

## **Malagasy locust update for September, 2013 with a forecast for the coming weeks**

### **Summary**

In September, several locust swarms were reported moving in and out of several locations in the western invasion areas and the northwestern gregarization areas. A swarm measuring some 8,800 ha was detected in Amboanarabe District and gregarious populations were observed in Melaky. The presence of large swarms during this time of the year is a threat to the rice growers.

The 3 year multimillion dollar locust campaign which was jointly developed by the UN/FAO and MoA/Madagascar was officially kicked off on September 20, 2013 heralding the arrival of the first FAO-leased helicopter in Antananarivo. Aerial survey operations have begun to map areas with significant locust invasions and potential developments.

FAO reported receiving USD 23.1 million from donors and international organizations in support of the locust campaign. Morocco, Senegal, Mauritania and Algeria have donated or pledged large quantities of pesticides. The multi-year campaign projects that millions of hectares could be treated over the next three years.

### **Meteorological conditions**

Significant rainfall (25 to 50 mm) was recorded in the invasion areas in Northwest Betsiriry during the third dekad of September and the invasion areas in the central mid-east and west also received 10-25 mm during this period. Light showers were reported in the central eastern portion of the northeastern invasion areas. A gradual temperature rise was reported in the central highland and the southern multiplication and transitional gregarization areas. Lower than 10% vegetation coverage was observed in Amborompotsy in the transitional outbreak areas, in Maintirano in the North Central areas, along the coastal strip of the Central West invasion area, and in Mahajanga in the Northwest Betsiriry. The southwesterly prevailing wind was blowing northeast.

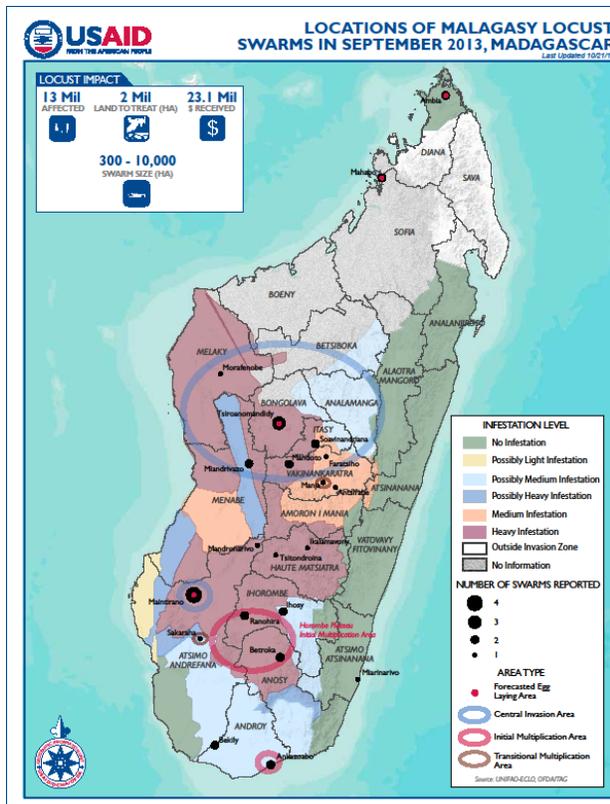
### **Locust situation**

Eight swarms (8) - 2 reach in Ihos, Ambia and Mahabo and 1 each in Mandronarivo and Tsitondroina, were detected during this period in the Transient Gregarization Areas. Swarms were also reported flying in Itremo and hoppers were reported in Ikalamavony indicating the beginning of an early breeding season.

Six (6) swarms - 2 each in Ranohira, Betroka and Ankazoabo, were reported during September in the Initial Multiplication Area (IMA/AMI). There was an indication of egg laying in Ranohira and Vavalovo, but it could not be confirmed.

Four (4) swarms - 1 each in Manja and Sakaraha and 2 in Bekily, were reported during this period in the Transitional Multiplication Area (TMA/ATM).

Sixteen (16) swarms - 2 in Mandoto, 4 in Maintirano, 1 in Miarinarivo, 2 in Miandrivazo, 1 Faratsiho, 2 in Soavinandriana, 1 in Antsirabe and 3 in Tsiroanomandidy (45°4'E -17°9'S) were reported during September in the Central Invasion Areas (CIA/AIC). On September 26<sup>th</sup>, an immature swarm measuring 14.6 km x 6.4 km (more than 9,000 ha) was observed in Amboanarabe in Ambatomainty District. The swarm was detected 115 km (72 miles) Northwest of Tsiroanomandidy and observed heading east (see photo, courtesy, FAO-DPV-LWU).



Reliable information was not available on the locust situation in the invasion areas in the northern and other areas at the time this update was compiled. If the prevailing wind persists, swarms will likely continue moving from the transitional grégarigène areas in the West to the Mid-west and Mid-East invasion areas in the coming weeks.

## Socio-economic implications of the locust invasion

DPV-FAO-LWU indicated that locust damage to rice crops contributed to inflation in the price of rice across the nation. In Ampary in Soavinandriana District, locusts damaged 15-20% of rice seedlings and 30-40% corn (higher in some localized plots). In Maevatanana, an area known for high rice production with three crop cycles per year, the price of rice increased by 50%. In



Mahajanga, with four rice growing seasons per year, the price of kapoka (390g) of rice was between 520-550 MGA (a 30% increase over the price of rice this time last year). In the Tsitondroina Betsiriry plain, much of the rice damage that occurred in June 2013 caused an estimated 50% decrease in production. The damage the locusts caused to pasture across the Mid-West will likely have a significant impact on livestock.

## **Actions taken**

The 2013-2014 locust campaign was officially launched on 20 September 2013 with the arrival of the first helicopter at the Ivato Airport in Antananarivo. Another helicopter scheduled to arrive by mid-October will also engage in extensive surveys to identify the locust invasion and outbreak areas and determine locations for aerial and ground control bases. The helicopters are leased by the UN/FAO as part of the locust campaign plan.

The first extensive aerial survey in the Central and Northern invasion areas of the transient outbreak area was carried out from 26 to 28 September, 2013 with the helicopter hired by FAO (note: Despite the high cost involved, helicopters are preferred to fixed wing aircraft due to their ability to reach valleys, rough terrains and low laying areas as well as the ability to land and take off almost anytime and anywhere) (see photo, courtesy, DPV-FAO-LWU).

The multi-year, multimillion dollar locust campaign that was jointly developed by the UN FAO and GoM plans to use 550,000 l of Chlorpyrifos (a synthetic organophosphate pesticide), 150,000 l of Teflubenzuron (an insect growth regulator) and 1,500 kg of biopesticides (a fungal-based biological pesticide that affects only locusts/grasshoppers). Of these, 229,000 l of Chlorpyrifos, 144,800 Tiflubezurorn and 210 kg of biopesticides are scheduled to arrive in Antananarivo by air and Toliara and Toamasina by boat between October 2<sup>nd</sup> and November, 2013.

## **Pledges and Contributions**

As of September 26, FAO confirmed receiving USD 23.1 million from donors and international organizations. In addition, Morocco has contributed 200,000 l of pesticides of which 64,000 l arrived in Antananarivo on October 2<sup>nd</sup>, 2013 and the remaining 136,000 liters are scheduled to be delivered by boat in the coming month. In addition, Senegal and Mauritania have pledged 15,000 and 30,000 l, respectively and Algeria is considering a donation, but has not yet disclosed details (TAG, DPV-FAO-LWU, <http://www.fao.org/emergencies/resources/documents/resources-detail/en/c/202952/>).

## **Forecast**

Egg laying is expected to commence in Maintirano, Tsiroanomandidy and Morafenobe (the central invasion areas) by the end of October provided swarms continue arriving from the transitional outbreak areas in Ambia,

Mahabo and Tsitondroina and ecological conditions improve during the coming weeks (note: good rains from late September and extensive bushfires over the past months will likely allow vegetation to regenerate extensively and create favorable conditions for the locusts to develop).

Active monitoring and surveillance remain essential at all times and preventive interventions are critical to abate any major locust developments, particularly in Maintirano, Tsiroanomandidy, Morafenobe and other outbreak areas.

OFDA/TAG will continue monitoring the situation in close collaboration with the field, FAO-ECLO and other partners and issue updates and advices as often as necessary.