



Desert Locust threat in the Sahel

2012



17 July 2012

Key Messages

- Desert Locust poses an immediate threat to agricultural crop production, food and nutrition security, and livelihoods in Chad, Mali, Mauritania and Niger, potentially affecting about 50 million people. .
- If control operations are not effective this summer in Chad, Mali and Niger, then numerous swarms could form and move to Algeria, Libya, Mauritania and perhaps Morocco during the autumn.
- Desert Locusts are grasshoppers that can increase in number very rapidly and migrate long distances in short amounts of time, devastating pastures and crops along the way.
- Locust numbers could increase dramatically this summer due to early good rains in the Sahel of West Africa. Insecurity and lack of access in locust-affected areas limit survey and control operations. Potentially, the number of locusts could increase 250 times by the end of the summer (October).
- Locust control operations in northwest Africa during 2012 were less effective than normal because national field teams could not access most of the infested areas.
- Currently, Niger, Mali and, to a lesser extent, Chad are facing the most serious Desert Locust threat since 2005, as swarms and adult groups arrived into northern Mali and Niger from outbreak areas in Algeria and Libya from late May to mid-June.
- The invasion from Algeria and Libya into Mali and Niger is now over.
- The agricultural crop production areas in Mali and Niger and perhaps Chad and Mauritania are specifically threatened throughout the summer and especially at the end of the summer during the harvest period.
- Chad, Mali, Mauritania and Niger already face an expected shortfall in food production this year.
- To protect the summer crops, countries currently at risk must do everything possible to prevent locust populations from increasing. Actions include: activating national contingency plans, mobilizing field teams for survey and control, and increasing public awareness.
- External assistance is required to maintain control operations in Mali and Niger and, to a lesser extent, in Chad.
- As one of its core mandates, FAO operates a Desert Locust early warning system. National capacities of locust-affected countries are strengthened through the Organization's Emergency Prevention System (EMPRES) and the FAO Commission for Controlling the Desert Locust in the Western Region (CLCPRO).

Additional Details

Recent locust events

- **Late May.** Small swarms and groups of adult locusts began arriving in northern Mali and northern Niger.
- **June.** Locust adults dispersed throughout northern Niger (from Tamesna and the Air Mountains to the Ténéré Desert and the Djado Plateau); some locusts moved south, reaching the northern pasture zone and cropping areas of central Niger (Tahoua to Termit). In northern Mali, information flow about the locust situation has been hampered due to insecurity and lack of access. Nevertheless, locals reported seeing swarms and groups of adults in the Adrar des Iforas. Good rains fell on the Tamesna Plains in Mali and Niger in late June.
- **Early July.** Adults are maturing and ready to lay eggs in northern Niger and northern Mali. Egg-laying has already been reported in the Air Mountains and in northern pasture zones in Niger. It is expected to continue during July and cause a further increase in locusts.

Forecast

- **July.** Hatching and hopper band formation are expected to occur in northern Niger and Mali. Small-scale breeding will occur in Mauritania and Chad.
- **August.** Adults are expected to form small groups and swarms in northern Niger and Mali. A second generation of egg-laying could commence as early as late August. Small-scale breeding will continue in Mauritania and Chad.
- **July-October.** Two generations of locust breeding is expected this summer, which will cause a dramatic increase in locusts by about 250-fold and hopper bands and adult swarms will form. New swarms are expected to start forming in August. A second generation of swarms could form by October. Control operations will be required in Mali and Niger and to a lesser extent in Chad and Mauritania.
- A potentially large buildup of swarms at the end of the summer would coincide with the harvest period. Therefore, this year's crop production is at risk.
- The scale of control operations after the summer depends on rainfall, locust breeding and control in the next two months.

Locust biology

- It takes about ten days for eggs to hatch. Upon hatching, the hoppers (wingless nymphs) can form groups and band. After about five weeks, the hoppers will fledge, obtain wings and become immature adults. It takes the adults at least three weeks to become mature and ready to lay eggs.
- One generation of locusts lasts about three months; hence, there can be four generations in one year.
- Adults will stay in breeding areas as long as ecological conditions (green vegetation, moist soil) remain favourable.
- As vegetation dries out, locusts concentrate into dense groups in the remaining green vegetation. Thereafter, adults will migrate to other areas that are green, flying with the wind about 100-200 km/day.

Q and A

What has caused the situation?

- Unusually good and widespread rains during October 2011 in a remote area of the Sahara along both sides of the Algerian and Libyan border has allowed Desert Locust populations to increase.
- Most of the infestations were present in areas that could not be accessed by ground teams in both countries due to insecurity; for example, Algeria estimated that only 15% of the potentially infested areas could be reached.
- Circumstances in Libya during the past year also had a negative impact on the national locust teams' ability to respond to the outbreak.

How many people could be affected by the locust threat this summer?

- Agricultural crop production, food and nutrition security, and livelihoods of some 50 million people in Chad, Mali and Niger are currently threatened by Desert Locust infestations, the most serious since 2005.
- Chad, Mali, Mauritania and Niger already face an expected shortfall in food production this year.
- If control operations are not effective in Chad, Mali and Niger this summer, numerous swarms could form at the end of the summer, which will coincide with this year's harvest period.

If areas could not be accessed, how do you know there is a problem?

- Satellite imagery is used to monitor rainfall and ecological conditions, which helps to identify areas that are potentially favourable for locusts.
- An information network has been established in the insecure areas in which reports from locals, nomads and travelers help to confirm the presence of locusts.

What can be done if areas infested with locust cannot be accessed or are insecure?

- Survey and control teams will need to be deployed in the adjacent areas that are secure in order to detect and control any groups and swarms that escape from the insecure areas. These areas include central Mali, central Niger, southeast Mauritania, southern Algeria and western Chad.

How did FAO respond to the initial situation in northwest Africa earlier this year?

- FAO immediately provided assistance to help Libya respond to the locust situation through its Commission for Controlling the Desert Locust in the Western Region (CLCPRO) (USD 300,000) and through its Technical Cooperation Programme (TCP) (USD 380,000).
- A locust expert was sent to Tripoli to assist the National Locust Centre with operations.
- Mauritania provided 25,000 litres of pesticide through a triangulation agreement with FAO and WFP.

How is FAO responding to the current situation in the Sahel?

- In late March, FAO warned countries in the Sahel that swarms were likely to arrive in early June from the outbreak along the Algerian-Libyan border.
- FAO issued a Press Release (5 June).
- FAO informed the FAO Representatives of the concerned countries about the Desert Locust situation (early June).
- FAO brought the threat to the Sahel to the attention of the 144th session of the Council, reflected in the final report (13 June).
- FAO appealed to donors for USD 10 million at an informal donor meeting in Rome to cover immediate needs of USD 2.5 million and an additional broader need of USD 7.5 million (21 June).
- The FAO Desert Locust Control Committee prepared and endorsed a two-month action plan for three Sahelian countries (22 June).
- FAO has informed all potentially affected countries through established communication channels, and called for appropriate actions to be taken at the national level.
- FAO continues to work with affected countries to strengthen their national capacity in monitoring and controlling locust infestations under the Emergency Prevention System (EMPRES) programme and through the regional FAO Commission for Controlling the Desert Locust in the Western Region (CLCPRO).
- FAO continues to monitor the situation and is updating affected countries and donors of expected developments.
- FAO is mobilizing resources and coordinating support to the national locust control campaigns.
- National inventories of pesticides are continuously updated so that triangulation operations can be organized with WFP whenever needed.
- National environmental monitoring (QUEST) teams are being deployed to control areas.

What have affected countries done so far to address the threat?

- Locust-affected countries, primarily Niger and Mali and, to a lesser extent, Mauritania and Chad, have activated their national contingency plans, mobilized field teams to the infested areas that are secure, initiated public awareness campaigns, and appealed to local donors.
- Niger has mobilized survey and control teams in the north and centre of the country.
- Mali has established an informal information network in the north to obtain much needed information.
- Insecurity in both countries will likely hamper field operations, especially in northern Mali where teams cannot operate. Although both countries are better prepared to face locust infestations in the cropping areas of the central and south, they require external assistance to maintain and increase field operations.

How are Desert Locust infestations controlled?

- Well-trained specialized national locust teams use handheld, backpack and vehicle-mounted sprayers to apply small doses of highly concentrated LIQUID pesticides whose active ingredient acts either by contact or by contact and ingestions
- Aircraft are used to treat larger locust infestations of at least 1 km² in size.
- Only well-trained specialized national locust teams undertake control operations; farmers do not carry out these operations.
- A biopesticide, Green Muscle™, is safe to use in ecologically sensitive areas such as national parks, near water bodies and in areas where there are beehives. Green Muscle™ is a naturally occurring fungus that only attacks locusts.
- When carried out effectively and efficiently, Desert Locust control operations will not harm the environment, crops, animals or people.

Are aerial operations required now?

- No. Aircraft are used for survey and control operations usually after at least one or two generations have breeding have occurred, causing locust numbers to increase substantially as well as the size of infested areas. When large areas are infested, for example hundreds of hectares, then the target for control is sufficiently large and appropriate for aerial control. When infestations are smaller, then control operations are carried out on the ground by vehicles.
- There may be a need for aerial operations towards the end of the summer in the Sahel.

What more does FAO need?

- Although national financial resources were adequate to initiate survey and control operations, they are now nearly depleted and, therefore, need to be supplemented by external resources in order to maintain the current level of field operations and expand to other potentially infested areas.
- An estimated USD 10 million is required to conduct the necessary survey and control operations to address the threat in the Sahel this summer.
- The data collection and transmission system (eLocust2) used by locust-affected countries needs to be updated in order to become more reliable and efficient. Early warning, decision-making, planning, control operations and funding levels rely on this system.

Further Information

Desert Locust situation

- FAO Locust Watch: <http://www.fao.org/ag/locusts>
- Facebook: <http://www.facebook.com/faolocust>
- Twitter: <http://twitter.com/faolocust>

Desert Locust threat in the Sahel (Executive briefs, appeals, background documents)

- <http://www.fao.org/ag/locusts/en/info/2002/index.html>

Desert Locust FAQs

- <http://www.fao.org/ag/locusts/en/info/info/faq/index.html>

Desert Locust biology

- http://www.fao.org/ag/locusts/common/ecg/347_en_DLG1e.pdf

Desert Locust survey and control operations

- http://www.fao.org/ag/locusts/common/ecg/347_en_DLG2e.pdf
- http://www.fao.org/ag/locusts/common/ecg/347_en_DLG4e.pdf

Desert Locust control campaigns

- http://www.fao.org/ag/locusts/common/ecg/347_en_DLG5e.pdf

Desert Locust safety and environmental precautions

- http://www.fao.org/ag/locusts/common/ecg/347_en_DLG6e.pdf