

Committee: Environmental Commission

Issue: The Impact of military materials on the environment

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Position: Deputy President

PERSONAL INTRODUCTION

My name is Rea Silvia, I am a year 11 student at St Catherine's school. This is my first time chairing at ACGMUN and I am excited to see the resolutions that will be created on this topic. As your co-chair in the Environmental Commission Committee, I will be serving as the expert chair on the topic of the impact of military materials on the environment. I hope this study guide provides you with the knowledge needed in order to create a good draft resolution. That being said I wish you the best of luck and trust that we will have constructive debates in the Committee.

Kind Regards,

Rea Silvia Emmanouil

TOPIC INTRODUCTION

By different NGO's, the military has been described as one of the most destructive and costly social sectors and one of the largest polluters on the planet. It is not only the disruption caused to the environment during conflict and war, but also the impact it has on the lives of those affected by conflict. The study of 'environmental impact of war' focuses on the modernization of warfare and its effects on the environment. The progression of warfare from chemical weapons to nuclear weapons has increasingly created stress on ecosystems and the environment. The result of this is toxic fuels being released into the atmosphere, creating a toxic environment and producing excess greenhouse gas and fossil fuels. An example would be in 2003, during the invasion of Iraq, where many sites were destroyed and abandoned. This led to highly toxic substances left there to be exposed to people. Because of the military's disregard for the environment after disputes, the militaries leave behind a trail of toxic warfare equipment, which, when abandoned, can seep into the environment. One of the most recent 'victims' of such action was Syria. During the civil war, lots of chemical agents were used, for example mustard gas, which not only affected the citizens negatively, but also played a significant role in contaminating the atmosphere.

DEFINITION OF KEY TERMS

Environment

The environment includes all natural forces of living and non-living things and how they interact with each other, including flora, fauna and all natural resources.

Toxic Remnants of War (TRW)

Substances which have been left behind after any military activities. Any toxic or radiological substance that can pose a hazard to humans or ecosystems.

Ecosystem

When living organisms such as plants, animals and microorganism interact with one another in their physical environment.

Pollution

The introduction of waste products that cause harmful or poisonous effects on the environment.

Military Materials

Equipment used by military such as, ships, submarines, aircraft, fuel munitions. Soldiers are assets of the military therefore are also, 'military materials'.

Greenhouse Gas

By absorbing infrared radiation, a gas that emits radioactive energy causing the greenhouse effect. An example of a greenhouse gas is Carbon Dioxide.

BACKGROUND INFORMATION

International Peace Bureau, Geneva, August 2002

The adverse influence of the military on the environment originally received proper attention before the Johannesburg conference in 2002. At the time, although the military had all the characteristics of an “industry”, it was not collectively seen and dealt as such, because countries did not want to have their military actions transparent and accountable as it was required by other governmental or civil society actors. In 2002, the international Peace Bureau in Geneva issued a paper in order to address the issues of the advert effect of the military on the physical environment and on human security. Human security is threatened when the physical environment gets contaminated. Threats of deforestation, depletion of underground water tables can affect the welfare of people today and that of future generations. Even though war is destructive to humans and also to the environment, military action can still be limited and managed to contain the damage caused. There are specific examples of a vast impact on the environment after war and some would be: World War I, the Rwandan Civil War, the Kosovo War and the Gulf War. To further elaborate on one example, the Gulf War ended in a massive man-made oil spill, the exact cause of which is not certain, but the result of which was catastrophic. It killed up to 82,000 birds and 25,900 marine mammals. “After the end of the Cold War, many have suggested that environmental degradation will exacerbate scarcities and become an additional source of armed conflict.”¹



#1: USA's oil usage

¹ John W. Hamilton, 2016, “Contamination at U.S. Military bases: Profiles and Responses”https://www-cdn.law.stanford.edu/wpcontent/uploads/2017/01/hamilton_0.pdf

Military affects

Military can harm the environment in a variety of ways, whether that is pollution in the air, land or water. There is a strong connection between military spending and increased greenhouse gas emission, because of the military's use of large amounts of fossil fuels. The issue of climate change increase is a concern as these fossil fuels are a direct contributor. Further production of nuclear weapons and storage and transport imposes a lot of strain on the environment and impacts human health. Communities are affected and displaced when the military takes over their physical environment, on which the residents need to live or feed. They are used as bases, target ranges, weapon stores, training grounds etc. This results in people having to move away from their land and homes, "Protecting the environment from armed conflict protects farmlands from the impacts of bombings, landmines and toxic pollution." Furthermore, as military activities often involve the use of explosives, when these are improperly stored, they can leak into the environment and affect nearby cities and its inhabitants. Military exercises with heavy military vehicles often damage farmland, roads and bridges. The military also can affect climate change via greenhouse gas emissions, especially from aircraft. The development of new weapons and the progress in warfare has its effects on the environment. One of the most damaging post-war stresses on the environment and also a danger to human safety was the Hiroshima and Nagasaki atomic bomb explosions in 1945. Because of these terrible events, awareness was raised as to how harmful and dangerous these nuclear weapons can be for the atmosphere. Nuclear warfare threatens both directly and indirectly the environment. These bombings made governments understand how detrimental their impact was and how to take the right measures.



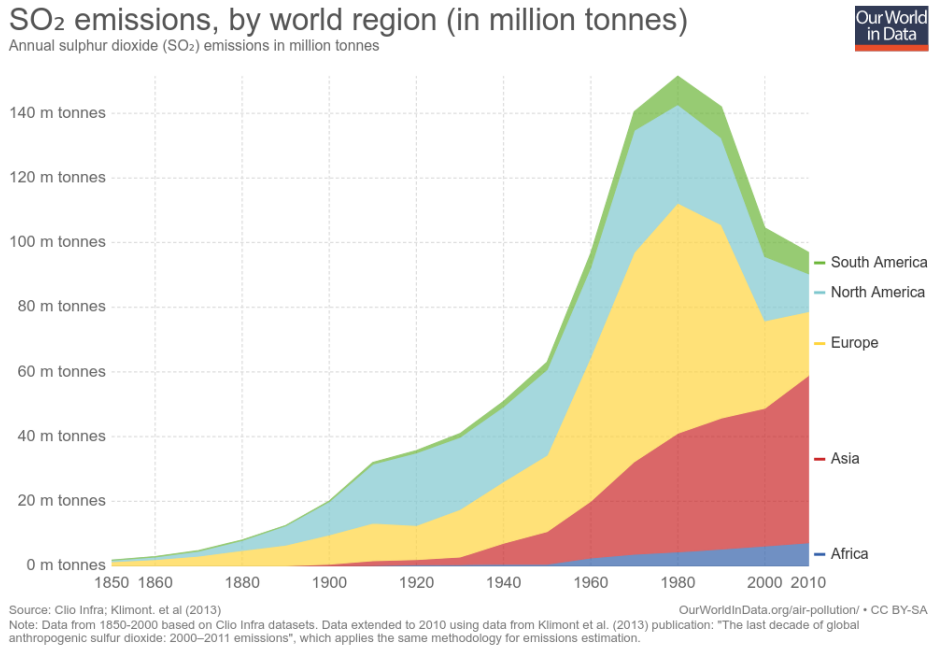
#1: The aftermath of the atomic bombs in Hiroshima

The US military is possibly the number one fossil fuel consumer in the world², based on research that has been conducted and the results showed that throughout the US there are approximately 39 000 contaminated sites. This research was run and supervised by the United States Department of Defence (Pentagon's) director of environment, safety and occupational health, Maureen Sullivan. As she investigated, on the contaminated sites an estimate of the clean-up was drawn up and on military sites it can be up to \$500 billion to clean up the contaminants. Unexploded remnants of war can be found all over the world in old war sites, an example of which is the cluster bombs in Kosovo, Afghanistan. The fact that they are still there obstruct the growth of agriculture. Throughout Africa, because of war there has been a major decline in the wildlife population, although private organizations have been working with ecological restoration initiatives and have been able to show that the complete rehabilitation of an ecosystem is possible.

Use of Chemical Agents

Chemical agents are one of the biggest contributors when it comes to war materials since they are effective as a weapon but are also effective in destroying the environment. Additionally, as a result of the Gulf war, chemical agents and burning oil wells have remained long after the oil spill occurred in the Persian Gulf, which has later affected the marine life and the shores bordering the gulf. Military pollution is a worldwide occurrence. In addition to all the consequences of war, because of naval accidents during the Cold War a minimum of 50 nuclear missiles and 11 nuclear devices have been dropped into the ocean. They remain on the ocean floor to this day, and there are more nuclear reactors at sea than on land. Militaries use a large amount of explosive weapons, however some will not detonate properly, leaving unexploded weapons in the area. Because of this, civilians living in these areas that were once war zones, are in danger due to the possibility of detonation of a left explosive, as well as the leakage of chemicals into the soil and groundwater which can seriously cause physical and chemical damage to that area. Some estimates of the total cost of dismantling nuclear weapons reach \$3.5 trillion for the US alone, showing the total cost of cleaning up after the war. This means that the issue should be handled straight on and not after the damage has deteriorated, otherwise certain government will not have the ease to collect all undetonated bombs across the war area.

² Conflict and Environment Observatory (C.E.O), "Topic Brief: Military and the environment" March 26, 2018, <https://ceobs.org/topic-brief-military-and-the-environment/>



#4: Annual toxic gas release

Policies and Standards

Post conflict pollution can damage the well-being of people and the environment even long after the war had ended. During the military decision-making process, environmental rights should be properly considered as this is how the military will become more aware of the damage it leaves behind after a war. Even though the toxicity of military materials in being considered when deciding on how their effect can be reduced, the military also has to be part of the solution. States should be strict when pursuing data and recordings, in particular by compiling the available data regarding information like the use of weapons and how that affects populated or environmentally sensitive areas. This can later on be used to set a standard for the use of military weapons in certain areas. The World Health Organization (WHO) has strict guidelines concerning the concentration level of toxins in the air. These guidelines were made to prevent chemicals from harming the health of the people. Being able to monitor daily and annually the pollutants in the air, WHO works towards enforcing standards to prevent the damage on the environment and its surroundings.

NATO started to develop its environmental protection policy in the late 1970s. Currently NATO's policy states that NATO-led forces "must strive to respect environmental principles and policies under all conditions". There are two organizations that are working towards addressing environmental protection while also encouraging cooperation among partner countries, as well as the collaborations between different NATO bodies and international organization. These organizations strive to provide protection for the environment, organizations like the Environmental

Protection Working Group (EPWG) which work under the Military Committee Joint Standardization Board that reports to the Military Committee. Therefore, they closely work together to reach to a successful solution. The Specialist Team on Energy Efficiency and Environmental Protection (STEEP) who work towards minimizing polluting practises. Militaries have been slow to develop environmental policies and the reason is because the law is interpreted in a different way in different cases and interpretation of the law could mean a different way for the military to act. Humanitarian agencies and NGOs must pay greater attention to TRW during peacebuilding operations, as the remnants of war are one the most threatening issues due to their radioactivity.



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MAJOR COUNTRIES AND ORGANISATIONS INVOLVED

United States of America

It is crucial for the USA to cater for a safe environment, especially after the Iraq war where, because of their mismanagement, there was poor regard for environment protection, which later led to serious environmental damages. Degradation of the environment puts the well-being of the local population at risk and can undermine the support for U.S. policies which can include laws addressing water and air pollution, chemical and oil spills, smog, drinking water quality, land conservation and management, and wildlife protection. Due to previous involvement of the destruction of the environment, the US is determined to provide solutions to confront the problem. The Pentagon, the headquarters of the United States Department of Defence, generates five times more toxins than the five major US chemical companies

combined making the US military the largest single source of US environmental pollution.

Syria

Due to the Syrian Civil War, Syria has now become one of the biggest sufferers of toxic warfare. One of the main military materials used in this war has been chemical agents such as mustard gas or chlorine gas. These gases do affect the atmosphere significantly, but also affect the soil, it affects the soils fertility which then affects the countries agriculture.

Iraq

Iraq was one of the main participants of the Gulf War with Kuwait, Saudi Arabia and Egypt. The Gulf War oil spill, regarded as the worst oil spill in history, was caused when Iraqi forces opened valves at the Sea Island oil terminal and dumped oil from several tankers into the Persian Gulf.

Vietnam

The Vietnam War had significant environmental implications by the use of chemical agents to destroy significant military vegetation. Enemies found an advantage in remaining invisible by blending into a civilian population or by taking cover in dense vegetation and opposing armies by targeting natural ecosystems. According to research conducted in 2001 by the government, the main issues today are land degradation, forest degradation, loss of biodiversity, water pollution, air pollution and solid waste management.

NATO

North Atlantic Treaty Organization, (NATO) is a military alliance between European and North American Countries which work together to enforce 'the North Atlantic Treaty'. Signed in 1949, the treaty's main purpose was to defend each member from the Soviet Union. Because of the plethora of environmental challenges, member countries have been forced to adopt new rules and regulations to protect the environment. NATO has been facilitating the incorporation of environmental protection measures in NATO-led military activities.

Environmental Protection Working Group

Since 1999, when it was formed, the branch provides environmental guidance to countries and UN partners in dealing with crisis and promotes environmental cooperation among countries as a means of peacebuilding.

The Joint Environment Unit

The unit provides and coordinates emergency response to acute environmental risks whether caused by conflict, natural disaster or industrial accidents. This Unit is a joint effort of the UN environment and the UN Office of the Coordination for Humanitarian Affairs (OCHA).

The Environment and Security Initiative

It operates in central Asia, South Caucasus and Eastern Europe with a threefold objective: To assess environmental and security risks, to develop capabilities strengthening institutions for regional cooperation and introduce the environment and security in policy making.

TIMELINE OF EVENTS

Date	Description of event
1945	Hiroshima and Nagasaki Atomic bombings
1970	Clean Air Act
1975	Hazardous Material Transportation Act
1976	Toxic Substances Control Act
1987	Bruntland report, first environmental report
1999	Environment Protection Working group is established
2003	NATO adopts policies to provide efficient environment protection
2006	Jiyeh, Lebanon power plant bombing
2009	Environmental Policy that concentrates on the 6 th Environment Action Programme
2010	Cholera outbreak in Haiti shows UN the importance of managing the environmental footprint
2003-2011	The Iraq war shows the environmental damage that was caused due to operations
2011	UN department of Peacekeeping operations(DPKO) deploys personnel to political mission in Afghanistan
2017	UN Department of Field Support launch environmental strategy to guide its field missions

RELEVANT RESOLUTIONS, TREATIES AND EVENTS

Protection of the environment in times of armed conflict, November 1992 (A/RES/47/37)

This resolution considers the methods of warfare and its impact on the environment. This resolution was meant to bring forward all the problems caused by conflict and how each member state could contribute to minimize the damage.

Preventing the Exploitation of the Environment in War and Armed Conflict, November 2001 (A/RES/56/4)

Because the environment was overlooked when looking at the damage a war had caused to a city, the UN General Assembly stated that on November 6, each year the International Day for Preventing the Exploitation of the Environment in War would be an opportunity for everyone to study the damage on natural environment due to war and discuss new ways to limit destruction by Armed Conflict.

“Our common future: The world commission on Environment and Development” Bruntland Report, 1987

This was one of the first international reports on environmental issues to stress the new combined concept of sustainable development.

“Convention on the prohibition of military or any other hostile use of the environmental modification techniques” approved by GA, 1976

When this resolution was finally signed in Geneva in 1977, it discussed the implementation of each state and its part developing new “environmental modification techniques”, which refers to techniques for changing dynamics of the earth, for example the atmosphere, and how that benefits the environment.

The UN Conference on Environment and Development (UNCED), Rio 1992

("Earth Summit") ‘Treaty on Militarism, Environment and Development’ During the UN Rio Conference, NGOs drafted a treaty, which established a new definition of security, boycotts of companies producing environmentally damaging produce for military purposes, and the sharing of information on the environmental impact of military activity.

PREVIOUS ATTEMPTS TO SOLVE THE ISSUE

As this is an issue that is constantly changing due to new technology, there have been different attempts in different departments to solve this issue. It is not just the

idea of stopping the military but also resolving the damage that has already been done. The military is not always in opposition to the environment. Countries such as India or Venezuela have respective departments that have the responsibility of protecting natural resources, specifically in Bhuj, India where military forces are helping to reforest the area. Additionally, NATO is one contributor who, multiple times, has tried to provide different solutions. In 2003, NATO published a policy document concerning the idea of policies for environmental protection against military principles. This contained the ST/EEEP aims to integrate environmental protection and energy efficiency regulations into technical requirements. Also, more reports concluded that actions need to be taken to minimize and regulate polluting practices, this action was performed by NATO countries.

POSSIBLE SOLUTIONS

As suggested in the previous section, a solution cannot just be reached by one factor. This is an issue that needs time to be solved and needs the support of many organizations. Countries most affected by military materials should be able to have aid provided by other governments in improving their conditions and prevent this problem from occurring again, this co-operation could help to resolve the issue in more concise way. The more governments involved, the more information is spread and more awareness is spread. Not many are aware of this issue and getting the news across will help in the development of the safety of the environment. Just putting out policies have been proven not effective. A more aggressive approach is needed, whether that is to put restrictions on nuclear materials or have more regulations when it comes the use of them.

Additionally, research had been conducted into developing military technology which had benefited the functioning of ecosystems, by providing a wide range of technological tools which are controlled by researchers involved with conservation. However, because of the dangers of warfare research and assessments of military activities have been difficult to conduct accurately. Also, with the use and testing of these new technologies, it has contributed to finding unique substances that can be used in order to manage the damage of the military on the environment. Due to the continuation of warfare in certain parts of the world, it is important to do further research to better understand the war's impact on ecosystem structure and assist in developing reduction strategies to minimize the negative consequences.

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