Assessment of the impact of locust damage on crops and pastures in Madagascar

Full mission report available in French.

EXECUTIVE SUMMARY

Madagascar has been facing a plague of the Malagasy Migratory Locust since April 2012 that threatens the livelihoods of vulnerable rural populations in the country. Given the current threat to food security, the Food and Agriculture Organization of the United Nations (FAO) conducted a mission to assess the actual and potential impact of this plague on crops and pastures in order to inform all stakeholders and enable them to undertake effective measures in a timely manner.

The mission, composed of an international consultant and a locust expert[1], visited Madagascar from 17 April to 12 May 2013, and more specifically the regions most affected by the plague, namely Atsimo-Andrefana, Bongolava and Menabe, in the south and west. The assessment was conducted in close collaboration with the Plant Protection Directorate, including the Locust Watch Unit[2], the National Locust Centre and other national stakeholders. The main findings and preliminary conclusions of the assessment were presented to technical and financial partners at the Ministry of Agriculture on 10 May 2013.

The assessment indicates that the current situation is very serious and continually evolving. The estimation of crop damage was confined mainly to rice, a key crop for Madagascar. However, the estimated damage to rice crops should be complemented by a more complete and systematic assessment. Furthermore, for the region of Atsimo Andrefana (part of the former province of Toliara), it was difficult to separate the impact of cyclone Haruna from the effects of the plague, especially considering that there are some causal links between the cyclone and the plague (heavy and widespread rains offered suitable breeding conditions to locusts). The evolving nature of the locust threat also requires that a wide margin be used to estimate crop damage. As a result, it is difficult to identify the impact of the locust damage on the country's food balance at a given moment, especially as estimates of national rice supplies can also be difficult to determine, particularly in regard to stocks.

Based on available statistics and information collected however, the mission estimated that the locusts plague resulted in losses ranging between 10 and 40 percent, compared to the rice output in 2012, in 17 of the Madagascar's 22 regions. The situation is particularly critical in the southern regions, notably Androy Anosy, Atsimo Andrefana and Menabe, which could incur losses ranging from 30 percent (best case scenario) to 40 percent (worst case scenario), with rice deficits ranging

1 *The locust expert is the Director of the Plant Protection Directorate of the Ministry of Agriculture of Madagascar.*

2 *A three-person team mandated with the collection and analysis of locust and weather data.*

from 11 489 tonnes in Menabe to 86 418 tonnes in Atsimo Andrefana. Rice deficit regions are expected to experience a larger deficit even with relatively low production losses (20-25 percent). This is the case of Analamanga (238 233 tonnes) and Vatovavy Fitovinany (85 772 tonnes).

The mission estimates that the national rice deficit in 2013/14, as a result of the locust plague, will range from 11 000 tonnes (best case scenario) up to 309 000 tonnes (worst case scenario), equivalent to 168 percent of rice imports in 2012 (184 000 tonnes). This scenario would transpire if no action is taken to control the locusts.

Maize and pastures are also severely affected. For example, maize crop losses are estimated at 50 percent in Atsimo Andrefana and up to 70 percent in the Bongolava, compared to the output in 2012. In addition, the off-season production is expected to decrease compared to previous years, as famers are reluctant to plant because of the locust threat. Other farmers are considering abandoning their crop lands or lowering their cropping intensity. Children are the first victims of the locust plague; parents are no longer able to bear the costs of schooling and are forced to withdraw them from school, thus jeopardizing their future.

A large-scale locust campaign will not start before September-October 2013 because the dry and cool season does not correspond to the best period to carry out control operations and given the time required to mobilize funding, and procure inputs and services to fight against locusts. Indeed, large-scale control operations focus on hopper bands and groups which start appearing at the beginning of the rainy season, usually in October, and are of smaller size than adult swarm, less mobile and more sensitive to pesticides.

In late 2013 and early 2014, the locusts are expected to reach the northern regions, including Sofia and Alaotra Maravoay. Swarms have already arrived in Matsiatra Ambony (Fianarantsoa) and Vakinankaratra (Antsirabe). If no major locust campaign is implemented the consequences will be disastrous and result in a deterioration in food security conditions.