**DEVELOPING REGIONAL COOPERATION**
Encouraging cooperation among countries is one of the most important aspects of the Programme and a number of joint activities and trainings are organized such as annual joint and cross-border surveys.

For example, three cross-border surveys were carried out between Kyrgyzstan-Tajikistan, Kyrgyzstan-Uzbekistan, and Tajikistan-Uzbekistan in May 2015. A joint survey was also conducted in Kakheti, Georgia, involving Armenia, Azerbaijan, and Russia.

A total of 42 locust experts from seven countries participated. While these surveys allow locust experts to jointly collect data and evaluate the locust situation in border areas, one of their major breakthroughs is a significant reduction in tension between countries regarding the sources of locust invasions.

Those benefits have been fully recognized by countries.

**LOCUSTS AND GRASSHOPPERS** pose a serious threat to agriculture in Caucasus and Central Asia.

During outbreaks, the three main locust pests (Italian, Moroccan and Migratory Locusts) attack all types of crops and plants.

More than 25 million hectares of cultivated areas can be affected and locusts can jeopardize food security and livelihoods of more than 20 million people, including the most vulnerable communities living in rural areas.

As locusts are a migratory and transboundary pest that can fly up to 100 km per day and since political boundaries in Caucasus and Central Asia often fall within traditional locust habitats, locust infestations and movements can be a source of tensions between countries.

Locusts are becoming even more dangerous with exceptional weather events associated to climate change, due to their capacity to take advantage of new situations.

In October 2011, FAO initiated the “Programme to improve national and regional locust management in Caucasus and Central Asia (CCA)” to safeguard food security and the livelihood of rural populations through reduction of locust outbreaks and upsurges.

The Programme supports the locust preventive control strategy, which relies on appropriate monitoring, early warning and early reaction.

If properly implemented, crises could be avoided, with no, or limited damage on crops and rangelands, less impact on human health and the environment, and low financial costs.

To that end, FAO contributes to develop regional cooperation and strengthen national capacities.

**CCA PROGRAMME features**

- **TEN COUNTRIES INVOLVED:** Afghanistan, Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan, Turkmenistan, Uzbekistan
- **EFFECTIVE REGIONAL COOPERATION, INCLUDING CROSS-BORDER SURVEYS, FOR TRANSBOUNDARY LOCUST PEST MANAGEMENT**
- **ENHANCED LOCUST MONITORING, EARLY WARNING & EARLY REACTION**
SUPPORTING EARLY WARNING IN CCA

Information collection and exchange is the cornerstone of any preventive approach. Nine out of the ten CCA countries, i.e. a total of almost 100 locust experts, have benefitted from training on improved locust monitoring and data management since the start of the Programme.

Every year, national bulletins on locust situations and their actual management are prepared and issued as monthly regional bulletins that are shared amongst all countries during the locust campaign in CCA.

A Geographic Information System (GIS) is under development for locusts in CCA that will be used both at the national and regional levels. It will allow storing, sharing and analysis of the standardized, geo-referenced locust data, which are collected during field surveys by the observers and scouts from the national plant protection services.

A complementary tool was developed in 2013, the Automated System for Data Collection (ASDC), which will be linked to the GIS. Two pilot countries, Georgia and Uzbekistan, whose experts were trained, were designated to test the system from 2014; Russia has also decided to join as a pilot country from 2015. The ASDC will be improved on this basis and then shared with all countries, together with the GIS.

MITIGATING AND MONITORING THE IMPACT OF LOCUST CONTROL ON HUMAN HEALTH AND THE ENVIRONMENT

A critical aspect in locust control is the adverse effects that pesticides may have; therefore, major efforts are done to mitigate and monitor them.

National capacities are being enhanced to improve spraying techniques, including promotion of the Ultra-Low Volume technology, recognized throughout the world as the most efficient means of locust control. A total of 65 locust experts (from seven countries so far) have also been trained to better monitor and mitigate the impact of locust control operations on human health and the environment.

A pilot activity was conducted in 2014 in Tajikistan to develop an integral system for monitoring locust control operations. As a result, for the first time ever in CCA, a Human Health and Environmental Monitoring Team was set up during the 2015 locust control campaign. A similar system is being developed in Kyrgyzstan in 2015.

Since its launch, highly positive results have been obtained by the Programme in terms of strengthening national and regional locust management in CCA. This is an ongoing process and more is envisaged, such as training-of-trainers so that each country will be able to train a large number of national experts.