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

## Summary

Groups of immature adults and hoppers of **desert locust** were detected in *wadis* and between sand dunes in Tamesna northern **Niger** and controlled in more than 1,600 hectares in December. The situation improved and locust numbers were significantly reduced in western **Mauritania** where an outbreak developed in early October and control operations effectively treated thousands of ha in the past months. Groups of hoppers were treated in 15 ha in Central Sahara in **Algeria** in December. Some breeding was reported on the Red Sea coasts in **Egypt** and **Eritrea** and scattered adults were reported on the coastal areas in **Sudan**, **Saudi Arabia**, **Yemen** and **northwest Somalia**. Elsewhere, The situation remained calm elsewhere in the region during the reporting period (CNLA/Mauritania, CNLAA/Morocco, DDLC/Libya, DPPQS/India, DPV/Niger, and FAO-DLIS).

**Forecast:** Small-scale breeding will likely occur in winter breeding areas along the Red Sea coasts in **Egypt, Eritrea, Sudan, Saudi Arabia** and **Yemen**, and perhaps northwestern **Somalia** if rains fall during the forecast period. Elsewhere, the situation will likely remain calm and only a few adults will persist in **Mauritania**, **Mali**, **Morocco**, **Niger** and **Algeria** during the forecast period.

### OFDA Pest & Pesticide Activities

- OFDA/TAG continued its initiatives in **pesticide risk reduction** through stewardship network (PRRTSN) to avoid pesticide related disasters ensure safety of vulnerable communities as well as protect their assets and the environment. OFDA/TAG launched the second sub-regional PRRTSN workshop (the first for the Horn of Africa) from 23-27 August, 2009 in Adama-Nazareth, Ethiopia. More than 30 participants from Djibouti, Ethiopia and Sudan attended the workshop. 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 counties (EECAC). The assessments lead to a regional workshop held in Kazakhstan late October, 2009 aimed at developing programs for a coordination of locust operations in the region.

- Seed money provided by OFDA to FAO's pesticide disposal and prevention program leveraged more than $2.2

million from Global Environment Facility and other sources. These funds are being used to develop/implement obsolete pesticide disposal and prevention initiatives in EECAC countries.

- 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**

The International **Red Locust** Control Organization for Central and Southern Africa (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 in the country. Funds from the United Nation Central Emergency Response Fund (CERF) provided through Food and Agriculture Organization (FAO) were used to launch the survey operations. Low density populations were detected in some parts of the outbreak areas where rains were recorded and breeding conditions improved over the past months.

**Forecast:** Hatching will commence and low to medium-size hopper bands will likely form in January in the outbreak areas in **Tanzania, Mozambique** and **Zambia** where significant residual populations were detected earlier in the season. IRLCO-CSA is planning on carrying out survey and control operations against hopper bands using *GreenMuscle*, a fungal-based biological pesticide, in ecologically sensitive areas (IRLCO-CSA).

**African Armyworm** outbreaks were reported in **Malawi, Tanzania** and **Zambia**. The caterpillars were observed feeding on maize and pasture. Control operations were carried out by affected farmers with assistance from the MoA (IRLCO-CSA, Mushobozi).

**Forecast:** Armyworm outbreaks will likely continue in **Malawi**, **Tanzania** and **Zambia** and perhaps extend to **Mozambique** and **Zimbabwe** and threaten crops and pasture during the forecast period. Trap operators are advised to continue collecting trap data and forward it to the national forecasting officers immediately. Community forecasters are advised to engage in monitoring and reporting armyworm sightings. Outbreak countries are encouraged to share armyworm information with neighboring countries as often as possible. Preventive interventions are recommended to the extent possible.

***Quelea*** birds were reported damaging irrigated rice crops in **Kenya** where control operations were carried out by the Desert Locust Control Organization for Eastern Africa (DLCO-EA) in collaboration with the Ministry of Agriculture. *Quelea* activities were not reported in **Tanzania, Malawi, Mozambique** and **Zambia** during this period but other outbreak and invasion

countries may be experiencing infestations (AELGA, IRLCO-CSA). **Forecast:** *Quelea* birds will likely continue being a problem to small grain cereal growers in **Kenya** and also likely threaten crops in other outbreak countries. Active surveillance and reporting are advised **(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/RDMA).

No updates were received on other **ETOPs** in December.

**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

Above average rainfall was recorded across parts of central Africa and portions of southern Africa, including northern **Angola**, **Zambia**, and parts of western **Tanzania** during the last week of December. During previous weeks, southern **Ethiopia, Kenya, southern Somalia**, **southern Mozambique, northern Madagascar,** parts of **South Africa**, coastal **Tanzania,** northern **Uganda, Zambia** and **Zimbabwe** registered above average rainfall. Below average rainfall was recorded in **northern Mozambique** and over much of central **Tanzania** during the same period. Most of the DL outbreak areas remained relatively dry and only light rains were recorded in some areas (NOAA, CNLA/Mauritania, CNLAA/Morocco, DDLC/Libya, DPPQS/India, DPV/Niger, FAO-DLIS, IRLCO-CSA).

*(**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 THE ETOP SITUATION AND RELATED ACTIVITIES

### DL - Western Outbreak Region

The DL situation significantly improved in December in western **Mauritania** where control operations effectively controlled hoppers and adults on thousands of hectares since September 2009. Very little rain fell and vegetation continued drying out during the reporting period. Consequently, only a few groups of locusts were controlled in 75 ha during the first ten days of December and the threat diminished thereafter.

Groups of immature adults and hoppers were detected in areas of green vegetation in *wadis* and between sand dunes in Tamesna in northern **Niger**. The national Crop Protection (DPV) staff treated close to 1,601 ha from the second dekad of December. Security protection was provided by the national army during survey and control operations. Survey and control operations continued to abate further locust developments and reduce the DL threat level. Locust infestations may also be present in eastern **Mali** in areas adjacent to Tamesna **Niger**. However,

the ongoing security problems continue undermining survey and control operations.

**Forecast:** The DL situation will likely remain calm in the northwest outbreak areas and only some adults will persist in **Mauritania**, **Mali**, **Morocco**, **Niger** and **Algeria** during the forecast period (AELGA/ OFDA, CNLA/Mauritania, CNLAA/Morocco, DDLC/Libya, DPV/Niger and FAO/DLIS).


Locusts are present in Mauritania, Niger and along the Red Sea coasts, source: FAO-DLIS, 01/10)

## DL - Central Outbreak Region

The DL situation remained fairly calm in the central outbreak region in December. Only small-scale breeding was reported along the Red Sea coasts in **Egypt** and **Eritrea** and scattered adults were reported on the coastal areas in **Sudan**, **Saudi Arabia**, **Yemen** and **northwest Somalia.** No locusts were reported in Ethiopia, Kenya, Oman or other countries in the region during this period (AELGA, FAO-DLIS).

**Forecast:** Small-scale breeding will likely continue in winter breeding areas along the Red Sea coasts in **Egypt** and **Eritrea** and commence in **Sudan, Saudi Arabia** and **Yemen**, and perhaps northwestern **Somalia** provided that rains fall during the forecast period. Active surveillance and reporting are advisable (AELGA, FAO-DLIS)..

## DL- Eastern Outbreak Region

Ecological conditions remained unfavorable in December in most of the winter breeding areas in the eastern outbreak region along the **Indo-Pakistan** border and the locust situation remained calm during this period. 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 (DPPSC/India, FAO-DLIS).

**Forecast:** Light rains fell in Churu Division in Rajasthan, some parts of Gujarat **India** but most of the summer breeding areas along the **Indo-Pakistan** borders remained dry. Light rain was also reported in parts of spring breeding areas in western **Pakistan** and conditions may slightly improve and a few adults may be seen here and in southwestern **Iran** sometime during the forecast period, but significant developments are unlikely (DPPQS/India, FAO-DLIS).

## Central Asia and the Caucuses

No reports were received on migratory pests in CAC region in December and the situation will likely remain inactive during the forecast period.

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

Barn owl (*Tyto alba*)

**Red Locust:** The International Red Locust Control Organization for Central and

Southern Africa (IRLCO-CSA) and the Ministry of Agriculture Food Security and Cooperatives (MoAFSC) **Tanzania** carried out aerial survey of the Wembere plain, Ikuu-Katavi plains, Lake Rukwa plains and Malagarasi Basin in **Tanzania** to assess the parental locust populations and breeding conditions. Survey operations were supported by funds provided by the UN/ CERF through FAO. Isolated, low density parental populations (<1 locusts/$m^2$) were detected in some parts of the outbreak areas where breeding conditions continued to improve over the past several weeks (IRLCO-CSA).

**Forecast:** Hatching will commence in January and result in low to medium-size hopper bands in areas where significant residual populations were detected prior to the onset of the rains in Ikuu-Katavi, South and North Rukwa plains and Malagarasi Basin in **Tanzania,** Buzi and Dimba plains in **Mozambique** and Kafue and Lukanga swamps in **Zambia**. IRLCO-CSA will carry out survey and control operations where high density hopper bands will be located and will use *GreenMuscle* to control the pest in ecologically sensitive areas (IRLCO-CSA, AELGA).

**African Armyworm** outbreaks were reported in Kasungu and Mzuzu Agricultural Development Divisions of **Malawi, in** Same, Mwanga, Morogororo, Kilwa, Rombo and Arusha districts of **Tanzania** and in Lusaka Province of **Zambia**. The caterpillars were reported feeding on maize and pasture. Control was carried out by the affected farmers with assistance from the national MoAs

**Forecast:** Armyworm outbreaks are likely to continue in **Malawi**, **Tanzania** and **Zambia** and perhaps extend to **Kenya**, **Mozambique** and **Zimbabwe** during the forecast period. Trap operators are advised to continue collecting trap catches and forward data to the national forecasting officers in time to make adequate preparations to help mitigate further development and minimize damage to crop/pasture. Neighboring countries are encouraged to share armyworm information as often as possible. Preventive interventions are recommended to abate further development and mitigate consequential damage to crops and pasture.

Armyworm larvae attacking crop fields in Tanzania, (source: Wilfred Mushobozi, Jan. 2010)

**Quelea** bird outbreaks were reported damaging irrigated rice crops in Nyando and Siaya districts in **Kenya**. Control was carried out by DLCO-EA in collaboration with the MoA. The bird may also be causing damage to small grain crops in other outbreak/invasion countries where updates were not received at the time this report was compiled (AELGA, IRLCO-CSA).

**Forecast:** ***Quelea*** birds will likely continue being a problem to small grain cereal growers in Siaya, Nyando, Kisumu and Kirinyaga districts in **Kenya,** Dodoma, Shinyanga, Morogoro and Mbeya regions of **Tanzania,** and Chokwe district of **Mozambique** and other outbreak/invasion countries. Active surveillance, reporting and preventive interventions are recommended **(AELGA, IRLCO-CSA)**.

**The Timor and South Pacific**

No update was received in December.

## Australian Plague Locust

Based on a model forecast previously put out by the **Australian Plague Locust** (APL), hatching and hopper developments are expected to have progressed in December and fledglings may have commenced in late December into early January in several places in New South Wales, Queensland and South Australia.

**Forecast**: It is likely that locust populations will significantly increase and form swarms in the above mentioned regions during the forecast period.

Front-line countries in ETOP outbreak zones 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/DPVs and autonomous locust/ETOP units and ELOs are encouraged to continue sharing information with partners and broader stakeholders as often as possible.

## Pesticide Stocks

Pesticide inventories remained unchanged in December in most of the outbreaks/invasion countries except in **Niger, Algeria**, and **Mauritania** where some 1,601 ha, 15 ha, and 75 ha were sprayed respectively during this month.

| Country | Quantities in l/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 | 735,676~ |
| Tunisia | 167,600~ |
| Yemen | info not available |

Note: some of these pesticide have expired
or will expire soon
~ 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 from Agadez

**Point of Contact:**

For more information please, visit us at

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

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