The NATO Science for Peace and Security Programme

CountryFlyer 2021

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Developing Practical Cooperation through Science

Georgia has been actively engaged within the framework of the NATO Science for Peace and Security (SPS) Programme since 1994.

The NATO SPS Programme enables close collaboration on issues of common interest to enhance the security of NATO and partner nations by facilitating international efforts to meet emerging security challenges, supporting NATO-led operations and missions, and advancing early warning and forecasting for the prevention of disasters and crises.

The current SPS Key Priorities include:

- *Counter-Terrorism;*
- *Energy Security;*
- *Cyber Defence;*
- *Defence against CBRN Agents;*
- *Environmental Security;*
- *Security-related Advanced Technology;*
- *Border and Port Security;*
- *Human and Social Aspects of Security*.

Additionally, the SPS Programme helps to promote *regional security* through scientific cooperation among partners. The Programme also helps to *prepare* interested eligible nations for NATO membership. SPS activities often have a high *public diplomacy* value.

GEORGIA

Georgia is an active partner within the SPS Programme. To date, leading areas for cooperation include **Advanced Technologies, Counter-Terrorism,** and **Energy and Environmental Security**. Below are some examples of ongoing and completed activities under the framework of the NATO SPS Programme.

Cooperative Activities

NETWORK FOR ALERTING AND MANAGING PUBLIC SAFETY AND RESILIENCE (REACT)

This ongoing Multi-Year Project (MYP) responds to the need for rapid and effective management of scenarios immediately following a terrorist attack with chemical and biological agents, and to control the diffusion of contamination in the short to long-term. The project aims to develop an interactive, multilingual, multi-sourced platform for the real-time management of the diffusion of contamination. Immediate detection of anomalies, and the visualization of their location through intelligent mapping will provide instantly usable references for immediate response to protect people and the environment. *Launched in July 2020, this project is led by Georgia and Italy, with support from the United States.* [ref. G5812].

CREATION OF A NEW GENERATION TITANIUM DIBORIDE COMPOSITE ARMOUR MATERIAL

This ongoing MYP aims to develop innovative technology to manufacture a new generation of composite armour material for the protection of personnel, equipment and vehicles. Current technologies in the field of armour systems present a number of drawbacks, including high production costs, intensive manufacturing processes, and limited durability. This project aims to find new processing technologies and new materials for the creation of armours characterized by high hardness, low cost, and high capacity. The project team specifically intends to replace boron carbide ceramics with relatively less expensive materials, like titanium diboride (TiB2) and to investigate new approaches for manufacturing and packaging. *This project, launched in April 2019, is led by Georgia and Romania. [ref. G5580].*

WOMEN, PEACE AND SECURITY IN THE GEORGIAN ARMED FORCES

In November 2017, the SPS Programme launched a Multi-Year Project (MYP) to conduct an organisational assessment of the role of United Nations Security Council Resolution 1325 on Women, Peace and Security in the Georgian Armed Forces. With direct involvement of the Ministry of Defence (MoD) of Georgia, this project aimed to develop institutional capabilities for conducting organisational climate surveys in the Georgian Ministry of Defence. It also provided training with a view towards improving conditions for both men and women in the armed forces. *Completed in 2019, this activity was led by experts from Georgia, Slovenia, Switzerland, Spain, and the United Kingdom.* [ref. G5342].

INNOVATIVE ENERGY SOLUTIONS FOR MILITARY APPLICATIONS (IESMA) CONFERENCE 2018

As part of NATO's Smart Energy Initiative that was launched in 2011, the IESMA conference has become a recognised platform for bringing together military, academia and industry, as well as civil servants. The fourth edition of IESMA was hosted by the NATO Energy Security Centre of Excellence in Vilnius, Lithuania in November 2018. IESMA 2018 included a focused session on hybrid power generation and micro grids for dual use, using innovative energy solutions that could be especially interesting for partner countries and other international organisations. *This activity was led by experts from Georgia and Lithuania. It took place in November 2018, in Vilnius, Lithuania.* [ref. G5464].

GEOHAZARDS TO THE ENGURI HYDROPOWER INFRASTRUCTURE

The Enguri Hydropower Plant provides 75% of the electric power in Georgia. Security incidents at the dam could therefore have direct consequences for the social and geopolitical stability of Georgia and the wider Caucasus region. The research team of this SPS project studied natural hazards and developed scenarios that could affect the Enguri Dam. It focused on the potential implications of security risks associated with seismicity, landslides, and release of pollutants to this critical energy infrastructure. *This project, completed in September 2018, was led by experts from Georgia, Italy, the United States, United Kingdom, Azerbaijan and Kazakhstan* [ref. G4934].