

## **MADAGASCAR LOCUST UPDATE FOR AUGUST, 2013**

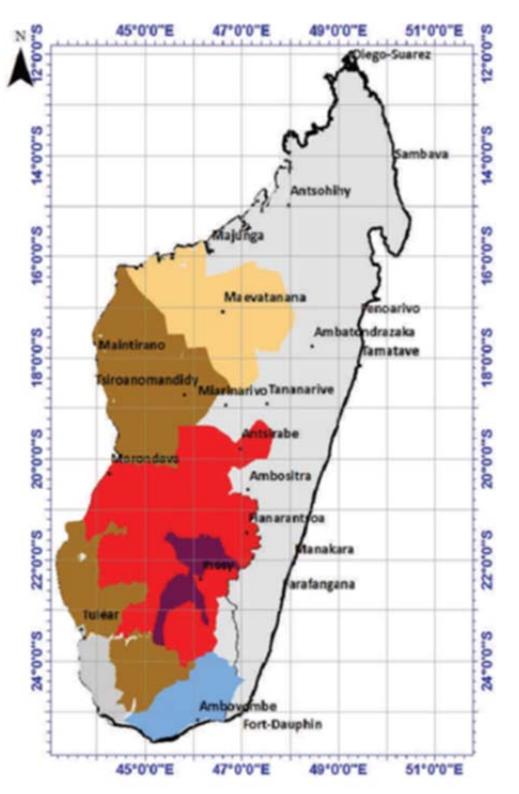
### **WEATHER AND ECOLOGICAL CONDITIONS**

The Madagascar National Meteorological Directorate predicted below normal rainfall in the locust invasion and outbreak areas and higher than normal temperatures across much of the Island in August. This and the bushfires which are in progress contributed to further dry up natural vegetation, including grasses—important elements in the gregarization and invasion areas in Horombe and the foothills east of Isalo, east of Sakaraha, Belomotra, the Befandriana plain and other areas in the Mid-West as well as the Mid- and North Central areas. The prevailing winds were blowing westwards from the east allowing swarm movements from the outbreak/invasion areas in the east to the west and some to the north-east. Vegetation coverage was low with an estimated at 5-10% in Mandabe, Manja and Befandriana South and <15% in Horombe, in the Ankazoabo basin and Beroroha region. However, coverage was higher, around 40%, in low laying areas where moisture content was relatively higher.

### **LOCUST SITUATION**

Swarms continued appearing in rice growing areas in Morondava plain and Maharivo (the transitional outbreak areas) in the Northwest in August. Three swarms were reported in Ankilizato Beronono by the end of the second dekad of the month, the last one was seen flying for 4 hours. Six swarms were also observed in the Ankilizato plain during the 2<sup>nd</sup> and 3<sup>rd</sup> dekads of August.

In the central region in the Horombe Plateau (the initial multiplication area), an immature swarm was observed on 500 ha (5 km) in Vavalovo and Bemandrevo (Ranohira) on August 20. Three separate swarms were seen flying west from Belomotra, Vineta and Andranovory on August 1<sup>st</sup>, 3<sup>rd</sup>, and 4<sup>th</sup>, respectively. A swarm was also reported in the center of Ankazomanga department in Mahafaly and Belomotra Vineta Plateaus (in the central transient multiplication area) flying out to the east along the Onilahy River on August 14<sup>th</sup>. A swarm was reported in Manja in the northwest transitional multiplication area during this period and several swarms were reported going back and forth in the former Mikea forest in the northwest concentration areas since July. The swarms were seen following a preferred route moving westward via upstream of Mangoky Delta.



**Legend**

- Presence of swarms and scattered high density populations (>2,000 adults/ha)
- Heavy infestation/presence of swarms
- High to medium infestations
- Possible infestations
- Southern outbreak areas with probably significant infestation
- Areas not infested

Figure 1: locust infestations in various regions of Madagascar, 31 August 2013 (MoA-FAO, 9/2013)

No report was received from the southern outbreak areas. However, there is a risk of the presence of swarms in Androy coastal and the Manambien circle.



A picture of a dense swarm, in the horizon, in Antsaidoa Bebao area taken on August 14, 2013 (MoA-FAO, 9/2013).

In the central invasion areas in the mid-east, swarms were reported in Morafenobe and Ambatomainty on August 13<sup>th</sup> and 25<sup>th</sup>, but details were not

available at the time this report was compiled. Given the possibility of the swarms moving northward, monitoring those areas remains important.

In the west coast, two swarms moved to Antsalova in Antsalova Maintirano and Antsiraraka on the 7<sup>th</sup> and 10<sup>th</sup> August. The second swam was approximately 1,000 ha or 10 km large and was seen dominating the sky in the Bongolava along Manambolomaty Manambolo Rivers. On August 4<sup>th</sup>and

20<sup>th</sup> swarms were observed in Belo Tsiribihana and Maintirano passages, respectively.

In the Mid-West, in Mandoto and Bongolava swarms were observed passing through once a week. By around mid-month ew swarms measuring 100 to 400 ha were observed in Bongolava bringing the number of swarms observed in this region during August to 4.

A photo of a dense locust swarm taken on August 29<sup>th</sup> 20 km south of Ambatolampy (MoA-FAO, 9/2013).

In the highlands, more swarms were seen in Antsirabe, Betafo Faratsiho and Soavinadriana (Itasy) after the second dekad of August. The sizes of the swarms varied from 100-300 ha.

**Aerial control operations were jointly organized by the National Locust Control Center (NAC) and the Ministry of the Armed Forces and launched against these swarms.**



Although surveys were not carried out, there is a likelihood of swarms from North Melaky reaching the northern invasion areas in the west through Besalampy or Kandre - Maevatanana tract. Should ecological conditions become favorable, those swarms could begin breeding and further develop and pose a threat. No swarms were reported in the eastern invasion areas during this period.

While most of the locusts are still immature, some have begun maturing and may have even begun mating in lowlands and depression areas in lower Horombe as well as Zomandao and Betsiriry plains.

In conclusion, the Southwest, Northwest and the Plateau areas were reported infested during August and swarms are still present in the highlands and the following key areas:

1. coastal strip, Maintirano Antsalova,
2. Morafenobe Basin, Ambatomainty,
3. Mid-West Tsiroanomandidy Mandoto,
4. Highlands, Soavinandrina, (Betafo) Antsirabe,
5. Initial multiplication areas - Centre Ranohira,

6. Transitional multiplication - North Manja Befandriana; Centre Sakaraha, Andranovory, Betioky south.

## **SOCIO-ECONOMIC IMPLACTS OF THE LOCUST INVASIONS**

The price of rice in local markets is increasing due to many reasons, but damage caused by locusts and insufficient rainfall during the last rainy season played an important role.

In Ankilizato and Morondava (rice producing areas), the price of a Kapoka (can measuring 390g) of rice varies from 450-480 MGA, while last year at the same time, the same quantity of rice cost between 300 MGA and 350. On the Morondava and Maharivo plains, an estimated 50% damage to newly planted rice fields was observed. It is likely that part of the damage could be compensated by tillers.

A photo of rice plants damaged by locusts in Ankilizato, August 15, 2013 (MoA-FAO, 9/2013).



## **INTERVENTIONS**

In August, the National Locust control Centre with the Ministry of Armed Forces launched aerial operations in Mandoto Faratsiho region in the highlands, in Antsirabe, Betafo Faratsiho and Soavinadriana (Itasy) where swarms measuring 100-300 ha were reported during this month. The operations were conducted using ultra-light aircraft (details are being awaited).

## **TEHCNICAL EXPERTISE**

In addition to the local experts who are currently involved in survey, monitoring and control interventions, FAO has been recruiting expert consultants to deploy to Madagascar for the 2013-2014 campaign season. On August 25<sup>th</sup> and 26<sup>th</sup>, two environmental experts arrived in Antananarivo. During this time, the experts will develop the necessary documents for the management of pesticides and the mitigation measures and monitoring the impact of the locust control operations on human health and the environment.

On September 3, 2013, a logistician and a locust expert were deployed to plan and secure air bases. A Geographic Information System (GIS) expert and

an Aircraft Logistics Expert are scheduled to arrive in the country on September 10 and the campaign coordinator is scheduled to arrive on September 13<sup>th</sup>.

## **FORECASTING**

Most of the locusts will mature, breed and further develop and form hoppers and bands after the seasonal begin sometime in October/November. Gregarization and group formations will then follow. The presence of large locust populations in and around Maintirano Besalampy and Ambatomainty will be a serious threat to the Western Basin, Betsiboka (Fenoarivobe and Kandrehon Maevatanana).

Scattered locusts that were reported on the Horombe plateau and in the Zomandao/Ikalamavony plains in July 2013 could also begin breeding and locust activities could increase in lowland areas where higher temperatures and green vegetation persisted. Breeding could also escalate in several places and pose a threat to crops and pasture. Vigilance, timely reporting and interventions remain critical to avoid/minimize any threats (MoA/Madagascar-FAO).

## **FUNDING STATUS**

As of now, FAO reported it has received USD 17.3 million and it is in the final negotiation stage for additional funds from donors and international organizations. When received the above mentioned amounts will constitute more than what was requested for the first phase of the three year program and a good portion of the estimated total amount for the entire campaign (Note: FAO appealed for USD 41.5 million for the three year program and needed USD 22.4 million by June, 2013 to run the first phase of the program. End note).

OFDA/TAG will continue monitoring and situation closely and provide updates and advise as often as necessary.