

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

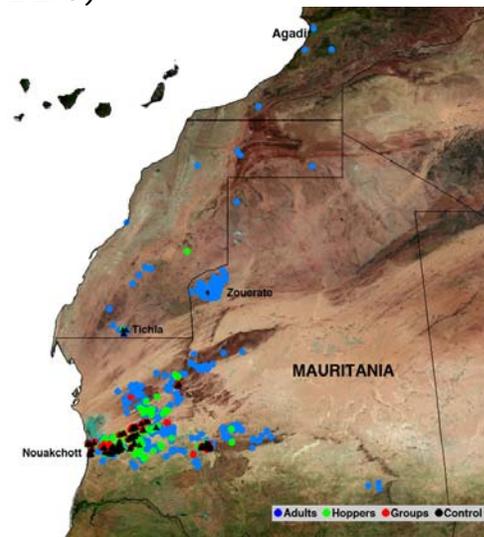
Summary

The Desert Locust situation continued developing in western **Mauritania** in early to mid-November. The national locust control center (CNLA) treated close to 9,560 during this month (close to 13,770 ha since 11 September, 2009). CNLA staff and three survey specialists – two from **Morocco** and one from **Libya** continued operations in **Mauritania** in November. Treatable targets declined towards the end of the month as large numbers of hoppers were controlled and those that escaped fledged and adults continued migrating further north into southern **Morocco** and northern **Mauritania**.

Solitary immature and mature adults and hoppers were detected in the extreme south of **Morocco** where the latter were controlled on November 18th in 400 m² in three locations in Tichla. Hoppers were also controlled on 225 ha in central **Algeria**. An unconfirmed report indicated the presence of hopper bands in *In Abanghati* in *Tamesan* in **Niger** and a team has been dispatched to confirm the report. Scattered solitary adults were detected during surveys carried out in southwest **Libya**.

The Red Sea region and Horn of Africa remained fairly calm. Only some scattered solitary adults and small-scale breeding were reported in the winter breeding areas in northeast **Sudan** along the coast. No locusts were

detected during surveys carried out on the coastal areas in **Saudi Arabia** and **Oman** and no locusts were reported in **Ethiopia, Somalia, Kenya** or other countries in the central, western and eastern outbreak regions in November (CNLA/Mauritania, CNLAA/Morocco, DLCO-EA, DDLC/Libya, DPP/Ethiopia, DPPOS/India, DPV/Niger, and FAO-DLIS).



The locust situation is improving in W Mauritania (FAO-DLIS, 12/09)

Forecast: As ecological conditions continue deteriorating in the outbreak areas in **Mauritania**, locust numbers will likely continue declining there. Only scattered adults will likely persist in southern **Morocco**, Algeria, northern **Mali** and **Niger** and southwest **Libya** where small-scale breeding may occur if favorable conditions persist. Small-scale breeding will likely occur and locust numbers could slightly increase along the coastal areas in northeast and Tokar Delta in **Sudan** and **Eritrea**, **Saudi Arabia** and **Yemen**. Isolated adults may begin appearing in spring breeding areas in southeast coast of **Iran** and west coast of **Pakistan**, but

significant developments are not likely 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 **Egypt**.
- 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 GEF 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 Organization for Central and Southern Africa (IRLCO-CSA) and the Ministry of Agriculture in **Malawi** carried out survey operations in the Red Locust outbreak areas in November 2009. Low density isolated populations were detected in Lake Chilwa and Lake Chiuta plains and Mpatsanjoka Dambo in **Malawi**. Breeding is expected to have commenced with the onset of rains in the outbreak areas in **Tanzania** and **Mozambique** in November. IRLCO-CSA will be surveying all outbreak areas in **Tanzania** in December 2009 to estimate potential outbreak in the 2010 outbreak season (IRLCO-EA).

Armyworm: Positive trap catches were reported in **Tanzania** throughout the month with moth catches progressively increasing from 1-3/trap at the beginning of the month to 210/trap at the end of the month. The highest trap catch was reported in Mengwe Chini, Kilimanjaro Region. Primary outbreaks were reported towards the end of the month in Mbozi District, Mbeya region. An outbreak was reported in the Panda Delta areas of the Coastal Region of **Kenya** in November (DLCO-EA, AELGA, IRLCO-CSA).

Forecast: Moth catches will likely increase and larval infestations will appear in several places in **Tanzania** and **countries in the southern outbreak region** will likely experience armyworm presence in areas where favorable conditions persist. Regular trap monitoring and assessing crops and pasture are advisable (DLCO-EA).

DLCO-EA aircraft treated *Quelea* roosts and colonies in 125 ha in Amhara and Oromya regions of **Ethiopia** in mid-November. The birds were seen feeding on sorghum and wheat crops. *Quelea* roosts were controlled in 48 ha in sugar cane in **Tanzania**. *Quelea* activities will likely continue in these regions and breeding will likely commence in **Kenya, Mozambique** and other countries and new populations will likely threaten crops here and in adjacent areas (AELGA, DLCO-EA, IRLCO-CSA).

No updates were received on other **ETOPs** during this period.

OFDA's Assistance for Emergency Locust and Grasshopper Abatement (AELGA) will continue monitoring

the situation and advise. 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

During the last week of November, isolated areas in **southeastern Kenya, coastal Tanzania, northern Mozambique**, parts of **Malawi** and **Zambia** recorded above average rainfall, but dry conditions persisted across much of the **Greater Horn of Africa (GHA)** where eastern **Kenya** and **southern Somalia** registered rainfall deficits. Parts of **Zimbabwe, southern Mozambique, eastern South Africa, northern Botswana**, the area along the border between **Namibia** and **Angola**, and the western sectors of Angola received above average precipitation.

During the second week of November the **GHA** experienced dry conditions, except **Tanzania**, where portions of the central areas parts of **Zambia** and northern **Zimbabwe, southern Cameroon** and the **Guinea** coast recorded above average rainfall. Rainfall was below average in **South Africa** and dry conditions persisted in western **Angola**. Seasonably dry weather prevailed over most of the Sahel West and only light to moderate rains fell on 1-2 November near Zouerate in **Mauritania**. Rains have not fallen in the outbreak area since late September, but vegetation remains green in *wadis* and low laying areas between the sand dunes in **Mauritania**. Large parts of Lake Chilwa/Lake Chiuta Red Locust outbreak areas, shared by **Malawi** and **Mozambique**, were still flooded and covered with green vegetation. In other

outbreak areas, extensive burning had taken place creating ideal ecological conditions for egg laying (NOAA, CNLA/Mauritania, CNLAA/Morocco, DDLC/Libya, DPPOS/India, DPV/Niger, FAO-DLIS, IRLCO-CSA, and PPD/Ethiopia).

(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 continued developing in western **Mauritania** in November. Three survey experts, two from **Morocco** and one from **Libya** were dispatched on November 16 to assist CNLA. Ground operations have sprayed 13,768 ha since the current campaign began on 11th September and 9,554 ha were treated in November. Hoppers as well as immature and mature adults were seen forming groups near Moudjeria and Nouakchott earlier in the month, but treatable targets declined towards the end of the month as large numbers of hoppers were controlled and those that escaped fledged and adults continued migrating further north into southern **Morocco**.

Solitary immature and mature adults and hoppers (presumably resulting from adults that migrated from Mauritania in October) were detected in the extreme south of **Morocco** where the latter were controlled in 400 m² in three locations in Tichla on November 18th. Survey and control teams have been deployed to the region since October.

Locally bred hoppers were controlled on 225 ha in central **Algeria** and an

unconfirmed report from travelers indicated the presence of hopper bands in *Abanghati, Tamesan in northern Niger* and a team has been dispatched to confirm the report. In **Libya** surveys were carried out in November in the spring breeding areas in Alhamada Alhamra, Ghadames, Derj, and Ghat in the southwestern part of the country. Favorable conditions were present in areas that received rain in September and October in Ghat. Scattered solitary adults were detected in wade Tin-fjaj (26 07 05 N/09 32 14E), wade Tin-hilal (26 09 33N/09 32 26E), wade Intalaq (26 07 59N/09 07 33E) and wade Tanzouft (24 59 28N/10 14 42E) in Ghat (AELGA/OFDA, CNLA/Mauritania, CNLAA/Morocco, DDLC/Libya, DLCO-EA, DPV/Niger and FAO-DLIS).

Forecast: As ecological conditions continue deteriorating in the outbreak areas in **Mauritania**, locust numbers will continue declining. Only some scattered adults will likely persist in northern **Mauritania**, southern **Morocco**, central **Algeria**, northern **Mali**, southwest of **Libya** where small-scale breeding may occur if favorable conditions persist. Ecological conditions are favorable in some areas in *Tamesna* and east Air in northern **Niger**, but rainfall has stopped and significant activities are not likely in the coming months (AELGA/ OFDA, CNLA/Mauritania, CNLAA/Morocco, DDLC/Libya, DPV/Niger and FAO/DLIS).

Note: Member-countries of the commission for the DL control in the western region (CLCPRO) met from 27 October to 1 November and assessed the current situation in light of CNLA's capacity and the forecast for the coming months. The group commended actions taken by GoM through CNLA and suggested that additional teams may help bring the situation under control rapidly and effectively. **Morocco** responded with two survey experts and **Libya** provided

a survey expert and **\$300,000** to support **Mauritania**. **End note.**

DL - Central Outbreak Region

The DL situation remained fairly calm in the Red Sea region and the Horn of Africa in November except in northeastern **Sudan** where conditions were favorable and breeding was reported along the coast. No surveys were carried out in **Eritrea** or **Yemen** and no locusts were reported during this period. No locusts were detected in **Saudi Arabia** during surveys carried out in November on the coastal areas. No locusts were reported in Ethiopia, Kenya, Somali, Oman or other countries in the region (DLCO-EA, FAO-DLIS and PPD/Ethiopia).

Forecast: Small-scale breeding will likely occur and lead to a slight increase in locust numbers along the coastal areas in northeast and Tokar Delta in **Sudan** and in **Eritrea**, **Saudi Arabia** and **Yemen**, but other countries will likely remain clam during the forecast period (AELGA, DLCO-EA, FAO-DLIS, and PPD/Ethiopia).

DL- Eastern Outbreak Region

Ecological conditions remained unfavorable in most of the summer breeding areas in the eastern outbreak region along the **Indo-Pakistan** border and the locust situation remained calm with only a few scattered adults reported in November. 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 (SDA) of Rajasthan and Gujarat States (DPPSC/India, FAO-DLIS).

Forecast: Despite the light rains that fell in Churu Division in Rajasthan and some parts of Gujarat, these areas will likely remain relatively free of locusts. Unfavorable

conditions persisted in the summer breeding areas along the **Indo-Pakistan** borders and only a few adults may be seen during the forecast period. Isolated adults may begin appearing in spring breeding areas in the southeast coast of **Iran** and west coast of **Pakistan**, but significant developments are not likely during the forecast period. However, regular surveillance is advised throughout the area to avoid unexpected surprises (DPPQS/India, FAO-DLIS).

Central Asia and the Caucuses

No reports were received on migratory pests in CAC region in November.

Forecast: ETOP activities will remain inactive during the forecast period.

Red Locust: The IRLCO-CSA and the Ministry of Agriculture with financial support from the UN-FAO carried out aerial surveys in the Red Locust outbreak areas in **Malawi** in November. Low density isolated populations were detected on some 78,000 ha in **Lake Chilwa** and **Lake Chiuta** plains and **Mpatsanjoka Dambo**. No locusts were sighted in the secondary outbreak areas in **Ndindi Marshes** and **Kuselicumvenji Estate**. Breeding is expected to have commenced in November with the onset of rains in the outbreak areas in **Tanzania** and **Mozambique** where significant residual populations existed after control operations were carried out from June to August 2009 (IRLCO-EA).

Forecast: Red locust breeding commenced with the onset of the seasonal rains and hoppers will begin appearing sometime in January depending on prevailing weather conditions of each outbreak area. In **Tanzania**, where significant residual populations existed and gregarious hoppers are expected to occur in Ikuu-Katavi, Malagarasi and Rukwa Valley during the early part of 2010 provided breeding

conditions become suitable. Residual populations in Buzi-Gorongosa and Dimba plains in **Mozambique** will likely begin breeding and form gregarious hoppers in January if conditions become favorable. Breeding will likely continue in **Malawi**. IRLCO-CSA will undertake pre-breeding surveys of all outbreak areas in **Tanzania** in December 2009 to identify egg laying areas, estimate the 2010 season outbreak, alert member countries as well as prepare for potential intervention options including Green Muscle for hopper control (AELGA, IRLCO-CSA).

The Timor and South Pacific

No update was received in November.

Australian Plague Locust

According to information received from the **Australian Plague Locust** (APL), swarms were reported in Central West New South Wales during the first half of November. By mid month, swarms were also detected in the Trangie–Tullamore and the Peak Hill–Parkes areas and various stages of residual nymphs were also seen in many areas during this period.

Low to medium density populations were detected in western New South Wales and low density adult populations were reported in the Far West region and in most of the Far Southwest and Riverina in the Ivanhoe–Mossgiel area. Several small swarms were detected near Binya-Barellan. Low density late instar nymphs were widespread in the Condobolin–Hillston area and in the Lachlan and parts of the Riverina LHPA areas. Low density populations persisted in most of inland Queensland in early November. Migration occurred in Southwest Queensland in mid-November. South Australia remained relatively calm in November.

Forecast: Breeding will continue and populations will significantly increase in areas that received rain in western and southern New South Wales, South Australia and Southwest Queensland. Swarms will likely form in many of these regions during the forecast period.

Armyworm: Positive trap catches were reported in the Southern Highlands and in Tanga region in North Eastern **Tanzania** in November with the numbers progressively increasing from 1-3 moths/trap at the beginning of the month to 210 moths/trap at the end. The highest trap catch was reported in Mengwe Chini, Kilimanjaro Region. Primary outbreaks were reported in Mbozi District, Mbeya region during the last week of the month (DLCO-EA). An armyworm outbreak was also reported in Pana Delta on the Coastal Region of **Kenya** in November.

Forecast: Moth catches will likely increase and larval infestations will appear in the Southern and Central Regions of **Tanzania** and in areas where favorable conditions persist in the southern outbreak region. The pest will likely begin migrating northward following the seasonal wind in the coming months. Active surveillance and monitoring are essential. Trap operators, including community-based forecasters are advised to continue monitoring and forecasting to assist timely interventions (AELGA, DLCO-EA).

Quelea: Aerial control operations by DLCO-EA treated roosts and colonies in some 125 ha in Amhara (Antsokia, Lomigora and Kemise) and Oromya (Kyo and Koso) regions of **Ethiopia** from 11-16 November, 2009. The birds were seen feeding on sorghum and wheat crops. Two *Quelea* roosts were sprayed in 48 ha on sugar cane and the birds were also seen attacking irrigated rice crops in Moshi region in **Tanzania**. No activities were reported in **Kenya** or the IRLCO-CSA region or the Sahelian West Africa at the time this report was compiled, but it is likely

that the birds are present in these regions (AELGA, DLCO-EA).

Forecast: The birds will likely persist in the above countries and breeding will likely commence in **Mozambique, Tanzania, Kenya** and new populations could start threatening crops as the season progresses. Vigilance must be maintained in monitoring and intervening (AELGA, IRLCO-CSA).

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 November in most of the outbreaks/invasion countries except in **Algeria, Mauritania**, and **Morocco** where some 225 ha, 9,554 ha and 400 m² were sprayed respectively.

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	30,920+
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/

Or send an e-mail to:
Yeneneh T. Belayneh;
ybelayneh@ofda.gov