

GEORGIA

Cooperative Activities under the SPS Programme

Georgia has been involved in NATO science activities since 1994. In total, scientists and experts from Georgia have had leading roles in 132 activities, and more have joined various cooperative activities as participants and key speakers.

Today, NATO science activities enable close collaboration on the two key priorities of **defence against terrorism** and **countering other threats to security** and are managed under the Science for Peace and Security (SPS) Programme. SPS

activities contribute to NATO's strategic objective of partnership, helping to connect scientists and experts from NATO countries with their counterparts from Partner and Mediterranean Dialogue countries through workshops, training courses, team collaborations and multi-year projects.



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All activities supported by the SPS Programme are approved by NATO nations on the basis of consensus.

Examples of Ongoing Activities

An SPS advanced training course entitled **“S&T Policy of Georgia as an Instrument to Facilitate Security”** took place in Tbilisi, Georgia, at the end of June and beginning of July 2008. As part of its effort to develop the country's security system, the government of Georgia has put great emphasis on enhancing science and technology (S&T) and higher education. The training course brought together Georgian and NATO country experts with the aim of elaborating an S&T policy in Georgia that will set up an effective system of S&T management and administration; support innovation by bridging gaps with industry; and make the field more attractive to the young generation. This also contributes to

Georgia's priorities on S&T and higher education modernization, as listed in its Individual Partnership Action Plan agreed with NATO. [ref 983212]

Researchers from the Georgia, Armenia, Azerbaijan, the United States, Italy, Greece, Canada and Turkey are cooperating on a new project to gather comprehensive seismic observations, conduct hazard analyses and prepare for effective and prompt response to emergencies in the Southern Caucasus region. The project, entitled **“Caucasus Seismic Emergency Response (CauSER)”**, will update a regional seismic network by adding additional instrumentation and recording equipment.

The experts intend to create a regional earthquake attenuation model and study the response of buildings and structures to strong earthquakes. A communication network will link Data Acquisition Centres in the Southern Caucasus countries and allow them to acquire earthquake data. The project co-directors have established contacts with the end-users of the project, including the Departments of Urbanization and Construction, Nature Protection and Emergency Structures in Armenia, Azerbaijan and Georgia. [ref 983284]

Investigators from Georgia and the United States are developing a system for **“Protecting People and Underground Facilities from Explosions”**, particularly in countering terrorist attacks. To do this, they have studied the propagation of shock waves and energy absorption processes in tunnels and have designed hydraulic shock absorbers. Methods to identify blasts based on seismic, electromagnetic pulse, optical, thermal and overpressure effects have been analysed, and a system based on the detection of the electromagnetic pulse and optical signals has been selected. The findings of the study have been used to establish blast identification criteria and identification software. [ref 980981]

Starting in April 2007, scientists from Georgia, Armenia, Azerbaijan and the United States have cooperated in improving the **“Water Resources**

Management of Agro-Ecosystems in the South Caucasus”. The project involves the demonstration of state-of-the-art irrigation techniques and use of more accurate methods of estimating water use. To this end, a 6.5 ha demonstration plot with a 4.5 ha drip irrigation scheme was established in Marneuli, Georgia. The drip irrigation scheme has resulted in yields that are four to five times higher than those obtained with traditional irrigation systems, as well as water savings that are up to four to five times. In the coming months, additional field experiments will be conducted and automated weather stations will be installed in Georgia, Armenia, and Azerbaijan. There has been much interest shown by local producers in purchasing drip irrigation systems, and local farmers have begun to participate in the project. The experts also foresee the establishment of a South Caucasus Scientific Research, Information and Extension Centre for end-users. [ref 982227]



Prof. Tamaz Odilavadze (right) introduces the main lines of the drip irrigation system to local female farmers and other stakeholders (photo courtesy of project co-directors).