

## NATO AND THE ENVIRONMENT

## НАТО И ЖИВОТНАТА СРЕДИНА

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**Abstract:** Military activities often have a variety of negative impacts on the environment in which they occur. Environmental breaches of military activities can be a threat to the welfare and habitats. NATO's responsibility is in the protection of the physical and natural environments, where they carry out operations and training. Military training can affect the biodiversity starting from the flora, birds and insects to marine life and marine mammals. Through researches and new technologies, together with the standardization of procedures and training, the Alliance is working to improve the protection of the environment and the nature where it operates. Measures taken are in the direction of protection from hazardous substances (including fuel and oil), waste water treatment, waste management, reduction of the consumption of fossil fuel energy, and application of environmental management systems during NATO's activities.

**Key words:** NATO, environment, operations.

**Апстракт:** Воените активности често имаат различни негативни влијанија врз животната средина во кои тие се случуваат. Нарушувањата на животната средина од воените активности може да биде закана за благосостојбата и живеалиштата. НАТО одговорноста е во делот на заштита на физички и природни средини, каде што се вршат операции и обуки. Воените обуки можат да влијаат врз биодиверзитетот, од растителниот свет, птици и инсекти до морскиот свет и морски цицачи. Преку истражувања и нови технологии, заедно со стандардизацијата на процедурите и обуките, Алијансата работи на подобрување на заштитата на животната средина и природата каде што оперира. Мерките кои се преземаат се во насока на заштита од опасни материи (вклучувајќи гориво и масло), третман на отпадни води, управување со отпад, намалување на потрошувачката на енергија од фосилни горива, како и примена на системи за управување со животна средина за време на НАТО активности.

**Клучни зборови:** НАТО, животна средина, операции.

## INTRODUCTION

Nowadays, the impact of war on the environment is evident worldwide. Modern civilization is constantly challenged how to mitigate the destructive impact of major military forces and operations that they undertake in the crisis, but also in other regions. In order to organize ways of warfare, the means used in the conflicts, and especially the issue of refugees, victims, etc., a number of international conventions as part of the international military and humanitarian law are passed and adopted. With these conventions an attempt is made to define the conditions that the military force is applied to and the negative effects that it causes. Namely the international conventions establish a prohibition on the use of certain types of weapons, as well as to nuclear tests. But still there is the possibility of nonobservance to provisions of the conventions and in that case there are serious destructive consequences on the environment by leaders requiring military actions.

With the new achievements of military technology modern combat means with high deadly power are made, whose application enables quick solution of certain combat situations, but the application of such means drastically increases their destructive impact on the environment. Namely the use of the ammunition with depleted uranium, which is more frequently used in local and regional crisis areas, causing particular negative consequences (Mileski, 2011: 140).

The influence of modern military forces on the environment is a result from the application of military destructive power; consequences of the production of means of warfare and military equipment; consequences from the application of the means of warfare; tests that are made and so on.

Specific danger to human health, flora and fauna is coming from the weapons of mass destruction and their use for military purposes. This includes nuclear, chemical and biological weapons, owned by large military forces, and also by some terrorist organizations. The consequences that can arise from the use of weapons of mass destruction by terrorist attacks are serious and with unforeseeable effects (Malish Szadzovska, 2009: 157).

Eco-terrorism includes pollution threats to water supplies, destroying or disabling of power plants, and etc. The purpose of eco-terrorists is intimidation and causing fear and uncertainty among the population, especially due to the inability to limit the possible action of radioactive substances, poison gases, chemical toxins, biological compounds- viruses, bacteria and etc.

Special danger is represented by new ways of causing generally dangerous actions, the use of chemical warfare toxins (sarin) and chemical compounds (cyanide) which can cause serious consequences for human health and wheat, corn diseases, etc. Also eco-

terrorism can be used by agents as chemical weapons, bio-toxins and radiological materials.<sup>1</sup>

### **NEGATIVE IMPACT OF MILITARY MEANS**

In the overall arsenal of weapons used in military and other purposes, particularly negative impact on the environment comes from weapons or depleted uranium ammunition. This type of uranium is used because of its high strength, used for making bullets able to penetrate through metal armors and concrete slabs. Americans experimented with depleted uranium almost four decades, and began to use it in the late seventies of the twentieth century. It is assumed that at least 14 countries in the world possess depleted uranium weapons. Such weapons are used in military intervention in Kosovo and Afghanistan (Mileski, 2011: 145).

Negative impacts of depleted uranium weapons have been a subject of interest of several research studies. Such studies have been conducted by research centers in the United States after the first Gulf War. As a result of these researches it was found that depleted uranium affects the environment and the population. Negative influence arises through development of tumors, immune system damage, respiratory diseases, genetic mutations, malformations and infertility. Regarding the fact that uranium oxide is transferred in the atmosphere by aerosols, effects of radiation can be felt even after two decades. Many years after uranium oxide particles remain bound in water and air, which is confirmed by the suffering of the population of Iraq, or more specifically in Basra and Baghdad, and U.S. Gulf War veterans.

The affect of this type of weapon on the environment is realized as water and underground water pollution; contamination of plant roots and their fruits, milk and meat; air contamination; disruption of the ozone layer and the like.

Depleted uranium ammunition, unfortunately, becomes a part of the standard conventional weapon which finds its use in military conflicts and interventions of local and regional hot spots around the world. This ammunition was used in all 1991 interventions when the new military doctrine North-Atlantic Alliance with the official title "Air-land battle" was officially accepted. In order to protect its military forces, appropriate security measures are applied, so the members of the U.S. military wear protective clothing, protective mask,

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<sup>1</sup> Perhaps the best-known perpetrators of terrorist attacks are members of the Japanese cult Aum Shinrijo that in the period from 1994 to 2001 have realized 7 attacks with chemical, biological, radiological and other weapons.

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and have special procedures for using depleted uranium weapons, and decontamination after the actions (Mileski, 2011: 151).

For certain military actions even the International Court of Justice was included, thus in 1999, the court received a complaint from Serbia and Montenegro (former FR Yugoslavia) against ten members of the North Atlantic Alliance, NATO alleged breach of the obligation not to resort to force. Among other things, these claims are based on breach of the obligation not to cause significant damage, and the case against the United States regarding the alleged violation of the obligation not to use prohibited weapons and not cause far-reaching and environmental damage. The case was completed on the basis of lack of jurisdiction (Mrljić, 2010).

### **NATO AND THE ENVIRONMENT**

In order to regulate the environmental impact, NATO takes certain measures and activities aiming at the prevention and overhaul of negative military consequences on the environment. Certain weapons and ammunition used by NATO forces, on the one hand, have serious environmental influence, such as depleted uranium weapons and ammunition. On the other hand, NATO forces carried out a number of measures and activities to protect the environment.

NATO has adopted and "NATO military principles and policies for environmental protection", in June 2003, which were revised in October 2011. With these the principles of environmental protection from the military point of view are set. It is the responsibility of military commanders to protect the environment during the preparation and execution of military actions.

The implementation of this policy is supported by various NATO Standardization Agreements (STANAGs) and other publications. While some environmental damages may be an inevitable consequence of the operations, standards can be applied to reduce the effects without compromising operational or training requirements.<sup>2</sup>

Special emphasis is put on identifying environmental issues that need to be solved during the planning process, instead of after committing the damage. Early consideration of potential environmental impacts should lead commanders to a better understanding of the effects on the environment from the mission. Cleanup of any environmental impacts that result from the NATO-led military activities is also a key aspect of policies of STANAG.

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<sup>2</sup> [http://www.nato.int/cps/en/natolive/topics\\_80802.htm](http://www.nato.int/cps/en/natolive/topics_80802.htm) accessed 15.11.2012

NATO has appointed officers to implement environmental protection, on strategic, operational and tactical level. In 2004, ACO has appointed environmental manager at the Supreme Headquarters of Allied Powers of Europe. This officer is responsible for providing environmental advice and expertise to commanders and headquarters officers involved in NATO's military activities, and counseling for policy development. In order to train personnel in this area, NATO School in Oberammergau, Germany, provides training for environmental protection at the operational level, while the Military Engineering Centre of Excellence includes environmental protection in their courses at the tactical level.

Based on the broad definition of security that recognizes the importance of political, economic, social and environmental factors, NATO is considering the security challenges arising from the environment. This includes extreme weather conditions, impoverishment of natural resources, pollution and others factors that can lead to disaster, regional tensions and violence.

Alliance seeks how best to respond to environmental threats to security in general, and also to those that directly affect military activities. For example, environmental factors can affect the energy supply of the population and military operations, that energy security is a major topic of concern. Thus NATO helps partner countries to clear dangerous stocks of weapons, ammunition and explosive remainders of wars posing a risk to humans and the environment.<sup>3</sup>

Since 1969, NATO Science and Security Programme supports activities dealing with environmental issues, including those related to the defense of NATO countries. In some certain workshops issues related to safety and the environment are worked out. For example, in April 2010 a NATO workshop in Moscow for environmental safety and eco-terrorism was organized, and the Cairo workshop on food safety and security against terrorist threats and natural disasters.

First international response to environmental security is in 2004, when NATO with five other international agencies formed the Environment and Security Initiative (ENVSEC). The initiative included UNEP, OSCE, UNECE I REC (Regional Environmental Center for Central and Eastern Europe).

Increased participation of the military as a "first response to natural disasters" is expected with the increase of the impact of the climate changes. This was underlined by the NATO Secretary General on the UN Climate Change Conference in Copenhagen. In order to resolve environmental issues and sustainability related to military activities, in October 2009 Expert Group on Defense and Environment was formed.

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<sup>3</sup> [http://www.nato.int/cps/en/natolive/topics\\_49216.htm](http://www.nato.int/cps/en/natolive/topics_49216.htm) accesses 15.11.2012

NATO pays particular attention to energy security, reducing the danger of environmental risks through disarmament and raising of the awareness and sharing information.<sup>4</sup> In this respect NATO forces in countries where they are present with their own missions, beside realization of military purposes they realize activities in the field of environmental management.<sup>5</sup> Among other things this includes environmental protection training. So according to Nate Whelan the Head of NATO special team training for environmental protection "awareness and training are key ways to protect the environment", and that includes training of troops and military units to protect the environment.<sup>6</sup> At least the military should behave in accordance with relevant laws and regulations for environmental protection.<sup>7</sup>

Among other areas of the environment that are of concern to NATO member states is also food insecurity.<sup>8</sup> It is also stated that the main problem is not the total amount of food but its proper distribution. Just changing this situation could save millions of lives and reduce conflict. NATO's comprehensive strategic approach is that Member States should focus more on security requirements of citizens and civil societies, rather than narrowly focusing on international diplomacy and military equipment for conventional conflicts. Food can be used for warfare, as for conventional wars with a frontline and for modern terrorist warfare. One example on how food has been used as weapons in a conventional war is the frontline in the Bosnian war in the 1990s. During the Bosnian war, the closure of the sieged cities or areas and limiting the food supply was effective as a weapon for political coercion and city or area bombing. In that war both means are frequently used in combination: limiting food supply and artillery bombing.

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<sup>4</sup> [http://www.nato.int/cps/en/natolive/topics\\_49216.htm](http://www.nato.int/cps/en/natolive/topics_49216.htm) accesses 15.11.2012

<sup>5</sup> Example Butmir NATO camp in Bosnia and Herzegovina environmental management is one of the objectives, namely monitors the quality of water and soil in the territory of the camp and beyond to prove that there is no contamination by NATO forces and take and other activities.

[http://www.nato.int/cps/en/natolive/topics\\_80802.htm](http://www.nato.int/cps/en/natolive/topics_80802.htm) accessed 16.11.2012

<sup>6</sup> [http://www.nato.int/cps/en/natolive/news\\_84609.htm?selectedLocale=en](http://www.nato.int/cps/en/natolive/news_84609.htm?selectedLocale=en) accessed 16.11.2012

<sup>7</sup> According to Lt. Siller,, I once read a good statement: if the world was a bank, we would have kept it long time ago. [http://www.nato.int/cps/en/natolive/news\\_84609.htm?selectedLocale=en](http://www.nato.int/cps/en/natolive/news_84609.htm?selectedLocale=en) accessed 16.11.2012

<sup>8</sup> Food security and food safety is not the same thing. Food security is a matter of secure access to food for all people at all times, and under all circumstances. Food security is a strategic target because the food is so essential need of the people. On the other hand, food safety is more civilian subject and deals with the quality of food intended for human consumption, its nutritional value, food hygiene, long-term health effects, additives used in production and so on.

<http://www.nato.int/docu/review/2012/Food-Water-Energy/Food-security-importance/EN/index.htm> accessed 16.11.2012

As an example of food terrorism is mercury (quicksilver) poisoning of Israeli oranges from Palestinians three decades ago. Palestinian idea was to create fear of damage to the Israeli economy after Jaffa oranges become very well known Israeli trademark. When mercury poisoning was revealed, the created fear was significant especially the fact how did they poison the oranges. NATO in Macedonia has participated in environmental projects and conservation of clean drinking water and irrigation of River Vardar and sustainable management of the waters of Lake Prespa.

In regard to the use of weapons of mass destruction, according to NATO's strategic concept, "the spread of nuclear weapons and other weapons of mass destruction and their means of delivery, threatens with immeasurable consequences on the global stability and prosperity. Over the next decade, proliferation will be the most critical in most crisis regions in the world".<sup>9</sup> Heads of States and Governments at the Summit in Chicago in May 2012 stated that, "our mutual vision is to create the necessary conditions for a world without nuclear weapons in accordance with the objectives of nuclear non-proliferation". In order to achieve this goal, NATO will work actively to prevent the proliferation of weapons of mass destruction by state and non-state actors through active political agenda for arms control, disarmament and non-proliferation, as well as through the development and coordination of defense capabilities.

Despite abovementioned areas NATO undertakes specific measures and activities in the field of crisis management. For example, at NATO's School in Obermergau courses for Civil Emergency Planning and military cooperation in NATO are held. Thereby the main objective of the course is to familiarize the participants with the procedures in NATO from the aspect of terms of civil emergency planning in NATO military structures and its relationship to civil-military cooperation.<sup>10</sup> In the same center there are trainings for the role of the North Atlantic military alliance in providing assistance, through involvement of military forces, engineering units, professional units for protection and security of the population in certain areas.

Since 1990 NATO has been engaged in a number of operations in crisis areas, especially in the former Yugoslavia and Darfur region, and also during the forest fires in Greece and Portugal. Support was also provided for the consequences of the Hurricane Katrina, which destroyed the coast of the United States in 2005. Specific cooperation between NATO and Ukraine was initiated in 1995, following after heavy rains in the region Kharkov, and support was provided also during the subsequent flooding (Pedrazzini, 2010).

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<sup>9</sup> [http://www.nato.int/cps/en/natolive/topics\\_50325.htm](http://www.nato.int/cps/en/natolive/topics_50325.htm) accessed 16.11.2012

<sup>10</sup> This course was attended by a representative from the Republic of Macedonia Crisis Management Centre. <http://www.cuk.gov.mk/index.php?content=140> accessed 17.11.2012

NATO organizes numerous other workshops and seminars in the field of crisis management such as crisis management workshop (Zagreb, Croatia; Initial Planning Conference for exercise UUSIMA 08 (Helsinki, Finland) and others. Also Euro- Atlantic Disaster Response Coordination Centre is established.

The functions of this center are: informing NATO Secretary-General for Disaster and requests for assistance; coordination of reactions of accidents at the request of the state that has been hit by the crisis; tool for exchange of information for the states in connection with disaster center regarding help in crisis situations.

In order to operationalize the goals and commitments of the "NATO Military Principles and Policies for Environmental Protection", a number of actions are taken in specific cases to prevent and overhaul environmental consequences from military actions. The following are examples of measures taken and rehabilitation activities for particular parts of the Balkan region, in order to improve the environmental situation in the region.

### **PROJECT "HARMONIZATION OF SEISMIC HAZARD MAPS OF THE WESTERN BALKAN COUNTRIES" - SUPPORTED BY NATO**

This project was implemented in the period 2007-2011, and participants were Montenegro, Croatia, Bosnia and Herzegovina, Serbia, Albania and Macedonia, under the guidance of experts from Turkey and Slovenia. The project was introduced and adopted by NATO SfP Environmental Panel (Glavatic, 2011: 40). The aim of the project was to estimate the seismic danger, which is primary step in the application of preventive measures in order to protect human lives, the economy and society threatened by strong earthquakes. Also the project comes from the outdated maps of seismic danger as well as from the need to apply new seismic, seismotectonic, geophysical and other data involved in seismic dangers. Additional objectives are realized such as: harmonization of seismic hazard maps with EU standards (EUROCODE 8) and scientific cooperation and exchange of data in the region in this area.

For this purpose, numerous meetings and workshops are held, funded by NATO. Also during the cooperation is determined that NATO funds are easily available, the procedures of preparation are clear and simple, and technical support and assistance from SfP staff is very helpful throughout the realization of the project.

### **UNDERWATER DEMINING SUPPORTED BY NATO**

Underwater demining training was closely linked with professional and sport divers. Demining goal is to save lives and goods of the water, and in doing so underwater research and monitoring of underwater things. The trainings were realized in the U.S. military base



Fort Myers in Florida; Greece-NATO base "Disaster" in Athens; France - Antibes and Marseille; Italy-Venice and Rome; Croatia of Topusko and Montenegro-Bijela. The training was attended by representatives from Albania, Bosnia and Herzegovina, Croatia, Russia, Macedonia, Serbia, Slovenia and Montenegro (Mijajlovic, 2011: 48). The purpose of the demining program is to reduce the risk of mines and other explosive devices at a level that will ensure safe living of the people. Objective of the project is also reducing the social, economic and environmental impact of mines and other explosive devices.

During the action were demined 720 000 square meters of land, 2 million square meters under water and 100 tons of explosives were destroyed. Besides de-mining in Montenegro, also in Bulgaria was carried out and de-mined 220 000 squares and about 3 tons of various explosive devices were taken further actions of demining are planned in Libya - 300 000 squares undersea, in Serbia undersea demining of Dunav, the Albania-undersea, and also Iraq and Vietnam are covered. Beside these actions, natural disaster help activities, underwater search for persons and others have been taken. The role of Montenegro in NATO interventions is to help in delivering drinkable water in crisis areas during natural and other disasters, as well as training divers to rescue human lives and goods of water.

## CONCLUSION

Protection of the environment in contrast to the previous situation when it was a subject of interest only for non-governmental organizations and other secondary subjects, today serious environmental issues pose strategic interest of the overall international organizations and institutions, as their millennium interest. Thus environmental protection is an integral part of a number of international agreements that structure the substance of this important area.

Among other organizations and institutions that undertake certain actions in the direction of environmental disturbance, especially during military conflicts, is the NATO Alliance. Evident are the negative impacts on the environment and on the human health, the impact on flora and fauna and the negative consequences that they cause. Some theorists, on the basis of adequate analysis consider that the use of depleted uranium ammunition is a violation of fundamental principles of international humanitarian law (Mileski, 2010: 149).

On the other hand, NATO promotes a policy of protection of the environment through the establishment of certain principles for protection of the environment, but also creates specific policies. Thus it is evident, and their engagement in the prevention and

remediation of certain negative consequences on the environment in war and crisis regions. NATO in the future should give primacy of implementation of measures and activities for environmental protection, on account of the use of arms and ammunition used for destruction of the environment. Thus will operate in the direction of sustainable development-sustainable security, as the only way for securing healthy conditions for the development of human, plant and animal life, as well as to preserve the Earth, and the natural resources taking into account the needs of future generations Malish Sazdovska, 2010: 103).

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