Introduction

There is much more to environmental preservation than preventing pollution and stopping climate change and global warming. War may not be primarily about the environment, but its effects can be environmentally overwhelming. The General Assembly’s First Committee, which focuses on issues of arms control and disarmament, also is attentive to the effects of warfare and weapons on the environment. The General Assembly has made some progress on this problem, passing the legal principles on the Protection of the Environment in Relation to Armed Conflicts (PERAC).¹ These offer useful guidance. They leave unclear how the General Assembly will ensure real action.

Previous conflicts have seen new weapons aimed at destroying the environment for military advantage. This has sometimes led to demands for improvements in environmental protection through reforms to international law or recommendations from the United Nations. In perhaps the most famous example of all time, in the Vietnam War, Agent Orange, a chemical herbicide and defoliant, was used by the United States Air Force to destroy forest cover and crops in 1961-71, leaving a legacy of environmental and medical harm. One diplomatic result was amendments to the Geneva Conventions and a new Environmental Modification Convention.²

A more recent environmental fright immediately reminded global audiences of the horrors of the Chernobyl nuclear disaster in 1986. Also in Ukraine, Europe’s largest nuclear plant, Zaporizhzhia was captured by Russian forces last March. The facility has been used as a military base since then, including as a firebase for Russian army artillery, attracting return artillery fire. The plant’s infrastructure has been damaged by shelling according to Energoatom, the Ukrainian company that runs the plant. This has increased the risk of fires, leakage of hydrogen and radioactive material.


In another Ukraine war disaster, the Kakhovka Dam in Ukraine was breached by an explosion on 6 June 2023, causing extensive flooding along the lower Dnieper River. The dam was under the control of the Russian military, which is suspected of causing the blast, draining the

¹ Find the 27 principles on the Protection of the Environment in Relation to Armed Conflicts in the Annex of this issue brief.

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150 mile long Kakhovka Reservoir. The reservoir irrigated farms and provided drinking water to central Ukrainian cities. Its destruction caused enormous economic and environmental destruction throughout the region.3

Juicy target, after the blast. Kakhovka dam in eastern Ukraine.⁵

Protecting the environment in conflict or war is a Global concern that becomes even more challenging during a conflict. While the environment and conflict, be it for political or ethnic reasons, may seem unrelated, they are interlaced in ways that often have disastrous effects on the globe, its 8 billion inhabitants, and the Fauna and Flora.

The devastating impact of armed conflicts often stretches beyond direct human suffering. In the wake of conflicts, damage to natural resources and biodiversity reduces resilience to climate change or crisis in general. Tons of contaminated debris, toxic waste, and inaccessibility to potable water led to the spread of diseases and air and soil pollution.

In Syria, numerous makeshift refineries were built, causing health risks to the civilians working in them as they were exposed to noxious and sometimes poisonous fumes. In many conflicts, state militaries and armed groups have deliberately burned agricultural areas, irrigation systems were destroyed, followed by cutting water to populous areas. Large-scale deforestation driven by fuel needs impacting biodiversity and wildlife. Absence or weak governance means rules and regulations to protect the environment are nonexistent or not enforced in the best-case scenario. Thus,

Conflict-affected places are more vulnerable to environmental disasters and climate crises.

### How armed conflicts damages the environment

The environmental damages and destruction caused by conflicts depend on who is fighting. Where? And how? But the effects of the fight start long before the actual confrontation: Building and sustaining military capabilities demand a substantial number of resources ranging from regular and abundant metals to rare earth elements and from water to hydrocarbons.

The continuation of military training in turn, requires significant resources. Military assets and technologies such as aircraft, vehicles, and infrastructures all require energy, with oil being the predominant source. In addition to building and sustaining military capabilities, the carbon dioxide or \( \text{CO}_2 \) emissions from the world’s biggest military bases surpass many world’s states combined, making up to 5.5 percent of greenhouse \( \text{CO}_2 \) emissions globally. On another note, excessive military spending diverts resources from creating solutions to challenging environmental problems.

Additionally, it is important to consider how military and security policies are tailored to ensure access to resources to maintain and sustain military forces, such as metal ores, natural gas and oil.

Russia’s invasion of Ukraine not only claimed territory and caused enormous destruction to live and facilities, it also has been destructive for the environment affecting ecosystems and the climate. The targeting of industrial and energy infrastructure is causing severe pollution, while damage to water is leading to health issues. Bombs and other chemical weapons used have towns and cities in ruins, leaving behind contaminated debris. Ukraine’s natural, agricultural landscapes and fertile soils have suffered damage, with serious consequences for the planet.

The crisis in Afghanistan that began with the civil war that started in 1979 is an example of a conflict causing widespread deforestation. Subsequent soil erosion helped worsen a food crisis and loss of biodiversity leading to threats to the environment and human safety.

### General Assembly action so far

The United Nations is the obvious place to take global concerns with planet-wide issues including environmental attacks in war. But the UN has limited capabilities. Under Article 51 of the UN Charter, Member States remain fully sovereign on matters of national defense. If a country, fearing imminent attack, wants to flood its fields or fell its forests to prevent an invasion, under international law it cannot be stopped.

The General Assembly finds it easiest to agree on general principles, normative guidance that the Member States ask each other to observe. An example is GA resolution 77/44 in 2022, *Observance of environmental norms in the drafting and implementation of agreements on disarmament and arms control*. This resolution, Reaffirms that international disarmament forums should take fully into account the relevant environmental norms in negotiating treaties and agreements on disarmament and arms limitation and that all States, through their actions, should contribute to compliance with the aforementioned norms in the
Implementation of treaties and conventions to which they are parties. In other words, guided by Resolution 77/44, any future arms control treaty, to comply with this resolution, should include environmental protection clauses. Future nuclear arms control, for example, should forbid attacks that can could cause nuclear winter. But in the current global political situation, there is little chance of a major new arms control agreement of any kind.

In the current political situation, there is little chance of a major new arms control agreement. The UN General Assembly does not have to offer only general principles. It can focus on very specific environmental dangers. Another example of specific action the General Assembly can agree on was resolution in 2019, Cooperative measures to assess and increase awareness of environmental effects related to waste originating from chemical munitions dumped at sea, A/RES/74/213.

This was a reaction to the problems caused after World War One and World War Two, when countries eliminated their stockpiles of deadly chemical weapons by dumping them at sea, mostly in the Baltic and North Sea. This seems an easy solution at the time. Unfortunately, it created an enduring environmental danger. Fishermen in the Baltic and North Seas routinely bring up these munitions in their nets.

An example of some recent resolutions related to protecting the environment in situations of conflict is the General Assembly Resolution 73/260, passed in 2019. This acknowledges the immediate need to strengthen policies that deal with environmental protection in zones and areas affected by armed conflicts and underscores the importance of compliance with environmental law globally agreed on (Aguña et al., 2021). It calls upon member states to take measures to prevent and minimize environmental harm during armed conflicts and to promote the sustainable management of natural resources in post-conflict situations (Aguña et al., 2021).

The UN has also established specific mechanisms to address environmental issues in conflict-affected areas. For example, the United Nations Environment Program (UNEP) has a mandate to provide technical assistance and capacity-building support to countries affected by armed conflicts (Ide et al., 2021). UNEP works closely with governments, civil society organizations, and other stakeholders to assess and mitigate the environmental impact of conflicts, promote environmental recovery and restoration, and strengthen environmental governance in post-conflict settings (Ide et al., 2021).

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6 UN General Assembly resolution, Observance of environmental norms in the drafting and implementation of agreements on disarmament and arms control, A/RES/77/44, 12 December 2022, https://www.unDocs.org/A/RES/77/44
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In addition to these efforts, the UN has been working to integrate environmental considerations into peacekeeping and peacebuilding processes. The UN Security Council has recognized the linkages between environmental degradation, conflict, and peace and has called for the inclusion of environmental considerations in peacekeeping mandates (Benson & Gizelis, 2019). This recognition is based on the understanding that environmental degradation can exacerbate conflicts and hinder post-conflict recovery and development (Benson & Gizelis, 2019).

Furthermore, the UN has actively promoted international legal frameworks to protect the environment during armed conflicts. The United Nations Additional Protocol to the Geneva Conventions of 1977 is one such framework that confers special importance to environmental protection during armed conflicts. This protocol prohibits using methods or means of warfare that cause widespread, long-term, and severe environmental damage (Takshe, et al., 2012).

Although the UN is making these efforts, challenges remain in effectively protecting the environment in conflict situations. The lack of legal remedies for environmental damage caused by armed conflicts is one such challenge. The 2006 Lebanon-Israel War highlighted the need for legal mechanisms to address environmental harm caused by conflicts (Takshe, et al., 2012). Efforts are underway to address this gap and ensure accountability for environmental damage in conflict situations.

9 Find the 27 principles on the Protection of the Environment in Relation to Armed Conflicts in the Annex of this issue brief.

Protection of the Environment in Relation to Armed Conflicts (PERAC)

The single most important initiative of the General Assembly on threats to the environment in war is the 27 legal principles on the Protection of the Environment in Relation to Armed Conflicts (PERAC).9 This marked the end of a decade of work by the International Law Commission to better protect the environment during war and occupations. The principles were adopted on 7 December 2022, passed by consensus, without a vote, meaning that all 193 Member States support the resolution or did not vote against.10


The new PERAC principles are not legally binding on states, but it is hoped they will be implemented through national legislation, military training manuals, business guidance, and outreach with non-state armed groups.11

Experts do not see the new guidelines as a miracle fix to stop environmental destruction during war. They hope it will raise the issue’s profile and help prioritize the environment after conflicts end.

One key principle calls on states to make businesses operating in and from their country responsible for harm to the environment and human health caused during wartime. They build on the UN Guiding Principles on Business and Human Rights and elements of soft law – instruments or agreements that are not legally enforceable, but provide guidance.

Previous international humanitarian rules gave the environment limited protection, mainly in the context of international armed conflicts. The new PERAC principles are more extensive and cover important topics such as the rights of Indigenous peoples, the use of natural resources, corporate conduct in conflict zones and the effects of war on marine areas. They do this by bringing together elements of environmental, human rights and security law, as well as existing practices of states and international organizations.

During the long negotiations on the principles, there was disagreement among states about what they should include. Some refused to back binding obligations. France and United Kingdom and United States objected to anything that might prevent them from using nuclear weapons in a deterrent defense strategy. China resisted attempts to apply the principles to non-international armed conflicts.

The PERAC principles now have to be implemented. Unlike a legally binding international treaty, there is no formal body or process to carry them out or monitor them.

Some Proposals for Action

The General Assembly works best when establishing universal principles for all 193 Member States, and general mechanisms all can apply. As sovereign countries, the Member States are free to develop the response they care about most. For individual delegates at ODUMUNC, what matters most is loyalty to the positions and national interests of their home governments. Beyond that, they are largely free to choose how to respond. Below are some proposals to be considered, to guide the General Assembly in its deliberations.

Condemn specific acts of environmental destruction in war. With major armed conflicts currently being fought in Gaza-Israel, Sudan, Syria, Ukraine, there are several possibilities the General Assembly can focus on. Much depends on alignment of sides on the conflicts. For example, supporters of Ukraine will naturally support efforts to criticize Russia’s attacks on the Zaporizhzhia nuclear plants and the Kakhovka Dam.

The General Assembly might call upon Russia to withdraw its armed forces from these areas and stop further targeting of vulnerable environments. Or the GA could call for restitution payments from Russia for the damage. But this approach will be strongly opposed by Russia, its allies, and even many non-aligned countries who want to keep the UN out of the conflict.

Similarly, the General Assembly could demand that Israel immediately cease any environmentally destructive or dangerous attacks on Gaza, Palestine or other area in the Middle East. In this case, it is not as easy to specific environmental crimes by Israel as by Russia, nothing comparable to Russia’s attacks on the Zaporizhzhia nuclear plants and the Kakhovka Dam. Careful research will revel suitable allegations. A resolution condemning
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Israel will be especially popular with Muslim countries and others in the Non-Aligned Movement, as well with Russia and its allies.

**Call on all UN Member States to fully integrate PERAC environmental standards** into their military planning and rules of war. Under the previous GA resolution, A/RES/77/104, Member States are called upon to observe these standards, but implementation is left entirely to each state, as it sees fit. The result is limited awareness of what they are supposed to do, by no guarantee of new restrictions or rules, no assurance commanders in the field.

The General Assembly could call for consistent implementation of PERAC standards, forbidding specific kinds of attacks. Or it could call upon Member States to report on how they implement these rules, how their armed forces are made to follow these rules under national law and military regulations. The General Assembly could create a universal system, with model rules, consistent reporting of these rules to an international monitoring authority, and standard international reporting of incidents.

**Prioritize military environmental education** among armed forces, including civilian authorities, military commanders and serving troops. The General Assembly cannot institute such training itself, but it can create a body responsible for drafting uniform standards and establish deadlines and procedures for each Member States to undertake its own training programs. This would raise awareness among combatants, civilians, and humanitarian organizations about the indispensability and importance of ensuring not to harm the environment before, during, and after a conflict. This might promote responsible behavior and the long-term consequences of environmental damage. But oversight might be required to make sure militaries do not sue their new environmental awareness to create new environmental weapons, turning infight into targets.

**Focus on environmental reconstruction and restoration in post-conflict recovery.** Implement environmentally sustainable practices and restoration efforts, including, but not limited to, rebuilding destructed infrastructure, rehabilitating ecosystems, and managing waste. For example, the General Assembly could call for reconstruction and restoration at the Zaporizhzhia nuclear plants and the Kakhovka Dam.

But major issues have to be addressed first. Who is responsible for reconstructions? A designated country, or the entire international community? If the General Assembly agrees to hold a county responsible, action depends on their good will and cooperation. But as sovereign state, they can just ignore the UN’s request. A second issue is funding. Where will the money for reconstruction come from? If the responsible country refuses to pay, will the international community? And if all UN Member States are asked to contribute, will environmental reconstruction undermine existing foreign aid programs?
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Bibliography


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Annex

United Nations

General Assembly

Resolution adopted by the General Assembly on 7 December 2022
77/104. Protection of the environment in relation to armed conflicts (excerpts)

Principles on protection of the environment in relation to armed conflicts

Preamble
Recalling the urgent need and common objectives to reinforce and advance the conservation, restoration and sustainable use of the environment for present and future generations,
Recognizing that environmental consequences of armed conflicts may be severe and have the potential to exacerbate global environmental challenges, such as climate change and biodiversity loss,

Principle 1 Scope
The present principles apply to the protection of the environment before, during or after an armed conflict, including in situations of occupation.

Principle 2 Purpose
The present principles are aimed at enhancing the protection of the environment in relation to armed conflicts, including through measures to prevent, mitigate and remediate harm to the environment.

Principle 3 Measures to enhance the protection of the environment
1. States shall, pursuant to their obligations under international law, take effective legislative, administrative, judicial and other measures to enhance the protection of the environment in relation to armed conflicts.
2. In addition, States should take further measures, as appropriate, to enhance the protection of the environment in relation to armed conflicts.

Principle 4 Designation of protected zones
States should designate, by agreement or otherwise, areas of environmental importance as protected zones in the event of an armed conflict, including where those areas are of cultural importance.

Principle 5 Protection of the environment of Indigenous Peoples
1. States, international organizations and other relevant actors shall take appropriate measures, in the event of an armed conflict, to protect the environment of the lands and territories that Indigenous Peoples inhabit or traditionally use.
2. When an armed conflict has adversely affected the environment of the lands and territories that Indigenous
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Peoples inhabit or traditionally use, States shall undertake appropriate and effective consultations and cooperation with the Indigenous Peoples concerned, through appropriate procedures and in particular through their own representative institutions, for the purpose of taking remedial measures.

**Principle 6 Agreements concerning the presence of military forces**
States and international organizations should, as appropriate, include provisions on environmental protection in relation to armed conflict in agreements concerning the presence of military forces. Such provisions should address measures to prevent, mitigate and remediate harm to the environment.

**Principle 7 Peace operations**
States and international organizations involved in peace operations established in relation to armed conflicts shall consider the impact of such operations on the environment and take, as appropriate, measures to prevent, mitigate and remediate the harm to the environment resulting from those operations.

**Principle 8 Human displacement**
States, international organizations and other relevant actors should take appropriate measures to prevent, mitigate and remediate harm to the environment in areas where persons displaced by armed conflict are located, or through which they transit, while providing relief and assistance for such persons and local communities.

**Principle 9 State responsibility**
1. An internationally wrongful act of a State, in relation to an armed conflict, that causes damage to the environment entails the international responsibility of that State, which is under an obligation to make full reparation for such damage, including damage to the environment in and of itself.
2. The present principles are without prejudice to the rules on the responsibility of States or of international organizations for internationally wrongful acts.
3. The present principles are also without prejudice to:
   (a) The rules on the responsibility of non-State armed groups;
   (b) The rules on individual criminal responsibility.

**Principle 10 Due diligence by business enterprises**
States should take appropriate measures aimed at ensuring that business enterprises operating in or from their territories, or territories under their jurisdiction, exercise due diligence with respect to the protection of the environment, including in relation to human health, when acting in an area affected by an armed conflict. Such measures include those aimed at ensuring that natural resources are purchased or otherwise obtained in an environmentally sustainable manner.

**Principle 11 Liability of business enterprises**
States should take appropriate measures aimed at ensuring that business enterprises operating in or from their territories, or territories under their jurisdiction, can be held liable for harm caused by them to the environment, including in relation to human health, in an area affected by an armed conflict. Such measures should, as appropriate, include those aimed at ensuring that a business enterprise can be held liable to the extent that such harm is caused by its subsidiary acting under its de facto control. To this end, as appropriate, States should provide adequate and effective procedures and remedies, in particular for the victims of such harm.

**Principles applicable during armed conflict**

**Principle 12 Martens Clause with respect to the protection of the environment in relation to armed conflicts**
In cases not covered by international agreements, the environment remains under the protection and authority of the...
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principles of international law derived from established custom, from the principles of humanity and from the dictates of public conscience.

**Principle 13 General protection of the environment during armed conflict**

1. The environment shall be respected and protected in accordance with applicable international law and, in particular, the law of armed conflict.
2. Subject to applicable international law:
   
   (a) Care shall be taken to protect the environment against widespread, long-term and severe damage;
   
   (b) The use of methods and means of warfare that are intended, or may be expected, to cause widespread, long-term and severe damage to the environment is prohibited.

3. No part of the environment may be attacked, unless it has become a military objective.

**Principle 14 Application of the law of armed conflict to the environment**

The law of armed conflict, including the principles and rules on distinction, proportionality and precautions, shall be applied to the environment, with a view to its protection.

**Principle 15 Prohibition of reprisals**

Attacks against the environment by way of reprisals are prohibited.

**Principle 16 Prohibition of pillage**

Pillage of natural resources is prohibited.

**Principle 17 Environmental modification techniques**

In accordance with their international obligations, States shall not engage in military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other State.

**Principle 18 Protected zones**

An area of environmental importance, including where that area is of cultural importance, designated by agreement as a protected zone shall be protected against any attack, except insofar as it contains a military objective. Such protected zone shall benefit from any additional agreed protections.

**Principles applicable in situations of occupation**

**Principle 19 General environmental obligations of an occupying Power**

1. An occupying Power shall respect and protect the environment of the occupied territory in accordance with applicable international law and take environmental considerations into account in the administration of such territory.
2. An occupying Power shall take appropriate measures to prevent significant harm to the environment of the occupied territory, including harm that is likely to prejudice the health and well-being of protected persons of the occupied territory or otherwise violate their rights.
3. An occupying Power shall respect the law and institutions of the occupied territory concerning the protection of the environment and may only introduce changes within the limits provided by the law of armed conflict.

**Principle 20 Sustainable use of natural resources**

To the extent that an occupying Power is permitted to administer and use the natural resources in an occupied territory, for the benefit of the protected population of the occupied territory and for other lawful purposes under the
law of armed conflict, it shall do so in a way that ensures their sustainable use and minimizes harm to the environment.

**Principle 21 Prevention of transboundary harm**
An occupying Power shall take appropriate measures to ensure that activities in the occupied territory do not cause significant harm to the environment of other States or areas beyond national jurisdiction, or any area of the occupied State beyond the occupied territory.

**Principles applicable after armed conflict**

**Principle 22 Peace processes**
1. Parties to an armed conflict should, as part of the peace process, including where appropriate in peace agreements, address matters relating to the restoration and protection of the environment damaged as a result of the conflict.
2. Relevant international organizations should, where appropriate, play a facilitating role in this regard.

**Principle 23 Sharing and granting access to information**
1. To facilitate measures to remediate harm to the environment resulting from an armed conflict, States and relevant international organizations shall share and grant access to relevant information in accordance with their obligations under applicable international law.
2. Nothing in paragraph 1 affects the right to invoke the grounds for refusal to share or grant access to information provided for in applicable international law. Nevertheless, States and international organizations shall cooperate in good faith with a view to providing as much information as possible under the circumstances.

**Principle 24 Post-armed conflict environmental assessments and remedial measures**
Relevant actors, including States and international organizations, should cooperate with respect to post-armed conflict environmental assessments and remedial measures.

**Principle 25 Relief and assistance**
When, in relation to an armed conflict, the source of environmental damage is unidentified, or reparation is unavailable, States and relevant international organizations should take appropriate measures so that the damage does not remain unrepaired or uncompensated, and may consider establishing special compensation funds or providing other forms of relief or assistance.

**Principle 26 Remnants of war**
1. Parties to an armed conflict shall seek, as soon as possible, to remove or render harmless toxic or other hazardous remnants of war under their jurisdiction or control that are causing or risk causing damage to the environment. Such measures shall be taken subject to the applicable rules of international law.
2. The parties shall also endeavour to reach agreement, among themselves and, where appropriate, with other States and with international organizations, on technical and material assistance, including, in appropriate circumstances, the undertaking of joint operations to remove or render harmless such toxic or other hazardous remnants of war.
3. Paragraphs 1 and 2 are without prejudice to any rights or obligations under international law to clear, remove, destroy or maintain minefields, mined areas, mines, booby-traps, explosive ordnance and other devices.

**Principle 27 Remnants of war at sea**
States and relevant international organizations should cooperate to ensure that remnants of war at sea do not constitute a danger to the environment.