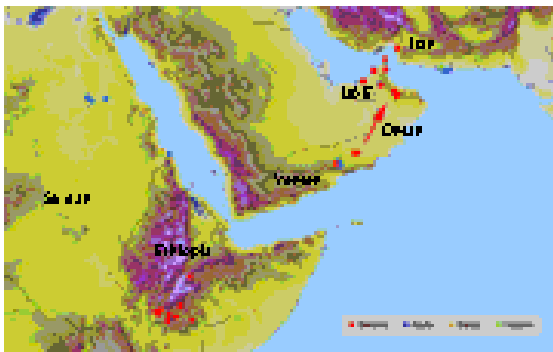


## Emergency Transboundary Outbreak Pest (ETOP) situation update for February 2008

### Summary:

FAO Desert Locust Information Service (DLIS) reported that several desert locust (DL) swarms formed in February in Central **Oman** and moved through north eastern **Yemen**, **Saudi Arabia** and **UAR** and reached southern **Iran**. Control operations treated some 150 ha in **Iran** and 400 ha in **Oman** during this period. Escapee locusts will likely breed and form hopper bands in the coming months. Immature swarms were detected in February in the rugged and inaccessible areas in southern **Ethiopia** and controlled on a mere 47 ha. These swarms will mature and likely move to the Ogaden region of **Ethiopia** and northern **Somalia** and breed in the coming months. Locust numbers declined in the winter breeding areas along the Red Sea coasts of **Sudan** where some 2,154 ha were sprayed during this month. No locusts were reported in **Eritrea** in February. The situation in the western and northwestern regions remained calm during this period and significant developments are not likely in the coming months (FAO/DLIS, PPD/Addis, PPD/Sudan, CLAA/Mauritania, CNLAA/Morocco, DLAPCC/Libya).



swarms could threaten several countries in the region (FAO/DLIS, Feb. 25)

### Rodent infestations

Unusual, massive gregarious bamboo flowering and fruiting have attracted large numbers of rats in **Bangladesh** and **India**. Rat infestations have affected more than 150,000 farmers and residents in the remote hilly **Chittagong** region in the southeast **Bangladesh**. The rat invasion has turned hilly plantation areas into scorched earth and the residents of the region will likely be pre-disposed to extreme food insecurity. The GoB, already trying to cope with helping victims of last year's floods and a cyclone, has sent food aid to 15,000 people affected by rat infestations in **Chittagong**.

Rat infestations were also reported in the neighboring State of **Mizoram** in northeastern **India**, where the pest has already caused severe crop damage in 113,100 ha and impacted 84,018 families in this State alone. Control operations, including 2 Rupees/rat tail have not been successful to stop the infestations. The State is soliciting food assistance, income generating activities and agricultural input, including seeds and fertilizers for families affected by the pest (from Dominic/Mizoram to UNDP, India).

***Note:** The gregarious or simultaneous flowering of bamboo is followed by rapid increase in rat population as it gets a fertility boost by eating estrogen-secretion enhancing bamboo flowers (estrogen is a sex hormone). This phenomenon leads to early puberty, elevated sexual activity, and prolific breeding. **End note.***

**AELGA ETOP Sitreps can be accessed and downloaded on our website:**

[http://www.usaid.gov/our\\_work/humanitarian\\_assistance/disaster\\_assistance/locust/](http://www.usaid.gov/our_work/humanitarian_assistance/disaster_assistance/locust/) **End summary.**

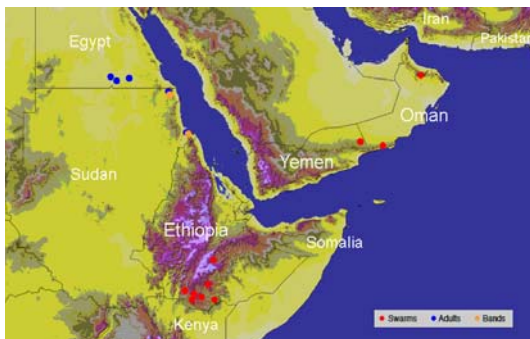
### Climatological factors:

Very little or no rain fell in February in the central and western outbreak regions, but ecological conditions were favorable in the Tokar Delta as well as a few places in northern Sahel that received rain earlier. Moderate rains were recorded in the spring breeding areas in Baluchistan along the southeastern **Iran** and southwestern **Pakistan** borders. In February. As a result, ecological conditions improved in these areas, whereas. Dry conditions persisted along the **Indo-Pakistan** border (FAO/DLIS, PPD/Ethiopia, PPD/Sudan, CNLAA, CLAA, DLAPCC/Libya).

### ETOP Situation and Activities:

#### Central Region

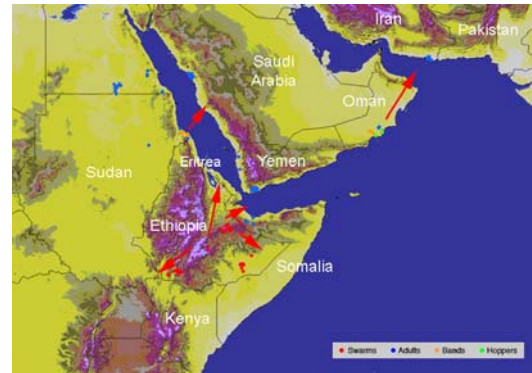
The Desert Locust (DL) situation improved in February in **Ethiopia** where large numbers of swarms and hoppers were controlled earlier. One of the two small swarms that were detected earlier in the month in eastern Hararghe was partially controlled around Alemaya. The second swarm is believed to have migrated further east into northwest **Somalia**.



(swarms could threaten several countries in the region (FAO/DLIS, Feb. 18)

Highly mobile immature swarms were detected on several ha east of the Rift Valley in the highlands of Oromiya region,

mainly in Borena, Arsi and Bale zones by mid-February, and in southern Somali region during the third dekad of the month.



Swarms in Ethiopia may threaten several countries in the region (FAO/DLIS, Feb. 4)

The rugged terrain and high mobility of swarms impeded survey and control operations and only 47 ha were sprayed in February in **southwestern Ethiopia**. There is a risk that the swarms could move to the Ogaden in eastern **Ethiopia** and/or northern **Somalia**, and likely mature and lay eggs sometime in March with the onset of the long rains.

No locusts were reported in **northern Somalia** or northeastern **Kenya** during this period.

The DL situation continued improving and locust numbers declined in the winter breeding areas in the Red Sea State along the northern and southern Red Sea coasts, in **Sudan** in February. Of the 22,000 plus ha surveyed, only some 2,600 ha were reported infested with immature and matured adults and hoppers and some 2,154 ha were sprayed during this period. Ecological conditions deteriorated in most of the winter breeding areas in **Sudan** except in the Tokar Delta where swarms and hoppers will likely coalesce in the coming weeks, but pose no significant threat. Locusts were not reported in **Eritrea** during this period (PPD/Sudan).

Several swarms formed in Central **Oman** and moved through north eastern **Yemen**, **Saudi Arabia** and **UAR** and reached southern **Iran** in February. Control operations treated some 400 ha in **Oman** during this period. Late instar hopper bands and immature adults from local breeding that occurred near the Marmul oil fields and the coast were controlled here earlier in the month. Escapee swarms will likely breed and form hopper band in the coming months. In eastern **Yemen**, two immature swarms were seen in the Al-Mahra region near the border of **Oman** between Hat and Shehen in mid-February.

### Western Region

Immature adults and hoppers were detected in a few places in south Adrar, **Mauritania** where small-scale breeding continued in February. These hoppers will fledge, adults will mature and numbers will increase in the coming months. Scattered adults were present in southern and central **Algeria**. Low numbers of adults may also be present in northern **Mali** and **Niger** and could breeding with the onset of the rains, but the situation could not be confirmed due to insecurity. Survey was not conducted and locusts were not reported in other countries in the **Sahel**, **Libya**, or **Morocco** and **Tunisia** during this period. Significant developments are not expected in this region in the coming month (CLAA, CNLAA, FAO/DLIS, DLAPCC).

### Eastern Region

Locusts were reported on the southeast coast of **Iran** where 150 ha were treated in February against early instar hoppers and immature swarms. No locusts were reported elsewhere in the region, but moderate rains were recorded in the spring breeding areas in **Baluchistan**

along the southeastern **Iran** and southwestern **Pakistan** borders during the first, second and third dekad of February. As a result ecological conditions improved in these areas. Dry conditions persisted along the **Indo-Pakistan** border (FAO/DLIS).

### Central Asia

No information was received on ETOP in central Asia and the Caucasus and significant developments are not expected in the coming month.

### West Timor and South Pacific

Migratory locusts continue developing in **West Timor** where significant control operations are yet to be implemented. In **Australia**, locust operations are expected to increase in 2008 in areas where unusually good rains fell this summer, breaking a prolonged drought spell.

### Red Locust:

No information was received on the Red Locust (*Nomadacris septemfasciata*, Serville) situation in the southern and south-central outbreak areas during this period. The recent flooding here and in other areas in the region will likely affect locust breeding and development significantly.

### African migratory locust

Plant protection technicians and control staff were deployed to conduct survey and control operations against swarms of African Migratory locust (*Locusta migratoria migratorioides*) in Gambella, Western Ethiopia. Additional information is being awaited.

### Tree locusts

A tree locust (*Anacridium spp.*) outbreak was reported on acacia trees in south

western Mauritania adjacent to northern Senegal in January, but no new infestations were reported at the time this report was compiled.



(a tree locust couple copulating on a tree branch, photo: USAID/TAG)

### Armyworm:

Armyworm (*Spodoptera exempta*) outbreaks that were reported earlier in **Tanzania** continued being a problem to maize, pasture and other plants. The pest has infested Kilimanjaro, Dodoma, Morogor and Arusha regions. Control was being implemented by the National Plant Health Service experts and technicians. Additional information is being awaited on control operations and the overall situation in the country. No reports were received on armyworm from other countries in the region at the time this update was compiled.



Armyworm larvae damaging young maize plants in Same, Tanzania (Mushobozi, Dec. 07)

### Quelea birds

Quelea (*Quelea quelea* L) activities were not reported at the time this update was compiled, but it is likely that they are threatening crops (mainly in irrigated areas) in DLCO and IRLCO regions.

### Rodents

Farmers and residents in the remote hilly **Chittagong** region of southeast **Bangladesh** are hit by large infestations of rats that destroyed their crops. It is reported that the pest has affected 150,000 people in at least three districts in the region.

Residents of **Chittagong** say the rats ate everything that is green and are bigger than normal. Many people have resorted to eating roots and the residents of the region will likely be pre-disposed to extreme food insecurity. It is reported that the rat invasion has turned hilly plantation areas into scorched earth. The government, already struggling to help millions of victims of last year's floods and a devastating cyclone, has sent food aid to 15,000 people affected by rat infestations.

In **India**, a similar situation was manifested in the northeastern mountainous **State of Mizoram** where crop damage was reported on some 113,100 ha and 84,018 families have been impacted. The authorities, willing to pay up to 2 Rupees/rat tail to get rid of the infestation, had not been successful. The State is soliciting food assistance, income generating activities and agricultural input, including seeds and fertilizers for families affected by the pest (from Dominic/Mizoram to UNDP, India).

**Note:** *In addition to consuming, destroying or contaminating food, feed, and produce, or damaging properties, structures, etc., some*

species of rats are also notorious vectors of deadly diseases, such as plagues (bubonic plague), Hemorrhagic fever, Lassa Fever, Salmonella, Tularemia, etc..  
**End note.**

**Note:** The gregarious or simultaneous flowering of bamboo is a phenomenon that occurs once every 3 to 4 decades or even longer during the entire lifetime of the bamboo tree. This is followed by a rapid growth in the rat population because eating bamboo flowers enhances estrogen (a sex hormone) secretion in rodents, causing early puberty and elevated sexual activity, a kind of "aphrodisiac lure". Healthy rodents, feasting on bamboo blossoms, can breed up to eight times a year, far more than normal.

The bamboo flowers also provide abundant food supply to the rodents, but when they dry up, the rodents begin attacking crops and granaries. This situation could trigger a cascade of severe food insecurity as thousands of rodents start feeding on crops and green vegetations and invading more granaries. In addition, gregarious flowering of bamboos results in large-scale deaths of the trees and subsequently leads to ecological disaster as it will leave the ground bare and the soil exposed to wind and rain erosion as well as causing animals that thrive on bamboo plants perish due to lack of food. **End note.**

### Recommendations:

Front-line countries must remain vigilant and exercise prevention and mitigation to minimize unexpected risks from ETOPs. Those in invasion areas should stay alert

and implement preventive intervention strategies. Countries in the outbreak zones should collect information on ETOP regularly and share it with all stakeholders as often as possible.

**AELGA (Assistance for Emergency Locust and Grasshopper Abatement) will continue monitoring the situation and issue updates and advise.**

**Note:** Many countries continue benefiting from activities, including training in obsolete pesticide management co-sponsored through OFDA Coop Agreement with the UN FAO.

**End note**

### Pesticide Stocks

Pesticide inventories changed in Ethiopia, Sudan and Oman where control operations were carried out during this period.

Country	Quantities in l
Eritrea	44,800
Ethiopia	42,773
Mali	222,524
Mauritania	545,186
Morocco	3,998,365
Niger	184,084
Senegal	532,960
Algeria, Libya, India Iran, Oman, Pakistan, Saudi Arabia, Sudan, Tunisia, Yemen	Data not available at the time this report was compiled

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