



REDUCING LOCUST OUTBREAKS IN CAUCASUS AND CENTRAL ASIA TO BOOST FOOD SECURITY AND LIVELIHOODS

Locusts and grasshoppers are a serious threat to agriculture, including pastures and rangelands, in Caucasus and Central Asia, with an area of more than 25 million hectares concerned.

During outbreaks, the three main locust pests, the Italian Locust, the Moroccan Locust and the Migratory Locust, attack all kinds of crops and plants and jeopardize food security and livelihoods:

putting at least 20 million people at risk. The most affected populations are living in rural areas, where human health and the environment can suffer from negative impacts of locust control operations using conventional pesticides.

Locusts are migrant pests, able to fly up to 100 km per day and settle in new areas. Both in Caucasus and Central Asia, national borders are situated on

locust traditional habitats and breeding areas. This means that locusts frequently cross territorial boundaries.

To reduce the occurrence and intensity of locust outbreaks in Caucasus and Central Asia, FAO has been implementing since 2011 a regional “*Programme to improve national and regional locust management in Caucasus and Central Asia (CCA)*”.

THE LOCUST PREVENTIVE CONTROL STRATEGY IN CCA

The Programme incorporates the key concepts of the locust preventive control strategy. Preventive control consists of monitoring locust habitats to detect early changes in locust numbers, density, behaviour, and appearance, and thus allowing for adequate early warning and early reaction.

This strategy offers the following comparative advantages:

- Reduced damage on crops and rangelands and therefore preservation of the food security and livelihoods of highly vulnerable rural communities;

- Reduced negative impact on human health and the environment of control operations using chemicals; reduced financial costs.

The approach is the result of applied research carried out from the beginning of the 20th century, with a solid scientific basis and extensive field practice. Its value has been demonstrated by FAO’s experience in other geographical areas within the framework of the Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases (EMPRES) – Desert Locust component.

KEY FACTS

LOCUST MANAGEMENT IN CCA

A MULTI-FUNDED PROGRAMME IMPLEMENTED BY FAO SINCE 2011 TO IMPROVE NATIONAL AND REGIONAL LOCUST MANAGEMENT

TEN COUNTRIES INVOLVED: AFGHANISTAN, ARMENIA, AZERBAIJAN, GEORGIA, KAZAKHSTAN, KYRGYZSTAN, THE RUSSIAN FEDERATION, TAJIKISTAN, TURKMENISTAN, AND UZBEKISTAN

RESOURCE PARTNERS INCLUDE JAPAN AND JAPAN INTERNATIONAL COOPERATION AGENCY (JICA), TURKEY, THE UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID)

REGIONAL COOPERATION FOR BETTER LOCUST MANAGEMENT DEVELOPED AND NATIONAL CAPACITIES STRENGTHENED

LOCUST MONITORING IMPROVED AND COMMON SYSTEM OF COLLECTION, STORAGE AND SHARING OF STANDARDIZED DATA DEVELOPED AND TESTED

INTRODUCTION AND DEVELOPMENT OF UPDATED CONTROL METHODS AND SPRAYING TECHNIQUES

IMPACT OF LOCUST CONTROL ON HUMAN HEALTH AND THE ENVIRONMENT BETTER MITIGATED AND MONITORED

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MAJOR ACHIEVEMENTS IN LOCUST MANAGEMENT

From 2011 to 2016, the following has been achieved:

- A technical network on locusts and effective regional cooperation established in CCA. This includes regular information exchange through monthly bulletins on locust situations, experience sharing during the annual workshops and intra-regional assistance;
- 18 joint or cross-border surveys carried out, involving 182 locust experts from the ten countries, to collect data and evaluate the locust situation in border areas;
- National capacities strengthened, with a total of 478 experts trained on a wide range of locust-related topics through nine internships on locust management and 33 regional and national training sessions;
- Monitoring and analysis tools developed to have a common system of collection, storage and sharing of standardized chrono-, geo- and taxo-referenced locust data in CCA countries: the Automated System for Data Collection, available in ten languages for use on tablets, smartphones and computers; and the locust Geographical Information System in CCA, entitled “Caucasus and Central Asia Locust Management System” currently under testing.
- Introduction and development of updated control methods and spraying techniques in particular the Ultra-Low Volume (ULV) technology, which is now used by most CCA countries, together with emulsifiable concentrate formulations; less harmful pesticides and alternatives to conventional pesticides were also promoted.

- National integral systems for environmental and health monitoring of locust control developed in two pilot countries, Tajikistan (2014) and Kyrgyzstan (2015) resulting in the setting-up of Human Health and Environmental Monitoring Teams. Other activities to reduce risks to human health and the environment were also undertaken.
- Operational capacities strengthened with the delivery of equipment, mainly for demonstration or training purposes, including survey, positioning, and communication equipment, ULV sprayers, conventional pesticides in ULV formulation, Personal Protective Equipment, human health and environmental monitoring material.

THE WAY FORWARD

Caucasus and Central Asia countries and FAO agreed on a common vision, objectives, results and activities for the coming years. Newly introduced or pursued activities should be carried throughout another five-year period, focusing on the following:

- Sustainability of the existing regional cooperation, which is a crucial aspect for CCA locust management;
- Implementation of an effective preventive locust control strategy, aiming at decreasing annually infested and treated areas in CCA and thus reducing economic, social and environmental impact; and
- Further harmonization and increase of knowledge and best practices. More partnerships leveraging on the accomplishments of the previous years would be sought to extend the work and further improve locust management in CCA and thus enhance the food security, livelihoods and health of more rural families.

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