

Emergency Transboundary Outbreak Pest (ETOP) update for May 2007

Summary:

The **desert locust** (DL) situation remained a concern in some of the countries in the central region in May. Close to 13,000 ha were treated against swarms and hoppers in **Saudi Arabia** during the first dekad and operations continued well into the third dekad of the month. Survey and control operations continued in eastern **Ethiopia** where hoppers and adults were controlled in some 1,800 ha. Locusts were reported in hundreds of hectares in the southern provinces of Hadhramaut, Shabwa and al-Mahrah, **Yemen** during this period. In **Sudan**, 70 ha were sprayed in the River Nile and the Northern State. Survey operations declined in the coastal areas in **Eritrea** in May. Mature and immature adults and hoppers were controlled on 1,920 ha in the spring breeding areas and in Bechar region in southwest **Algeria**. Significant activities were not reported in other countries in the western region in May. Ground teams treated gregarizing hoppers, fledglings and a mature swarm west of Jaisalmer, **India**. Hoppers and adult **Migratory locusts** were detected in key grain producing districts of **East Timor** and adjacent areas in **West Timor**. UN/FAO-sponsored control operations began in mid-May. **Italian locust** (*Caliptamus italicus*) and **Moroccan locust** (*Doclostaurus maroccanus*) were reported attacking crops and cotton plantations in 45,000 ha, 23,350 ha of which were in the southern Khatlon Oblast area in **Tajikistan**.

Central Region:

Aerial and ground control operations sprayed some 13,000 ha against late instar hopper bands and residual groups of mature adults on the Red Sea coast of

Saudi Arabia and laying swarms in the interior of the country in early May. It is likely that hatching has commenced and small hopper bands are formed in the interior of the country. If left unabated, swarms could develop by mid-June and begin crossing the Red Sea soon after and reach the interior of **Sudan** where they could start breeding at the onset of the summer rains. Some swarms could also move south into Yemen and breed. So far, ground and aerial control operations have treated close to 50,000 ha in **Saudi Arabia**.

Survey and control operations continued in Shinile District eastern **Ethiopia** in May. Aerial and ground control operations launched by the Desert Locust Control Organization for Eastern Africa (DLCO-EA) and the Ministry of Agriculture and Food Security (MoAFS) treated hoppers and copulating and laying adults in 1,796 ha from 8-31 May. Spray targets began declining and escapee hoppers were near fledging towards the end of the month. If left uncontrolled, they will mature and begin breeding at the onset of the summer rains. It is to be recalled that the rains that fell in March and mid-April exacerbated the situation by creating favorable conditions for breeding and hatching.



copulating, laying locusts in eastern Ethiopia (photo courtesy MoA/Ethiopia)

The **Yemen** Desert Locust Monitoring and Control Center (DLMCC) reported locusts in the southern provinces of Hadhramaut, Shabwa and al-Mahrah over the past several weeks.



ground control in Shinile, eastern Ethiopia (photo courtesy MoA/Ethiopia)

If left uncontrolled, they could invade upland agricultural areas and threaten millet and sorghum crops. In late April, spray operations were carried out against mature locusts on 3,700 hectares (37sq km) in Thamoud, in Hadhramaut on grazing-land. In March, tree locust swarms were controlled on 27 sq km (2,700 ha) of farmland in the western province of al-Hudaidah. Survey, monitoring, and limited control operations are underway in most of these places. The GoY, through the Ministry of Agriculture and Irrigation, approached U.S. Mission in Sana'a for assistance to strengthen its capacity to prevent, mitigate and control future locust threats.

In **Sudan**, the DL situation remained relatively calm in May and only 8,530 ha were surveyed in the River Nile state, the Northern State, Tokar Delta and the southern parts of the Red Sea coasts and 340 ha were found infested, 70 ha of which were sprayed mainly in the River Nile and the Northern States. Ecological conditions are expected to improve in the summer breeding areas in north and west Darfur and north Kordofan and isolated immature and mature adult locust could be detected

by the end of June. If possible, survey operations should begin by early June. Limited survey operations continued in the coastal areas in **Eritrea**, but control was not reported during this period.

No locusts were reported in northwestern Somalia (NSW) in May and swarms that were detected earlier had moved to **N. Somalia, Djibouti, Ethiopia & Yemen**

Western region

In **Algeria**, new infestations of mature and immature adult and hoppers were controlled on 520 ha in the spring breeding areas in the Sahara region from 2-27 May and on 1,400 ha in Bechar region southwest of the country on May 29. A few isolated solitary mature adult locusts were seen in northwestern **Mauritania** and in areas of recent rainfall in the south-east of the Atlas Mountains, in **Morocco**. No locusts were reported in Mali, Niger, Chad, Libya or Tunisia. Significant developments are not expected in the region and the situation will likely remain calm in June.

Eastern Region:

Locust numbers in the spring breeding areas in western and coastal areas of **Pakistan** and southeastern **Iran**, where small-scale breeding occurred earlier, gradually declined. Locusts are expected to have begun moving to the summer breeding areas along the Indo-Pakistan border. Ground teams controlled hoppers, fledglings and a mature swarm west of Jaisalmer, **India**.

Note: The central region is often considered the epicenter for the DL outbreak where massive populations originate and invade the western and the eastern regions. The beginning of an upsurge in the western region

in 2003-05 was regarded by many as an anomaly. Although a similar situation was in the making in the central region in late 2003 and early 2004, the well coordinated actions of the national units, the Commission for the Control of the DL in the Central Region, the DLCO-EA and FAO/EMPRES program averted what could have otherwise become a major plague. End note.

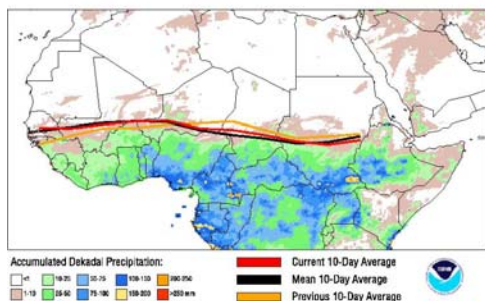
It is important that countries in the outbreak regions remain vigilant and exercise preventive control operations to the extent possible.

AELGA will continue monitoring the situation and advise accordingly.

ITCZ

During the first dekad of May, the African portion of the ITCZ from 15W-35E on average was located 13.5 degrees north latitude, .7 degrees north of its normal position and 1 degree north of its position during the 3rd dekad of April. The eastern portion (15E-35E), moved 1.5 degrees to the north than the 11.5N position of the previous dekad, but the western portion (15W-10E) it moved just .2 degrees north of its normal position of 13.8N.

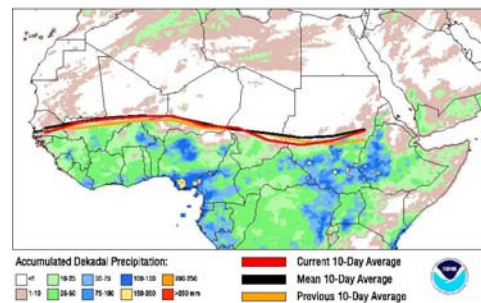
Current vs Mean Position of the Africa ITCZ
As analyzed by the NOAA Climate Prediction Center
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During the second dekad, the ITCZ for the entire region was .1 degree higher than the normal position of 13.4N and .8 higher than its position of 13.6 during the previous dekad. In the west (15W-10E), it retreated south to a near normal position of 14.5N. In the east (20E-35E), it was located near 12.1N.

During the third dekad of May, the ITCZ was located near 13.8 degrees north latitude when averaged over the ten day period and from 15W-35E. This compares with a normal position of 14.2N and a position last dekad of 13.7N. In the west, from 10W-10E, the ITCZ was located near 15.1 degrees north, compared to the long term mean of around 15.2 degrees north, and a position last year of 14.8N. In the east, from 20E-35E, the ITCZ was located near 12.2N, compared with 13.0N for the mean, and 12.6N for last year.

Current vs Mean Position of the Africa ITCZ
As analyzed by the NOAA Climate Prediction Center
May 2007 Dekad 3



Migratory locust in East Timor

Migratory locusts were detected in two of the **East Timor's (Timor Leste)** main grain producing districts where small immature adult swarms were first seen. The locusts damaged maize crops and threatened rice plants already suffering from water stress. The invasion came at a very sensitive time - the run-off presidential election took place in early May - **ETOPs tend to take advantage of conflict, civil strife, and political instability that significantly undermine efforts to abate them.**



Locusts basking in the sun

in ET, (photo courtesy APLC)

FAO's assistance package for spray operations in **E. Timor**, with funds from CERF, has begun early May and a spray/survey helicopter and locust experts were deployed to both **East** and **West Timor**. **Green Guard** (a fungal-based biopesticide, produced in Australia) is chosen for controlling the locusts in sensitive areas where safety of humans, non-target organisms and the environment are at risk. Conventional pesticides are applied by ground means to protect crops. **It is important that a proactive stance is maintained to avoid a reinvasion by locusts from as similar infestations were already reported along the border with W. Timor.**

Red Locust

IRLCO-CSA surveyed **Red Locust (*Nomadacris septemfasciata*)** outbreak areas in Buzi Gorongosa Plains in **Mozambique** and Lake Chilwa and Chiuta Plains in **Malawi** from 25 April to 14 May.



hoppers, brown blotch, feeding on rice plants (photo courtesy APLC)

One million ha were reported surveyed in **Mozambique** and only isolated low density individuals and populations were detected. In **Malawi**, 15,000 ha were surveyed and swarms and scattered populations were controlled in 6,000 ha. Some 4,000 ha were sprayed earlier in Lake Rukwa, Iku and parts of Malagarasi basin in **Tanzania**, but control was suspended in 6,000 ha due

to environmental concerns. Alternative tools are being sought. A late received



Red locust adult and hopper

report indicated that more than 134 small swarms and groups of adult locusts were controlled in 4,090 ha in Iku-Katavi and Rukwa plains and Malagarasi Basin in **Tanzania** between mid-March and early April. The situation in Kafue Flats, Mweru-wa-Ntipa and Lukanga swamps in **Zambia** was under evaluation at the time this report was compiled. Other countries in the IRLCO-CSA region where extensive flooding occurred from previous heavy rains remained calm in May.

Tree locusts

A **tree locust (*Anacridium* spp.)** invasion that was first reported in February in Turkana district in **Kenya** continued defoliating tree (the main source of feed for livestock in the semi-arid areas). MoA/Kenya and the DLCO-EA controlled the locusts with *fipronil* and *chlorpyrifos*.



(source: USAID)

Locusts in Tajikistan

Italian locust (*Calliptamus italicus*) and Moroccan locust (*Docioptaurus maroccanus*) were reported attacking crops and cotton plantations in some 45,000 hectares (23,350 in the southern Khatlon Oblast area) in **Tajikistan** during the past several weeks. The invasions affected five central districts and parts of the northern Soghd province, Rudaki district and the swarms were within a 15 km radius of Dushanbe by mid-May. Tajik Ministry of Agriculture and Protection of Nature (MoAPN), reported treated 20,140 ha by mid-month. Locusts that normally concentrate on pastures and forest areas were forced to move to the foothills and low laying cropping areas by a prolonged drought over the past couple of years.

The Italian locust and the Moroccan locust invade Uzbekistan, Kazakhstan, Kyrgyzstan, Tajikistan and Afghanistan. During the Soviet era, the locusts were controlled by a system organized by the Central [Soviet] Government. The system ceased to exist and individual countries were forced to take on the challenge after the collapse of the Soviet Union. Most, if not all, of these countries lack resources to prevent and/or abate locust invasions and often rely on external assistance. During the 2003-2004 invasion, FAO provided technical support, equipment, pesticides and assisted farms and villagers in Tajikistan to fight the locusts. With the support of FAO, MoAPN developed a proposal that includes pesticides, fuel and logistical support to carry out control operations from April-June 2007.

Armyworm:

Armyworm activities were not reported at the time this update compiled. Armyworm invasions follow a unique migration pattern and reach northern Kenya and southern

Ethiopia in April/May and continue further north with the on set of the summer rains.

Quelea birds:

A late received update reported *Quelea* damage to irrigated rice in Kisumu and Nyando districts in **Kenya** where three roosts were controlled. *Quelea* birds were also seen attacking crops in Dodoma and Singida regions of **Tanzania** and aerial control operations were launched by the MoAFS and DLCO-EA in March and April. It is likely that these birds will continue posing a threat to irrigated and rain fed small grain cereal crops in **Kenya, Tanzania and Zimbabwe.**



A roosting *Quelea* colony, (photo CC)

Pesticide Stocks

Pesticide inventories remained unchanged in May in front-line countries in the western region. Data was not available for all of the winter/spring breeding/invasion countries, except Yemen, where control operations were carried out in April and May. Efforts to improve safer handling and use of pesticides are underway.

Country	Quantities in liters
Mali	222,524
Mauritania	585,189
Morocco	3,998,365
Niger	184,084
Senegal	532,960

Yemen	15,000*
Algeria, Eritrea, Ethiopia, Libya, Saudi Arabia, Sudan, Tunisia	Data not available

* some of these were used against TR

ETOP updates, reports and other info. on our activities can be accessed on AELGA web page:

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

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