MADAGASCAR LOCUST UPDATE FOR THE THIRD DEKAD OF OCTOBER, 2013 AND A FORECAST FOR THE COMING DEKADS

METEOROLOGICAL AND ECOLOGICAL CONDITIONS

During the third decade of October, increased precipitation was observed in the central invasion areas compared to the previous two decades of the month. Rainfall was excessive in the transitional southern multiplication areas, central initial multiplication areas and southern transitional multiplication areas (see map and table below: DPV-FAO-LWU). Moderate to heavy rains fell over the past dekads and maintained soil moisture at a depth of > 15 cm. As a result, greening range was elevated to 70-90%. Other areas in the initial and transitional multiplication and concentration zones experienced moisture deficit during this dekad. The trajectory of the prevailing winds was northwest to southeast during this dekad.

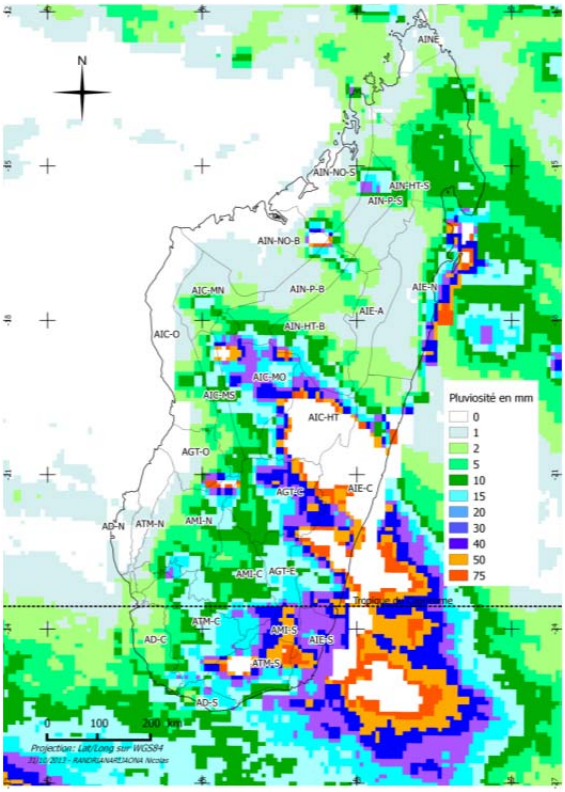

Table 1. Major rainfall in various locust zones

Locality	Rainfall mm	Locust zone
Ankomanga	63.80	Central Initial Multiplication Areas (CIMA)
Betroka	55.30	CIMA
Isoanala	48.10	CIMA
Ianabinda	45.60	CIMA
Ihosy	37.30	CIMA
Bekily	169.90	Central Transitional Multiplication Area (CTMA)
Ampanihy	54.20	CTMA
Betioky South	31.10	CTMA
Fotadrevo	30.00	CTMA
Beahitse	20.60	CTMA
Zazafotsy	16.20	CTMA
Ankazomanga	16,00	CTMA
Ejeda	15.20	CTMA
Ambaosary	100.00	CTMA South

LOCUST SITUATION

Due to good rains that resulted in ample soil moisture and increased grass growth, ecological conditions favored continued locust development during the third dekad of October in the Mid-North, Mid-West, Central and Northern invasion and outbreak areas. Mature adult locusts were seen mating and egg-laying in several places.

In the mid-central invasion areas in Morafenobe and Besalampy, hatching started and 1st and 2nd stage larvae were observed. First instar hoppers were also observed in several places in Beravina, Ankolalobe Ampoza, around Morafenobe as well as in areas bordering Besalampy Soalala. Infestations are gradually developing in the northern part of the Betsiriry plain where swarms were reported. Mating and egg-laying swarms were reported in the central mid-west invasion areas in Bongolava Region in Tsiroanomandidy District in Bemahatazana and Belobaka communities. Invasion areas in the central highland did not report any locust activities during this period.

Mating and egg-laying continued in Ianakafy, Analamary, Benato - Toby Vavalovo and Ihazofotsy basin in the initial multiplication areas, in the central and northern zones. Patches of mixed populations of transient and gregarious 1st to 3rd instar hopper groups were observed in areas measuring 25 to 100 m². The distance between the patches ranged from 50-100 m and the densities of the hopper groups were 10-40 individuals/m² suggesting that more invasions are in the making.

In the Northern Sub-basin of Manja in the transitional multiplication areas, patches of hopper bands composed of 1st to 3rd instar were reported at densities ranging from 10-20 individuals/m². The distance between the patches was 25-2,000 m. Mating and egg-laying continued in the South where swarms were reported north of Elonty in the Manambien circus (DPV-FAO-LWU).

AERIAL SURVEY

During the 3rd dekad of October, aerial surveys were carried out for 2h 13m, covering areas from Antananarivo to Ihosy. As of 31st October, 2013, aerial surveys were carried out for 47h 12m.

CONTROL INTERVENTIONS

Control operations were not conducted during the third dekad of October. However, intensive aerial operations will commence once the establishment of air bases in Ihosy and Tsiroanomandidy is finalized sometime in November 2013.

EQUIPMENT AND SUPPLIES

Pesticides:

As of October 31st, **128,760** l/kg pesticides have been secured: 63,600 l of Chlorpyrifos 240 ULV; 64,800 l Teflubenzuron UL 50 and 360 kg of *GreenMuscle*® (fungal-based biological pesticide) (150 kg was received on 31 October 2013). **534,640 l/kg** of pesticides are expected to arrive in the country between now and February, 2014 and **136,000 l** of that will be a donation from **Morocco**.

Aircraft: Two helicopters are leased through FAO

Vehicles: Thirteen (13) 4X4 double cabin light trucks have been acquired by the program as of the 3rd dekad of October. The vehicles will be engage in surveys, transporting supplies as well as survey, control and camping equipment, environmental teams and others campaign staff, etc... Eight of the thirteen pickup tracks have been deployed to Ihosy and Tsiroanomandidy operational airbases.

OTHER ACTIVITIES

FAO consultants, including campaign coordinator, acridologists, logistician, environmental and human health monitor and national security personnel and five members of the crop protection staff were deployed to Toliara base as of October 26th. Training was provided to the national technical staff at Toliara on management and safety of air bases, surveys, locust data and the health and environmental monitoring. The logistician from PROCOPTERE in Antananarivo departed to the 1st airbase in Ihosy on October 28 to assess the situation. The FAO aviation consultant was also deployed to Ihosy base on October 31st to evaluate the base (DPV-FAO-LWU).

FORECAST

Egg-laying and hopper developments will continue in several places - in Tsiroanomandidy and Morafenobe in the Middle West and Middle East invasion areas as well as in Ranohira and Manja in the center and northern outbreak areas during the next dekads. Definitive quantitative data was not available at the time this update was compiled, nevertheless, given the presence of large numbers of mating and egg-laying populations and favorable ecological conditions, the locust situation will likely intensify during the coming dekads. *Vigilance, aggressive surveillance, monitoring and preventive interventions remain imperative to avert any major crop damage down the road.*☒

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