The Ministry of Health (MOH) of the Republic of Uganda contracted the Desert Locust Control Organization for Eastern Africa (DLCO-EA) to aerially release Temephos (Abate 500 EC) pesticide to large rivers in Northern Uganda, in bid to suppress black flies (*Simulium damnosum*). Black flies transmit parasites (microfilariae) that cause river blindness in man, and also highly linked to the nodding syndrome. The aerial spraying targeted three main rivers, namely Aswa, Agago, and Pager, covering mainly Pader, Agago, Lamwo, and Kitgum districts. The aerial spraying was launched by the Minister of Health, Hon. Christine Ondoa on 29th November 2012, and was executed on weekly basis for four cycles up to 22nd December 2012.

Calibration of the application equipment was done through preliminary aerial spraying trials conducted from Magadi in Kenya using 20 litres of the pesticide supplied by MOH. During the actual spraying in Uganda, the pesticide was mixed with water at a ratio of 1:6, the atomizer remained stationery with blade angle at 90°, releasing an average of 43 litres of mixture per minute, and a total of 290 litres of Temephos were released into the rivers during the four cycles. All open sites with fast flowing water were treated with the pesticide, covering a total area of 1,160 hectares of water surface.

Vector Control Division technical staff of MOH carried out baseline and post application impact assessment surveys, on randomly selected sites. The Simulium larvae were sampled from trailing vegetation, whereas the adult flies were sampled using human baits. The *Simulium* larvae declined by an average of 94% (from 334 to 23 larvae per sampled site in a month). However, a few first and second instar larvae were still evident during the impact assessment, implying re-emergence from elsewhere. The trend in the *Simulium damnosum* adult flies from July 2012 to January 2013, indicated a significant reduction of the fly population during the month of December 2012 when the aerial spraying was conducted. The communities in the affected areas are also reporting significant reduction of the black flies, and total disappearance of the flies in some areas. It is concluded that the aerial release of Temephos pesticide greatly suppressed the black flies population in the target region, but there is
need to keep the fly population under check through continuous ground larviciding.

Plate A.  Plate B.

Above: Adult Black fly (Simulium spp) piercing skin of a human being for blood (A) and laying eggs on trailing vegetation in fast flowing river water (B)

LAUNCHING COMMUNITY BASED ARMYWORM WARNING SYSTEM IN EASTERN AFRICA

African armyworm is a serious pest of cereal crops and pasture grasses in Africa south of the Sahara. Outbreaks appear suddenly, often in numbers exceeding 1000 per m² and cause considerable damage to young seedlings of maize, sorghum, wheat, barley, teff, sugarcane and pasture grasses.

In the last 40 years national and regional armyworm warning systems were in place in eastern Africa. However, these systems were not precise enough to the villages where outbreaks occurred and the warnings were not reaching the villages in time. As a result, community based armyworm monitoring, forecasting and early warning system (CBAMFEW) was initiated to overcome the limitations of warning system in place. This new warning system is done by farmers for farmers in their communities.

Scaling up Community Based Armyworm Monitoring, Forecasting and Early Warning project was launched since January 2013 in Ethiopia, Kenya and Tanzania. The overall objective of the project is to use community based armyworm monitoring, forecasting and early warning as a tool for reducing the damage armyworm causes to crops and pastures and thereby improve food security and livelihoods of rural communities in high risk districts of armyworm outbreaks in Ethiopia, Kenya and Tanzania.

Photo of participants project launching in Ethiopia

The project is funded by the United States Agency for International Development, Office of Foreign Disaster Assistance (USAID/OFDA) and implemented by the Desert Locust Control Organization for Eastern Africa (DLCO-EA) in collaboration with the Ministries of Agriculture of Ethiopia, Kenya and Tanzania. The project period is from 29th September, 2012 to 28th September, 2015.

The project would enable early detection and timely control of armyworm outbreaks in eastern Africa and prevent tremendous food losses that could be caused by armyworm infestations. About 2 million farmers in high risk districts of armyworm outbreaks in Ethiopia, Kenya and Tanzania are expected to benefit from the project.
The second component of the project is to introduce innovative cell phone technology for reporting armyworm outbreaks in selected high risk villages of armyworm outbreaks in the three countries.

The Desert Locust Control Organization for Eastern Africa (DLCO-EA) is grateful to USAID/OFDA for funding this project in eastern Africa.

MIGRATORY PESTS SITUATION
January – March, 2013

DESERT LOCUST:

In January the Desert Locust situation was serious in winter breeding areas along both sides of the Red Sea where adult groups and small swarms laid eggs, giving rise to hopper bands in Egypt and Saudi Arabia.

In February the situation continued to remain worrisome along both sides of the Red Sea where hoppers and adults were forming groups, small bands and swarms in northeast Sudan, southeast Egypt on the Red Sea coast along both sides of the Sudan-Eritrea border, and on the northern Red Sea coast in Saudi Arabia. Some groups and swarms were also reported to have moved out from these areas.

In Sudan, immature adult groups, swarms and a few mature adult groups and swarms moved from the northeast, crossing the Nubian Desert, and reaching Abu Hamed on 13th February and Nile Valley as far north as Dongola by the 23rd February.

In Egypt, immature adult groups and swarms moved north along the entire stretch of the Red Sea coast, reaching Ras Gareb (south of Suez) on 26th February. Other adult groups nearly reached the Nile Valley north of Aswan.

In Eritrea, at least one swarm arrived on the northern Red Sea coastal plains from adjacent border areas in Sudan on the 22nd February.

Aerial and ground control operations were conducted in Sudan where DLCO-EA Aircraft was deployed on 17th January, 2013.
During March, the remnants of several small immature Desert Locust swarms that appeared in Cairo, Egypt on 2nd March were seen the following day near the international airport on the eastern edge of the city. Several small immature swarms moved to the northern Sinai Peninsula where they were seen on the northern coast near Bir El Abd and El Arish on 4th March. On the same day, locals reported seeing locusts south of El Arish near Jebel Halal, and at least one small swarm crossed the border into the northern Negev Desert of Israel.

**Source FAO DLIS**

**GRAIN EATING BIRDS (Quelea quelea)**

Quelea activities were not reported in member countries during January and February 2013. In March, 2013 Quelea infestation was reported in Tanzania (Singida, Shinyanga and Mbeya).

**ARMYWORMS (Spodoptera exempta)**

The region remained free from Armyworm outbreak, though monitoring of moths continued in Tanzania, Kenya and Ethiopia. Quite a high number of moth catches were reported in central and northern Tanzania (Arusha, Tengeru, Karatu, Masaera village, Moshi and Rombo) in March 2013. However there were no armyworm outbreaks.

**COMMUNITY BASED DESERT LOCUST MONITORING AND REPORTING (FUNDED BY FAO/USAID)**

Two activities were conducted under Community Based Desert Locust Monitoring and Reporting

a) Desert Locust scouts training course on Desert Locust identification, information collection and reporting

The objective of this training course was to increase the understanding of Desert Locust Scouts on Desert Locust identification, survey and reporting, so that they will be able to identify Desert Locusts from other species, carryout survey and report regularly to nearest agricultural offices and assist with control operation during outbreaks.

The regional Agriculture Bureaus selected 23 Locust Scouts who work in the field to attend the training course (7 from Oromia, 3 from Dire Dawa 13 from Somalia).
The training course was held in Dire Dawa from February 20-21, 2013, based on the programme prepared. Some of the locust scouts were partly illiterate so the training was given through visual aids, posters, and flip charts and mainly focused on classroom discussion in order to enhance information exchange, use of simple field demonstration and providing simple identification tools such as posters. The training course was conducted in local language.

b) Stakeholders meeting on Community Based Desert Locust Monitoring and Reporting

The main objective of the meeting was to create awareness among various stakeholders on the establishment of Community Based Desert Locust Information Network in Ethiopia so that they can take active part in the operationalization of the system.

The well-coming address was given by DLCO-EA Director, Mr. Gaspar A. Mallya.

During the opening Mr. Mallya stressed that:

- Efforts to fight Desert Locust outbreaks should involve all stakeholders ranging from farmers and pastoralists, NGOs, Government organizations, international Organizations and several others.
- These meeting signals stakeholders’ involvement in the implementation of the USAID/FAO funded project on community Based Desert Locust Monitoring and reporting in the Horn of Africa.
- DLCO-EA recognizes the key role played by various institutions in working with and involving local communities to identify and solve their problems including those related to food security.
- Stakeholders’ involvement in the project will evidently pave way to its smooth implementation as they have long experience in working with farmers, pastoralists and other communities at grass root level.

The following topics were addressed in the meeting:

- Locusts in Ethiopia: past and present situations
- Benefits of Community Based Desert Locust Monitoring and Reporting
- Desert Locust information, reporting and forecasting
- Environmentally safe control methods for Desert Locust

The presentation was given by senior DLCO-EA staff. Following the presentation discussions were held on the advantage of Community Based Desert Locust Monitoring and Reporting
in Desert Locust management. Finally the meeting agreed to promote the system of Community Based Desert Locust Monitoring and Reporting Network in their respective areas of work and ensure communities participation in Desert Locust control in proactive manner.

Participant’s group photo
# DLCO-EA Aircraft Sitrep as at 31st March, 2013

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<td>STANDBY NAIROBI</td>
<td>RED LOCUST TANZANIA</td>
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- **IMMEDIATE ATTENTION**
- **TO BE NOTED**

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