

TURKMENISTAN

Cooperative Activities under the SPS Programme



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Turkmenistan has been involved in NATO science activities since 1996. In total, scientists and experts from Turkmenistan have had leading roles in 30 activities, and more 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.

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

Examples of Activities

Turkmenistan, along with the rest of the countries of Central Asia, has benefited since 2002 from internet connectivity at academic institutions and universities, provided through the SPS **“Virtual Silk Highway”** initiative. The connectivity is currently delivered via satellite, but will be switched to a system based on fibre by mid-2010. In addition, networking infrastructure grants from SPS contribute to the improvement of Turkmenistan's National Research and Educational Network (NREN), through the provision of networking equipment and information technology to universities and academic institutions. These and previous projects have enabled academicians and young scientists to have easy access to the World

Wide Web and the possibility to exchange large documents and datasets with their local and foreign counterparts. In addition, researchers can sign up to distance learning programmes and set up video conference facilities. This helps promote collaboration and integrates local institutes in the international scientific community.

[ref 978777]

A new grant awarded in 2008 will support the **“Expansion of the Academic and Educational Internet Communication System in Turkmenistan”**, including the connection of additional academic centres in Ashgabat and medical colleges in other regions of the country, as well as training of Turkmen researchers to use the network.

[ref 983409]

Another new networking project entitled **“Distance-Teaching of Systems Management for Turkmenistan”** follows on previous projects with the aim of knowledge-sharing and capacity-building among Turkmen engineers in charge of systems management for energy and utilities such as oil, gas and water.

Teachers from European institutes will carry out the training of eight to twelve Turkmen trainees from different institutions, largely via internet-based distance-learning technologies. The training will include real-world applications, followed by the implementation of a pilot project in cooperation with a Turkmen state enterprise.

[ref 983411]

Scientists from Turkmenistan and France have collaborated on a **“Study for Safe**

Management of Radioactive Sites in Turkmenistan” since 2001. They are addressing the problem of handling the radioactive waste that has accumulated at sites in Khazar and Balkanbat as a consequence of mining iodine and bromine in the vicinity of the Caspian Sea. They plan to implement protective measures, characterize radioactive polluted sites and devise measures to prevent hazardous dissemination of the radioactivity. This SPS project (the first one to involve Turkmenistan as a partner) has supported the establishment of a radiochemical laboratory in Ashgabat, to build local competence in the characterization of possibly hazardous materials and further surveillance of the waste sites. In addition,

the project participants have installed radio-monitoring and radioprotection equipment at Khazar. The level of radioactivity measured at Khazar shows that exposure levels are not high enough to warrant urgent or drastic intervention. However, since the radiation levels are significantly above the natural background, permanent



Preparation of a new storage site at Aligul (10km from Khazar).

monitoring is required.[ref 982200]

The SPS Programme also facilitates the development of nationally funded activities, such as the pilot study **“Ecosystem Modeling of Coastal Lagoons for Sustainable Management”**. Turkmen participants joined other scientists, engineers, decision-makers from local, regional and national governments at workshops and international forums to examine the use of hydrodynamic and ecological models. The work has resulted in the development and promotion of advanced tools for strategic management of sensitive natural resources like coastal lagoons, which support the socio-economic systems within their watersheds and are critical for human security. [ref 981614]