

SITREP.03.03

A SITUATION REPORT ON EMERGENCY TRANSBOUNDARY OUTBREAK PESTS (ETOPS) FOR MARCH WITH A FORECAST TILL MID-MAY, 2003

SUMMARY

1. **Summary:** This report provides an update about recent activities on emergency transboundary outbreak pests (ETOPs) in Africa, the Middle-East, Central and Southwest Asia, and Latin America. The report includes activities that took place in February and a forecast till mid-April, 2003. Key ETOPs, including locusts, grasshoppers, armyworm and grain-eating red-billed *Quelea* birds are covered by the report. A brief overview of the current status of each of these pests is outlined in the remainder of this summary with detailed accounts provided thereafter.

DESERT LOCUST, *SCHISTOCERCA GREGARIA* (FORSKAL)

2. **Desert locusts, *Schistocerca gregaria* (Forsk.)**. Due to unfavorable ecological conditions coupled with regular survey, monitoring, and early interventions, the desert locust situation in most of the western and northwestern Africa outbreak region remained relatively clam in March. Only small-scale breeding was reported in western Hoggar, Algeria and unconfirmed hoppers and adults reported from northern Mali. A few scattered solitary adults were seen in western Mauritania. Significant developments are not expected during the forecast period.

3. Scattered mature adult locusts were seen in Tomala, Geramai, Kashomgabatit and wadi Oke, Sudan, and on a farm in southeastern Egypt (FAO-DLB # 294, DLCO-EA SITREP #9/02-03). Mixed populations of desert locusts and migratory locusts were also seen on some 100 ha in Wadi Muharak, northern Red Sea hills of Sudan. Other counties in the central outbreak region remained clam in March. Significant locust activities are not expected during the forecast period. However, there is always a possibility that locusts that may escape survey and persist in remote areas and could result in unexpected outbreak at any given time. Hence, regular survey and monitoring are essential.

4. As a result of unfavorable ecological conditions that persisted in most of the spring breeding areas as well as due to regular survey activities, locust situation remained relatively calm in the Eastern Outbreak Region. Favorable conditions were seen only in a few localities that received heavy rain in mid-February and small-scale breeding could occur in these places during the forecast period.

OTHER LOCUSTS AND GRASSHOPPERS.

5. **Red locusts, *Nomadacris septemfasciata* (Surville)**: Unfavorable environmental conditions as well as survey and monitoring contributed to the relatively calm situation in most of the red locust outbreak regions. The red locust situation in Madagascar that was reported earlier has cooled off. Unless ecological conditions improve, it is likely that locust numbers will remain low and only limited activities may be seen in a few places during the forecast period. Nevertheless, regular survey and monitoring are recommended to avoid any surprises.

6. **Madagascar migratory locust, *Locusta migratoria capito* (L.)**. As the ecological conditions in the south and southwestern outbreak areas continued to dry out, a few locusts have started moving north ward where they could further develop. No further reports were received on the Malagasy migratory locusts in March. With ecological conditions remaining relatively dry, it is unlikely that locust activities will be on the decrease during the forecast period. Nevertheless, regular survey and monitoring are recommended to avert any unreported activities during the forecast period.

7. Some *Zonocerus variegatus* (L) activities were reported in Niore region, Senegal. Populations of the African Migratory Locust, *Locusta migratoria migratorioides* (L.) mixed with the desert locust populations were seen on some 100 ha in Wadi Muharak, northern Red Sea hills of Sudan. No reports were received on the tree locust, *Anacridium melanorhodon* (Walker), the Senegalese grasshopper, *Oedaleus senegalensis* (Krauss) and other major locust species. Due to the current drought that has been plaguing southern Africa, brown locust, *Locustana pardalina* (Walker) activities continue to be calm in the traditional outbreak regions in southern Africa. Unless ecological conditions improve, the locust situation will likely remain the same during the forecast period.

8. Moroccan locust, *Doclostaurus maroccanus* (Thunberg) and Italian locust, *Calliptamus italicus* (L): Although major activities of these pests have not been witnessed yet, it is likely that significant activities will be observed in the coming weeks as the eggs continue hatching with on set of spring. It is likely that numbers of locust hoppers will be increasing dramatically during the forecast period and begin

threatening crops. Significant activities may be seen in Afghanistan, Kazakhstan, Uzbekistan, etc. in the coming months. Vigilant survey, monitoring, and early intervention using the most appropriate and safe tools will be essential to avert any major crop loss that could occur as a result of invasions by this pest.

9. **Armyworm, *Spodoptera exempta* (Walker)**. A late received report (ICOSAMP N. 16) indicated that control operations were carried out against first and second instar larvae of armyworm during the first two weeks in February in Sofala Province, Mozambique. The pest was controlled with synthetic pyrethroids, Sumicidin and Baythroid that were applied by knapsack and handheld ULV sprayers. Crops infested were maize and sorghum and 10% damage was reported on maize. No armyworm activities were reported from other IRLCO-CSA or DLCO-EA member countries.

10. **Red-billed quelea, *Quelea quelea* (L.)**. In March, a DLCO-EA aircraft sprayed nine quelea roosts with an estimated population of over 12.2 million birds on some 200 ha in Tanzania. Control operations were in progress in a few places in Tanzania at the time this report was compiled. No quelea activities were reported from the other DLCO-EA member countries (DLCO-EA SITREP 9/2002-2003). ICOSAMP No.16 reported quelea activities in Botswana, Namibia, Mozambique and South Africa threatening millet, sorghum, manna, and sunflower crops. In South Africa, 19 control operations were carried out against an estimated 14 million birds on over 233 ha using Queletox, Falconal and an explosion method. No quelea activities were reported from the other countries in the region. Regular survey and monitoring are

essential to avert any such damage. End of Summary.

ENVIRONMENTAL SITUATION: WEATHER AND ECOLOGICAL CONDITIONS

11. Poor rains were recorded in the outbreak regions western and northwestern Africa for three consecutive months. Only light to moderate rains (5mm to 33 mm) fell over the eastern side of the Atlas Mountain in Morocco and light rain was recorded in central Algeria. No further precipitation was recorded in other parts of the region and unfavorable conditions continued to persist. A few patches of green vegetation may be present and support locust survival in localized areas during the forecast period.

12. No significant precipitation was reported in the winter breeding areas on the Red Sea areas and vegetation has begun drying up in Sudan. Light showers were reported in a few places in Eritrea and moderate to heavy rains were recorded in eastern Ethiopia beginning mid-March where conditions have begun improving. Patches of green vegetation was reported in Djibouti. Except for the light rain that was reported in western coastal areas in Yemen and the slight improvement in vegetation in Oman, the Arabian Peninsula region remained fairly dry in March. Unfavorable conditions persisted in most of the areas during the month.

13. March remained fairly dry and hot in the eastern outbreak region. Only light showers were reported in Panjgur and Quetta, Pakistan in early March. It is expected that most of the region will remain fairly dry and unfavorable and only localized spots in the interior of Baluchistan will harbor favorable conditions during the forecast period.

14. Most of eastern Africa remained fairly dry in March and light rains were only reported from the Lake Zone, Tanzania. Most of the Southern Africa Development Community (SADC) region received light to moderate rain in March. Some countries, including Malawi, Mozambique, South Africa and Zambia received relatively heavy rain with a cumulative total of more than 90 mm to 150 mm (SADC DMC, No. 15, 16). However, by and large, unfavorable conditions persisted in most of the countries in the region in March.

DESERT LOCUST ACTIVITIES

15. **Western and Northwestern Africa Outbreak Region:** As a result of unfavorable ecological conditions that persisted in most of the western and northwestern Africa coupled with regular survey and monitoring carried out in most of the outbreak areas during the winter breeding season, the locust situation remained relatively calm in March. Only limited-scale breeding was reported in southeastern Morocco and southeastern Algeria where some 550 ha of locusts were controlled. Very few adult and hoppers were seen near Akjoujt, Mauritania and an unconfirmed report indicated that hoppers and adult locusts were seen in northeastern Mali (FAO/DLB # 294). No locusts were reported from Niger, Libya, Chad, Senegal, Burkina Faso, Cape Verde, Gambia, Guinea Bissau, and Guinea Conakry in March.

16. Forecast: A few isolated adults may be seen in Tilemsi, Timtrine and Adraf des Iforas, Mali and small-scale breeding may occur in western Hoggar, Algeria during the forecast period. The situation will remain relatively calm in most of the remaining countries during the forecast period

17. Eastern Africa, Northeastern Africa, and the Near East Outbreak Region: In the Central Region, scattered mature adult locusts were seen in Tomala (2012E/3549N), Geramai (2019N/3548E), Kashomgabatit (2030N/4735E) and wadi Oko (2031N/3547E), Sudan. Mixed populations of desert locusts and migratory locusts at densities of 1200 insects/ha were also seen on some 100 ha in Wadi Muharak, northern Red Sea hills of Sudan (FAO-DLB # 294, DLCO-EA SITREP #9/02-03). Immature and mature adult locusts were reported on several farms in Sharq Al-Owainat, southern Egypt. Locusts were not reported from other countries in the region. However, there is a possibility that locusts that may have escaped survey and persisted in remote areas could give rise to some activities during the forecast period. Hence, survey and monitoring activities should be continued.

18. Forecast: As vegetation continues to dry up in the Red Sea coastal plains and the hinterland in Sudan, the locust numbers will continue to decline. Isolated adults may be seen in a few places along the Red Sea coastal plains of Yemen near Lahij where unconfirmed locusts were reported earlier. Although significant locust developments are not expected during the forecast period, routine survey and monitoring will be essential to avert any unforeseen invasions.

19. Eastern Outbreak Region: Locust activities remained relatively calm in March in the Eastern Outbreak Region largely due to the dry and unfavorable conditions that persisted in most of the spring breeding areas. Favorable conditions were seen only in a few localities that received heavy rain in mid-February.

20. Forecast: Although conditions may

improve in the spring-breeding areas that received heavy rains in mid-February, only limited-scale breeding may occur during the forecast period in areas where favorable conditions exist. A few isolated adult locusts may also be seen in the coastal regions of Iran and Pakistan as well as in the interior regions in Baluchistan, Pakistan. Significant developments are not likely but routine survey and monitoring are recommended to avert any surprises.

OTHER LOCUST AND GRASSHOPPER ACTIVITIES

21. Moroccan locust, *Doclostaurus maroccanus* (Thunberg) and Italian locust, *Calliptamus italicus* (L): Although major locust populations may have not been witnessed yet, it is likely that significant activities will be observed in the coming weeks as the eggs continue hatching with on set of spring. Hatching must have begun in many places in the Central Asia regions.

22. Forecast: It is likely that locust hoppers will be increasing dramatically over during the forecast period and could begin threatening crops. Locust activities may significantly increase in Afghanistan, Kazakhstan, and Uzbekistan etc. in the coming months. Vigilant survey, monitoring, and early intervention with the most appropriate and safe means will be essential to avert any major damage.

23. Latin America and the Caribbean (LAC). No reports were received on locusts or grasshoppers in LAC countries in March.

24. Forecast. No significant developments are expected during the forecast period.

25. **Red locust, *N. septemfasciata* (Surville).** Unfavorable environmental conditions as well as survey and monitoring contributed to the relatively calm situation in most of the red locust outbreak regions. The red locust situation in Madagascar that was reported earlier has cooled off. No reports were received on red locust activities from the DLCO-EA and the IRLCO-CSA countries in March. However, limited activities might have been going on in the traditional outbreak areas of Tanzania and elsewhere in the region.

26. **Forecast:** Overall, locust activities will probably be reduced in most of the outbreak areas during the forecast period due to unseasonably low precipitation. Significant developments are not expected unless meteorological conditions improve during the forecast period. However, some increase in number of locusts may be seen in a few pockets of green vegetation. Vigilant surveillance and monitoring are required.

27. **Madagascar migratory locust, *L. migratoria capito* (L.).** As the conditions in the south and southwestern outbreak areas continued drying out, a few locusts have started moving north ward where they could further develop. No reports were received on the Malagasy migratory locusts in March. With breeding conditions remaining relatively dry, it is unlikely that locust activities will be on the decrease side during the forecast period. Nevertheless, regular survey and monitoring are recommended to avert any unreported activities during the forecast period.

28. **Brown locust, *L. pardalina* (Walker):** Due to the current drought that has been plaguing southern Africa, brown locust activities continue to be calm in the traditional outbreak regions in the Karoo regions in Namibia south Africa. Unless, rain falls the

situation will not change during the forecast period.

ARMYWORM ACTIVITIES

29. **Armyworm, *S. exempta* (Walker).** A late received report (ICOSAMP N. 16) indicated that control operations were carried out against first and second instar larvae of armyworm during the first two weeks in February in Sofala Province, Mozambique. The pest was controlled by ground means using synthetic pyrethroids, Sumicidin and Baythroid and spray operations were conducted with knapsack and handheld ULV sprayers. Crops infested were mainly maize and sorghum and 10% damage was reported on maize. No armyworm activities were reported from the other IRLCO-CSA and the DLCO-EA member countries in March.

30. **Forecast:** It is likely that some armyworm infestations could be seen in Tanzania and Kenya and perhaps Ethiopia as well. Uganda and other great lakes countries may also see some armyworm populations. Malawi, Mozambique and Zimbabwe may also see some armyworm activities if rain falls during the forecast period.

QUELEA BIRD ACTIVITIES

31. **Red-billed quelea, *Q. quelea* (L).** In March, a DLCO-EA aircraft sprayed nine quelea roosts with an estimated population of over 12.2 million birds on some 200 ha with close to 750 liters of Queletox on irrigated rice, sugarcane, and/or reed, in Kilimanjaro, Arusha, and Singida Regions in Tanzania. Control operations were in progress in Mbeya, Tabora, Dododma and Morogoro Districts, Tanzania at the time this report was compiled. Quelea activities were not reported from the other DLCO-EA member countries in March

(DLCO-EA SITREP 9, 2002/03). A late received report (ICOSAMP No.16) indicated that quelea activities were reported in Botswana, Namibia, Mozambique and South Africa where they were seen threatening millet, sorghum, manna, and sunflower crops. In the North West, Free State, and Limpopo Provinces of South Africa, 19 (1 explosion and 18 chemical) control operations were carried out against breeding quelea colonies of an estimated 14 million birds on over 233 ha. Queletox (10 l/ha) and Falconal (cyanophos) (6-10 l/ha). Quelea activities were not reported from the other countries in the region.

32. Forecast: Quelea breeding and infestations are likely to continue in Kenya, Mozambique, Tanzania, Botswana, Namibia, Mozambique, South Africa and Zimbabwe and could possibly cause damage to irrigated maturing crops. Regular survey and monitoring are essential to avert any such damage.

RECOMMENDATIONS

33. During the reporting month, only a few of the ETOP outbreaks, mainly quelea birds, warranted substantial control efforts, however, had these been left unaddressed, they could have increased to levels that pose serious threats to crops and pasture. It is evident that a minimum shift in the balance of subsistence production system, can significantly affect the already precarious food security in most of the ETOP outbreak areas. Therefore, it is important that regular monitoring, surveillance and reporting are maintained and results communicated promptly to the appropriate bodies within the national, regional and international structures.

Note: The end of the current drought and/or dry spell in Southern Africa and

other outbreak regions would likely trigger serious ETOP developments in most of these areas and could lead to massive infestations and subsequent crop damage. Therefore, regular survey, monitoring, and reporting are highly recommended to avert any massive invasions that could possibly follow the end of the drought spell.

ACTION REQUESTED AND CONTACT INFORMATION

34. The Africa Emergency Locust/Grasshopper Assistance (AELGA) project, previously managed by the USAID's Bureau for Africa (AFR), has been transferred to the Bureau for Democracy, Conflict and Humanitarian Assistance (DCHA) and is being managed by the Office for US Foreign Disaster Assistance (OFDA). AELGA continuous to work closely with the UN Food and Agriculture Organization's Migratory Pest Unit and other entities, USAID bilateral and regional missions, DLCO-EA, IRLOC-CSA, host country ministries, and research establishments. Information on ETOPs is regularly collected from these and other entities, including the Information Core for Southern Africa Migratory Pests (ICOSAMP) to continuously monitor and analyze the potential risks for large-scale emergency outbreaks, and compile and disseminate as [AELGA] SITREPS to all interested parties. Unsolicited reports or information about ETOP situations and activities in your region or country are always warmly welcome and much appreciated.

35. **Missions with programs and portfolio on food security, environment and related activities are solicited to encourage their host country counterparts to send us regular updates on ETOP activities as often as possible. FEWS field personnel are also**

solicited to send us any information they may secure on ETOP activities in their countries and/or regions of responsibility. Regional organizations with ETOPS mandate and host country partners are kindly requested to forward their reports by the last day of the reporting month or within the first three days of the forecasting months. Please, forward reports, information, questions, and/or requests to Dr. Yene T. Belayneh: ybelayneh@ofda.net FAX: 202-347-0315 (USA). A cc to Drs. Joe Vorgetts, jvorgetts@usaid.gov and Harry Bottenberg, hbottnberge@afr-sd.org is appreciated.

For more information on the weather conditions, you may visit the following web sites:

<http://www.fao.org/WAICENT/faoinfo/economic/giews/economic/english/esahel/sehtoc.htm>

<http://www.fews.net>

For more information on ETOP activities, you may visit:

<http://www.fao.org/news/global/locusts/locuholm.htm/>

<http://www.english/newsroom/news/2002/5000-en.htm/>

<http://www.web.agr.ac.uk/directory/NRI/pcs/>

<http://www-web.gre.ac.uk/directory/NRI/quel/>

<http://icosamp.ecoport.org/>

TO LEARN MORE ABOUT AELGA'S ACTIVITIES, VISIT US AT OUR WEB SITE: WWW.AELGA.NET

UPCOMING EVENTS

Interregional Trainer Training Course on Alternative Application Strategies and Tactics (AAST) for acridid control, in 2003. Those interested can contact **Dr. Yeneneh T. Belayneh, via e-mail: ybelayneh@ofda.net sd.org or phone: 202-661-9374 and fax: 202-347-0315 (USA)**

u:\...\sitreps2003\sitrep.0303.Mar.CLMN.doc