

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

Summary

The Desert Locust (DL¹) situation remained fairly calm in winter and spring breeding areas in March largely due to dry and unfavorable conditions and locust units' vigilance. Only some hopper groups and bands required control in **Saudi Arabia**. Scattered solitary adults were reported in northern **Mauritania**, northeastern **Morocco** and adjacent areas in **Algeria** as well as the Red Sea coast in **Sudan**. A similar situation may exist in northern **Niger** and **Mali** but could not be confirmed due to ongoing security situation. Elsewhere the situation remained calm and no locusts were reported during this period (DDLC/Libya, DPPQS/India, FAO-DLIS and INPV/Algeria).

Forecast: Small-scale breeding will likely commence in spring breeding areas in **Morocco, Algeria, and Saudi Arabia** and along the **Iran-Pakistan** borders. Scattered adults will persist in northwest **Mauritania**, northern **Mali** and northern **Niger**. Adult locust could begin appearing in the interior of **Yemen** and along **Iran-Pakistan** borders. Other countries will likely remain calm during the forecast period (CNLA/Niger, DDLC/Libya, DPPQS/India, FAO-DLIS, and INPV/Algeria).

OFDA Pest & Pesticide Activities

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

- OFDA/TAG Advisor participated in a planning and development workshop for the second phase of the EMPRES Western Region Program during the second week of March in Dakar, 2010 in Dakar.

The advisor noticed that each frontline country in the Sahel West Africa namely, Chad, Mali, Mauritania and Niger now has an autonomous national unit responsible for all DL activities. Each unit is well-equipped with survey, monitoring and communication equipment and materials as well as vehicles. Pesticide warehouses and offices have been constructed or are under construction; field stations are established. Large numbers of people have received training in various fields of locust operations. Funds provided by the African Development Bank and the World Bank and contributions made by the host-governments, USAID, France, and neighboring countries played a crucial role in enabling host-countries to overhaul their locust units.

This is a significant improvement compared to the situation these countries were in prior to and during the 2003-05 locust upsurges. *It is to be recalled that those upsurges were able to overrun the entire western outbreak region and extend to the Middle East largely due to lack of adequate resources and weak host-country capacities to respond quickly and effectively.*

- OFDA/TAG continues its initiatives in pesticide risk reduction through stewardship network (PRRSN) to help prevent pesticide related disasters and

ensure safety of vulnerable people and communities as well as to 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** in **Cairo**.

- 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.
- The assessment missions that OFDA co-sponsored with FAO in Eastern Europe Central Asia, the Caucasus and neighboring counties (EECAC) have developed a pre-proposal for a five-year program. The program focuses on strengthening national and regional capacities to help coordinate locust monitoring, information sharing, prevention and control interventions.
- The USD 200,000 OFDA provided in seed money enabled FAO's Pesticide Disposal and Prevention program to leverage an additional USD 2.2 million (in cash and/or in kind) from the Global Environment Facility, Green Cross Switzerland, participating countries and other sources. These resources are used to help improve awareness and develop and strengthen national capacities to implement obsolete pesticide disposal and prevention initiatives in EECAC.

- 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

No update was received at the time this report was compiled, but it is likely that fledging commenced and immature adults have formed in the outbreak areas, including North Rukwa plain, **Tanzania** and elsewhere in the region.

Forecast: Swarms will likely form and migrate to adjacent areas.

Note: *IRLCO-CSA lost two of its pilots in a tragic plane crash in Kenya in March 2010. Aside from the losses to family and friends of the deceased, this tragic event will significantly impact locust operations in the region. End note.*

Armyworm: No update was received at the time this report was compiled, but it is likely that the pest may have been a problem in **Tanzania** and **Kenya** and perhaps in southern **Ethiopia** where the pest could threaten crops and pasture.

Quelea birds: No update was received at the time this report was compiled, but it is likely that the bird may have

been threatening irrigated crops in **Kenya** and elsewhere in the region.

Rodents: No update was received on rodents at the time this report was compiled, but the pest may have continued to be a threat to oil palm crops etc in **Thailand** where barn owls (*Tyto alba*) are being used to control them (OFDA).

Updates were not received on **ETOPs** in EECAC, but it is likely that some activities may have commenced and will continue during the forecast period.

OFDA's Assistance for Emergency Locust and Grasshopper Abatement (AELGA) will continue monitoring ETOP situations, issue updates 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 condition

In March, most DL outbreak and invasion countries experienced fairly dry weather and unfavorable ecological conditions. Moderate rains were reported in the interior of **Saudi Arabia, Yemen** and southeastern **Iran** and heavy rains fell in eastern **Ethiopia** and northwestern **Somalia**. Above average rainfall was reported in southwest **Ethiopia**, western **Kenya**, northern **Uganda**, and northwestern **Tanzania** during last week of the month. During the past 30 days, rainfall was above average over much of the **non-**

DL ETOP counties, including **Madagascar**, northern **Mozambique** and parts of **Zambia**. Rainfall was also above average over eastern **Uganda, Kenya**, but it was below average over parts of central **Tanzania**, parts of southern **Malawi**, central and southern **Mozambique**, and northeastern **South Africa**. The northward migration of the Intertropical Convergence Zone (ITCZ) contributed to the increased rainfall in the Greater Horn of Africa and adjacent areas during this month. **Libya** experienced mild weather with max and min temps ranging from 19-38 and 12-17, respectively (DDLC/Libya, DPPOS/India, FAO-DLIS, INPV/Algeria and NOAA.).

(Note: Changes in the weather pattern and the shift in the ecology of landscape are believed to exacerbate 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

Scattered mature and immature adults were detected south of the Atlas Mountains in northeastern **Morocco**, in Draa Valley, and along the **Algerian** border where rains fell recently. Solitary adults persisted in northern **Mauritania** and a similar situation may be the case in the Air Mountains in northern **Niger** and Adrar des Iforas in northern **Mali** where surveys are undermined by the security situation. No locusts were detected in areas surveyed in March in **Libya** and no reports were received from **Chad** during this period (DDLC/Libya, FAO-DLIS, and INPV/Algeria).

Forecast: The DL situation will likely remain calm in the western outbreak region during the forecast period. Only hatching and small-scale breeding could occur in spring breeding areas in northeast **Morocco** and **Algeria**. Solitary adults will likely persist in northern **Mauritania**, **Mali** and **Niger**, but significant developments are not likely during this period (DDLCL/Libya, FAO-DLIS, and INPV/Algeria).



(Groups of hoppers and bands were controlled near Rabigh in Saudi Arabia, source: FAO-DLIS, 4/10)

DL - Central Outbreak Region

The DL situation remained calm in the Central outbreak region in March. Only a few groups of hoppers and bands were detected and controlled in 153 ha near Rabigh on the Red Sea coast of **Saudi Arabia**. Some scattered solitary adults were seen in Tokar Delta on the coast in **Sudan**. No locusts were reported in eastern **Ethiopia** and northwestern **Somalia** where heavy rains were recorded or in **Egypt**, **Yemen**, **Oman** or **Eritrea** during this period.

Forecast: There is a slight chance of adult locusts moving from the coastal areas of **Saudi Arabia** to the spring breeding areas in interior of the country where rains were recorded earlier and begin breeding on a small-scale. Adult locusts could also appear

in areas of recent rainfall in the interior of **Yemen** and along the Red Sea coast in **Sudan**. Other countries in the region will likely remain calm during the forecast period (FAO-DLIS).

DL- Eastern Outbreak Region

Isolated adult locusts were detected in spring breeding areas in Baluchistan, southwest **Pakistan** in late February and March. No locusts were reported during surveys carried out in spring breeding areas in southeastern **Iran**, but ecological conditions improved in areas of recent rainfall. No locusts were reported in the Scheduled Desert Area of Rajasthan and Gujarat States (DPPOS/India, FAO-DLIS).

Forecast: As ecological conditions continue improving, adult locusts will begin appearing and, perhaps, start breeding on a small-scale in spring breeding areas along the **Iran-Pakistan** border where locust numbers will gradually increase. However, significant developments are not likely during the forecast period (DPPOS/India, FAO-DLIS).

Other ETOPs

Moroccan and Italian Locusts in Eastern Europe, Central Asia and the Caucasus

No updates were received on the above locusts in the EECAC at the time this report was compiled. However, some activities may have begun or will likely begin during the forecast period. Active monitoring is essential in the outbreak areas.

Red Locust:

In remembrance of the two pilots of the International Red Locust Control Organization for Central Southern

Africa (IRLCO-CRA) who lost their lives in a tragic plane crash in March 2010 while on duty in Kenya. With our deepest sympathy to the families and friends of the deceased! Note: Aside from the tragic losses to family and friends of the deceased, this very unfortunate event will significantly impact locust operations in the region. End note.

Red Locust: No update was received at the time this report was compiled, but it is likely that fledging commenced and immature adults have formed in the outbreak areas, including North Rukwa plain, **Tanzania** and elsewhere in the region.



(Red locust hoppers on grass stems in North Rukwa plain, Tanzania, source: IRLCO-CSA, 3/10)

Forecast: It is likely that small swarms will form and migrate to adjacent areas. (AELGA, IRLCO-CSA)

Australian Plague Locust

According to information issued by the Australian Plague Locust Commission (APLC), a significant hopper infestation with many hopper bands has developed in New South Wales, northern South Australia and western Queensland. In the Tibooburra–Wilcannia area of Far West New South Wales a number of large hopper bands of mid and late instar hoppers had developed by mid-March. APLC commenced aerial control operations against

hopper of bands in the Tibooburra area on 14 March and currently a total of 60,000 ha have been sprayed. Many smaller bands have developed in the Far Southwest, Central West, Riverina regions of New South Wales, the Far North and Northeast regions of South Australia, and from Southwest and South Central Queensland. A number of residual adult swarms have persisted in the Riverina and Central West New South Wales and sporadic egg laying continued.

Forecast: Widespread fledglings and high density adults will appear in several regions from late March through April. There is a high probability of redistribution and migration of adults and of subsequent extensive egg laying in autumn in agricultural areas in several states. This will likely lead cause a localized damage to early cereal and fodder crops in autumn and give rise to in large hopper infestations during spring (APLC).



(Australian plague locust, source: APLC)

The Timor and South Pacific

No update was received in March, but it is likely that grasshoppers and locusts are active.

Armyworm: No update was received at the time this report was compiled, but it is likely that the pest may have been a problem in **Tanzania** and **Kenya** and perhaps in southern **Ethiopia** where the pest could threaten crops and pasture.

Quelea birds: No update was received at the time this report was compiled, but it is likely that the bird may have been threatening irrigated crops in **Kenya** and elsewhere in the region.



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).

Rodents: No update was received on rodents at the time this report was compiled, but the pest may have continued to be a threat to oil palm crops etc in **Thailand** where barn owls (*Tyto alba*) are being used to control them (OFDA).

Front-line countries are advised to remain vigilant at all times. 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

Apart from the 153 I used to treat hoppers in **Saudi Arabia** (for which baseline inventory data is not available); pesticide inventories remained unchanged in all countries in March. It is worth noting that some of the pesticides

listed below may have expired or will soon expire. Conducting quality tests can help determine the efficacy of these stocks and whether they should stay, used immediately or go. In light of this, ETOP-prone countries are encouraged to begin exploring options before they become obsolete and turn into a huge liability. Several options, including pesticide triangulation can be considered as part of an integrated approach to address this problem - one of the core messages of **pesticide stewardship networking** to help strengthen and improve pesticide delivery systems at the national and regional levels and avoid future disposal problems.

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	Data not available
Sudan	702,378 ^m
Tunisia	167,600~
Yemen	Data not available

~ data not necessarily 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
 @ left-over stocks of Chlopyrifos from the 2003-5 DL campaign was tested for quality and found to be usable through 2012
^m This quantity includes EC, ULV and Dust formulations available for all crop protection uses, including ETOPs

List of Acronyms

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

MoAFSC	Ministry of Agriculture, Food Security and Cooperatives
MoARD	Ministry of Agriculture and Rural Development
NOAA	National Oceanic and Aeronautic Administration
OFDA	Office of U.S. Foreign Disaster Assistance
PPD	Plant Protection Department
PPSD	Plant Protection Services Division/Department
PRRSN	Pesticide Risk Reduction through Stewardship Network
TAG	Technical Assistance Group
USAID	United States Agency for International Development

Point of Contact:

You can learn more about our activities, programs we support, etc. by visiting our website at:

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

If you have specific questions, please, feel free to send us an e-mail:

Yeneneh T. Belayneh, Ph. D.
ybelayneh@ofda.gov