

**Emergency Transboundary
Outbreak Pest (ETOP) situation
update for January with a forecast
till mid-March, 2010**

Summary

The **desert locust** (DL¹) situation remained calm in January in the winter breeding areas. Only a few scattered adults were detected in northern **Mauritania**, the Air Mountains in northern Niger, northeastern **Morocco** and southern Algeria. Small-scale breeding occurred in northwest **Mauritania** and northern **Niger**, but locust numbers remained relatively low due to unfavorable conditions that prevailed over much of these areas. Largely unfavorable ecological conditions also prevailed in the winter breeding areas along the Red Sea coasts and as a result only few scattered immature and mature adults were detected in **Egypt**, **Sudan** and **Yemen**. No locusts were reported in January in other countries in the western, central and the eastern outbreak regions (CNLA/Mauritania, CNLAA/Morocco, DDLC/Libya, DPPQS/India, CNLA/Niger, FAO-DLIS, PPD/Ethiopia, and PPD/Sudan).

Forecast: Small-scale breeding is likely in the Air Mountains in northern Niger, northern Mauritania, southern Algeria and southeastern Morocco if conditions improve during the forecast period. Locust numbers will remain low along the Red Sea coasts and breeding will occur only if conditions improve during the forecast period. A few adults may appear

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

and breed along southeast Iran and southwest **Pakistan** if more rains fall in areas that already received light rain, nevertheless, significant developments are not likely. Other countries in the outbreak and invasion zones will likely remain calm in the coming months. However, regular surveillance and monitoring are recommended in frontline countries (CNLA/Mauritania, CNLAA/Morocco, DPPQS/India, CNLA/Niger, FAO-DLIS, PPD/Ethiopia, and PPD/Sudan).

OFDA Pest & Pesticide Activities

- OFDA/TAG continued its initiatives in pesticide risk reduction through stewardship network (PRRSN) to avoid pesticide related disasters and ensure safety of vulnerable communities as well as protect their assets and the environment. OFDA/TAG launched the second sub-regional pesticide risk reduction workshop (the first for the Horn of Africa) from 23-27 August, 2009 in Ethiopia. Similar initiatives are being discussed with partners in **Kenya**, **Ghana** and **CRC/FAO**.
- OFDA sponsored DLCO-EA's capacity strengthening and mitigation efforts to support emergency ETOP operations in the Greater Horn of Africa.
- OFDA continues supporting capacity strengthening through FAO's EMPRES programs to prevent, mitigate and respond to DL emergencies.
- OFDA co-sponsored assessments and project development missions for locust management and operations in

Central Asia, the Caucasus and neighboring countries (CAC). The assessment missions has developed a proposal for a five-year program to strengthen capacity at the national and regional levels to help better coordinate locust monitoring, information sharing, prevention and control interventions.

- Seed money provided by OFDA enabled FAO's pesticide disposal and prevention program to leverage more than US \$2.2 million from Global Environment Facility and other sources. These funds are being used to develop and assist with the implementation of obsolete pesticide disposal and prevention initiatives in Eastern Europe and the CAC.
- OFDA co-sponsored an international workshop through the University of Maryland Eastern Shore. The workshop was conducted in Accra, Ghana from 14-16 October, 2009 and gathered more than 100 participants from dozens of countries. OFDA was represented by one of its Senior Technical Advisors and presented a paper on pesticide risk reduction as a humanitarian intervention.

Other ETOPs

An outbreak of 2nd and 3rd instar **red locust** hoppers was reported on January 31st in Mpete village North of Rukwa Plain in Sumbawanga district in **Tanzania**. No further activities were reported in the other outbreak areas.

Forecast: Hatching is expected to commence and form hopper bands in **Tanzania, Mozambique and Zambia** in areas where substantial parental

populations persisted after last years control operations. IRLCO-CSA and member countries will be carrying out intensive ground and aerial surveys and assess the locust status during the forecast period (AELGA, IRLCO-CSA)

Widespread **armyworm** outbreaks were reported in January in several districts in **Kenya, Malawi and Tanzania** where maize and pasture were attacked. Control operations were carried out by affected farmers with material and technical assistance from the Ministries of Agriculture. Small-scale outbreaks were also reported in Mashonaland and Central Province in **Zimbabwe**.

Forecast: Armyworm infestations will likely continue in **Kenya, Malawi and Tanzania** and the pest may begin invading other countries, including **Mozambique** and perhaps **Ethiopia** during the forecast period. Active monitoring, timely reporting and preventive interventions are essential (AELGA, DLCO-EA, IRLCO-CSA).

Quelea birds: A single roost containing an estimated 2.5 million birds was detected in Chokwe district of **Mozambique** in January, but no crop was under a threat. No reports were received in other *Quelea* outbreak areas (AELGA, DLCO-EA, IRLCO-CSA).

Forecast: Outbreaks will likely occur in **Kenya, Tanzania, Mozambique** and other countries where small grain cereal crops may reach a susceptible stage. Active surveillance and monitoring are essential (AELGA, IRLCO-CSA).

Rodents: Rodents pose a threat to oil palm crops in **Thailand** where barn owls (*Tyto alba*) are being used to control the pest (OFDA).

No updates were received on other **ETOPs** in January, but some activities may commence in CAC countries during the forecast period.

OFDA's Assistance for Emergency Locust and Grasshopper Abatement (AELGA) will continue monitoring the situation and issue advice. End summary

This and other SITREPS can be accessed on our website at:

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

Weather and ecological conditions

In January, rainfall was above average over northern Madagascar, **Tanzania**, portions of the Maize Triangle of **South Africa**, central and western **Botswana**, and northern **Namibia**, but below average over southern **Madagascar**, much of **Mozambique**, **Zimbabwe**, and parts of southern **Zambia**. In contrast, dry conditions and moisture deficits persisted over central **Mozambique** and parts of eastern **Zimbabwe**, southern Madagascar, southern **Zambia**, and parts of **Tanzania**. Normal rainfall was recorded at all locations near the Red Locust outbreak areas and breeding conditions improved in Red Locust, Armyworm and *Quelea* outbreak regions.

Dry weather with mild temperatures during the day and cold spells at night prevailed in northern **Sudan**. Extensive cloud cover persisted and northerly wind dominated the

coastal areas. Light showers were recorded in the first and second dekads of January in from Suakin to Osaif in north and south of Toker Delta to the Borders ad close to Eritrea. Thus, breeding conditions slightly improved in some parts of the region. Moisture deficit was recorded in eastern and southeastern **Ethiopia**. Light rainfall was recorded in a few places in Jodhpur and Bikaner divisions in Rajasthan and a few isolated places in Gujarat, Saurashtra and Kutch, **India** between 3rd–13th January and dry conditions persisted thereafter. Fairly dry conditions persisted in the western outbreak areas (NOAA, DDLC/Libya, DPPQS/India, CNLA/Niger, FAO-DLIS, IRLCO-CSA, PPD/Ethiopia ad PPD/Sudan).

(Note: Changes in the weather pattern and the shift in the landscape are believed to increase the risk of pest outbreaks. Regular monitoring and reporting are essential at all times. End note).

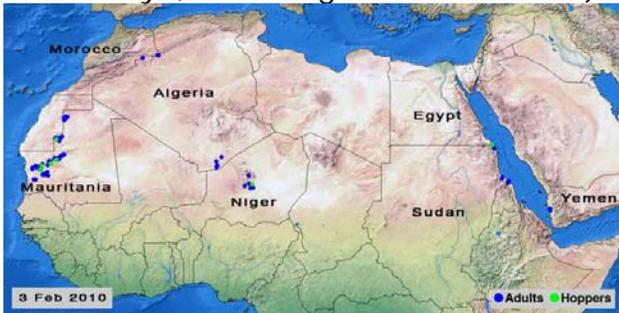
DETAILED ACCOUNTS OF ETOP SITUATION AND RELATED ACTIVITIES

DL - Western Outbreak Region

A few scattered adult locusts were detected in northern **Mauritania**, the Air Mountains in northern **Niger**, northeastern **Morocco** and southern **Algeria**. Small-scale breeding occurred in northwest **Mauritania** and northern **Niger** during this period, but locust numbers remained relatively low due to unfavorable conditions that prevailed over much of these areas. No locusts were reported in Libya or Tunisia during this period.

Forecast: The DL situation will likely remain calm in the northwest outbreak areas. Locusts that moved from the Tamesna Plains to the Air Mountains in northern **Niger** will likely breed in areas

where favorable conditions exist. It is to be recalled that the Niger National Locust Control Unit (CNLA) treated more than 1,600 ha in Tamesna in December. Adult locusts that moved to southern **Algeria** will likely start breeding if and when conditions improve. Some scattered adults will persist in northern **Mauritania** and southeastern **Morocco**. Significant developments are not likely during the forecast period (AELGA/OFDA, CNLA/Mauritania, CNLAA/Morocco, DDLC/Libya, CNLA/Niger and FAO/DLIS).



Locust numbers remained low in January in all breeding areas (source: FAO-DLIS, 2/10)

DL - Central Outbreak Region

The DL situation remained relatively calm in the Central region in January. Only low density (50-150 insects/ha) solitary immature and mature adults were detected in some 80 ha during surveys along the north and southern parts of the Red Sea coast, in the Tokar Delta, Khor Baraka and in El diib west of the Red Sea Hills in **Sudan** that covered more than 15,960 ha. Unfavorable ecological conditions that prevailed along the Red Sea coasts resulted in a few scattered immature and mature adults in **Egypt** and **Yemen**. The situation remained calm in **Ethiopia**, **Somalia** and other countries in the central region (FAO-DLIS, PPD/Ethiopia, and PPD/Sudan).

Forecast: Locust numbers will remain low along the Red Sea coasts and breeding will occur only if conditions improve during the

forecast period. Other countries in the region will likely remain calm in the coming months, however, regular surveillance and monitoring are recommended in frontline countries (AELGA, FAO-DLIS, PPD/Ethiopia, and PPD/Sudan).

DL- Eastern Outbreak Region

Ecological conditions remained unfavorable and the locust situation remained calm in January in spring breeding areas along the **Iran-Pakistan** borders. No locusts were detected during surveys carried out in Jodhpur, Jaisalmer, Barmer, Bikaner, Phalodi, Jalore, Nagaur, Suratgarh, Churu, Bhuj and Palanpur of the Scheduled Desert Area of Rajasthan and Gujarat States (DPPOS/India, FAO-DLIS).

Forecast: The DL situation will likely remain calm and only a few adults may appear and breed along the borders of southeast **Iran** and southwest **Pakistan** should more rains fall in areas where light rains fell earlier. Significant developments are not likely during the forecast period (DPPOS/India, FAO-DLIS).

Central Asia and the Caucasus

No updates were received on locusts in the CAC at the time this report was compiled.. However, some activities are likely during the forecast period in the outbreak areas.

Far East: Rodents continue posing a threat to oil palm crops in **Thailand** where barn owls are being bred and used as biological control agents (OFDA/RDMA).



Barn owl (*Tyto alba*)

Red Locust: An outbreak of 2nd and 3rd instar hoppers was reported on January 31st in Mpete village 30 km North of Rukwa Plain in Sumbawanga district in **Tanzania**. No further activities were reported in any other outbreak areas although some activities were expected to have occurred during this time.

Forecast: Hatching will likely commence and form hoppers and bands in February in the outbreak areas in Iku-Katavi, North and South Rukwa Valley plains and Malagarasi basin in **Tanzania**; Buzi and Dimba plains in **Mozambique** and the Kafue Flats in **Zambia** where escapee parental populations persisted after last years control operations. IRLCO-CSA and member countries in the outbreak areas will be carrying out intensive ground and aerial surveys during the forecast period and assess the locust status (AELGA, IRLCO-CSA)

It is to be recalled that IRLCO-CSA and **Tanzania** Ministry of Agriculture Food Security and Cooperatives (MoAFSC) carried out aerial surveys from 8-18 December on more than 225,700 ha in the primary outbreak areas. Funds for the survey activities were provided by the United Nation Central Emergency Response Fund (CERF) via Food and Agriculture Organization (FAO).

Armyworm: Outbreaks continued in Narok, Baringo, Mogotio, Kajiado Thika, Nairobi, Kiambu, Njiru, and Nyeri districts in Central and Rift Valley Provinces in **Kenya** where pasture and late planted Maize were reported attacked (maize plants higher than 30 cm are not susceptible to armyworm). In **Kenya**, The pest was first reported damaging crops and pasture in coastal area in Tana River, Machakos, Taita–Taveta in December. Outbreaks were also reported in Morogoro, Iringa, Tabora, Kilimanjaro, Arusha, Kilindi and North Ungunja in **Tanzania** where the pest was seen attacking paddy rice, maize and pasture. In **Malawi**,

outbreaks were first reported in December in Mzuzu and Kasungu and by January infestations were spread to Karonga, Lilongwe, Salima, Machinga and Blantyre Agricultural Development Division. Ground control operations were carried out by affected farmers with technical and material assistance, including knapsack and vehicle mounted sprayers and pesticides from MoAs. Small-scale infestation was also reported in maize fields in Bindura district in Mashonaland and Central Province in **Zimbabwe** (DLCO-EA, IRLCO-CSA).

Forecast: Armyworm outbreaks will likely continue in **Kenya, Tanzania** and **Malawi** and **Mozambique** may experience some outbreaks if rainfall improves during the forecast period. There is also a slight chance of infestations occurring in southern **Ethiopia** and other countries on the **ITCZ** route. All outbreak and invasion countries are advised to maintain regular surveillance and monitoring and trap operators report moth catches as rapidly as possible. Outbreak countries are encouraged to share pest information with neighboring countries as often as possible. Community forecasters are advised to engage in monitoring and reporting armyworm sightings. Preventive interventions are recommended to the extent possible.

Quelea: A single roost containing an estimated 2.5 million birds was detected in Chokwe district in **Mozambique** in January, but no crops were threatened. No reports were received on *Quelea* activities in other countries prone to the pest (DLCO-EA, IRLCO-CSA).

Forecast: Outbreaks are likely during the forecast period in **Kenya, Tanzania, Mozambique** and other countries where small grain cereal crops may reach a susceptible stage. Active surveillance and

monitoring are essential (AELGA, IRLCO-CSA).



Facts: Quelea birds can travel ~100 km/day looking for food. Each bird can consume 3-5 g of grain and perhaps destroy about the same amount each day. A colony of up to 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/day).

The Timor and South Pacific

No update was received in January.

Australian Plague Locust

Several mid-to late instar hopper bands developed in early January in Southwest Queensland. Fledging commenced in the second week of January, formed the first swarms and continued to develop throughout the month. Swarms began migrating from mid-January on causing locust density to increase in parts of Central West and South Central Queensland and in Far Western New South Wales. Sporadic egg laying occurred at many locations in Queensland after mid-January. Swarms also developed in the New South Wales Northwest Plains and in western Riverina by late January (APLC).

Forecast: Localized high density hoppers will develop in many regions in Queensland and New South Wales. There is also a likelihood of hoppers developing in Southwest Queensland and Central West Queensland by early to mid-February. Egg

laying will likely occur in areas that will receive rain in the coming months.



(Australian plague locust, source: APLC)

Should rains fall in early February and more eggs hatch, widespread swarm development and infestations will likely occur in several states in autumn (APLC).

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 and ELOs are encouraged to continue sharing information with partners and other stakeholders as often as possible.

Pesticide Stocks

Pesticide inventories remained unchanged in January in all countries as control operations were not carried out during this period.

Country	Quantities in I/kg@
Algeria	1,800,000~
Chad	108,085~
Eritrea	44,800~
Ethiopia	22,800
Mali	209,000%~
Mauritania	480,000~
Morocco	4,105,300~
Niger	26,920+
Senegal	519,000~
Saudi Arabia	Not available
Sudan	706,653
Tunisia	167,600~
Yemen	??info not available

Note: some of these pesticide have expired or will soon expire
 ~ data may not be most current
 % Mali donated 21,000 l for RL in Malawi, Mozambique and Tanzania late last year and FAO facilitated the triangulation + quantity reported in Agadez

<i>ITCZ</i>	<i>Inter-Tropical Convergence Zone</i>
<i>FAO-DLIS</i>	<i>Food and Agriculture Organizations' Desert Locust Information Service</i>
<i>Kg</i>	<i>Kilogram</i>
<i>L</i>	<i>Liter</i>
<i>MoAFSC</i>	<i>Ministry of Agriculture, Food Security and Cooperatives</i>
<i>MoARD</i>	<i>Ministry of Agriculture and Rural Development</i>
<i>NOAA</i>	<i>National Oceanic and Aeronautic Administration</i>
<i>OFDA</i>	<i>Office of U.S. Foreign Disaster Assistance</i>
<i>PPD</i>	<i>Plant Protection Department</i>
<i>PPSD</i>	<i>Plant Protection Services Division/Department</i>
<i>PRRSN</i>	<i>Pesticide Risk Reduction through Stewardship Network</i>
<i>TAG</i>	<i>Technical Assistance Group</i>

List of Acronyms

<i>AELGA</i>	<i>Assistance for Emergency Locust Grasshopper Abatement</i>
<i>APLC</i>	<i>Australian Plague Locust Commission</i>
<i>CAC</i>	<i>Central Asia and the Caucasus</i>
<i>CERF</i>	<i>Central Emergency Response Fund</i>
<i>CLCPRO</i>	<i>Commission de Lutte Contre le Criquet Pélerin dans la Région Occidentale</i>
<i>CNLA/CNLAA</i>	<i>Centre National de Lutte Antiacridienne</i>
<i>CRC</i>	<i>Commission for Controlling Desert Locust in the Central Region</i>
<i>DDLC</i>	<i>Department of Desert Locust Control</i>
<i>DL</i>	<i>Desert Locust</i>
<i>DLCO-EA</i>	<i>Desert Locust Control Organization for Eastern Africa</i>
<i>DPPQS</i>	<i>Department of Plant Protection and Quarantine Services</i>
<i>DPV</i>	<i>Département Protection des Végétaux</i>
<i>ELO</i>	<i>EMPRES Liaison Officers</i>
<i>EMPRES</i>	<i>Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases</i>
<i>ETOP</i>	<i>Emergency Transboundary Outbreak Pests</i>
<i>IRIN</i>	<i>Integrated Regional Information Networks</i>
<i>IRLCO-CSA</i>	<i>International Red Locust Control Organization for Central and Southern Africa</i>

Point of Contact:

To learn more about our activities, the programs we support and many more, please, visit our website:

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

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