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Enhancing environmental security in Central Asia: the role of NATO

Abstract This article considers NATO's role in addressing security challenges in Central Asia emanating from the environment that can ultimately lead to disasters, regional tensions and violence. Today NATO and its member-states are significant partners of the whole Central Asian region in general. A number of projects funded under the NATO Science for Peace and Security programme in Central Asia are looking at ways to address ecological problems.

Keywords: ecological problems, NATO Science for Peace and Security (SPS) Programme, ENVSEC project, SEMIRAD I and SEMIRAD II

The notion of security has evolved from over emphasis on the physical security of the state to the focus on human security which buttress freedom from both violent and non violent threats and danger such as diseases and environmental degradation and disasters. A couple of reasons have been adduced for the redefinition of the focus of security. First, the end of the Cold War stimulated a re-focus of attention from physical to human security concerns. Secondly, it has become obvious that insecurities arising from diseases, ecological degradation and natural disasters wreck severe devastation on human development.

Ecological problems within the traditional conception of security are considered indirectly as probable cause of increasing tension that could provoke military conflict. After collapse of the bipolar world of the Yalta-Potsdam system traditional realist conception of security was replaced by the new concept of comprehensive security where ecological dimension is the most important one along with civilizational dimension. There is a tendency for the demilitarization of security politics where military force is becoming less useful and economic, political, social, environmental and human security are placing in the forefront. Environmental dimension has become one of the most important in the modern conception of security.

In Central Asia the environmental problems pose risks not only to human health and personal security

but also to regional stability. Long-term solutions of environmental problems will only be achieved through extensive interaction and close cooperation. Central Asian countries are attracting international donors and organizations as the United States Agency for International Development, United Nations Development Program, the European Union and NATO.

For NATO, environmental protection is the application and integration of all aspects of environmental considerations as they apply to the conduct of military operations. Environmental considerations include the entire spectrum of environmental media, resources, or programs that may affect the planning and execution of military operations. Factors that NATO takes into account in its planning include environmental compliance, pollution prevention, waste management, conservation, heritage protection (natural and man-made), and protection of flora and fauna.

Nowadays NATO addresses environmental security from two aspects: civilian and military. NATO is trying to facilitate the integration of environmental protection standards into all NATO-led military activities. For instance, the "NATO Military Principles and Policies for Environmental Protection", adopted in June 2003, and revised and reinforced in October 2011, sets out the principles of environmental protection from a military point of view. It details the responsibilities of

military commanders with regard to protecting the environment during the preparation and execution of military activities. The policy instructs NATO commanders to apply “best practicable and feasible environmental protection measures,” to areas including pollution prevention, waste management, conservation, heritage protection and protection of flora and fauna [1].

Over the past years, NATO has developed standardization agreements or STANAGs on environmental security. For example, STANAG 7141 on environmental protection that set out guidelines for the implementation of environmental protection standards in the planning of NATO’s military activities, as well as responsibilities of the commanding officer for environmental protection, education of officers in the field of environmental protection, etc. Additionally, we can also note such document as STANAG 2510 that gives directives for land operations to implement proper waste management and energy efficiency [2].

On the civilian side this organization makes extensive use of its partnerships with non-member countries.

The Science for Peace and Security Programme (SPS) is one of the key programs through which Alliance deals with environmental security. This Programme is a policy tool that enhances cooperation and dialogue between NATO and its partners. It aims to promote regional cooperation through scientific projects and activities. SPS also supported Environment and Security initiative (ENVSEC) assessments in the Central Asia.

Since 1991, Alliance members have been working to establish NATO as a vital organization within a security environment that was “radically changing.” In accordance with the decision taken by Allied leaders at the Istanbul Summit of 2004, partnership with Central Asia, as well as the Caucasus, has become a priority for the Alliance. In the current security environment, the NATO Allies share key security challenges with their partners in Central Asia.

Environmental challenges, resulting from either a scarcity of natural resources or environmental degradation, may contribute to security risks in Central Asia. NATO and its partner Central Asian countries are working together to address environmental risks. Scientists and researchers from the Central Asian countries benefit from opportunities offered under the NATO Science

for Peace and Security (SPS) Programme, which promotes collaboration, networking and capacity building among scientists from NATO and partner countries.

In Central Asia, NATO is funding ENVSEC projects connected to radioactive contamination level, uranium waste, water resources management. Amongst them, it is worth mentioning the following: “Investigation of the Radiological Situation in the Sarzhal Region of the Semipalatinsk Nuclear Test Site” (SEMIRAD I and SEMIRAD II), “Study of Radioactive Waste Disposal Sites in Turkmenistan”, “Geo-environmental security of the Toktogul hydroelectric power station” “Environment security issues arising from the legacy of uranium extraction in Central Asia”, “Integrated water resources management for wetlands restoration in the Aral Sea basin (Northern part)”, “Microbiological safety of drinking water in Uzbekistan and Kyrgyz Republic”, “Biotechnical exploration of Uzbek saline water reserves using halo tolerant micro algae”.

ENVSEC project “Investigation of the Radiological Situation in the Sarzhal Region of the Semipalatinsk Nuclear Test Site” or the SEMIRAD project initiated by NATO in January 2000 as part of the UNDP coordinated Semipalatinsk Rehabilitation Programme. Scientists from the United Kingdom and Kazakhstan worked together to determine the radioactive contamination level in the Tel’kem valley – an area located in the south-west of the test site, close to the village of Sarzhal. The project was successfully completed in December 2002 and has been succeeded by SEMIRAD II, which started in Autumn 2004. The main purpose of SEMIRAD II was to study a new site that lies south-west of Maisk – in the north-eastern region of the test site – for radionuclide concentrations that in some cases could be high enough to present a security threat [3].

The hazardous nature of nuclear waste requires proper management of nuclear waste disposal to protect future generations from the potential threats. The project “Uranium Extraction and Environmental Security in Central Asian Republics” aimed to establish the effective management of uranium industry wastes to prevent health and environmental detriment through the characterization of source terms, determination of local contamination and migration of radio-nuclides, assessment of radiation doses to the population from external gamma-radiation, radon isotopes and from ingested radio-nuclides, estimate of risk, proposal for mitigation

and comparison with international standards. This project contributed to:

- upgrading of environmental radioactivity laboratories;
- training of personnel, especially young scientists;
- use of contemporary equipment, survey methods and protocols;
- promoting education in radiological protection and identification of immediate and urgent measures for identification of immediate and urgent measures for emergency management [4].

Through the project “Study of Radioactive Waste Disposal Sites in Turkmenistan” NATO collaborated with Turkmenistan in the safe handling of radioactive waste, a by-product from iodine and bromine production facilities near by the Caspian Sea. The project included implementation of a radiochemical laboratory in Ashgabat, installation and operation of radioprotection equipment and the training of Turkmen teams. The project objective was to enable Turkmenistan in gaining scientific and technical autonomy in waste characterization and radio protection.

Water management is the most sensitive environmental issue in Central Asia, which, if not addressed, could develop into a serious security threat for the entire region. First of all, it concerns hydropower projects and irrigation systems. The Toktogul hydroelectric and irrigation scheme is the largest in Central Asia. The scheme is vital for the economic, social and agricultural stability and development of Central Asian countries. In the Toktogul region there are a large number of harmful waste deposits within areas vulnerable to flooding and land sliding. In many cases disturbance of such waste would result in an ecological catastrophe of the regional scale. Therefore the project entitled “Geo-environmental security of the Toktogul hydroelectric power station” that is fully funded by NATO aims to assess, using a comprehensive multidisciplinary approach, the geo-environmental security status of the region centered on the Toktogul reservoir scheme. The project shall also formulate scenarios of potential threats to the geo environmental security of the Toktogul region and produce recommendations for mitigation measures to ensure the highest levels of security in the future [5].

The environmental problems of the Aral Sea basin are among the worst in the world. Water diversions,

agricultural practices, and industrial waste have resulted in a disappearing sea, salinization, and organic and inorganic pollution. The problems of the Aral, which previously had been an internal issue of the Soviet Union, became international problems in 1991. In order to enhance environmental stability and the effective use of marine resources of the Syrdarya River Delta and the northern Aral Sea, the NATO provided financial assistance to project on integrated water resources management for wetlands restoration. As the result of this project, data on the past and present ecological conditions prevailing in these water bodies was gathered and an integrated mathematical model have adapted, also surveys of the hydrological, ecological, soil and socio-economic conditions of the area were conducted, GIS-based maps were constructed. Among the end-users of this project was the Committee for Water.

A safe drinking water supply is a key priority in the Central Asian Republics. Uzbekistan and the Kyrgyz Republic in Central Asia face public health risks and high rates of mortality from water-borne diseases. In Uzbekistan, only 50 to 60 percent of the population living in rural areas has access to treated water delivered through a centralized, piped water system. Lack of infrastructural development and a water quality monitoring system pose a security threat to the region. Outbreaks of water-borne disease in rural areas could potentially devastate the two countries. Therefore the NATO Science for Peace and Security Program in partnership with the Environment Security Initiative has implemented a project entitled “Microbiological safety of drinking water in Uzbekistan and Kyrgyz Republic” to establish a water quality management system for both countries [6].

All these abovementioned projects promote extension of partnership relations. Constructive partnership with NATO in environmental protection area assists Central Asian countries to achieve up-to-date standards of development.

Thus we can conclude that environmental protection has gained a major importance. Traditionally, environmental issues were not regarded in the context of international security and were therefore not of concern for the NATO for most of its existence. However, after decades of rapid industrial expansion environmental issues came pressing forcefully onto the agenda of policy-makers.

Close cooperation, on the level of states as well as international organizations, is indispensable to address environmental problems of global scope. Many of the environmental problems we are facing today are of global scale. Therefore, only a truly global approach can effectively combat wide ranging environmental degradation.

References:

1 NATO and Environmental Protection // www.foi.se/upload/Duerr.pdf

2 Standardization Agreements // <http://www.nato.int/cps/en/SID-8BF0F167-D3248540/natolive/stanag.htm>

3 Nuclear risk in central Asia / edited by Brit Salbu and Lindis Skipperud ... Workshop on Radiological Risks in Central Asia. – Almaty, 2006.

4 Uranium Extraction in Central Asian Republics // http://www.nato.int/science/2010-02-04-presentations/Peter%20Stegnar_cmp.pdf

5 NATO gives 250,000 Euro research grant to investigate seismic hazards in Central Asia // <http://www.uzdaily.com/articles-id-4048.htm>

6 ENVSEC Central Asia Newsletter // http://envsec.grid.unep.ch/docs/envsec_ca_newsletter_august_2008.pdf

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Орталық Азиядағы экологиялық қауіпсіздікті қамтамасыз ету тұрғысындағы НАТО-ның рөлі

Мақалада экологиялық қауіпсіздікті қамтамасыз етудегі НАТО және Орталық Азия елдері ынтымақтастығының мәселелері, оның ішінде «Бейбітшілік пен қауіпсіздік жолындағы ғылым» бағдарламасы аясындағы ықпалдастығы қарастырылған. Орталық Азиядағы радиологиялық қауіпті зерттеуге, су ресурстарына кешенді бақылау жүргізуге арналған жобалардың жүзеге асырылуына көңіл бөлінген.

Түйін сөздер: экологиялық мәселелер, НАТО-ның «Ғылым – бейбітшілікке және қауіпсіздік үшін» бағдарламасы, ENVSEC жобасы, SEMIRAD I және II SEMIRAD бағдарламалары.

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Роль НАТО в контексте обеспечения экологической безопасности в Центральной Азии

В статье рассматриваются вопросы сотрудничества НАТО и стран Центральной Азии в сфере обеспечения экологической безопасности, в частности, в рамках Программы НАТО «Наука ради мира и безопасности». В центре внимания – реализация проектов по исследованию радиологической опасности в Центральной Азии, комплексному управлению водными ресурсами.

Keywords: ecological problems, NATO Science for Peace and Security (SPS) Programme, ENVSEC project, Programme SEMIRAD I and II.