The NATO Science for Peace and Security Programme

CountryFlyer 2022

August

THE REPUBLIC OF MOLDOVA

Developing Practical Cooperation through Science

The Republic of Moldova has been actively engaged within the framework of the NATO Science for Peace and Security (SPS) Programme since 2012.

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.

The Republic of Moldova is currently involved in a number of ongoing activities with the SPS Programme. At present, the leading areas for cooperation include **Advanced Technologies, Defence against CBRN Agents, and Counter-Terrorism**. Below are some examples of ongoing and completed projects under the framework of the NATO SPS Programme. Three completed SPS activities have contributed to the implementation of the **Defence and Related Security Capacity Building (DCB) Package** for the Republic of Moldova: two in the field of cyber defence and one in support to the implementation of United Nations Security Council Resolution 1325 on Women, Peace and Security.

Cooperative Activities

DEVELOMENT OF THE MOLDOVAN ARMED FORCES CYBER DEFENCE CAPABILITIES

To address the risk of cyber security incidents in the Republic of Moldova, this Multi-Year Project (MYP) developed cyber defence capabilities in the Moldovan Armed Forces. It established the Moldovan Armed Forces Cyber Incident Response Capability (CIRC) with a supporting cyber defence infrastructure, and provided specialized training to personnel of the Ministry of Defence. In doing this, the project increased human, technical and procedural cyber capabilities to counter threats that may affect the military Computer Information Systems' functionality, the security of services and critical infrastructure. The results of this project will help to minimize any threat resulting from cyber incidents, provide quick and efficient recovery and prevent similar incidents in the future. The new CIRC was inaugurated through a virtual ribbon-cutting ceremony in January 2021. *This project*

NATO Deputy Secretary General, Mircea Geoana, and the Minister of Defense of the Republic of Moldova, Victor Gaiciuc, at the virtual ribbon-cutting ceremony for the Moldovan Armed Forces Cyber Incident Response Capability

was implemented in the framework of the DCB package for the Republic of Moldova, and was led by the Republic of Moldova and cyber defence experts from the NATO Communications and Information (NCI) Agency. [ref. G5340].

DEVELOPING CAPABILITY TO MITIGATE THE RISK OF BIOLOGICAL AGENTS IN THE REPUBLIC OF MOLDOVA

The potential use of biological agents by terrorists poses a significant risk to local populations in the Republic of Moldova. This project aimed to build capacity in the Republic of Moldova to counter threats posed by infectious biological agents. The project set up a mobile laboratory and trained experts, including young scientists. This capability will allow statistical sampling and mapping activities in contaminated areas. *This project was led by scientists and experts from the Republic of Moldova and Luxembourg, and was completed in 2021.* [ref. G4898].

ADVANCED ELECTRO-OPTICAL CHEMICAL SENSORS

This MYP aims to develop better optical-chemical detectors that can be deployed on remote sensing platforms for security applications. Nanotechnology has enabled the development of innovative chemical sensors with enhanced sensing capabilities, improved selectivity and sensitivity, as well as higher reliability. The main goal of the project is to prepare an innovative nano-sensor that combines two different methods of CBRN detection on a single device, namely a conventional gas sensor and an optical sensor. The results of this research could contribute to increasing the probability of detection of harmful substances and to improving the state of the art in defence and security applications for chemical detection. *This project was launched in 2019 and is led by scientists from the Republic of Moldova, Italy and Australia.* [ref. G5634].

THE REPUBLIC OF MOLDOVA'S NATIONAL ACTION PLAN TO IMPLEMENT UNSCR 1325

This project, under the DCB package for the Republic of Moldova, supported the country in the implementation of UNSCR 1325 on Women, Peace and Security through the development of a National Action Plan. Launched in October 2016, it supported the Moldovan government and civil society actors in creating a multi-agency national strategy to implement UNSCR 1325. In order to facilitate these efforts, several workshops were organized throughout the project. The project also drew on regional exchange of best practices for implementing UNSCR 1325. *This project was led by experts from the Republic of Moldova and the United States, and was successfully completed in 2018.* [ref. G5221].

MANAGEMENT OF MASS CASUALTIES VIA AN ARTIFICIAL INTELLIGENCE BASED SYSTEM

This MYP developed a decision support framework for medical emergencies to facilitate the management of mass casualty situations. It will support decision-makers (mainly healthcare personnel) by implementing emergency ultra-sound in injury assessment at disaster sites using portable ultrasound scanners, and offering easy-to-use computer-aided tools for mobile devices. Such framework will help to perform triage and more accurate re-triage of casualties with injuries at thorax and abdomen by suggesting efficient therapeutic decisions and assisting the coordinated evacuation of the injured persons. *This project was completed in 2022 and led by scientists and experts from the Republic of Moldova, Germany, Romania, the United States, and Croatia.* [ref. G5700].