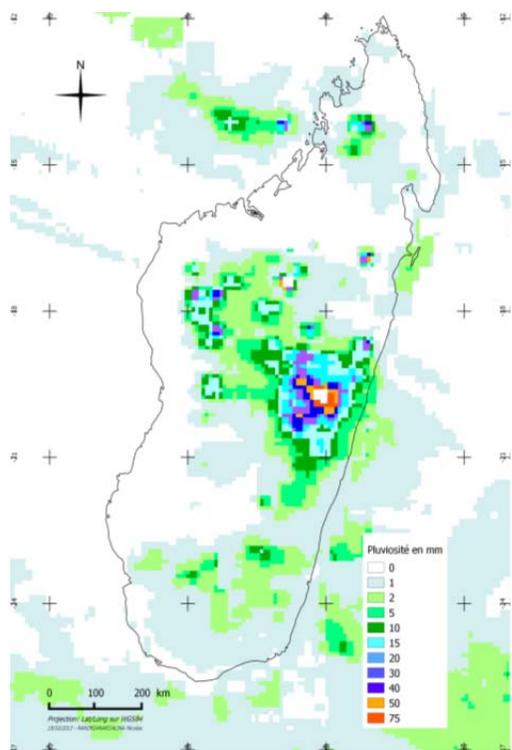


## Madagascar Locust Update for the Second Dekad of October, 2013

### Meteorological and ecological Conditions

During the second dekad of October, 42.6 mm of rainfall was recorded in Bekily in the central multiplication area. Betroka reported 24.0 mm, Fotadrevo 18.4 mm, and Ankomanja 11.30, Ihosy 8.80 and Andiolava 7.50 mm. Other areas in the western part of the country, including the mid-central, mid-south, mid-east invasion areas reported below 2.5 mm or none during this period. However, areas that received rain in the first dekad maintained soil moisture. Gregarization areas experienced moisture deficit during this dekad. The prevailing wind changed direction and was reported blowing north-east to south-west in the central invasion areas.



With the earlier rains in the eastern mid-central invasion area, in the mid-east, mid-west and the north Betsiboka Piedmont and the central highland, ecological conditions have become favorable for the Malagasy locust to further develop. The soil moisture exceeds 10 cm deep and can remain so for the next 2-4 dekads. Vegetation is growing and the unburned grasses can vegetate 10 to 30% in Ankazobe Fenoarivobe.

(Source: Rainfall estimate (mm) for the 2<sup>nd</sup> dekad of October, 2013.

<http://earlywarning.usgs.gov/fews/africa/web/datatheme.php?imgtype=rf&extent=s&cachekiller=20456.70263475258>)

### Survey

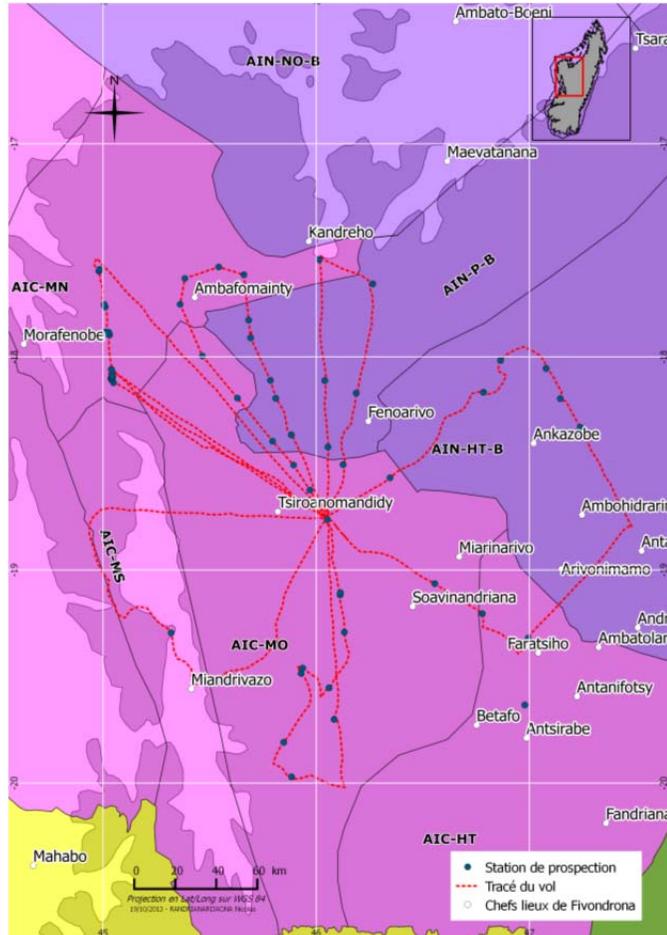
**Aerial surveys** were carried out in the central and northern invasion areas. The FAO-leased helicopter logged 18 h and 19 m from 12-15 October (44 h 59 m have been logged since the current campaign began on September 26<sup>th</sup>, 2013). Surveys focused on areas within 200 km radius of Tsiroanomandidy. On October 12<sup>th</sup>, the survey routes followed Antananarivo - Tampoketsa - Kiangara - Bemahatazana (Ankarahara) FenoarivoBe – Tsiroanomandidy. On October 13<sup>th</sup> the route was from Tsiroanomandidy - Tsinjorano - Andasibe - Mahavavy – Anosibe (Fenoarivobe) - Marotampona

(Fenoarivobe) - Tsinjoarivo 22 - Betaimboraka – Tsironaomandidy. On 14 October the route followed Tsironaomandidy - Ampoza (Ankalalo - Beravina – Fenoarivobe - Morafenobe – North West Morafenobe - Tsironaomandidy - Tsironaomandidy - Bemaraha - Miandrivazo - Mahajilo – Tsironaomandidy and on October 15<sup>th</sup> the aerial survey route took Tsironaomandidy - Moyen-Ouest (Mandoto - Piémont Ouest Itremo (Mangatabohangy) - Tsironaomandidy -Tsironaomandidy – West Ankaratra and ended up in Antananarivo (see below for the aerial survey routes – DPV-FAO-LWU).

**Ground surveys** were not reported during this period.

### Locust situation

In the northern Betsiriry Piedmont in Miantsoarivo, Tsinjoarivo, Bemahatazana and Ankarahara low density (250-600 insects/ha) populations were observed during aerial survey conducted from 12 to 15 October 2013. These populations were seen mixed with the nomadic locust at 2,500 adults/ha. Dense swarms of the Malagasy locust were also reported in these areas, but additional information was not available. Four sizable swarms (about 12 km x 3 km, approximately 3.600 ha each) were reported in the mid-central invasion areas where mature and copulating adults were observed. Swarms were also observed in Mandoto and Tsironaomandidy in mid-central as well as in the foothills of west Itremo in the central transient outbreak areas and they were observed heading southwest.



A mature swarm measuring 400 ha was reported north of Horombe Soamatasy in the North Bay initial multiplication area. A swam composed of

sexually mature and gregarious individuals was also observed in the transitional northern multiplication area north of Manja.

### **Control operations**

Control operations were not launched during this dekad, but intensive aerial surveys continued to identify the center of the locust populations and progress is made in establishing strategic locations for operations bases. Pre-positioning pesticide stocks, equipment and materials is progress.

### **Pesticide stocks**

128,610 l/kg of pesticides have been reported received (63,600 l of Chlorpyrifos 240, 64,800 l of Teflubenzuron UL 50 (an insect growth regulator), and 210 kg of GreenMuscle (a biopesticide) as of October 10<sup>th</sup> and 534,790 l/kg of pesticides are anticipated over the coming several months (DPV-FAO-LWU).

### **Forecast**

Egg laying will continue over the next dekads. Hatching will likely occur during the first dekad of November and hoppers and bands will follow. A situation similar to what was reported earlier in Horombe Plateau, Manja, Mandoto, Tsiroanomandidy Fenoarivobe and Morafenobe may repeat during the coming dekads. A similar situation could be seen in the initial multiplication areas in the north, central and western regions. Although rainfall was much less in the second dekad than the first, soil moisture is 10 cm deep and could remain so over the coming 2 to 4 dekads and vegetation could continue growing making conditions favorable for the locusts to further develop in the coming weeks.

### **Plans for the next dekad**

Aerial surveys, pre-positioning equipment, materials and supplies in operational bases will progress. Limited interventions may commence in areas where the need is most significant. All eyes should be on the locust behavior, ecological conditions, and cropping areas to determine the path of the campaign.

**Annex:** Quantities of pesticides expected to arrive in the country in the coming months.

| Type                 | Quantities          | ~Arrival | Port                       | Vessel       |
|----------------------|---------------------|----------|----------------------------|--------------|
| Chlorpyrifos 240 ULV | 78,000 l            | 11/2013  | Toamasina                  | Boat         |
| Chlorpyrifos 240 ULV | 136,000 l           | 12/2013  | Toamasina                  | Boat         |
|                      | 192,000 l           | 01/2014  |                            |              |
|                      | 48,000 l            | 02/2014  |                            |              |
| Teflubenzuron 50 UL  | 40,000 l            | 10/2013  | Antananarivo/<br>Toamasina | Air/<br>Boat |
|                      | 40,000 l            | 11/2013  | Toamasina                  | Boat         |
| Biopesticide         | 150 kg              | 10/2013  | Antananarivo/T             | Boat         |
|                      | 320 kg              | 12/2013  | Toamasina                  | Boat         |
|                      | 320 kg              | 01/2014  |                            |              |
| <b>Grand total</b>   | <b>534,790 l/kg</b> |          |                            |              |

(DPV-FAO-LWU, October 28, 2013)

OFDA/TAG will continue monitoring the situation closely and issue updates and advises as often as necessary.