

**Emergency Transboundary
Outbreak Pest (ETOP) situation
update for February with a forecast
till mid-April, 2009**

Summary

West Africa pest outbreak:

Larvae (caterpillars) of a fruit-piercing moth, *Achaea catocaloides*, that invaded **Liberia** in January has been reported in southern **Guinea** and **Ivory Coast**. In Guinea, the Ministry of Agriculture (MoA) deployed plant protection department staff equipped with 600 liters of pesticides and sprayers to the infested areas. MoA/G has also established contacts with neighboring countries and appealed for external assistance. It is possible that the pest may begin appearing in **Sierra Leone** by late March or early April and likely disappear by early June. A study that was done several decades ago in **Sierra Leone**, indicated that early egg laying populations of *Achaea* were recorded having a second generation and others had just one generation per season (AELGA, CILSS).

Achaea outbreaks were reported on **Dahome** trees in central and northern Liberia in January. The larvae (caterpillars) were seen polluting water sources with their defecates and by inadvertently drowning making them unusable. They were also seen affecting tree crops such as coffee and cocoa as well as plantain banana. **USAID** through **OFDA** provided **\$100,000** to assist affected communities with water and sanitation and strengthen capacity of **GOL** and local communities to scout,

monitor and respond to pest outbreaks. OFDA staff continues monitoring the situation in close collaboration with GOL, CILSS/Agrhymet, IITA/Benin, FAO and other partners and report and respond accordingly (*Note: The change in the weather patterns and the shift in the landscape seem to likely increase the risk of pest outbreaks in the region and elsewhere. Regular monitoring and reporting are essential. End note*).



Achaea larvae (photo: Nat Geo)



Adult *Achaea* (photo: Fontaine)

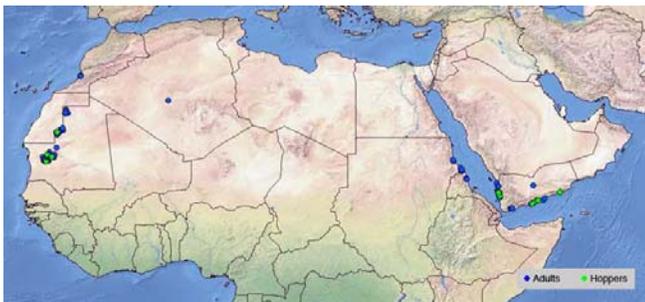
Desert Locust:

The DL situation remained calm in February in the winter breeding areas. Only a few solitary locusts and small-scale breeding were reported in northern **Mauritania**. Some locusts were detected in irrigated areas in central **Algeria** and a similar situation may be present in northern **Mali** and northern **Niger**, but could not be confirmed due to the on

going security problem. Small-scale breeding occurred in southern **Yemen** and egg laying was reported along the Red Sea coasts in **Eritrea, Yemen, Saudi Arabia**. No locusts were reported in other countries in the western central or eastern outbreak regions during this month.

Forecast

Solitary populations could persist in **Mauritania** and elsewhere in the region, but breeding is not expected in the coming months. Locust numbers will remain low in most of the winter breeding areas along the Red Sea coasts and only a slight increase may be seen in southern **Yemen** where breeding took place in February. Some breeding could occur in the spring breeding areas in southeastern coast of **Iran** where favorable conditions persisted. Locust activities may also be seen in western **Pakistan** if rains fall during the forecast period, but nothing major is expected (FAO-DLIS, CNLA/Mauritania, INPV/Algeria, AELGA).



(areas of potential DL presence, FAO. Feb. 09)

OFDA Pest & Pesticide Activities:

- OFDA provided \$100,000 to assist communities affected by pest infestations with health and sanitation as well as strengthen

MoA/PPD capacity to respond to pest outbreaks in Liberia.

- OFDA is sponsoring capacity strengthening through FAO's EMPRES programs to prevent, mitigate and respond to DL emergencies in the western and the central regions.
- OFDA is sponsoring DLCO-EA to strengthen national and regional capacities for DL emergency and other ETOP operations in Greater Horn of Africa.
- OFDA co-sponsored assessment and project development missions for locust monitoring and operations in Central Asia and the Caucasus and neighboring counties (EECAC).
- OFDA seed money to FAO helped leverage \$1 million from GEF funds and an additional \$1.2 million from other sources to develop and implement projects on obsolete pesticide disposal and prevention in EECAC countries.
- OFDA/TAG is preparing to launch workshops on **pesticide risk reduction** (PRR) for human safety and environmental protection through stewardship network in Kenya and Ethiopia. TAG launched a successful PRR workshop in Tanzania in May 2008. The Tanzania Ministry of Agriculture, Rural Development and Cooperatives has since elevated and sponsored the Stewardship Network as a tool for improving

pesticide delivery system in the country.

Other ETOPs

No locusts were reported in Central Asia and the Caucuses in February, but hatching will likely begin and form hoppers in northern Afghanistan and other places during the forecast.

Red Locust: Hopper bands were reported in more than 150,000 ha in Iku-Katavi and Rukwa plains as well as Malagara Basin in **Tanzania**. An estimated 50,000 ha were reported infested with 300,000 to a million insects/ha. Control operations were carried out on more than 2,420 ha using a biopesticide, GreenMuscle and Fenitrothion. Medium to high density hoppers were reported in 980 ha of maize, sorghum, and pasture in Sofala Province, **Mozambique**. Close to 210 ha were treated by the end of February.

African Armyworm. Larval populations and positive trap catches were present in **Tanzania** and will likely continue here and in **Kenya**. The armyworm season has ended in Malawi, Mozambique, Zambia and Zimbabwe and no reports were received from these countries (IRLCO/CSA, AELGA).

Quelea: *Quelea* birds were reported in **Cameroon** earlier in the month. The birds were also reported on irrigated rice and wheat as well as millet in **Tanzania** and several districts in **Kenya** where large colonies were treated by air and ground means. Control operations were in progress at the time this report was compiled. In January, DLCO and MoA launched aerial control operations against *Quelea* colonies in the upper Eastern Province and western part of **Kenya** (AELGA, DLCO-EA, IRLCO-CSA).

OFDA/Assistance for Emergency Locust and Grasshopper Abatement (AELGA)

will continue monitoring ETOP situation and issue updates and advise as necessary. End summary

The current and archived SITREPS can be accessed on our website at:

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

Climatological and ecological factors

Precipitation remained insignificant in February in the DL winter breeding and outbreak areas. Consequently, ecological conditions were largely unfavorable and vegetation was drying. With the ITCZ still in the south, rain fall was recorded in the red locust outbreak areas in Malawi, Mozambique, Tanzania and Zambia. As it progressively moves north, rains will begin in the DL outbreak areas. (AELGA, FAO-DLIS, CNLA, IRLCO-CSA, INPV).

ETOP Situation and Activities in Detail

Western Region

A few solitary locusts were detected in northern **Mauritania** where small-scale breeding was reported. Solitary adult populations were also reported in central **Algeria** and a similar situation may be present in northern **Mali** and northern **Niger**, but surveys were hampered by the existing security situation (CNLA, FAO-DLIS, INPV/Algeria, OFDA).

Forecast: Residual populations could persist in **Mauritania** and elsewhere in the region in the coming months, but breeding is not expected during this period (FAO-DLIS, INPV/Algeria, CNLA/Mauritania, AELGA).

Central Region

Solitary adults were detected along the **Red Sea** coasts in **Eritrea, Yemen, Saudi Arabia**. Some breeding occurred in **southern Yemen** and egg laying was reported in **Eritrea, Sudan and Saudi Arabia** in February. Other countries in the region remained calm during this period (FAO-DLSI, PPD/Addis).

Forecast: Locust numbers will remain low in most of the winter breeding areas along the Red Sea coasts but may slight increase in **southern Yemen** where some breeding occurred earlier. If rains fall in the coming weeks, hatching may occur in areas where laying recently occurred during the reporting period, but significantly development are not likely during the forecast period (FAO-DLIS, AELGA, PPD/Addis).

Eastern Region

Ecological conditions remained unfavorable in the eastern outbreak region except in the southeastern coast of **Iran**. No locusts were reported in this region in February.

Forecast: Small-scale breeding may occur along the southeastern coast of **Iran** where condition continued to be favorable. If monsoon rains begin falling, some locust activities may be seen in **western Pakistan**, but other countries in the region will likely remain calm during the forecast period (FAO-DLIS, AELGA).

Central Asia and the Caucuses

No reports of **Italian** or **Moroccan** or Migratory locusts were reported in the CAC region in February.

Forecast: Hatching of **Moroccan** locust may commence and hoppers will likely form in northern **Afghanistan** and adjacent areas but other areas will likely remain fairly calm

during the forecast period. Active survey and monitoring are essential in those areas.

Red Locust:

Numerous populations of hoppers and bands were reported on more than 150,000 ha in the Iku-Katavi and Rukwa plains and Malagarasi Basin, **Tanzania**. Densities of up to 300,000 to a million insects/ha were detected on some 50,000 ha.



Red locust hoppers on grasses in Iku plains Tanzania, January, 2009 (photo: IRLCO)

IRLCO in collaboration with MoAFSC and financial assistance from FAO sprayed some 2,420 ha with GreenMuscle (GM), a fungal-based biopesticide and Fenitrothion 96% ULV. RLCO and MoAFAC with the support of FAO will carry out aerial survey of all outbreak areas in **Tanzania** and launch emergency control operations by May/June. FAO is also providing an additional 10,000 of pesticides, operational funds to support red locust operations in **Tanzania**.

Medium to high density (10-100 insects/.m sq.) hoppers were reported in several locations in Nhamatanda district of Sofala province in **Mozambique** in late February. Hoppers were seen in some 1,000 ha on maize, sorghum and pasture and control operations were carried out on 210 ha. Survey and control operations are in progress. Some 8,000 l of pesticides (5,000 l from FAO and 3,000 l from MoA) are available for locust control in **Mozambique**.

Aerial surveys will be carried out in Buzi-Gorongosa, Dimba and Chiuta plains and Lake Chilwa/Lake to determine the situation and advise GoM. No locusts were reported in **Kenya, Malawi or Zambia** at the time this report was compiled (IRLCO-CSA, AELGA).

Forecast: Fledging will likely commence by March into April and form swarms, especially in Iku-Katavi and Rukwa plains. Uncontrolled swarms could begin spreading by May and June and invade cropping areas and migrate to neighboring countries where they could threaten food security and livelihoods of vulnerable populations (IRLCO-CSA). Locust were not reported in **Malawi**, but breeding may have begun in areas were adults were detected on hundreds of ha in November. IRLCO plans to survey and launch control by March/April using GM. Active survey and monitoring are essential.

The Timor and South Pacific

No update was received at the time this report was compiled.

Australia

Bands of 2nd generation hoppers of the **Australian Plague Locust (APL)** were seen in the Riverina and Central West of New South Wales (NSW), northern Victoria (NV), Lachlan Livestock Health and Pest Authority (LHPA) area, the Griffith–Darlington Point, Jerilderie–Berrigan, Moama–Mathoura and other areas in NV in January. Fledging began after mid-January and continued into early February in southern NSW and NV. Small swarms may have formed in these areas in February (APLC, AELGA).

Forecast: Locust populations will likely decline in the Riverina due to dry conditions and intensive control interventions, but persist and breed in the eastern parts of the Central West (APLC, AELGA).



APL (photo::

APLC)

Outbreaks of 4th and 5th instar nymphs of **grasshoppers** were detected on some 250 ha of maize and pasture in Chibabva district of Sofala Province in **Mozambique**. The infestation that was believed to have affected close to 170 families was being controlled at the time this report was compiled (IRLCO-CSA).

African Armyworm. No updates were received at the time this report was compiled, but some activities may have occurred in Morogoro and Mtwara regions in **Tanzania**. Larvae and positive trap catches may be present in Dododma, Kyela, Mbozi and Kilosa in February. The armyworm season has wended or near ending in Malawi, Mozambique, Zambia and Zimbabwe and no reports were received from these countries. No reports were received from the other counties in the region (AELGA, IRLCO).



Armyworm larvae (photo: Namibia crop pests #28)

Forecasting: Armyworm larvae may be seen in the primary outbreak areas in the eastern Africa and adults may follow the ensuing ITCZ. Active survey and monitoring are essential. Pheromone traps must be regularly checked and reported.

Quelea: *Quelea* birds were reported in **Cameroon** earlier in the month and in **Tanzania** and in several districts in **Kenya** where aerial and ground control operations treated large numbers of colonies in irrigated rice and wheat as well as millet. Control operation was in progress at the time this report was compiled. In January, DLCO and MoA launched aerial control operations against *Quelea* colonies in the upper Eastern Province and western part of **Kenya** (AELGA, DLCO-EA, IRLCO-CSA).

Forecast: Breeding may have commenced in **Tanzania** and **Zimbabwe**. Fledglings will likely cause damage to rain fed and irrigated small grain cereal crops and continue being a problem in **Kenya, Tanzania** and other countries in the region.

Front-line countries are advised to remain vigilant. Countries in the outbreak zones should continue to strengthen their capacity to avoid any unexpected surprises. DLCO-EA, IRLCO-CSA, national PPDs/DPVs and autonomous locust units and ELOs are encouraged to continue sharing ETOP related information with partners and stakeholders as often as possible.

Pesticide Stocks

Pesticide inventories remained unchanged during this month as control operations were not carried out against DL.

Country	Quantities in l/kg@
Algeria	1,800,000**
Chad	108,085
Eritrea	44,800
Ethiopia	12,300~
Mali	209,000%
Mauritania	489,400
Morocco	4,107,300
Niger	69,000
Senegal	519,000
Sudan	735,676

Tunisia*	167,600*
some of these pesticide have expired or will soon expire	
*Most current data not available	
**Most current data not available	
~ this represents only DL stock	
% Mali donated 21,000 l to RL operations in Malawi, Mozambique and Tanzania late last year and FAO facilitated the triangulation	

Point of Contact:

For more information please, contact:
Yene T. Belayneh, Ph.D.
ybelayneh@ofda.gov