

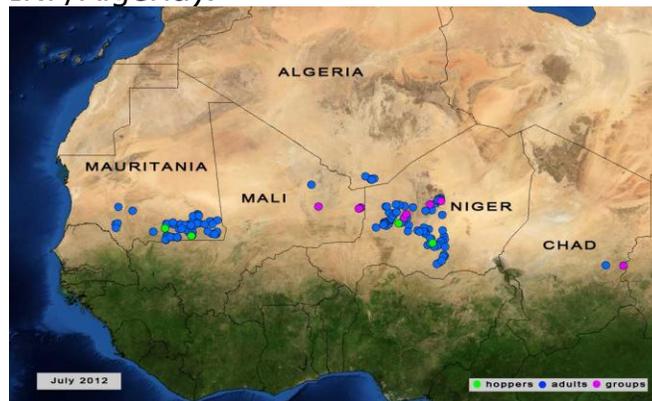
**Emergency Transboundary
Outbreak Pest (ETOP) Situation
Report for July with a Forecast till
mid-September, 2012**

Summary

The Desert Locust (SGR¹) situation in Sahel West Africa continued to be potentially dangerous. Adult locusts that arrived from Algeria and Libya during late May and early June spread to northern Niger [and Mali] matured and began laying eggs. Some reached cropping areas in central and southern Niger, between Tanout and Zinder, where good rains fell recently. Southern Mauritania and southern Algeria also experienced small-scale infestations in July. Small-scale breeding is in progress in Sudan and the eastern outbreak areas and low numbers of solitary adults were present in Rajasthan, India and Cholistan, Pakistan along the Indo-Pakistan borders during July (DDLCO/Libya, DLCO-EA, DPPQS/India, FAO-DLIS, INP/Algeria).

Forecast: The good rains continued falling in Niger and Mali. Consequently, conditions will likely remain favorable and locusts will further breed and perhaps go through two generations during the coming months. Hoppers and bands will form in August and adult groups and small swarms will begin appearing in September. Small-scale breeding that commenced in eastern Sudan will likely extend to Darfur, Kordofan, Northern States and western

lowlands in Eritrea during August. In the eastern outbreak region, the unusually poor monsoon rains will limit breeding to Rajasthan, India and the Cholistan and Tharparkar deserts in Pakistan (DDLCO/Libya, DLCO-EA, DPPQS/India, FAO-DLIS, INP/Algeria).



(DL adults and groups reported in Niger, Chad, Mauritania, Mali and western Sudan, FAO-DLIS, Aug, 6, 2012)

Actions being taken:

Niger: The National Locust Control Centre (NLCC) is mobilizing 14 additional survey and control teams - 6 in the north and 8 in cropping areas in the central part of the country. Surveys are underway and the national teams have treated 1,200 ha from 5 June through July 4th. The much needed larger scale interventions will require additional resources (FAO-Sahel Crisis).

Mali: Operations are limited to the southern part of the country due to the ongoing insecurity situation in the north. 5 teams have been mobilized in secure areas. Discussions are underway to begin survey in Adrar des Iforas and Tamesna soon. Resources are being solicited to enhance the capacity of the National Desert Locust Control Center to conduct survey and control operations effectively (Note: The Center, which was once a robust establishment, thanks to assistance from

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

donors, including USAID, WB, France, AfDB, FAO, etc., suffered a heavy blow from the insurgency in the north, where most of its operational centers and materials, including vehicles, pesticides, and survey, communication and control tools were pre-positioned).

Chad: Survey teams have been deployed to western Chad (Kanem) near Niger border and to Abeche and Adre in the east.

Algeria and **Mauritania** continued survey operations in the south and are on a stand by together with **Morocco** and **Libya** to activate their national contingency plan in preparation for a potential invasion in October, November and beyond.

Pesticide triangulation: Algeria and Morocco agreed to provide substantial quantities of pesticides to Mali, Niger and Chad and FAO is working with MoAs and the World Food Program (WFP) to facilitate triangulation/air-lifting (FAO-Sahel Crisis).

Donor contributions/pledges:

Donor responses to the appeal that FAO issued during the last dekad of June for the Sahel locust crisis for an estimated \$10 million are trickling. As of July 31st, \$5.95 million have been pledged and \$550,000 has been received by FAO [from France]. USAID/OFDA pledged \$2 million towards the appeal and funds are being processed.

OFDA will continue monitoring the situation closely and issue updates and provide advices.

Other ETOPs

Red (Nomadic) Locust (NSE): NSE swarms and concentrations persisted in Malawi, Mozambique, Tanzania and Zambia (IRLCO-CSA).



(Red locust swarm in Ikuu Plain, Tanzania, 4/28/20120, IRLCO-CSA)

Forecast: Grass burning will force locusts to concentrate and if left uncontrolled, for groups and swarmlets and likely invade neighboring countries and beyond (IRLCO-CSA).

Madagascar Migratory Locust (LMC):

Some 28,000 ha of the estimated 300,000 ha infested were treated from March to end of June, 2012 and hopper bands and swarms were reported in the northwest, west, and southwest of the country during this period.

Forecast: More locusts will continue appearing during the next rainy season in areas where good rains fell over the past months and hoppers and swarms were observed, and may have laid eggs.

A well thought out strategy should be put in place beginning October 2012 for the 2012-13 campaign, to abate the spread of locusts

across the country and escalating *into an upsurge and further deteriorate* (AELGA).



(A locust swam in southeastern Morondava, FAO, May 10, 2012)

Moroccan (DMA), Italian (CIT) and Migratory (LMI) locusts in Central Asia and the Caucasus (CAC): A late received report indicated that DMA activities ended or were ending in June in southern CAC, but continued in Russian Federation and Kazakhstan. CIT and LMI activities were in progress in June and July in Kazakhstan, Kyrgyzstan and Russian Federation may have fledged in July. More than 3.2 million ha were treated against LMI in June in northern CAC, close to 2 million ha in Kazakhstan alone (FAO-ECLO).

Forecast: DMA activities will end in southern CAC and continue in the northern. CIT and LMI will progress during the forecast period (FAO-ECLO).

African Armyworm (AAW): AAW situation remained calm in all outbreak areas during July (DLCO-EA, IRLCO-CSA, PHS/Tanzania).

Forecast: AAW activities are unlikely during the forecast period (AELGA, DLCO-EA, and IRLCO-CSA).

Quelea (QQU): QQU bird outbreaks were reported in Nyanza and the Rift Valley provinces in Kenya, Morogoro and Kilimanjaro regions of Tanzania and Manicaland and Masvingo provinces of Zimbabwe in July. Control operations were in progress at the time this report was compiled (DLCO-EA, IRLCO-CSA).

Forecast: QQU birds will likely continue posing a problem to small grain crop growers during the forecast period. Vigilance remains necessary (AELGA, IRLCO-CSA).

OFDA/AELGA (Assistance for Emergency Locust and Grasshopper Abatement) will continue closely monitoring ETOP situations in all regions and issue updates and advices 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. However, the ongoing insecurity situation in **Mali** continues significantly undermining operations in the northern part of the country.

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 infrastructure as well as help train staff to prevent and respond to SGR outbreaks and avoid the threats they 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 support and encouragements – 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 risks of ETOP emergencies.
- OFDA's modest assistance for obsolete pesticide prevention and

management has enabled FAO to develop a dynamic system (PSMS) for monitoring, managing and reporting pesticide inventories in ETOP prone countries. This has enabled countries to launch regular monitoring and make decisions concerning their stocks and prevent unnecessary 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/AELGA is exploring community-based armyworm forecasting, monitoring and early warning to reduce the risk of AAW threats to vulnerable populations and their assets.

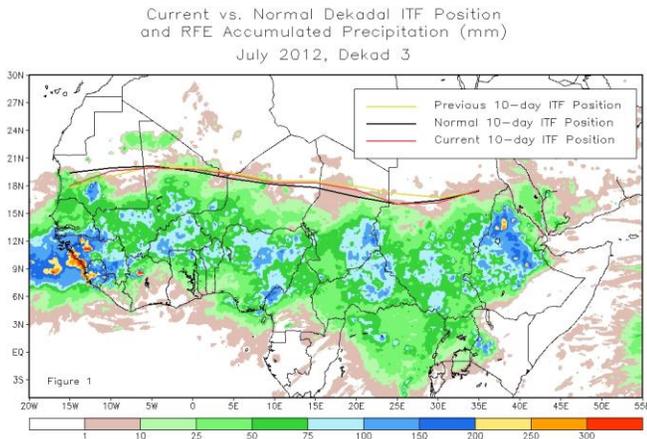
All ETOP SITREPs can be accessed on our website in the below link:

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

Weather and ecological conditions

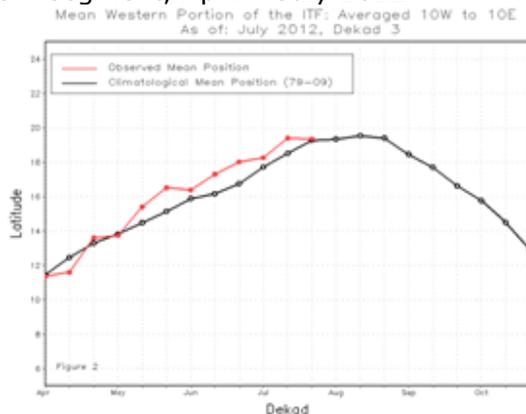
During the 3rd dekad of July, the ITF retreated slightly from its position of the 2nd dekad of July and nearly coincided with the long-term climatological position during the third dekad of July. However, both western and eastern mean portions remained above the long-term average position due to relatively strong southerly winds, which brought heavy rains Guinea, Burkina Faso, and central Nigeria. From 10W-10E, the average position of the ITF was located at 19.4N, which was ahead of the climatological mean position by 0.1 degree. From 20E-35E, the ITF mean position approximated 16.8N and

also led the long-term mean position by 0.2 degree. During the last week of July, portions of Senegal and Mauritania, Guinea-Bissau, Mali, Burkina Faso, southern Chad, and Sudan, local areas in western Kenya, northern Uganda, and portions of Ethiopia received above average rainfall. In contrast, rainfall was below average over southern Mali, portions of Chad, portions of Sudan and Eritrea.



The continued northerly position of the ITF during the second dekad of July could be partially attributed to vigorous moist southerly winds resulting in unusually abundant rains in northern Sahel (see map and a trend graph – NOAA, July 2012).

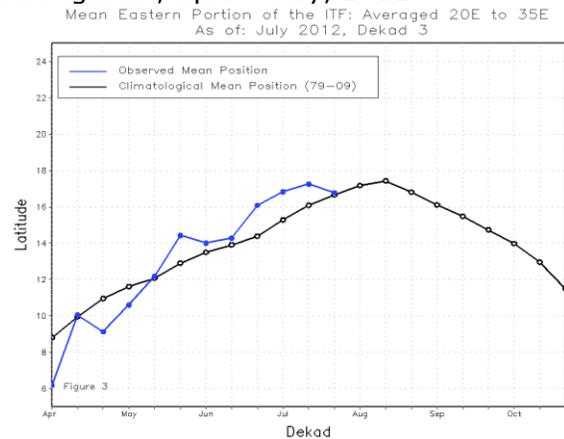
Western segment, April – July 2012



During the first dekad of July, the ITF continued its northerly progress in both its western and the eastern segments due to vigorous moisture laden southerly winds.

The western segment of the Front averaging at 18.3N and the eastern segment at 16.8N, both well above the climatological mean positions for this period of the month (see Map, NOAA, July, 2012).

Eastern segment, April – July, 2012



During this month, above-average rainfall was observed over southern Mauritania, Senegal, Guinea-Bissau, Guinea Conakry, many parts of Mali, Burkina Faso, parts of Niger, portions of Chad, local areas in South Sudan Republic, portions of Sudan, northern Uganda, portions of Ethiopia, western Kenya and southern South Africa. Central Senegal, portions of western Niger, and portions of Eritrea had below average rainfall. The Red Locust outbreak areas remained generally dry and temperatures were relatively low during July. Only isolated showers were recorded in the Buzi-Gorongosa plains in Mozambique.

Note: The shift in the ecology of landscape and changes in the weather patterns are believed to exacerbate the risk of pest outbreaks and resurgence. 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: Breeding commenced in July in the summer breeding in southwest Mauritania, northern Mali and central and northern Niger. Groups of adult locusts

were reported in parts of northern Mali and Niger, and in eastern Chad near the Sudanese border. By the end of the month, more adult groups were reported on the Tamesna Plains in northeast Mali near the border of Niger where they were laying eggs. Close to 1,200 ha were treated from 5 June through 4 July in Niger. Scattered solitary adults were present in southern Mauritania, southern Algeria and eastern Chad.

Forecast: Hatching will continue in August in Niger, Mali and to some extent in Mauritania, Chad and perhaps southern Algeria. Hopper groups and bands will likely form in Mali and Niger where fledgling is expected to commence by mid-August and form small adult groups and swarms by September and cause locust numbers to increase in these countries.

Survey must be maintained in all affected countries and control operations must be launched against hopper bands, adult groups and swarms throughout the summer season to the extent possible (AELGA, DDLC/Libya, FAO-DLIS, INPV/Algeria).

SGR - Central Outbreak Region: Small-scale breeding commenced in eastern Sudan during July and solitary mature adults were present elsewhere in summer breeding areas in the interior of the country. A similar situation is likely in western lowlands in Eritrea. Groups of immature adults reported in western and Northern Darfur where the insecurity situation undermines survey operations. Other areas in the region remained calm (DLCO-EA, FAO-DLIS).

Forecast: Small-scale breeding could continue in the summer breeding areas in the interior of Sudan, western lowlands in Eritrea and the northwestern plateau in Somalia where rainfall was recently

recorded. Nonetheless, overall the situation will remain calm across the Red Sea region during the forecast period (DLCO-EA, FAO-DLIS).

SGR - Eastern Outbreak Region: Low numbers of solitary adults were present along both sides of the Indo-Pakistan border in Rajasthan, India and Cholistan, Pakistan during July. Relatively poor seasonal Monsoon rains arrived in the areas by mid-July and led to less favorable conditions.

Forecast: Due to poor monsoon rains, ecological conditions will likely be less favorable and depress breeding. Hence, significant developments are not expected during the forecast period (DPPQS/India, FAO-DLIS).

Red (Nomadic) Locust (NSE): Several swarms and concentrations of NSE persisted in the Ikuu-Katavi and Wembere plains and Malagarasi Basin in Tanzania where extensive vegetation has been in progress. IRLCO-EA and MoAs planned to carry out control operations against swarms in August. Scattered low density NSE populations persisted in the Kafue Flats and Lukanga Swamps in Zambia where vegetation burning will force locusts to form groups and swarmlets (IRLCO-CSA).

Forecast: Vegetation burning that is in progress in NSE outbreak areas will force locusts to further concentrate and form swarmlets/swarms and groups in patches of green vegetation. Some of the swarms and swarmlets could migrate to neighboring areas. IRLCO-CSA and MoAs in Malawi, Tanzania, Mozambique and Zambia will carry out survey and control operations where necessary (IRLCO-CSA).

Many of the NSE breeding areas are protected conservation area where a large variety of game animals and birds thrive. This demands bio-rational tools, such as bio-pesticides and other selective and soft pesticides which are beneficial to the environment and safer to humans and non-target organisms, including cattle and

game animals. Unfortunately, despite their environmental benefits, these tools are often expensive compared to conventional pesticides and hard to come by in large quantities adding a hurdle to control interventions. Nevertheless, one needs to consider their safety and environmental benefits over cost when selecting appropriate control tools for specific localities and crops (AELGA, PHS/Tanzania). **End note)**

Madagascar Migratory Locust (LMC):

According to information received from FAO-ECLO, a consultant who conducted an assessment mission concluded that: a) the Malagasy locust had reached an estimated 300,000 hectares through mid-May 2012; b) the multilateral (through FAO) and bilateral assistance were inadequate to abate the locust development; c) aerial operations did not make significant impact on the locusts during the 2011-12 campaign and only 27,970 ha of the estimated 300,000 ha were treated and some 32,000 ha were protected from March to end of June, 2012; d) the situation in the northwest, west, and southwest where hopper bands developed into swarms remains worrisome; and e) unless an effective control strategy is put in place from October 2012 on, locust invasions will spread across the whole territory during the coming rainy season and escalate into an upsurge and perhaps reach a plague level over the coming years (FAO-ECLO).

Moroccan (DMA), Italian (CIT) and Migratory (LMI) locusts in Central Asia and the Caucasus (CAC): A late received report indicated that DMA activities ended or were ending in June in southern CAC, but continued in Russian Federation and Kazakhstan where 3 million ha were treated in June. DMA hoppers were reported in Kyrgyzstan, Armenia, Georgia and adults were reported in June in

Afghanistan, Turkmenistan and Tajikistan. CIT, DMA and LMI hoppers were in progress in June and may have fledged in July and will begin laying eggs during the forecast period. CIT activities were in progress in June and July in Kazakhstan, Kyrgyzstan and Russian Federation. LMI hopper developments continued in Russian Federation, Kyrgyzstan and Kazakhstan in June and must have fledged in July. More than 3.2 million ha of LMI were treated in June in central Asia, more than 2 million ha in Kazakhstan alone (FAO-ECLO).

Forecast: DMA activities will end in southern CAC and continue in the northern. CIT and LMI will progress during this period (FAO-ECLO).



(Locust prone CAC countries, FAO)

Australian Plague Locust (APL): No update was received at the time this report was compiled. However, eggs that were laid from local populations from mid-March on and from redistributed adults continued diapausing and will do so till next spring and no activities are expected during the forecast period (AELGA, APLC).



(Australian plague locust, source: APLC)

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

African Armyworm (AAW): AAW outbreaks were not reported in June, but moth catches could increase during the forecast period in the northern outbreak region. The situation remained calm in other countries during this period (DLCO-EA, IRLCO-CSA, PHS/Tanzania).

Forecast: Armyworm situation will remain calm during the forecast period (AELGA, DLCO-EA, and IRLCO-CSA).

Quelea (QQU): QQU outbreaks were reported in Siaya County in Nyanza Province, and Narok, Nakuru and Eldoret Counties in the Rift Valley Province in Kenya. The birds were seen attacking rice in Siaya Dominion Farmland and wheat in Narok, Nakuru and Eldoret. Ground and aerial operations (with DLCO-EA spray aircraft) were in progress at the time this report was compiled.

In the Zimbabwe, QQU birds were reported attacking irrigated wheat in Manicaland and Masvingo Provinces. Ground control operations were in progress at the time this report was compiled.

QQU outbreaks were being controlled in Morogoro and Kilimanjaro regions in Tanzania. Unconfirmed report of low density QQU populations was received in southern Ethiopia in July. Control was not required due to the size of the infestation. No QQU outbreaks were reported in Malawi, Mozambique or Zambia during this period (DLCO-EA, IRLCO-CSA).

Forecast: QQU birds will likely continue being a problem to small grain cereal growers in Nyanza and Rift Valley Provinces of Kenya and to the winter wheat growing areas in Zimbabwe. Vigilance

remains necessary to protect crops (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 July, but the pest remains a constant threat to both pre- and post-harvest crops and produces in many countries around the globe.

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. Countries in the invasion zones 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 are encouraged to remain vigilant and report any ETOP sightings to field agents and other contact persons.

Inventories of Acridid Pesticide Stocks

ETOP pesticide inventory has not changed much as only 50 ha were sprayed in Niger during the first 4 days of July (AELGA, DDLC/Libya, FAO-DLIS).

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.**

Estimated (acridid) pesticide inventories

Country	Quantities in '000l/kg [§]
Algeria	1,200~
Chad	108.09~
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
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,

zambique 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 Pèlerin dans la Région Occidentale (Commission for the Desert Locust Control in the Western Region)
CNLA/CNLAA	Centre National de Lutte Antiacridienne (National Locust Control Center)
CRC	Commission for Controlling Desert Locust in the Central Region
CTE	<i>Chortoicetes terminifera</i>
DDLC	Department of Desert Locust Control
DL	Desert Locust
DLCO-EA	Desert Locust Control Organization for Eastern Africa
DMA	<i>Dociostaurus maroccanus</i>

DPPQS	Department of Plant Protection and Quarantine Services	PHD	Plant Health Directorate
		PHS	Plant Health Services, MoA Tanzania
DPV	Département Protection des Végétaux (Department of Plant Protection)	PPD	Plant Protection Department
		PPSD	Plant Protection Services Division/Department
ELO	EMPRES Liaison Officers	PRRSN	Pesticide Risk Reduction through Stewardship Network
EMPRES	Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases	QQU	Quelea quelea
		SARCOF	Southern Africa Region Climate Outlook Forum
ETOP	Emergency Transboundary Outbreak Pest	SGR	Schistoseca gregaria
GM	Green Muscle (a fungal-based biopesticide)	SWAC	South West Asia DL Commission
ha	hectare (= 10,000 sq. meters, about 2.471 acres)	TAG	Technical Assistance Group
IRIN	Integrated Regional Information Networks	USAID	Unites States Agency for International Development
IRLCO-CSA	International Red Locust Control Organization for Central and Southern Africa	UN	the United Nations
ITCZ	Inter-Tropical Convergence Zone	ZEL	Zonocerus elegans, elegant grasshopper
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		
NSD	Republic of North Sudan		
NSE	Nomadacris septemfasciata		
OFDA	Office of U.S. Foreign Disaster Assistance		

Point of Contact:

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

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