reduction through Stewardship Network
ha	hectare (= 10,000 sq. meters, about 2.471 acres)	QQU	<i>Quelea quelea</i>
IRIN	Integrated Regional Information Networks	SARCOF	Southern Africa Region Climate Outlook Forum
IRLCO-CSA	International Red Locust Control Organization for Central and Southern Africa	SGR	<i>Schistoseca gregaria</i>
ITCZ	Inter-Tropical Convergence Zone	SWAC	South West Asia DL Commission
ITF	Inter-Tropical Convergence Front = ITCZ)	TAG	Technical Assistance Group
FAO-DLIS	Food and Agriculture Organizations' Desert Locust Information Service	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	<i>Zonocerus elegans</i> , elegant grasshopper
LMC	<i>Locusta migratoriacapito</i>		
LMM	<i>Locusta migratoria migratorioides</i> (African Migratory Locust)		
LPA	<i>Locustana pardalina</i>		
MoAFSC	Ministry of Agriculture, Food Security and Cooperatives		

Point of Contact:

If you have any questions, comments or suggestions, please, feel free to contact:

Yeneneh (Yene) Belayneh, PhD.
ybelayneh@usaid.gov

Tel.: + 1-202-254-0226; Fax: + 1-202-254-0260

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