ANNUAL REPORT
ON THE USE OF CERF GRANTS
GEORGIA

Country	**Georgia**
Resident/Humanitarian Coordinator	**Jamie McGoldrick**
Reporting Period	**1 January 2010 – 31 December 2010**

I. Summary of Funding and Beneficiaries

Funding	Total amount required for the humanitarian response:		US$ 615,394
	Total amount received for the humanitarian response:		US$ 322,000
	Breakdown of total country funding received by source:	CERF	US$ 293,394
		CHF/HRF COUNTRY LEVEL FUNDS	US$
		OTHER (Bilateral/Multilateral)	US$
	Total amount of CERF funding received from the Rapid Response window:		US$ 293,394
	Total amount of CERF funding received from the Underfunded window:		US$
	Please provide the breakdown of CERF funds by type of partner:	a. Direct UN agencies/IOM implementation:	US$
		b. Funds forwarded to NGOs for implementation (in Annex, please provide a list of each NGO and amount of CERF funding forwarded):	US$
		c. Funds for Government implementation:	US$
		d. **TOTAL:**	**US$ 293 394**
Beneficiaries	Total number of individuals affected by the crisis:		individuals
	Total number of individuals reached with CERF funding:		total individuals
			children under 5
			females
Geographical areas of implementation:			

II. Analysis

In Georgia, the Italian Locust [Calliptamus italicus (Linnaeus, 1758), CIT] is considered as the main locust pest; it provokes recurrent issues, requiring average annual treatments on 600-700 hectares and control operations from 2,000-5,000 ha up to 10,000 ha during outbreaks. In the recent years, succession of hot summers (favouring locust female fecundity) and cool and dry winters (reducing natural egg mortality) resulted in an increase of Italian Locust populations and of related infested areas. Italian Locust habitats and outbreak areas are mainly located in the south, along the border with Armenia, where it is also the main locust pest.

In addition, an outbreak of Moroccan Locust [Dociostaurus maroccanus (Thunberg 1815), DMA] developed in the south-east, along the border with Azerbaijan (where it is the main locust pest). About 20,000 hectares were infested by dense hopper bands in late April 2010, which exceeded the national capacities in terms of available pesticides and funding. This unusual and critical locust situation represented a real threat for livelihood, economic growth and social conditions of rural populations living in the infested areas of Georgia, already affected by food insecurity, with the additional risk of spread out towards Azerbaijan.

This unprecedented situation was first observed in mid-April on rangelands grazed up to mid-May in the south-eastern part of Georgia: about 15,000 ha were infested by dense hopper bands of young instars of the Moroccan Locust. Two infested areas were identified, the first one of about 200 ha in Mount Dali area (i.e. Iori River reservoir; 4105N/4629E) on 16 and 17 April and the second one on more than 14,000 ha in Samukhi area (4120N/4635E) on 21 April, both areas located along the border with Azerbaijan. Infestations were due to young hoppers (first to third instars) of the Moroccan Locust, which formed dense groups, bands and aggregates; third instar hoppers prevailed in Mount Dali area while second instar hoppers were more abundant in Samukhi area. Density reached 20,000 hoppers/m². These dense hopper bands originated from eggs laid at the end of summer 2009 by undetected swarms, because there is very little people in the area after mid-May when cattle is taken in summer rangelands, higher in the mountains.

In this context, the Ministry of Agriculture of Georgia requested FAO's assistance on 30 April 2010.

Purpose

The main objective of the CERF-funded intervention was to preserve food security and livelihoods of rural populations and to mitigate further damage to the already fragile agricultural production in the region. The project aimed specifically to mitigate the spread of locust populations outside the outbreak areas within Georgia by strengthening the response capacity of Georgia's National Service of Food Safety, Veterinary and Plant Protection (NS), allowing the agency to effectively cope with the developing locust threat while dedicating special attention to the safeguard of human health and the environment.

The expected result of the intervention was to enhance the locust survey and control capacities of NS through the provision of adequate human and physical resources.

The areas affected by the Moroccan Locust were situated in the Dali, Mori and Samukhi regions, where the hoppers appeared during the first half of April. The Italian Locust appeared in the northern and north-western parts of the above mentioned regions during the month of May. During the 2010 campaign, the area affected by locusts was of about 50,000 hectares, thirty per cent of which was affected by the Moroccan Locust.

Resources

The CERF-funded project has made available US$293,394 for the locust emergency response in Georgia. At the same moment, FAO was funding and implemented one project in the region for a total amount of $322,000.

The main implementing partner for this emergency response operation was the National Service of Food Safety, Veterinary and Plant Protection (NS) of the Ministry of Agriculture.

Results achieved

The project achieved its main objective of preserving the food security and livelihoods of rural populations and mitigating the damage to the fragile agricultural production in the region. More specifically, the project has mitigated the spread of the locust populations outside the outbreak areas within Georgia and towards Azerbaijan by strengthening the response capacity of the National Service of Food Safety, Veterinary and Plant Protection (NS) of Georgia. Through the emergency assistance it was possible to quickly scale up the locust survey and control capacities in Georgia thus responding effectively and in a timely manner to the locust emergency.

To that end, the project accomplished the following:

- Timely delivery of inputs in support to survey and control operations, such as sprayers, personal protective equipment, cholinesterase kits and provision of funds for the operations;
- rapid transfer and airlifting of certified conventional pesticides from existing stocks in Mali and Morocco;
- secondment of two national consultants to monitor the safe use of chemical pesticides;
- strengthening of the intervention capacity of the National Service of Food Safety, Veterinary and Plant Protection (NS) through the delivery of appropriate training;
- support to survey and control operations through timely fielding of an international locust expert to reinforce the locust campaign management.

As per project document, the following activities were planned and executed:

- Ground control capacity enforced
  - Procure necessary supplies (Personal Protective Kits, GPS[1] devices, digital camera): The project provided personal protective kits, cholinesterase kits and sprayers (10 backpack and 2 vehicle-mounted sprayers).
  - Recruit international Locust expert and national interpreter: One international consultant has been fielded in Georgia from 15 July to 6 August 2010.
  - Contract cargo aircraft and ship pesticides from Mali to Georgia: Two cargo aircrafts have been hired through the World Food program (WFP) for the transport of a total amount of 22,075 litres of pesticides from Morocco and Mali.
  - Prepare action plan for the outbreak campaign: The action plan for the locust campaign was prepared.
  - Carry out ground control operations from June onwards

Ground survey operations were carried out in the Sagarejo and Roustavi regions since July 2011 by the international consultant, together with the head of the NS and staff of the plant protection department of the two regions. These surveys served as practical training to benefit the national staff on the use of GPS and other survey equipment as well as on survey techniques (use of transects for the determination of locust densities, etc.).

These survey operations showed that the total area affected by the Italian Locust was about 5,000 hectares in those two regions, with densities varying from 20 to 50 locusts/m². On that basis, a control action plan was drawn.

[1] Global Positioning System

Control operations started on 31 July 2010 in the Roustavi and Sagarejo regions with the sprayers procured by the project. These control operations, which were carried out using ultra-low-volume spraying practices (ULV), also presented the opportunity to evaluate staff previously trained in this approach. .

The control operations, which had been carried out before the start of the project, did not have a significant impact on the locust populations because of the small number of spraying equipment used and their low efficacy. With the delivery of the sprayers procured by the project, the control capacity greatly increased along with the spraying efficacy.

Control operations focused primarily on hopper bands, in order to carry out more efficient and cost effective control operations compared to the operations targeting winged adults (hoppers are less mobile and more sensitive to pesticides and settle smaller areas).

- Monitoring of pesticide use achieved:
  - Procure necessary supplies (kits for measuring blood Acetylcholinesterase -AChE levels): Two cholinesterase kits were procured and supplied.
  - Recruit international locust expert and national interpreter (same as for above point 2)
  - Train NS staff on safe handling of pesticides:

A training course was organized from 26 to 29 July 2010 to the benefit of 13 staff from the National Service of Food Safety, Veterinary and Plant Protection. The theoretical training focused on principles of ULV spraying, ULV spraying parameters and techniques (full cover/blanket vs barriers), impact of weather conditions on spraying quality and efficacy, quality control of ULV spraying, etc. The theoretical sessions were followed by two days of practical training using the backpack and vehicle-mounted sprayers procured by the project as well as spraying gears mounted on an aircraft.

  - Monitor likely impact of control operations on human health and the environment: Attentive care was given to control operations and no incident on human health and the environment was reported.
  - Collect and safely store empty pesticide barrels: Empty pesticide drums were collected and are stored in the central warehouse

- The donor community, Caucasian and Central Asian (CCA) countries and FAO regularly and comprehensively informed of the implementation of the locust situation and control operations
  - Provide technical backstopping whenever needed (FAO): Another backstopping visit was not required.
  - Monitor the process and progress of the campaign (FAO): Locust campaign process and progress was closely monitored thank to monthly national bulletins provided by the national consultant recruited in the framework of the ongoing FAO project and additional information provided by the international consultant
  - Regularly report on locust developments, ecological conditions and control operations: All this information was used to prepare regional monthly bulletins, which are available on the bilingual website “Locust Watch – Locusts in Caucasus and Central Asia” (http://www.fao.org/ag/locusts-CCA/en/index.html).

The CERF project had the following impacts:

Disaster prevention: Timely intervention using the FAO/UN-CERF project reduced the spread-out and magnitude of the locust outbreaks, which would have caused extensive damage and food deficits in Georgia and in neighboring countries if uncontrolled. The risk of numerous locust swarms escaping from outbreak areas was also prevented.

Environmental protection: During locust campaigns, the main threat to the Environment is related to the misuse of pesticides during and after control operations. The delivery of updated sprayers and training on locust control as well as establishment of the monitoring of pesticide stocks and empty drums contributed to its protection.

Capacity building: The capability of the National Service of Food Safety, Veterinary and Plant Protection (NS) to undertake locust control operations in the future was greatly enhanced through upgrading of equipment (ULV sprayer and other operational equipments) and related and successful training of their staff.

Public awareness: Inhabitants of the areas where control operations were carried out were duly informed on precautions to be taken for themselves, crops and cattle (i.e. withholding periods).

Regional impact: Another big achievement of this project is that Georgia adopted the ULV technology and advocated its advantages so that the two other Caucasian countries decided to adopt it for locust control. NS staff will train their counterparts from the two neighboring countries to the use of ULV sprayers and technology. In addition, all three countries have decided to provide mutual assistance in 2011 and to ensure proper coordination of their activities and control operations (Refer to paragraphs 25 and 39 of the Report of the Technical Workshop on Locust Control held in Dushanbe, Tajikistan, on 18-22 October 2010 available on the previously mentioned website)

The project objectives have all been achieved. The training implemented has allowed the staff of the National Service of Food Safety, Veterinary and Plant Protection (NS) to reach a very high level of knowledge concerning ULV applications both by ground and air.

For what concerns locust management as a whole and organization of future locust campaigns in particular, it is strongly recommended that Georgia rely on preventive strategy and implementation of preventive measures respectively. These preventive measures have to be taken at the right time with the appropriate means in order to reduce locust populations as early as possible. In this regard, a number of improvements have been made but a lot still remains to be done in order to develop effective preventive control against the two locust species in Georgia to the benefit of the country and of the region. This regional and preventive approach is part of the current two-year regional project funded by FAO and of a five-year programme, which have been endorsed by all concerned countries[2] in October 2010.

Unlike traditional CERF contributions, which are multi- agency and sector-based, the present one focused merely on a rapid technical response to an emergency situation that was developing. For that reason, CERF agreed to fund FAO only and therefore it is not possible in this context to evaluate how the country level coordination has improved through this intervention.

[2] Afghanistan, Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan.

III. Results

Sector/ Cluster	CERF project number and title (If applicable, please provide CAP/Flash Project Code)	Amount disbursed from CERF (US$)	Total Project Budget (US$)	Number of Beneficiaries targeted with CERF funding	Expected Results/ Outcomes	Results and improvements for the target beneficiaries	CERF's added value to the project	Monitoring and Evaluation Mechanisms	Gender Equity
Food security and livelihoods (Locust pest control in Georgia)	10-FAO-028 FAO "Emergency response to control a Moroccan Locust outbreak in Georgia"	294,394	615,394	Rural populations living in the locust infested areas	▪ Survey and control capacities of NS strengthened through the provision of adequate human and physical resources	▪ All inputs needed for the implementation of the control campaign timely delivered ▪ Technical support to assist in the locust campaign provided ▪ NS staff trained to updated locust control techniques ▪ Ground control capacities strengthened ▪ Pesticide use monitored ▪ Pertinent locust /anti-locust information gathered and shared ▪ ULV technique adopted at national and sub-regional levels	Rapid allocation of CERF funds prevented locust damage to crops and rangelands and extension of the locust outbreaks to other parts of the country or to neighboring ones.	▪ Monitoring was ensured through provision of national monthly bulletins and ad-hoc exchange of information	▪ Rural population in locust infested areas ▪ Staff from the National Service of Food Safety, Veterinary and Plant Protection

Annex 1: Acronyms and Abbreviations

AChE	Acetylcholinesterase
CCA	Caucasus and Central Asia
CIT	Calliptamus italicus – the Italian Locust
DMA	Dociostaurus maroccanus – The Moroccan locust
GPS	Global Positioning System
NS	National Service of Food Safety, Veterinary and Plant Protection
ULV	Ultra-low volume (a pesticide formulation)
WFP	World Food Programme