

ARMED CONFLICTS, ENVIRONMENT AND HUMAN RIGHTS

INTERNATIONAL PANEL DEBATE PROCEEDINGS AND LESSONS LEARNED

8 JUNE 2022
GENEVA



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The Geneva Centre for Human Rights
Advancement and Global Dialogue

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GENEVA, 08 JUNE 2022

LIST OF ABBREVIATIONS

AFDB	: African Development Bank
CEOBS	: Conflict and Environment Observatory
CFS	: Committee of World Food Security
DDR	: Disarmament, Demobilization and Reintegration
DRC	: Democratic Republic of Congo
ECOSOC	: United Nations Economic and Social Council
FAO	: Food and Agriculture Organization of the United Nations
FEAT	: Flash Environmental Assessment Tool
FEWS NET	: Famine Early Warning Systems Network
GRFC	: Global Report on Food Crises
HLPE	: High Level Panel of Experts
HRC	: Human Rights Council
HRL	: Human Rights Law
ICC	: International Criminal Court
ICRC	: International Committee of the Red Cross
IDP	: Internally Displaced Peoples
IEL	: International Environmental Law
IGAD	: International Govern- mental Authority on Development
IHL	: International Humanitarian Law
ILC	: International Law Commission
ISGS	: Islamic State in the Greater Sahara
ISIL	: Islamic State of Iraq and the Levant
JNIM	: Jama'at Nasr al-Islam wal Muslimin
OHCHR	: Office of the High Commissioner for Human Rights
PERAC	: Protection of the Environment in relation to Armed Conflict
PMSC	: Private Military Security Companies
SIPRI	: Stockholm International Peace Research Institute
UK	: United Kingdom
UN	: United Nations
UNDP	: United Nations Development Programme
UNEP	: United National Environment Programme
US	: United States of America
WFP	: World Food Program
WWII	: World War Second

Table of Contents

INTRODUCTION	7
Opening remarks by Ambassador Ghazi Jomaa	9
PANEL DISCUSSION	11
Panel One Summary: Normative and Legal Framework	13
Panel Two Summary: Experiences from the Field.....	21
Q & A	27
LESSONS LEARNED AND WAYS FORWARD	33
Introduction	35
Normative and Legal Framework	37
Experiences from the Field	41
Recommendations	44
Annex: Full Statements submitted by the Panellists	
Panel One: Normative and Legal Framework	49
Dr. Hilal Elver	49
Dr. Lindsey Cameron	55
Dr. Emma Hakala	58
Ms. Yulia Mogutova	61
Panel Two: Experiences from the Field	63
Prof. Mohamed Ahmed Bin Fahad	63
Mr. Hassan Partow	64
Ms. Nazanine Moshiri	67
Mr. Doug Weir	71
OVERVIEW OF PUBLICATIONS ISSUED BY THE GENEVA CENTRE DURING THE PERIOD 2014 – 2022.....	75

INTRODUCTION

In recent years, the interlinkages between the natural environment and human rights on the one hand, and environment and armed conflict on the other, have been regularly addressed. The recently adopted Framework Principles on Human Rights and the Environment¹ rely on the fact that human rights are intertwined with the environment in which people live and, subsequently, environmental damage interferes with the enjoyment of human rights, such as the right to livelihood, right to health, right to food, right to water, right to private and family life, and the recently recognized right to a safe, clean, healthy and sustainable environment,² among others.

The **Geneva Centre for Human Rights Advancement and Global Dialogue**, in collaboration with the **Geneva Academy of International Humanitarian Law and Human Rights**, organized a panel event to examine how the environmental effects that occur, both during and after an armed conflict, carry the potential to pose a serious threat to the livelihoods and even the existence of individual human beings and communities. Unlike many of the other consequences of armed conflict, environmental damage can be long-term and irreparable, which can in varying degrees prevent the effective rebuilding of society. It is therefore of paramount importance to place the human rights of people that live in the affected communities at the center of the debate on the interlinkages between armed conflict and the environment.

In armed conflict, the impact on the environment can be caused by both, direct and indirect activities. The first comprise the use of explosive, incendiary, chemical, and toxic weapons or landmines, or the destruction of natural environment to achieve strategic objectives, such as the destruction of a forest, hill, natural area or by adopting a scorched-earth policy as a military strategy. The indirect activities are related to the use of massive and durable contamination of soils by explosive remnants of war, the destruction of essential infrastructures such as water treatment and green energy sources, the collapse of governmental structures leading to an absence of policies and practices to protect the environment, and subsequent pillage and exhaustion of natural resources. Conflict-related human displacement may also have inadvertent environmental impacts, causing environmental degradation and damaging ecosystems. The state of the environment, in turn, has a direct bearing on the welfare and well-being of people living in the region. Customarily, the most vulnerable groups are often the worst affected. The risks are particularly acute for indigenous peoples and traditional communities that depend on the natural environment for their subsistence; rural and poor populations relying on agriculture, displaced people, women,

1. [The Framework Principals report](#) (HRC/37/59) (2018), available in the 6 UN official languages.

2. UN Human Rights Council Resolution 48/13, 8 October 2021. Available at: <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G21/289/50/PDF/G2128950.pdf?OpenElement>

children, older persons, and people with disabilities.

The event composed of two panels with a distinct thematical approach. Panel 1, entitled *Normative and Legal Framework*, was moderated by the Director of Geneva Academy of International Humanitarian Law and Human Rights, **Prof. Gloria Gaggioli**. The panelists included Keynote speaker **Dr. Hilal Elver**, Former UN Special Rapporteur on the Right to Food (2014-2020) and currently member of the High Level Panel of Experts (HLPE) of the Committee of World Food Security (CFS); **Dr. Lindsey Cameron**, Head of the Unit of Thematic Legal Advisers, Legal Division, International Committee of the Red Cross (ICRC); **Dr. Emma Hakala**, Senior Research Fellow, Global Security Research Programme, Finnish Institute of International Affairs; and **Ms. Yulia Mogutova**, Teaching Assistant, Geneva Academy of International Humanitarian Law and Human Rights. The panel examined the existing legal framework related to the protection of the environment and the related rights of persons; reviewed the widespread patterns of environmental degradation caused by armed conflicts resulting in adverse implications for enjoyment of human rights; analyzed the negative effects of such deteriorated environments on human rights, particularly in the framework of the Sustainable Development Agenda; as well as the role of governments, international organizations and civil society in strengthening environmental protection and addressing the resulting human rights gaps, in national and international legal and policy frameworks.

Panel 2, entitled *Experiences from the Field*, was moderated by **Dr. Umesh Palwankar**, Executive Director, Geneva Centre for Human Rights Advancement and Global Dialogue. The Keynote speaker and panelists were, respectively, **Prof. Mohamed Ahmed Bin Fahad**, Chairman of the Higher Committee, Zayed International Foundation for the Environment; **Mr. Hassan Partow**, Programme Manager, Disasters and Conflicts Branch, UNEP; **Ms. Nazanine Moshiri**, Senior Climate & Security Analyst (Africa), International Crisis Group; and **Mr. Doug Weir**, Research and Policy Director, Conflict and Environment Observatory (CEOBS). Panel 2 addressed issues related to the environmental and human rights impacts of armed conflict situations across the world. The presentations considered also the role of data and advocacy in addressing the consequences of armed conflicts on the enjoyment of human rights.

The book is composed of three sections. The first contains summaries of the panel presentations and the ensuing discussions between the panelists and the participants, in the form of a Q & A session; the second analyses lessons learned from the panel and offers recommendations and ways forward for the effective protection and promotion of human rights and the environment during and after armed conflicts; the third and last section of the publication includes the full statements of the panel presentations.

Opening remarks by Ambassador Ghazi Jomaa

*Chairman, Board of Management,
Geneva Centre for Human Rights Advancement and Global Dialogue*

Excellencies, Esteemed Panelists, Dear Colleagues and Friends. I am both pleased and honored to welcome you, on behalf of the Board of Management of the Geneva Centre for Human Rights Advancement and Global Dialogue and its dedicated staff, with some brief opening remarks, to attend this extremely topical panel on an issue of increasingly vital importance for mankind at large. Indeed, as we are all unfortunately aware, the alarmingly rapid degradation, perhaps soon irreversible, of the environment is one of the most destructive man-made disasters ever, in terms of its global and devastating impact on all life on Earth. And wars do not help. On the contrary. They cause direct human suffering for those involved and affected, and indirectly, through widespread and often long-term damage to the environment, on which the affected populations depend for their survival. This deprives huge numbers of people of many and basic human rights, including the right to health, to livelihood, to food, water, and very importantly, the recently recognized right to a safe, clean, healthy and sustainable environment.

I am particularly glad to observe that the panel will approach this subject from two perspectives, the legal and normative framework on the one hand and experiences from the field on the other. For I remain firmly convinced that only a holistic approach can seek to adequately address an issue of such complexity. In this regard, I would wish to add that the high level of expertise offered by the panelists will prove of great value to the discussions. Allow me here to thank you warmly for accepting our invitation.

A few words about the Geneva Centre. Founded in 2013 and holding Special Consultative Status with ECOSOC, the Geneva Centre's mandate is based on the four pillars of research and publication on current human rights questions; training and national capacity building in human rights; advocacy through following and reporting on international human rights conferences, in particular, the Human Rights Council and significant developments in the field of human rights; and fourthly, the cross-cutting pillar of promotion of a global dialogue on vital human rights issues, by organizing conferences and panel debates, such as the present, with the publication of their proceedings and lessons learned, ways forward. Here I wish to express the sincere appreciation of the Geneva Centre's Board and staff for the excellent cooperation extended by the Geneva Academy in the joint organization of this panel. We are convinced that this collaboration is the first of many in the future with the Geneva Academy, as also with other institutions active in the promotion of human rights, with which the Geneva Centre seeks to develop synergies.

I wish the panel every success in its noble endeavor. Thank you.

PANEL DISCUSSION

Panel One Summary: Normative and Legal Framework

Prof. Gloria Gaggioli, Director of the Geneva Academy moderating the first panel, gave the floor after a brief introduction, to **Dr. Hilal Elver, Former UN Special Rapporteur on the Right to Food (2014-2020)** and currently **member of the High Level Panel of Experts (HLPE) of the Committee of World Food Security (CFS)**.



Hilal Elver is a global leader and expert in international human rights law, as well as international environmental law.

From May 2014 to May 2020, Elver served as the Special Rapporteur on the right to food, responsible for carrying out the right to food mandate as prescribed by the United Nations Human Rights Council.

She is currently serving as an appointed member of the Steering Committee of the High Level Panel of Experts (HLPE) at the World Committee of Food Security and Nutrition (CFS), and maintains several affiliations with academic institutions worldwide.

In her keynote address, Dr. Elver observed that internal and international armed conflicts are one of the major reasons for increased food insecurity and malnutrition. Despite well-established norms of international human rights law and international humanitarian law, hunger, malnutrition and famine have skyrocketed in the last years. The failure to address international criminal behavior against deliberate starvation resulting from severe violation of the “right to food” as one of the fundamental human rights, is shocking. The right to adequate food can be threatened in various ways, including through the disruption of agricultural activity, the deterioration of food related economies and the deliberate undermining of access to food and restrictions on humanitarian assistance by parties to the conflict.

Considering the emergency situations of countries such as Malawi, Afghanistan, DRC, Syria, North-eastern Nigeria, South Sudan, Somalia, Yemen and Ukraine and the acute food insecurity, hunger and malnutrition, Dr. Elver affirmed that the world stands on the brink of unprecedented famines since WWII. The situation in some of these countries could worsen if the international community does not address urgent

needs and resolve the root causes.³

Dr. Elver further observed that International Humanitarian Law (IHL) should be treated as an essential and specific legal framework in time of armed conflict, that protects peoples' livelihoods and their access to food. While IHL does not mention the right to food as such, many of its provisions are intended to ensure that people cannot be denied access to food during armed conflict. For instance, the four Geneva Conventions of 1949 and their Additional Protocols of 1977 set out major rules of IHL. It is now widely accepted by the international community that intentionally caused famine and forced starvation are forbidden under international criminal law. Dr. Elver affirmed that famines become a crime if there is sufficient evidence of intentional or reckless efforts to block certain groups from access to food under conditions of conflict or hardship. While it is theoretically possible to bring to justice those responsible for allowing their population or that of their adversaries to starve to death during an armed conflict, the political will to do so is not clearly manifested in the current climate.

Dr. Elver identified that in wars the environmental destruction can be deliberate and an explicit military tactic, or it can be undeliberate and still create huge damage to the environment, for example by the digging of trenches, tanks flattening vegetation, bombs scarring landscapes and explosives igniting fires. Weapons release toxic gases and particles into the air and leak heavy, toxic metals into soil and water. The environmental scars of war can be long lasting. In addition, wars affect the economic sector of vulnerable local communities that rely on natural resources for their existence.

Dr. Elver concluded by analyzing legal remedies to protect the environment during war time. She affirmed that current international law principles are not sufficiently implemented or well interpreted by states and international judicial institutions to create accountability for perpetrators of violations of the right to food, in other words, adjudicating deliberately caused famine as a war crime or crimes against humanity, as well as severe environmental damages in times of war. However, the International Law Commission is working on a project on protection of the environment in relation to armed conflicts. It has so far identified 28 draft principles and is set to conclude in Fall 2022.

3. *Before we feared dying of war, now we fear dying of hunger: Ukraine crisis propelling hunger in Syria*, Press release, Oxfam. <https://www.oxfam.org/en/press-releases/we-feared-dying-war-now-we-fear-dying-hunger-ukraine-crisis-propelling-hunger-syria>



Lindsey Cameron is the Head of the Unit of Thematic Legal Advisers in the Legal Division of the International Committee of the Red Cross.

Prior to joining the ICRC, Lindsey worked as a researcher at the University of Geneva. She has also worked for the United Nations High Commissioner for Refugees (UNHCR) in the Balkans and at the Court of Appeal for Ontario in Canada.

She holds a PhD in public international law from the University of Geneva, degrees in law and history from McGill University and the University of Toronto, and has published a number of books and articles on international humanitarian law.

Dr. Lindsey Cameron, Head of the Unit of Thematic Legal Advisers of the International Committee of the Red Cross (ICRC), analysed how IHL protects natural environment during armed conflict. Along with articles 35 and 55 of Additional Protocol I of the Geneva Conventions,⁴ there are many other provisions that also protect the environment in times of armed conflict. The ICRC, instead of trying to develop new rules, focuses on strengthening the implementation of existing law. She further explained that IHL considers a person to be either a civilian or a combatant; and an object either a civilian object or a military objective. Therefore, under IHL, the natural environment is civilian in nature.⁵ This means it cannot be attacked unless parts of it become a military objective. Under IHL, in order for something to become a military objective, it must, by its nature, location, purpose or use make an effective contribution to military action and its total or partial destruction, capture or neutralization, under the circumstances ruling at the time, must offer a distinct military advantage.

Considering the environment as civilian by nature, only by location, purpose or use of parts of the natural environment could become a military objective. However, it is not only the prohibition of widespread, long term and severe damage protects the natural environment.⁶ Dr. Cameron noted alternative precautions that parties to a conflict have to take to limit the harm caused. Special attention should be given to the

4. Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977. Available at: <https://ihl-databases.icrc.org/applic/ihl/ihl.nsf/Treaty.xsp?documentId=D9E6B6264D7723C3C12563CD002D6CE4&action=openDocument>

5. ICRC, Guidelines on the Protection of the Natural Environment in Armed Conflict: Rules and recommendations relating to the protection of the natural environment under international humanitarian law, with commentary (Geneva, 2020), paras 18 – 21. Available in Arabic, Chinese, English, French, Portuguese, Spanish forthcoming.

6. See e.g. Article 55, AP I.

types of weapons that damage the environment as well as the types of areas that are attacked and their impacts on the environment and habitats. In addition to protecting the natural environment, parties to an armed conflict also have a number of obligations, including prohibiting the pillage of natural resources, which occurs both in international and non-international armed conflicts; and attacking, destroying, removing or rendering useless objects essential to the survival of the civilian population. Furthermore, there are rules prohibiting attacking objects that can release dangerous forces, such as dams, nuclear power plants.

Dr. Cameron mentioned the 2020 ICRC's Guidelines on the Protection of the Natural Environment in Armed Conflict. It contains 32 rules and recommendations on protection of the natural environment, civilian objects, on the use of weapons, and on how States should implement these obligations under IHL.

In conclusion, the panelist affirmed that ICRC is working with States to see how to better integrate the existing law into military manuals, training, policies and planning, and into the domestic legal framework. It works also with States and civil society organizations to have better environmental impact assessments. Additionally, ICRC is also exploring ways to better protect fragile and conservation zones. This approach is not about developing new law, it is developing new practice around existing law, exchanging and sharing good practices.



Emma Hakala is Senior Research Fellow at FIIA, a postdoctoral scholar at the University of Helsinki and a member of the BIOS Research Unit.

Her research focuses on environmental security and the geopolitics of climate change. Her previous research has covered, among other things, environmental security cooperation in the post-conflict Western Balkans, the intersections of environmental security and policy coherence, and the integration of climate change into preparedness and security policy in Finland.

Hakala is also currently working on the project “Toxic Crimes” at the University of Helsinki, where she explores practices aimed to address the environmental damage of conflicts.

The next speaker, **Dr. Emma Hakala, Senior Research Fellow at the Finnish Institute of International Affairs**, focused on the current international policies and laws that regulate environmental destruction during wartime. Currently, there is no overarching framework within international law specifically aimed at dealing with war-time damage to the environment. However, as already mentioned by Dr. Elver, the International Law Commission has been drafting principles for the protection of the environment in relation to armed conflict, the PERAC principles.⁷

PERAC principles aim to push for progressive development of international law and provide a more systematic protection of the environment during armed conflict. The principles are non-binding, their effectiveness is primarily based on their ability to lay down internationally shared grounds for understanding the status of the environment during conflict. Moreover, such principles do not provide a mechanism for accountability or compensation. Dr. Hakala also mentioned the Rome Statute of the International Criminal Court⁸ which includes the provision that an attack causing widespread, long-term and severe damage to the environment can constitute a war crime, but the threshold for culpable acts remains very high under this formulation.

One reason for the difficulty of seeking legal accountability is that environmental damage can occur in a range of forms, contexts, and with very varied consequences. Even in one conflict the range of impacts and their direct causes can vary significantly. Regarding legal frameworks it is particularly challenging to address indirect and indeliberate acts, as it often is impossible to establish a party responsible for the damage. In addition, the consequences of different kinds of impacts may vary in scope and over time.

In conclusion, Dr. Hakala commended the post-conflict environmental assessments

7. https://legal.un.org/ilc/guide/8_7.shtml

8. <https://www.icc-cpi.int/sites/default/files/RS-Eng.pdf>

of the UN Environment Programme (UNEP) as an interesting example where the aim has been both to produce reliable assessment data on the environmental situation immediately or soon after a conflict, but also to facilitate and make recommendations for more long-term remediation and reconstruction work. Following the situation in Kosovo, among other places, UNEP works in Afghanistan, Liberia, Sudan and Iraq. However, the variety of post-conflict contexts is perhaps similarly reflected in the evolution of the assessment process at UNEP. This has contributed to the development of several assessment models and tools, of which the rapid-response Flash Environmental Assessment Tool (FEAT)⁹ for comprehensive needs assessments that also consider long term issues such as the development of environmental governance.

9. https://www.unocha.org/sites/dms/Documents/FEAT_Version_1.1.pdf



Yulia Mogutova is a Teaching Assistant at the Geneva Academy and a PhD candidate at the Law Faculty, University of Geneva. Her research focuses on the management of natural resources in armed conflicts.

Before joining the Geneva Academy, Yulia has been working as a Legal Adviser with Regional Delegation of the International Committee the Red Cross (ICRC) for the Russian Federation, Belarus and Moldova. Among other projects, she was involved in international humanitarian law (IHL) dissemination and working with academic circles and think-tanks as well as on IHL implementation at the national level.

Yulia holds LLM in International Humanitarian Law and Human Rights from the Geneva Academy and a Specialist Degree in Law from Kutafin Moscow State Law University with the specialization in International Energy Law. Apart from working with the ICRC, she has professional experience in the private sector and academic sphere.

Yulia Mogutova, Teaching Assistant at the **Geneva Academy**, focused on the exploitation of natural resources and legal dimensions to be borne in mind. She also analysed the effects of exploitation of natural resources on the human rights of the civilian population.

In particular, observing the lack of provisions under IHL in this matter, she stated that in armed conflicts the belligerents have access to natural resources. They can and will exploit them to their own benefit, or sometimes for the benefit of the civilian population.

Moreover, the appropriation of natural resources can have different forms: **Direct appropriation** occurs when the enemy (non-state armed groups or the Occupying Power) extracts directly, for example minerals or fisheries. **Indirect appropriation**, can occur when the belligerents exchange rights to the natural resources they expect to control during armed conflict. In the context of the Congolese war, blood diamonds are a vivid example.

In her analysis of the human rights approach and perspective, Ms. Mogutova identified human rights that are at stake in an armed conflict: the right to food, the right to water, prohibition of child labour, the right to life, the right to gender equality, the right to development, and the recently recognised right to a safe, clean, healthy and sustainable environment. In addition, the people of the territory concerned have a right to self-determination as well.

Finally, she mentioned **two specific examples** which are contradictory and also demonstrate the complexity of the issue. The first is a case brought before the European court of Justice regarding Western Sahara where the European Court of Justice decided that, without consultation with the local population and their interests, the Fisheries Agreements was in contradiction with the Saharans' right to self-determination. The second, the UN Report on the situation in the Democratic Republic of Congo, analysed negative consequences for civilians' human rights from the illicit

exploration of natural resources. The report affirmed that in certain areas, illegal exploitation is the only means of survival for a large section of the community.

Panel Two Summary: Experiences from the Field

Moderator of Panel 2, **Dr. Umesh Palwankar, Executive Director of the Geneva Centre**, briefly mentioning past and current activities, conferences, and States' commitments on climate change, underlined the specificity and originality of the present panel discussion's theme: the causal relation between armed conflict, consequent environmental damage, and its immediate and long-term effects on human rights. The complexity of the issue calls for a holistic approach, combining necessary developments in the overarching legal framework, in light of the experiences in the field, identifying the steps that need to be taken, in terms of implementation of laws and policies, accountability, cooperation and the establishment of appropriate mechanisms to both, mitigate the environmental damage caused by armed conflicts and strengthen effective protection of the human rights of the affected populations. Dr. Umesh then gave the floor to **Prof. Mohamed Ahmed Bin Fahad, Chairman of the Higher Committee, Zayed International Foundation for the Environment**.



Prof. Mohamed Ahmed Bin Fahad is Chairman of the Zayed International Foundation for the Environment, Assistant Commander-in-chief of Dubai Police for Academic and Training Affairs, and Former Director General, Dubai Police Academy.

He holds a Ph.D. in Economic Development at Cairo University; a Master degree in Economic Development at the North Eastern University (USA) and a Bachelor degree in Economics at the Boston University (USA).

He is involved in a number of initiatives, including the Dubai International Conference on Environmental issue, organized every two years by the Zayed International Foundation for the Environment; the Dubai Environmental Forum, which organizes workshops and training seminars regularly on local and regional environmental issues; and "The World of Environment" Quarterly Refereed Book Series in Arabic, which is published by the Zayed International Foundation for the Environment.

Prof. Mohamed Ahmed Bin Fahad, in his keynote address, referred to the past two years during which we have witnessed major disruptions around the world – one caused by the outbreak of COVID-19 and the other by the unfolding of wars. Whether they stem from social differences, conflicts between political groups or disturbances caused by socio-political regimes, wars affect all individuals, groups, nations and international systems. No war can ever be justified; no war has ever brought about any good or positive results in any part of the world.

Wars cause catastrophic loss of life; they destroy villages, cities, livelihoods. Wides-

pread displacement is witnessed year after year due to wars. Today, the ongoing war in Ukraine has

led to a growing food crisis that will impact millions including the poorest of the poor, the world over.

Professor Bin Fahad highlighted that, while human rights are eroded during wars, nature is often the silent victim, and restoring or rebuilding the environment should be part of both conflict prevention and peacebuilding strategies. When ecosystems collapse and natural resources are destroyed, lasting peace cannot be achieved. Without a healthy, sustainable natural environment, we cannot guarantee food, medicine, education or good health for humanity.

In conclusion, Professor Bin Fahad called for building a greater understanding of the complex and intricate relationship between our actions and the natural environment.



Hassan Partow works at UN Environment Programme's Disasters and Conflicts Branch (Ecosystems Division), where he has participated and lead several of its main response and recovery efforts. He has almost twenty years of experience in conducting post-conflict environmental assessments (e.g. Afghanistan, DR Congo, Iraq, Lebanon, Liberia, Rwanda, Sudan, Ukraine) which have informed the design and implementation of environmental recovery programmes.

He holds a Bachelor's degree on Natural Resources Management from the University of Toronto and a Masters in International Development Studies and Post-Graduate Diploma in Geomatics from the University of Geneva.

Mr. Hassan Partow, Programme Manager, Disasters and Conflicts Branch, United Nations Environment Programme (UNEP), considering the direct and indirect environmental consequences of armed conflicts and their serious repercussions on human rights, affirmed that the weaponization of the environment is probably the most dramatic, due to its visual nature and human rights costs. The development of high-risk industrial assets and critical infrastructures, such as oil fields and pipelines, chemical facilities, mines, power plants, drinking water and wastewater treatment plants, dams, and dykes, significantly increases the dangers of conflict damage especially from toxic pollution and waste. The type of ammunition used has direct implications on the ability of people and future generations to enjoy a clean and healthy environment. Weapons and explosives contain hazardous substances that contaminate explosion sites and leak into the wider environment. According to Mr. Partow, indirect long-term impacts include governance breakdowns and negative coping strategies adopted by local authorities, communities, and displaced populations to cope with conflict-related socio-economic disruptions and loss of basic services. Although they may be less visual, they are often more widespread and a threat to environmental sustainability and to ensure a clean and healthy environment. Some of the key causes of indirect damage include liquidation of natural assets for survival and to earn a basic income. Mr. Partow referred to examples from experiences in Afghanistan, Myanmar, Sierra Leone, Angola, Kuwait, Iraq, the Balkans, Ukraine, Darfur, Syria, Liberia, DR Congo, and Libya.

In conclusion, Mr. Partow suggested ways forward and recommendations to address environmental assessments of conflicts. Environmental and human rights experts should learn more about each other's mandates, approaches and needs. Determining how environmental data collection methods can better integrate certain human rights information is one area that can be explored and further developed. A dedicated space for dialogue or a mechanism to help bridge reporting between human rights and environmental impacts of conflicts may need to be developed and adequately resourced.



Nazanine Moshiri is Crisis Group's senior analyst for Climate & Security in Africa. In this role she conducts field research, provides analysis through reports and media contributions, and contributes fact-based insights for policy makers on how to best respond to climate-related security risks.

Prior to joining the International Crisis Group, Nazanine worked for two decades as a journalist, including roles at Reuters, Independent Television News and Al Jazeera English. She was also a finalist for journalist of the year at the One World Media Awards of 2014.

Nazanine served as an expert on the United Nations Panel of Experts on Somalia, where she led several investigations, including on the use of improvised explosive devices in Somalia by Al-Shabaab. Nazanine obtained her Master's degree from the University of Leicester in International Security Studies, where she won an award for best dissertation of the year. She is currently finishing a Master of Laws from the University of London in International Dispute Resolution.

Ms. Nazanine Moshiri, Senior Analyst for Climate & Security at the International Crisis Group, described challenges and issues faced by the population, particularly in the Sahel and Horn of Africa region. These include the proliferation of armed groups, criminal gangs, climate and environmental stressors, and state weakness and poor governance. The impact of climatic changes, compounded by the social, economic and political vulnerabilities, increase the risk of violent conflict. Climate change and environmental stressors also frequently affect the poorest in communities and those tasked with subsistence farming, which is traditionally a women-led activity. According to gender experts, women have less access to resources such as land, credit, technology and training, that would help build their resilience to adapt to climate change.

Ms. Moshiri also mentioned the long-term effects of severe climate hazards that are likely to exacerbate existing political and social fragility, with potential conflict risks. The impact of climate change on conflicts largely depends on whether states are governed inclusively, well equipped to mediate resource conflicts, and if they can support citizens when their livelihoods are decimated. In addition to gender-based violence, worldwide crisis would make it easier for Islamist groups to recruit new members. In a desperate situation, vulnerable communities are more likely to let go of their youth in return for access to water points and aid.

Ms. Moshiri stressed that the resilience of local populations can be supported through an increase in conflict-sensitive adaptation. International and regional climate financing mechanisms should increase funding for climate adaptation that is conflict-sensitive. Donor governments should prioritize providing grants, rather than loans or co-financing alternatives. International agencies, multilateral banks and donor governments should ensure that gender is systematically integrated into climate adaptation, and that the implementation of these activities does not exacerbate existing

inequalities and other vulnerabilities.

In conclusion, Ms. Moshiri highlighted that the UN Security Council has acknowledged the link between illicit exploitation and trade in natural resources and armed conflicts and the financing of terrorism, adopting sanctions on certain natural resource commodities linked to armed groups involved in conflict.



Doug Weir has undertaken research and advocacy on the polluting legacy of armed conflicts and military activities since 2005.

After working on conflict pollution and the toxic remnants of war for many years, he established the non-profit Conflict and Environment Observatory (CEOBS) to monitor and raise awareness of the environmental and derived humanitarian consequences of conflicts.

He has contributed to a wide range of domestic, regional and international initiatives on conflict and the environment, with a current focus on the progressive development of the legal framework protecting the environment in relation to armed conflicts. www.ceobs.org

Mr. Doug Weir, Research and Policy Director at the Conflict and Environment Observatory (CEOBS) focused his presentation on the effect of armed conflicts on pollution and polluting incidents through disruption and degradation of environmental governance. Conflict pollution creates acute and chronic health risks for communities and ecosystems and affects the quality and accessibility of natural resources upon which they depend. Therefore conflict-linked environmental degradation undermines the enjoyment of environmental human rights, or to put it another way, the protection of civilians and the protection of the environment are profoundly connected.

Referring to the term “toxic and hazardous remnants of war”, recognized by the UN International Law Commission, Mr. Weir explained that the 27 PERAC principles feature a principle on remnants of war, whose commentary contains the definition of toxic remnants of war proposed by CEOBS’s civil society research project. The PERAC principles contain principles on sharing and granting access to information on environmental risks in relation to armed conflicts, and a principle on environmental assessments. New technologies and improved access to satellite imagery have massively improved and, in many cases, democratized remote data collection. The PERAC principles also address relief and assistance. The invasion of Ukraine has once again drawn attention to both the question of reparations and the very limited wartime precedents that exist. Identifying victims is vital for addressing harm and assisting those affected. Principles for assisting the victims of toxic remnants of war have been developed and will help inform the positive obligations in the treaty on the prohibition of nuclear weapons.

In conclusion, Mr. Weir noted that accountability for conflict pollution is not a technical question, and although the methodologies for identifying those harmed or for evaluating the harm are complex, they do exist. Instead, as often is the case, it is rather a question of political will.

Q & A

Panel One: Normative and Legal Framework

In regard to armed groups operating in conflict contexts, how do you engage with them in actions to protect the environment and to what extent are you integrating the discussion on protection of the natural environment?

Lindsay Cameron: The ICRC, as well as other actors, engages with non-state armed groups around the world on a regular basis. Part of the objective is to have a dialogue with them, so that they understand IHL and their obligations. The extent to which we are currently integrating the discussion on protection of the natural environment is not at a super sophisticated level yet, but it very much depends on the group and the conflict in the area. In some areas, we would have a much more sophisticated dialogue, in other areas it would be something more basic. It is something that we certainly aim to integrate much more.

In terms of the link between cultural property and cultural practices, we have also indicated in the guidelines the fact that some areas can also be protected as cultural property and the rules on cultural property are integrated. The draft principles that were recently adopted by the International Law Commission on the protection of the environment in relation to armed conflict also indicates protection of indigenous communities and environmentally important areas. There is this more holistic thinking around it. There are probably many who are much more advanced than we are at the ICRC in bringing all of that along, but this is what we aim at.

Yulia Mogutova: Interventions depend a lot on armed groups. Many of them consider themselves as the rightful holders of those cultural or natural resources. They represent the population. We can have a dialogue with them, saying that it must be for the benefit of the population, otherwise, it is difficult to see how far the dialogue can advance.

As soon as the responsibilities of different actors are identified, how can you then be able to effectively and efficiently act for local populations, when the different belligerents do not recognize independent authorities and do not allow external actors to act in situ?

Emma Hakala: This is exactly what has been holding back the assessment in a lot in situations where there is not clear peace or seizure of acts of war. Solutions to this issue would be to integrate the environmental assessment into activities of international actors and organizations on the ground, or to cooperate with them.

How does IHL address the actions of PMSCs in the context of environmental damage, for example aerial fumigation of coca crops in Colombia during the civil war / “war on drugs”? Would we begin with the same rules of proportionality and distinction etc.?

Lindsay Cameron: In relation to how much IHL address private actors, it depends on whether PMSCs are actually party to the conflict or not. There are situations where private military companies have become a party to a conflict; being bound by the same rules already mentioned. However, if they have not become a party to a conflict, there is a different way to assess them. We would look at the actions of the individuals: Are they direct participants in hostilities? Are the actions benefiting one side to the conflict?. If so, anyone who is directly participating in hostilities is also bound by the rules of IHL. If not, we should rather apply a general local law.

Does the presence of UN missions permit any exploitation in the territory or the region?

Yulia Mogutova: When there is only an occupying power present and there is not any external control, it becomes much more complicated. If the UN mission is present, the only permitted way of exploiting natural resources should be for the benefit of local population, especially in the cases like Western Sahara where there is a protracted time of occupation. Therefore, exploitation of natural resources cannot be for the economic development of the occupying power, or for the economic benefit of some commercial actors that operate there. This should be the limit and the role of UN actors.

Panel Two: Experiences from the Field

In a context involving several non-state armed groups, as for example in Syria, how feasible is UNEP's monitoring of the environmental impact of the armed conflict?

Hassan Partow: It depends on the type of conflict and the manner in which UNEP becomes engaged. We do not have an open mandate to monitor all conflicts. We are not an advocacy organization - our mandate is that of an inter-governmental organization. So, we are an organization of governance. The mandate is either with or on the request of the State itself, or through the UN system itself, typically in a country where we have identified environmental impacts as a major issue. This is what triggers the process for UNEP to formally engage in assessing the environmental impacts of conflict. It is a quite defined scope of work.

In the case of Syria, it means a request from the government, it means gaining access to this site and having financial support in order for us to be able to deploy experts to the field, ensuring first and foremost the security of the experts on the ground. In some contexts, such as this, it is very difficult. Post-conflict environmental assessments mean that we operate typically after the conflict. In other contexts, for example in eastern Congo, there is a wide array of militias and non-state actors. It is more accessible and, therefore, we have more space to look at the role of criminal networks and militias in looting and pillaging of natural resources.

Could you share your view on the role of climate change adaptation in armed conflicts and post-war restoration? How can we enhance climate resilience in communities that suffered from war?

Nazanine Moshiri: It is a really great question and not an easy one, because climate finance is usually very risk averse when it comes to conflict areas. I think there is a need for climate financing mechanisms that already exist, both international and regional to increase funding for climate adaptation that is conflict sensitive. One of the ways that this could be done is by prioritizing grants rather than loans and co-financing alternatives, particularly in areas where the adaptation is going to be difficult, for example in post-conflict areas or climate fragile states where there is a risk of conflict. There are international agencies, multilateral banks, donor governments, etc. that are working on these efforts and doing a lot already. It is important as well to incorporate gender into climate adaptation and to make sure that these activities or the adaptation that comes through these activities, does not exacerbate inequalities or other vulnerabilities that are existing already.

Is the impact assessment also including a needs assessment or rather how are needs of people affected by environmental impacts of war assessed? Are they based on individual voices as to their needs?

Doug Weir: It is very unusual for the environmental assessment, which might take place in quite limited and post conflict situations, to be directly connected to health assessments of communities. This is because some of the health problems, which might be associated with issues like pollution, may take quite a long time to emerge. Also, almost inevitably in these situations in conflict affected areas, there are urgent health and humanitarian needs, which need to be addressed first. It would be fantastic if we were at the stage where we did have that comprehensive merger of environmental assessment with health assessment, but that's a long way. It is also often quite difficult to do in the circumstances associated with conflicts.

Is there clear link between increasing evidence on global environmental challenges and climate change?

Doug Weir: Concerning the link between environmental degradation and armed conflict, it is very difficult to simplify these relationships and links. There is always a temptation, and particularly in security narratives which have been promoted by states over the last couple of decades particularly around climate change and security, to have this almost catastrophist approach of how environmental change will trigger conflicts. I think what that does is that often you miss a lot of the local and regional context and understanding which you need to be able to untangle these relationships, which are never straightforward but always complex and context dependent. I think it is incumbent on us as researchers and as activists to make sure we explore and communicate those relationships in a clear and coherent way, because otherwise you end up with policies which can do more harm than good.

LESSONS LEARNED AND WAYS FORWARD

Introduction¹⁰

Over the years, the United Nations (UN) has progressively placed environmental issues at the forefront of international concerns. In 1972, the UN adopted the Stockholm Declaration and Action Plan for the Human Environment, leading to the creation of the UN Environment Programme (UNEP). The year 2022 marks 50 years of global environmental action. By recognizing the importance of multilateralism in tackling the Earth's triple planetary crisis – climate, nature, and pollution – international conferences organized in Stockholm aimed to drive action toward a healthy planet for the prosperity of all.¹¹ States and international institutions have increasingly acknowledged the complex relationship between climate change and human rights law. The UN Human Rights Council (HRC), its special procedures mandate holders and the Office of the High Commissioner for Human Rights (OHCHR) have progressively devoted attention and resources to climate change. However, only in 2021 did the HRC adopt resolution 48/13,¹² recognizing for the first time a clean, healthy, and sustainable environment as a fundamental human right and calling on UN Member States to implement this right. Through resolution 48/14,¹³ the Council also established a Special Rapporteur on the promotion and protection of human rights in the context of climate change. The Special Rapporteur develops recommen-

10. The section “Lessons Learned and Ways Forward” written by Catia Trevisani, *Human Rights Researcher, Consultant at the Geneva Centre for Human Rights Advancement and Global Dialogue*.

11. Through the resolution adopted in May 2021, the UN General Assembly decided to convene an international meeting in Stockholm on June 2 and 3, 2022, to commemorate 50 years since the United Nations Conference on the Human Environment. OHCHR, UNEP, and the co-hosts Kenya and Sweden, coordinated both substantive and practical support to the organization. UNDP, WHO, UNECE, UNICEF, IMO and ICAO partnered in the preparations. The theme, *Stockholm+50: a healthy planet for the prosperity of all – our responsibility, our opportunity*, raised awareness about the importance of protecting the planet and addressing the societal challenges of climate crisis, biodiversity loss, ecological decline, and the pollution crisis. The event offered an opportunity for nations and stakeholders to collaborate, share expertise and address complex nexus of issues for urgent action and long-term system change. It identified solutions and actions of a cross-cutting nature to drive implementation through a whole-of-government and whole-of-society approach. Three Leadership Dialogues took place during the conference, articulating clear and concrete recommendations and messages for actions at all levels, mobilizing global cooperation and accelerating innovation. Read more: <https://www.stockholm50.global>.

On 1 June 2022, the Raoul Wallenberg Institute, China Dialogue, and the OHCHR held a hybrid event entitled *Stockholm+50, Catalysing Change: grassroots activism for the right to a healthy environment*, considering climate change, environmental destruction, and related human rights violations. Participants explored how pressure from citizens and rights-based approaches can promote positive changes in environmental governance and policy. Read more: <https://rwi.lu.se/events/stockholm50-catalysing-change-grassroots-activism-for-the-right-to-a-healthy-environment/>

12. Resolution adopted by the Human Rights Council on 8 October 2021 ([A/HRC/RES/48/13](https://www.unhcr.org/refugees/48/13)), the human right to a clean, healthy and sustainable environment.

13. Resolution adopted by the Human Rights Council on 8 October 2021 ([A/HRC/RES/48/14](https://www.unhcr.org/refugees/48/14)), Mandate of the Special Rapporteur on the promotion and protection of human rights in the context of climate change.

dations on how to address and prevent the adverse effects of climate change on the enjoyment of human rights, and on ways to strengthen the integration of human rights concerns into climate policymaking and legislations. The issue of a human rights-based approach to climate action has attracted much attention in recent years, also in the implementation of national climate change response measures.¹⁴ The current debate on the finalization of the Paris Agreement's Rulebook is one such example. During the recent Environment Conference in Stockholm, it was discussed that these challenges threaten human security by harming health, eroding capabilities, and limit present and future development opportunities.¹⁵ Urgent collective and individual actions are needed to adapt to a changing environment and secure a healthy planet and prosperity for all. The planetary crisis is already a humanitarian crisis and requires new mechanisms to effectively address climate-induced emergencies, disasters, and wars.¹⁶

Despite the above mentioned national and international programs on environmental protection, historically, the environment has remained a mute victim of armed conflicts. Militaries have manipulated natural resources for their strategic proposes and used natural processes as weapons, and the damage to the environment has become more severe with the advances on technology.¹⁷ Since the First World War, analysts have recognized the impact of armed conflict on the natural environment. It has been accepted that environmental issues constitute an important element of the fundamental rights of human beings.¹⁸ Destruction or degradation of the natural environment during peace and conflict situations have serious humanitarian and human rights repercussions.¹⁹ Indeed, human rights and the environment are intrinsically intertwined: a clean, healthy and sustainable environment is essential to the enjoyment of human rights; whilst polluted, hazardous and otherwise unhealthy environments

14. Annalisa Savaresi, *The UN HRC recognizes the right to a healthy environment and appoints a new Special Rapporteur on Human Rights and Climate Change. What does it all mean?*, EJIL: Talk! Blog of the European Journal of International Law, 12 October 2021, <https://www.ejiltalk.org/the-un-hrc-recognizes-the-right-to-a-healthy-environment-and-appoints-a-new-special-rapporteur-on-human-rights-and-climate-change-what-does-it-all-mean/>

15. UN Conference, Stockholm+50: *a health planet for the prosperity of all – our responsibility, our opportunity*, General Debate, A/CONF.238/3, 2 June 2022, <https://documents-dds-ny.un.org/doc/UNDOC/GEN/K22/010/40/PDF/K2201040.pdf?OpenElement>

16. Ibid., Leadership dialogue 1: *Reflecting on the urgent need for action to achieve a healthy planet and prosperity for all*, A/CONF.238/4, 2 June 2022, <https://documents-dds-ny.un.org/doc/UNDOC/GEN/K22/015/19/PDF/K2201519.pdf?OpenElement>

17. U C Jha, *Armed Conflict and Environmental Damage*, Vij Books India Pvt Ltd, New Delhi (India), 2014.

18. *Human rights, the environment and conflict: addressing crimes against the environment*, International Journal on Human Rights, Steven Freeland, 2004.

19. Abdulkarim Umar, *International Journal of Humanities & Social Sciences* Published by Cambridge Research and Publications, Vol. 19 No. 6, September 2020.

potentially violate human rights.

The destruction and degradation of the natural environment remains a largely hidden effect and an important cost of hostilities and armed conflicts. This, in turn, contributes to the increased vulnerability of the population already affected by conflicts. While some rules of international law provide protection to the natural environment and seek to limit the damage caused to it, armed conflicts remain an important cause of environmental damage, leading to food and water insecurity, loss of livelihoods and biodiversity. At the same time, natural resources can facilitate post-conflict peacebuilding and recovery, and the protection of the environment and efforts to reinforce international cooperation towards this end can serve to build lasting and sustainable peace.

During the panel discussion, speakers focused on the interlinkages between the natural environment and human rights, on the one hand, and between the environment and armed conflicts, on the other hand. As previously mentioned, the environment can be degraded in many ways by armed conflicts. The impact of conflict on the environment can be *indirect*, representing a side-effect of the use of certain weapons or methods of warfare. Alternatively, to achieve strategic objectives the impact and the destruction of natural environment can be *direct*.²⁰ In the panel discussion, participants explored how the environmental impacts and destruction that can result from a conflict have the potential to threaten livelihoods and be even existential threats to individuals and communities. The most vulnerable groups are often the ones most negatively affected. The risks are particularly acute for indigenous peoples and traditional communities that depend on the natural environment for their subsistence; rural and poor populations relying on agriculture, displaced people, women, children, older persons, and people with disabilities. Long-term and irreparable environmental damage may be one of the most severe consequences of armed conflict, which could inhibit society's full recovery. Environmental protection is a prerequisite for the protection of civilians.²¹ The only way to adequately address an issue of such complexity is through a holistic approach.

Normative and Legal Framework

Armed conflict causes both direct and indirect environmental damage, which can endanger people's health, livelihoods, and security. To address these risks, International Humanitarian Law (IHL) has incorporated fundamental environmental protections into the legal framework governing armed conflict. From such a legal standpoint, environmental protection during times of war and military activities is also addressed

20. Armed Conflict and the Environment, Brochure by Geneva Call, 8 October 2021.

21. Conflict and Environment Observatory (CEOB), A healthy environment must be a human right – especially in armed conflict, 2016.

partially by International Environmental Law (IEL). Further sources are also found in areas of law such as general International Law, the laws of war, Human Rights Law (HRL) and local laws of each affected country. The international legal and normative framework may be based on several sources of rules. In particular, customary international law and soft law address the protection of the environment during times of armed conflict and military activities. Likewise, several United Nations treaties and conventions limit the environmental impacts of war or military activities. Indeed, the natural environment is a civilian object under IHL.

After the end of the Second World War, the Common Article 2 to the four Geneva Conventions gave a definition of international armed conflict that led to the application of humanitarian law. Common Article 3 to the four Geneva Conventions provides the minimum rules applicable in non-international armed conflicts, without giving a clear definition of such conflict. Further, the landmark adoption of the 1972 Stockholm Declaration on the Human Environment represented the first recognition of the need for environmental protection in times of armed conflict.

In 1994, in response to a request by the United Nations General Assembly, the International Committee of the Red Cross (ICRC) issued the first Guidelines for Military Manuals and Instructions on the Protection of the Environment in Times of Armed Conflict to assist the instruction and training of the armed forces on IHL protecting the natural environment. The updated 2020 *Guidelines on the Protection of the Natural Environment in Armed Conflict* are a collection of existing IHL rules as well as recommendations that safeguard the natural environment in armed conflict, to reduce environmental impacts of armed conflicts, including the identification and designation of areas of environmental importance or fragility as demilitarized zones, as well as to limit the impact that armed conflict and environment damage may have on conflict-affected populations.²² These Guidelines set out 32 rules and recommendations relating to the protection of the natural environment under IHL. The rules include protections provided to all parts of the natural environment as civilian objects by the IHL principles of distinction, proportionality, and precautions; protections provided by rules on specially protected objects such as objects indispensable to the civilian population; protections provided by rules governing enemy property; and rules governing the use of specific weapons. The Guidelines are intended to facilitate the adoption of concrete measures by States and armed groups, and can be incorporated into military manuals and national policy and legal frameworks. The adoption of such measures at the national level is essential to ensure that the protections enshrined in law are put into practice. It is now up to governments and other actors of influence to take action accordingly.²³ As a support, in 2020, ICRC also published a policy report,

22 ICRC, Guidelines on protection of natural environment in armed conflict, September 2020. Available at: <https://www.icrc.org/en/document/guidelines-protection-natural-environment-armed-conflict-rules-and-recommendations-relating>

23 ICRC, Protecting the Natural Environment in Armed Conflicts: An ICRC View, 2021.

titled, *When Rain Turns to Dust*.²⁴ This report explores the grave humanitarian consequences that arise when the climate crisis, environmental degradation, and armed conflict converge.

Following the same path, the International Law Commission (ILC) in 2019 proposed 28 draft principles on the Protection of the Environment in Relation to Armed Conflict (PERAC). The draft principles establish measures to protect the environment throughout the cycle of an armed conflict. There are provisions to prevent and mitigate environmental damage, as well as to remediate after conflict. PERAC also address the role that the exploitation of natural resources plays in fueling armed conflicts, particularly relevant in intrastate conflicts, which are prevalent nowadays. Remedial measures—including post-conflict environmental assessments, the remediation of environmental damage, and compensation to individuals and communities affected—are particularly important as part of peacebuilding and reconstruction efforts. But they are also crucial to upholding economic, social, and cultural rights; environmental damage from conflict can restrict or cut access to the basic necessities of life such as food and water, disrupt those livelihoods dependent on the environment, and damage human health where soil, air, and water are contaminated with hazardous substances.²⁵ The UN General Assembly, during its seventy-third session, will consider such principles. Even though they are non-binding, the PERAC draft principles are significant on account of their holistic nature: instead of focusing on the conflict phase only, they seek to enhance environmental protection during the entire conflict cycle at a time when frozen or prolonged conflicts have become more common. As Emma and her colleagues affirmed, the PERAC principles prepared by the ILC and the updated guidelines of the ICRC outline two different approaches to address the issue. Although they originate from different angles, they can be seen to provide complementary rather than opposing or alternative frameworks.²⁶

In conclusion, as panelists and the academia affirmed, environmental damage from armed conflict needs to be addressed in order to ensure human rights and sustainable peace. Recent events continued to emphasise the urgency of addressing the gaps, deficiencies and lack of clarity in the protections afforded to the environment under

Available at: <https://environmentalpolicyandlaw.com/news-blog/protecting-natural-environment-armed-conflicts-icrc-view>

24 ICRC, *When Rain Turns to Dust: Understanding and Responding to the Combined Impact of Armed conflicts and the Climate and Environment Crisis on People's Lives*, 2020. Available at: <https://shop.icrc.org/when-rain-turns-to-dust-pdf-en>

25. Richard Pearshouse, *Towards Better Protecting the Environment in Armed Conflict*, 2021. Available at: <https://www.newsecuritybeat.org/2021/05/protecting-environment-armed-conflict/>

26. Emma Hakala & Freek van der Vet, *Protecting the Environment During Armed Conflict: From Principles to Implementation*, FIIA Briefing Paper, May 2021. Available at: https://www.fia.fi/wp-content/uploads/2021/05/bp311_protecting-the-environment-during-armed-conflict_emma-hakala-freek-van-der-vet.pdf

IHL. As the impacts are comprehensive, they need to be tackled through various means ranging from legal frameworks to humanitarian assistance and long-term capacity-building. The environment may be a silent victim while the war is raging, but it may have unexpected and wide-ranging consequences if it is not taken into account in remediation and reconstruction efforts.²⁷ On the occasion of the World Environment Day, 5 June 2022, the UN Special Rapporteur on human rights and the environment, David R. Boyd argued that the environmental devastation caused by conflicts around the world is exacerbating the disastrous human rights consequences for people, including their right to live in a clean, healthy and sustainable environment. Peace and justice are fundamental prerequisite to sustainable development and the full enjoyment of human rights, including the right to a clean, healthy and sustainable environment. It is imperative to end wars, ensure peace and begin the healing and restoration processes as soon as humanly possible.²⁸ Although there are obstacles to their implementation, international frameworks for mitigating the environmental damage of conflict have reached a critical moment. IHL provisions that are relevant for environmental protection during armed conflict constitute a body of treaty and customary law with significant gaps and deficiencies.²⁹ Moreover, whether the environment may be damaged indirectly by attacks against military objectives, those elements constitute civilian objects. Damage to these environmental objects would then be collateral damage. This is permissible only to the extent that it is not excessive in relation to the concrete and direct military advantage anticipated as a result of the attack. This raises a number of difficult questions, namely the lack of clarity about the practical issues of proportionality where environmental damage is collateral damage. This is caused by on military targets.³⁰ In the light of the significant gaps and deficiencies in the IHL framework, IEL provides a well-established body of norms, standards, approaches, and mechanisms preventing and redressing – including through responsibility and, increasingly, liability – damage to the environment during times of peace.³¹ Moreover, it is crucial that states and other actors, including civil society, seize the opportunity and proceed with the implementation of the revised frameworks.³²

27. Riccardo Pavoni, Dario Piselli, *Armed conflicts and the environment: An assessment of Principle 24 of the Rio Declaration thirty years on*, February 2022.

28. UN Special Rapporteur on human rights and the environment, David R. Boyd's Statement during the World Environment Day, 5 June 2022. Available at: <https://www.ohchr.org/en/media-advocates/2022/06/catastrophic-environmental-impacts-conflicts-jeopardize-human-rights>

29. Michael Bothe, Carl Bruch, Jordan Diamond, and David Jensen, *International law protecting the environment during armed conflict: gaps and opportunities*, (ICRC), 2010.

30. Ibid.

31. Ibid.

32. Emma Hakala & Freek van der Vet, *Protecting the Environment During Armed Conflict: From Principles to Implementation*, FIIA Briefing Paper, May 2021. Available at: https://www.fiaa.fi/wp-content/uploads/2021/05/bp311_protecting-the-environment-during-armed-conflict_emma-hakala-freek-van-der-vet

Experiences from the Field

Environmental factors that influence both life and health must be addressed, guaranteeing access to clean drinking water, to air free from pollution, to untainted food and to land free from forest loss and degradation.³³ The population in crisis contexts of Afghanistan, Myanmar, Sierra Leone, Angola, Kuwait, Iraq, the Balkans, Ukraine, Darfur, Syria, Liberia, DR Congo, Libya, and the Sahel and Horn of Africa, is facing some challenges and issues, including the proliferation of armed groups, criminal gangs, climate and environmental stresses, as well as state weaknesses and poor governance. The impact of climate change causes social, economic and political vulnerabilities and increases the risk of violent conflicts. Climate change and environmental stresses also frequently affect the poorest in communities and those tasked with subsistence farming which are traditionally women-led activities in these regions. In panel 2, several experts identified pathways linking climate stresses, environmental degradation and exploitation, and their impact on the risk of violent conflicts. Associated with armed conflicts' environmental effects is the overexploitation of natural resources, both for subsistence and commercial reasons.³⁴

The effects of armed conflicts are felt particularly in food security, energy, and financing, which has led to a severe and systemic cost-of-living crisis that even the wealthiest countries and communities are struggling to overcome. The UN Global Crisis Response Group, calling for stabilizing food and fuel prices, implementing social safety nets, and increasing financial support to developing countries, has reported how armed conflicts are threatening to unleash an unprecedented wave of hunger and destitution, leaving social and economic chaos in their wake. Furthermore, the crisis is amplifying the consequences of other challenges confronting countries, such as the climate emergency, the COVID-19 pandemic and inequalities in resources for post-pandemic recovery.³⁵

During armed conflicts, the access to safe drinking water and basic sanitation can hence become a challenge as water systems are disrupted in diverse ways, with negative consequences ranging from basic service provision to development efforts. Water resources and aquatic ecosystems are highly vulnerable to conflict impacts. This is a consequence of their potential role as a conflict trigger, a weapon or a military target, given their often central geographical position in the conflict area and their

[der-vet.pdf](#)

33. Ibid.

34. Abdulkarim Umar, International Journal of Humanities & Social Sciences Published by Cambridge Research and Publications, Vol. 19 No. 6, September 2020.

35. UN Global Crisis Response Group on Food, Energy and Finance, Global Impact of the War in Ukraine: Billions of people face the greatest cost-of-living crisis in a generation. 8 June 2022. Available [here](#).

high connectivity across national borders.³⁶

As indicated during the panel discussion, different aspects of the environment are eroding due to armed conflicts. Pollution in all its different forms is among the most serious environmental effects of armed conflicts today. Responsible for environment pollution in conflicts may be both, due to actions of military and armed groups, and the human or economic crisis generated by the armed conflict.³⁷ Pollution may also be caused by abandoned mines, cluster munitions and unexploded ordnance whose radioactive material has released hazardous waste into the environment. Toxic hazards from conventional bombardment, oil fires and conflict in industrial areas create zones of contamination.³⁸ Toxic remnants of war, generated from direct attacks on industrial or petrochemical facilities, pose pollution risks. Furthermore, oil industry pollution contributes to a number of problems due to the pollution of ground and surface water, soil, and air. These include dumping of oil and wastewater, and incidental problems such as pipeline breaks and seasonal flooding of oil filled rivers.³⁹

Deforestation is another effect of armed conflicts on the environment. It is mainly caused by cutting down trees for firewood and charcoal production, forest fires, and the deliberate destruction caused by targeting armed groups hiding in the forest. Loss of tree cover has a direct and long-term negative impact on biodiversity and ecosystems. Forest loss and degradation have already led to the extinction of species and damaged the livelihoods of millions of people who rely on forests for subsistence. Tree cover loss can also create soil erosion and landslide risks.⁴⁰

In this vein, it is imperative to bear in mind that armed conflicts not only negatively affect the environment and natural resources; but also create challenges to human rights, livelihoods, and the well-being of the population, specifically those who are the most vulnerable including those who forcibly flee conflicts, violence, human rights violations, and persecution. As a result of water shortages, lack of cultivable lands, loss of wildlife, and ecological deprivation of the basic human rights to food, water, livelihoods, health, and education,⁴¹ many internally displaced populations suffer. The environment may be limited in its ability to recover because internally

36. Schillinger J, Özerol G, Güven-Griemert S, Heldeweg M., *Water in war: Understanding the impacts of armed conflict on water resources and their management*, 2020.

37. Abdulkarim Umar, International Journal of Humanities & Social Sciences Published by Cambridge Research and Publications, Vol. 19 No. 6 September, 2020.

38. U C Jha, *Armed Conflict and Environmental Damage*, Vij Books India Pvt Ltd, New Delhi (India), 2014.

39. Conflict and Environment Observatory (CEOBS), *A healthy environment must be a human right – especially in armed conflict*, 2016.

40. Ibid.

41. UN News, UNHCR: *A record 100 million people forcibly displaced worldwide*, May 2022. <https://news.un.org/en/story/2022/05/1118772>

displaced persons are often located in marginal environmental zones.⁴² Refugees escaping armed conflicts may also damage natural resources, as often forced to settle in resource-scarce areas, further pressure on forests, land, water, and wildlife is inflicted. This also adds an extra burden on the existing limited infrastructure, living quarters, water supplies and waste systems.⁴³ Additionally, vulnerable groups and communities are more likely to be recruited by Islamic groups as a strategic tactic of non-state armed actors.

Addressing environmental damage caused by armed conflicts is a critical component of post-conflict reconstruction and environmental rehabilitation work. Access to clean water, removal of toxic waste and reforestation are crucial for rebuilding a healthy ecosystem for people to live in and rebuild their country or region.⁴⁴ The need to prevent, address and mitigate environmental harm is now more urgent than ever. As climate change has the potential to undermine societies and development, this urgency is grounded in national and human security. A healthy environment is a key element for the protection of civilians and a prerequisite for lasting security. However, currently, armed conflicts are continuing to wreak unacceptable levels of harm, accelerate environmental degradation, and undermine human development and ecosystems. Therefore, it remains an imperative goal to defend and improve the environment for present and future generations.⁴⁵ Indeed, during a recent seminar Brands Kehris, UN Assistant Secretary-General for Human Rights, affirmed the importance of a rights-based and inclusive approach to environmental actions,⁴⁶ acknowledging that environmental degradation, pollution and climate change disproportionately affect all the poor, women and girls, indigenous peoples, persons with disabilities and children.

In conclusion, if humanitarian tragedies, caused by war, have for a long time been the object of legal regulation, it was only recently that the natural environment has attracted similar attention. The existing rules are clearly not adequate to protect the ecosystem from the negative effects of modern warfare. The few provisions specifically addressing the natural environment have limited practical relevance. This is because they prohibit only a very high degree of damage, or they concern exclusively certain types of weapons. As to rules not specifically addressing the environment,

42. U C Jha, *Armed Conflict and Environmental Damage*, Vij Books India Pvt Ltd, New Delhi (India), 2014.

43. Ibid.

44. *Conflict-driven Deforestation and Pollution in Syria*, Wim Zwijnenburg and Yifang Shi, PAX, 2020.

45. *Witnessing the Environmental Impacts of War, Environmental case studies from conflict zones around the world*, PAX, 2020. <https://paxforpeace.nl/media/download/witnessing-the-environmental-impacts-of-war.pdf>

46. *Right to healthy environment*, Statement delivered by ASG Brands Kehris, UN Office of the High Commissioner for Human Rights, 12 April 2022. <https://www.ohchr.org/en/statements-and-speeches/2022/04/right-healthy-environment>

they are either too general and abstract, or were not conceived with the environment in mind. The current law needs to be amended.⁴⁷

Recommendations

The complexity of the issue calls for a holistic approach combining necessary developments in the overarching legal framework, in the spirit of the rich discussion in Panel 1, and considering field experiences, as discussed in Panel 2. Drawing upon these panel presentations and discussions, several concrete actions that could be taken have been identified. These include the implementation of laws and policies, accountability, and cooperation, as well as the development of adequate mechanisms, to both mitigate the environmental damages caused by armed conflicts and to strengthen the protection of the human rights of those affected.

Peace and stability are fundamental aspects in achieving a healthy planet. Ongoing conflicts displace millions of citizens, undo development gains and have negative impacts on land degradation, biodiversity loss, climate change and human security. All actors must respect international laws. This results in protection of civilians and of the environment during armed conflicts. Systematic and effective multilateralism is indispensable to addressing these global challenges. Social dialogue, formal and informal negotiations, as well as stakeholders and civil society engagement and participation are key elements for developing and promoting efficient policies and initiatives to address environment destruction and human rights violations. As stipulated in Article 6 of the Paris Agreement, the international community should create a legal mechanism to contribute to preventing human rights violations. This should include bringing those responsible to justice and supporting sustainable development goals.

During the panel discussion, panelists suggested ways to support local populations' resilience and to overcome human rights violations affecting vulnerable groups. One essential common ground was conflict-sensitive adaptation.⁴⁸ In particular, considering that climate finance is often risk averse and often not reaching the most vulnerable, international and regional climate financing mechanisms should increase funding for climate adaptation that is conflict-sensitive. Donor governments should prioritize providing grants, rather than loans, or co-financing alternatives for adaptation in conflict-ridden climate-fragile states. Recognizing the wide implications of conflicts, grants should also incorporate cross-border and regional approaches where needed. Donor governments should increase funding for existing regionally-led adaptation efforts to facilitate locally-led, conflict-sensitive adaptation strategies. EU Member States should increase the amount of funds allocated to climate adaptation, particularly in fragile and conflict affected countries. International agencies, multi-

47. Marco Roscini, *Protection of Natural Environment in Time of Armed Conflict*, Final version published in L. Doswald-Beck, A.R. Chowdhury and J.H. Bhuiyan (eds.), *International Humanitarian Law – An Anthology*, Nagpur: LexisNexis Butterworths, 2009, pp. 155-179. Available [here](#).

48. See Ms. Nazanine Moshiri statement.

lateral banks and donor governments should ensure that a gender-sensitive approach is systematically integrated into climate adaptation. This is to ensure that the implementation of these activities does not exacerbate existing inequalities and other vulnerabilities.

Addressing the issue of environmental degradation due to armed conflicts and its adverse impact on human rights is complex and difficult. However, the international community and UN agencies are presently working on shaping policies and influencing conflict prevention. For instance, the Security Council has acknowledged a link between the illicit exploitation and trade in natural resources and that of armed conflicts and the financing of terrorism. It adopted sanctions on certain natural resource commodities linked to militant groups involved in conflict, including timber, diamonds, charcoal. However, natural resources and environmental issues need to be factored into disarmament, demobilization, and reintegration programmes.⁴⁹

Addressing polluted environment, where people may face exposure to a range of toxics, makes researches even more challenging. Identifying victims is vital for addressing harm and assisting those affected. Furthermore, accountability for conflict pollution is not a merely technical question. The methodologies for identifying those harmed, or for evaluating the harm caused, are complex, but they do exist. Instead, it is a question of political will.⁵⁰

Environmental damage from armed conflict needs to be addressed to ensure human rights and sustainable peace. As the impacts are comprehensive, they need to be addressed through various means, ranging from legal frameworks to humanitarian assistance and long-term capacity-building. The environment may be a silent victim while the war is raging, but it may have unexpected and wide-ranging consequences if it is not considered in reconstruction efforts. Post-conflict environmental assessments, such as the Flash Environmental Assessment Tool (FEAT) and those of the UNEP, have significant functions beyond establishing accountability. However, such evaluations need to be followed up with remediation projects.⁵¹

Given the systemic nature of the issue, a strong political will is paramount. The vicious cycle of armed conflicts' impacts shows that to solve one dimension of the crisis, for example the food crisis, important efforts are needed also in energy and finance. Policies should be structural and consider the medium-term approach to prevent exacerbation of crisis. The humanitarian response is key for those already in need, but a preventative approach is necessary to avoid a larger and more general crisis. Policymakers must target wider groups of vulnerable people around the poverty line, and support not only lives, but livelihoods. This includes supporting poor families and other vulnerable groups, such as informal workers, women and girls,

49. See Ms. Nazanine Moshiri statement.

50. See Mr. Doug Weir statement.

51. See Ms. Emma Hakala statement.

and other populations already weakened by the socio-economic impacts of the COVID-19 pandemic and adverse climate events.⁵²

To increase the capacity of people and countries to cope, social protection systems and safety nets must be widened and strengthened. Social protection and economy measures are in fact linked, and countries need support from the financial institutions to increase their financial capacity to in turn increase social protection spending, including cash transfers to the most vulnerable. The international community needs to support countries to protect their poor and vulnerable. It is vital that governance issues are addressed to ensure that these resources are well spent. Government's social protection policies should be targeted, time-bounded, consistent with sustainable development goals and not allocated universally.⁵³ The international community should agree on a comprehensive multilateral convention on armed conflict and the environment. If widely ratified, that convention would enhance legal certainty, while most likely proving pivotal for the consolidation of customary law in this area.⁵⁴

To involve ordinary people in the struggle of safeguarding the Earth's climate, the international community needs innovative approaches. In this regard, for example, in early 2020 the UNDP created a game advertisement allowing people to learn about the climate crisis and at the same time communicate to governments about solutions that could be put in place to tackle it, while they're exploring virtual universes.⁵⁵

52. UN Global Crisis Response Group on Food, Energy and Finance, *Global Impact of the War in Ukraine: Billions of people face the greatest cost-of-living crisis in a generation*. 8 June 2022. Access [here](#).

53. Ibid.

54. Riccardo Pavoni, Dario Piselli, *Armed conflicts and the environment: An assessment of Principle 24 of the Rio Declaration thirty years on*, February 2022.

55. UNDP's Mission 1.5 mobile game allows people to learn about the climate crisis and communicate to governments about solutions. <https://playing4theplanet.org/about>

**ANNEX: FULL STATEMENTS SUBMITTED
BY PANELLISTS**

Panel One: Normative and Legal Framework

Dr. Hilal Elver

UN Former Special Rapporteur on the Right to food (2014-2020), member of the High Level Panel of Experts (HLPE) of the Committee of World Food Security (CFS)

Internal and international armed conflicts are one of the major reasons for increased food insecurity and malnutrition. Despite well-established norms of international human rights law and international humanitarian law protecting the right to food, hunger and malnutrition, as well as famine has skyrocketed in last few years. There is a shocking failure in addressing criminal acts of deliberate starvation and other severe violations of a fundamental human right: the “right to food.” This non-compliance by States and other political actors as well as the reluctance to implement existing international norms to protect human rights and the environment in times of war is a critical failure of international community.

Most recently, the war in Ukraine has elevated catastrophic hunger and malnutrition levels to the top of the global agenda. The war has raised public awareness of the ongoing widespread hunger and malnutrition even beyond Ukraine, as the parties to the conflict are major players in global agricultural trade.

Article 11 of the International Covenant on Economic Social and Cultural Rights specifically recognizes “the fundamental right of everyone to be free from hunger,” which further imposes an obligation on States to ensure “the satisfaction of, at the very least, the minimum essential level” of this right under all circumstances, including the times of war. Freedom from hunger is accepted as part of customary international law, rendering it binding for all states regardless of whether they are party to the Covenant. States cannot put aside or postpone the realization of this core component of the body of economic and social rights. According to their international legal obligations, States must continue to take deliberate and targeted steps using all appropriate means to fulfill these rights, even in times of conflict. Yet, 60% of the people suffering from hunger and malnutrition globally live in conflict-ridden places, mostly in the Middle East and Africa.

How do armed conflicts affect the right to food?

Conflict can trigger food insecurity in a myriad of ways, including through the loss of assets, the erosion of communities’ coping capacities, and the breakdown of social support systems. It often reinforces existing social inequalities and intensifies the human rights violations experienced by disadvantaged populations.

The right to adequate food may also be endangered in times of conflict through the disruption of agricultural activity, the deterioration of food-related economies, and the deliberate undermining of access to food and humanitarian assistance by parties

to the conflict. Contrary to popular belief, casualties resulting direct from combat usually make up only a small proportion of deaths in conflict zones; in fact, most individuals perish from hunger and diseases. Joint, coordinated actions and policy responses are needed to address the current challenges for the people most in need and to mitigate the impact on food insecurity at global level.

Even though war in Ukraine has brought attention to the issue of world hunger, prior to the conflict global levels of hunger and malnutrition were alarmingly high. The impact of weather-related disasters on acute food insecurity in the form of drought, rainfall deficit, flooding, and cyclones has intensified since 2020. Moreover, economic shocks were the main drivers of uneven economic recovery from the COVID-19 pandemic and widespread supply chain disruptions shocks continue to rise.

About 811 million people go to bed hungry each night. The Integrated Food Security Phase Classification⁵⁶ is a standardized tool that classifies the magnitude of food insecurity. Categories three, four, and five, (crisis, emergency, and famine, respectively) require urgent action. According to the findings of the 2022 Global Report on Food Crises (GRFC),⁵⁷ 193 million people across 53 countries were acutely food insecure and in need of urgent assistance, which more than doubled from 135 million to 276 million since 2019, surpassing all previous records. The number of people in crises or worse has almost doubled between 2016 and 2021. A total of 48.9 million people is currently facing emergency levels of hunger. The number of people on the brink of starvation across Africa's Sahel region, for example, is at least 10 times higher than pre-COVID in 2019. Malnutrition remains at critical levels in countries affected by food crises. Almost 26 million children under 5 years old are currently suffering from malnutrition.

In 2021, there were 51 million internally displaced peoples (IDP), 21 million refugees, and 4 million asylum seekers due to a mix of conflict, COVID-19, poverty, food insecurity, and weather extremes. Today, the world stands on the brink of an unprecedented level of famines since WWII. About 30 million people are experiencing severe hunger and malnutrition in Northeastern Nigeria, South Sudan, Somalia, and Yemen. 10 million of them are facing emergency and famine conditions. These are just four of the many countries that are facing high levels of food insecurity this year. In Malawi, Sudan, Afghanistan, DRC, and Syria, millions of people do not have enough food to feed their families. The situation in some of these countries could worsen if the international community does not address their populations' urgent needs and resolve the root causes of food insecurity.

These figures are expected to go up in 2022 as the war in Ukraine further unfolds. The war will continue to have a detrimental impact on global food, energy, and fertilizer prices as well as the already-broken supply chain in Black Sea region (the largest

56. <https://www.ipcinfo.org/>

57. <https://www.fao.org/documents/card/en/c/cb9997en/>

wheat trade in the world). Countries that are already food insecure and dependent on imports of food, fuel, and agricultural inputs will suffer further from the price increases that result from war-related blockages, export restrictions, and economic sanctions. Even prior to the war in Ukraine, international food prices had reached an all-time high. This was mostly due to market conditions, but also because of high prices of energy, fertilizers, and other agricultural services. In February 2022, the FAO Food Price Index reached a new historical record: 21 percent above its level a year earlier, and 2.2 percent higher than its previous peak in February 2011. The cost of reaching people in need is rising: the World Food Program (WFP) paying for food is up 30 percent for food compared to 2019, an additional US\$42 million a month.

As indicated earlier, the Russian Federation and Ukraine are prominent players in global trade of food and agricultural products. In 2021, wheat exports by the Russian Federation and Ukraine accounted for about 30 percent of the global market. Ukraine is the world's 4th largest maize exporter. Combined, sunflower oil exports from both countries represented 55 percent of the global supply. The Russian Federation is also a key exporter of fertilizers. In 2020, it ranked as the top exporter of nitrogen fertilizers, the second leading supplier of potassium, and the third largest exporter of phosphorous fertilizer. The Ukraine crisis has revealed that just a handful of countries export the vast majority of the world's staple grain trade, and a small number of firms control most of that trade. Concentration at such levels typically indicates extreme differentials in power within food systems and highlights the way in which people in import-dependent, low-income countries are barred from engaging with food systems on their own terms.

Nearly 50 countries depend on the Russian Federation and Ukraine for at least 30 percent of their wheat import needs. Of these, 26 countries source over 50 percent of their wheat imports from these two countries. In that context, this war will have multiple implications for global food markets, representing a challenge for food security in many countries, especially low-income, food import dependent countries with vulnerable population groups. Sounding the alarm, UN secretary general António Guterres said Ukraine-related shortages could “tip tens of millions of people over the edge into food insecurity.” The result could be “malnutrition, mass hunger and famine that could last for years” – and increase the chances of a global recession. The World Bank announced an additional \$12 bn. in funding to mitigate the war's devastating effects as well as additional fears of inflation and worldwide recession.

While the international community has stepped up to calls for urgent famine mitigation action, global humanitarian and development funding for food crises is failing to match growing needs. The urgency will likely continue to grow in the coming months – perhaps even years – due to the direct and indirect effects of the current war.

Can the international legal order protect peoples' right to food during armed conflict?

Beyond international human rights principles, the international legal system addresses

the right to food during armed conflict through the specific legal framework of International Humanitarian law (IHL). IHL protects civilian livelihoods and their access to food. While IHL does not specifically mention the right to food, many of its provisions are intended to ensure that people cannot be denied access to food during armed conflict. The four Geneva Conventions of 1949 and two Additional Protocols of 1977 set out IHL's major rules, which include prohibiting: (1) starvation of civilians as a method of warfare; (2) forced displacement; and (3) denial or blocks to humanitarian assistance.

It is now widely accepted by the international community that intentionally caused famine and forced starvation are forbidden under international criminal law. Famine becomes a crime if there is sufficient evidence of an intentional or reckless effort to block certain groups from accessing food under conditions of conflict or hardship. While it is theoretically possible to bring those responsible for starving a population to death during an armed conflict to justice, there is insufficient political will to do so in the current international climate. States and international judicial institutions have not adequately interpreted and implemented international law principles to hold perpetrators of the right to food accountable. In other words, there are insufficient international legal implications for deliberately causing famine or severe environmental damage in times of armed conflict.

Hunger, famine and malnutrition are always the result of political failures. As with any military invasion, all countries must work in solidarity to address the urgent nutritional needs of all vulnerable people, especially refugees, older persons, people with disabilities, and children. Food should never be weaponized and no country in the world should be driven into famine and desperation.

How does conflict impact environmental destruction?

While much of this discussion has focused on the human costs of conflict, it is also worth exploring what options exist for pursuing accountability for the severe environmental impacts of the war. Conflicts often have profound ecological impacts. Wars destroy habitats, kill wildlife, spread pollution and completely remake ecosystems, resulting in consequences that ripple forward for decades.

The Ukraine war is wreaking environmental havoc on the top of its human tragedies. At the UN Environmental Assembly meeting in Nairobi in March, 108 NGOs highlighted the serious risks that the Russian Federation's invasion poses to the ecosystem and expressed concerns over shelling and releasing nuclear and toxic waste into the environment. The Russian Federation's attacks on military structures, urban areas, and energy infrastructures potentially have international environmental implications as they have resulted in widespread pollution of the air, water, and land. Ukraine has many chemical plants and storage facilities, some of which have been already hit.

According to a study in 2009, more than 80% of the world's major armed conflicts

between 1950 and 2000 took place in biodiversity hot spots. There has been very little large-scale research on the ecological impact of warfare, but one 2018 study found that armed conflict correlated with the decline of wildlife populations across protected areas of Africa. Wildlife populations tended to be stable in peacetime and decline during war, with more frequent the conflicts leading to steeper the declines.

The Black Sea area (Black Sea Biosphere Reserve) is a haven for the migratory birds. The reserve is also home to many endangered species, such as the Sandy Blind Mole-Rat, the Bottlenose Dolphin, rare flowers, and dozens of species of fish. Oleksandr Karsnolutskyi, deputy minister of environment, has noted that “[t]here is no information [yet] on environmental losses.” Ukraine is also home to vibrant wetlands, forests, and a large swath of virgin steppe. Armed forces often exploit “lootable resources” such as oil and timber. Recently, the Russian Federation’s armed forces have destroyed wheat-filled warehouses in Ukraine or steal and sold internationally.

In some cases, deliberate environmental destruction is an explicit military tactic. During the Vietnam War, the US military sprayed Agent Orange to destroy the forest’s flora and uncover the Vietnamese forces. During the first Gulf War, Saddam Hussein’s army destroyed Kuwait’s oil resources as a combat tactic, eventually leading to the release of massive amounts of air pollution into the atmosphere. In other cases, environmental destruction might not be deliberate, but armed forces still hugely damage the environment. For example, armies dig trenches, tanks flatten vegetation, bombs scar landscapes, and explosives ignite fires. Weapons release toxic gases and particulates into the air and leak heavy metals into the soil and water. The environmental scars of war can be long-lasting. The effects of the devastating forest destruction during WWII can still be seen in France today. Soil in former war zones remain contaminated by heavy metals for a very long time.

There is also a fear of nuclear devastation. Ukraine has 15 nuclear reactors at four power plants. This could lead to the large-scale radioactive contamination of vast areas beyond Ukraine’s borders. Damage to the nuclear waste site could also produce significant contamination. In the Chernobyl Exclusion Zone, Russian military activity may have already released particles harmful to the local flora.

Wars often cause economic and food insecurity, driving vulnerable local communities to rely more on natural resources and wild game to survive. Large wild animals also often leave their environment during the war. Some armed forces depend on wild animals to feed their troops or harvest valuable animal parts, like elephant tusks and rhinoceros’ horns, to finance their activities. This increased demand for wildlife is often accompanied by a weakening of environmental protections or enforcement. During Angola’s civil war in 1975 and Mozambique’s civil war between 1977-1992, the population of large mammals declined by more than 90%.

War also has opportunity costs as funds and priorities shift from conservation to human survival. There is an urgent need to prioritize conservation immediately after a conflict, as environments can be at-risk as nations seek to rebuild infrastructure and

economies.

What are the legal obligations to protect environment during the war time?

Unfortunately, States are reluctant to strengthen laws that protect the environment from war. Since 2013, the International Law Commission (ILC) has been working on a set of draft principles in relation to the protection of the environment during armed conflicts. It has identified 28 draft principles thus far and is set to conclude in Fall 2022. However, many of the principles will face serious opposition from States. Overall, a number of influential states are rejecting binding obligations to protect the environment. For instance, Canada called for all proposed principles that would protect the environment during occupation to be deleted. Russia did not submit any comments during this round but stated earlier that environmental protection has a lower priority than civilian protection, and that the current legal framework is adequate.

The Ukraine war also increased discussions around genocide and ecocide, or criminal responsibility for severe human rights violation and environmental damage. The use of ecocide terminology reflects both the scale of the perceived risk and Ukraine's particular legal context as the one of a small number of states that have criminalized 'ecocide' through domestic legislation. Article 441 of the Ukraine Criminal Code defines ecocide as "mass destruction of flora and fauna, poisoning of air or water resources, and other actions that may cause and environmental disaster."

Outside the domestic context, the possibilities for pursuing international criminal accountability for environmental crimes are somewhat limited. In theory, the International Criminal Court (ICC) could choose to investigate eco-centric war crimes under Article 8 (b) (iv) of the Rome Statute. The Court has jurisdiction over the crime of "intentionally launching an attack in the knowledge that such attack will cause ... widespread, long term and severe damage to the natural environment." However, to prove this crime, there needs to be demonstrated evidence of damage to the natural environment that is clearly excessive in relation to the concrete and direct "overall military advantage" anticipated. These conditions substantially reduce the applicability of this crime in practice. In fact, such crimes are impossible to prosecute.

In conclusion, intentional environmental damage for military purposes or unintentional widespread, long-term, and severe damage to the environment should similarly be considered as a crime against nature and perpetrators should be held accountable. Human rights and environmental rights cannot be separated from one another or be undermined, both in times of war and in times of peace.

Dr. Lindsey Cameron

Head of the Unit of Thematic Legal Advisers, Legal Division, International Committee of the Red Cross (ICRC)

Thank you to both the Geneva Academy and the Geneva Centre for Human Rights Advancement and Global Dialogue for inviting the International Committee of the Red Cross (ICRC) to participate in this panel. The protection of the natural environment in armed conflict is an important part of our work and we are very happy to be here.

What does international humanitarian law (IHL) bring to the protection of the natural environment in armed conflict?

As we know, there are provisions in IHL that *directly* protect the environment in times of armed conflict – for example, Articles 35 and 55 of [Additional Protocol I](#). These rules are very important, but there are many other provisions that also protect the environment in times of armed conflict, and we need to consider and use all of them. Consequently, instead of trying to develop new rules, the ICRC focuses on strengthening the implementation of existing law.

When we say there are many more rules in IHL that protect the natural environment, what do we mean? As a reminder, in some respects, IHL divides things into binary categories: a person is either a civilian or a combatant; a thing is either a civilian object or a military objective. The starting point is that, in the ICRC's assessment, under IHL, the natural environment is civilian in nature.⁵⁸ This interpretation is also widely shared by States. This means it cannot be attacked unless parts of it become a military objective. Under IHL, in order for a thing to become a military objective, it must, by its nature, location, purpose or use make an effective contribution to military action and its total or partial destruction, capture or neutralization, under the circumstances ruling at the time, must offer a distinct military advantage.⁵⁹

What does that mean? First, if the environment is, as we have said, civilian by nature, then it cannot be a military objective by nature. This means it can only be by location, purpose or use that parts of the natural environment could become a military objective. For example, if combatants are hiding in part of a forest, that might mean that attacking or destroying that part of that forest would offer a definite military advantage, but it is limited to that part of the forest that they are actually using.

In addition, the total or partial destruction or neutralization of the objective has to offer a *definite* military advantage: this means that, for example, a party to a conflict

58. ICRC, *Guidelines on the Protection of the Natural Environment in Armed Conflict: Rules and recommendations relating to the protection of the natural environment under international humanitarian law, with commentary* (Geneva, 2020), paras 18 – 21. Available in Arabic, Chinese, English, French, Portuguese, Spanish forthcoming.

59. Article 52, Protocol Additional to the Geneva Conventions of 12 August 1949 and relating to the Protection of Victims of International Armed Conflicts, 8 June 1977 (AP I).

would not be justified in attacking an area that is important to national pride and consciousness, such as for example the Lavaux vineyards in Switzerland, on the grounds that their destruction would diminish popular morale. Diminishing the morale of the population does not offer a definite military advantage and therefore the requirements for the area to be a military objective are not met. Similarly, if there is a natural resource that an armed group is exploiting in order to have resources to fund its operations, under our assessment, that resource may sustain their ability to continue to fight, but that does not make it a definite *military* advantage to destroy that resource. Thus, that natural resource would not be a legitimate military objective.

These examples allow us to see that simply viewing that natural environment and its parts as civilian in character allows one to view all of it through the lens of the protection of civilian objects under IHL. When we think about the protection of the natural environment, we are not limited to using the prohibition of causing widespread, long term and severe damage.⁶⁰ In addition to the examples provided above of what might make part of the natural environment become a military objective, and what the limits are, we should also recall that an attack that would cause disproportionate damage is prohibited, and that parties have to take all feasible precautions.

What kinds of precautions do parties have to take? For example, they should look at the type of weapons they are using and what they may cause to seep into the natural environment. Also, they can map fragile areas to know that an attack on a particular area, or even an attack in a particular area, would have a much worse impact on the environment because it is a fragile area, or because it is the habitat of a particular species, etc. All of these kinds of things need to be taken into account, and parties need to take all feasible precautions to limit the harm caused.

There are many more obligations on parties to armed conflict that can serve to protect the natural environment. For example, pillage is prohibited in international and non-international armed conflicts. This would include pillage of natural resources, for example. There is a prohibition to attack, destroy, remove or render useless objects which are indispensable to the survival of the civilian population – this is linked to the rule on starvation. That can include agricultural areas, foodstuffs, grazing areas, water sources. It is useful to bear in mind that these can also have a gendered impact because women can be more involved in getting water, for example. There are also rules against attacking objects that can release dangerous forces, like dams, nuclear power plants, etc.

Then, we have rules prohibiting the use of certain weapons: poison, chemical weapons, biological weapons, nuclear weapons, incendiary weapons, mines. All of these rules, when you take them together, have an impact protecting the natural environment, whether directly or indirectly.

60. See e.g. Article 55, AP I.

In 2020, the ICRC took a holistic look at all these rules and developed *Guidelines on the Protection of the Natural Environment in Armed Conflict*, which essentially sum up all of these rules. There are 32 rules and recommendations setting out the rules that specifically protect the natural environment, those that protect civilian objects that also protect the natural environment, rules on weapons, and on what needs to be done to implement these obligations under IHL. These guidelines are meant to be a statement of the law as it is (*lex lata*).

Gloria, in your introduction to this panel, you asked me whether we look at things through the prism of protecting civilians in order to achieve better protection of the natural environment. What is interesting is that the Additional Protocols accept that the environment is protected not only for civilians and for the benefit of civilians (clearly the rule on starvation is for the benefit of civilians) but the environment is protected for itself. Under Article 35 of Additional Protocol I, it is clear that it is not necessary for there to be an impact on civilians in order for an attack against the environment to be prohibited.

In light of all this, we are trying to work with States to see how we can better integrate the existing law into military manuals, training, policies, and planning, and into the domestic legal framework. For example, in relation to the rule on starvation, starvation in non-international armed conflicts has been adopted as a crime under an amendment to the Rome Statute. Some states have integrated that into their national criminal legislation; we can work with more states to ensure that such laws are better integrated, better known, and better used, for example.

We can also work with States and civil society organizations to have better environmental impact assessments to understand, if there is an attack in X area, how far does the impact of that attack go? Our knowledge and understanding of the natural environment itself is increasing by the minute; we can model things differently, we can understand things differently, and so we can plan differently with that knowledge in mind. There are after battle damage assessments that can also take into account damage to the natural environment.

One of the things that we are also exploring is to see what more we can do to protect zones – particularly fragile zones, conservation zones. We know that a lot of natural parks, etc, can take up a lot a State's territory, and we cannot expect that the entire territory can or will be protected, but we can identify particularly fragile zones, work with conservationists and others to then try to demilitarize or otherwise protect those zones.

This approach is not about developing new law, it is developing new practice around existing law. In this regard, we are also working with States to exchange on the good practices that they have already developed. These are some of the areas that we see as useful to explore under the IHL framework in order to better protect the natural environment in armed conflict.

Dr. Emma Hakala

Senior Research Fellow, Global Security Research Programme, Finnish Institute of International Affairs

In addition to its enormous human toll, armed conflict also causes damage to the environment. For instance, in Syria, the damage of years of war is so severe that some parts of the country may be unlivable even after the conflict ends.⁶¹ In Ukraine, the conflict has already since 2014 caused pollution risks, such as toxic mining waste leaking into rivers, and the Russian attack in 2022 has escalated damage also on the environment.⁶²

Especially during the acute phase of war, environmental harm is understandably overshadowed by the need to alleviate human suffering. However, environmental impacts also increase risks to humans, for example when bombings of industrial sites release toxic fumes into the air. In the long run, in particular, the destruction of the environment may hinder recovery and left unattended, expose the population to long term health risks and other harm. In this sense, environmental harm is also a question of human rights. In a war-torn, ravaged environment depleted of natural resources, it is impossible to lead a healthy life – or to achieve sustainable peace.

In international politics and law, the question of wartime environmental destruction has gained increasing attention over the past years. Perhaps most prominently, the International Law Commission (ILC), working under the United Nations, has been drafting principles for the protection of the environment in relation to armed conflict, also known as the PERAC principles. Drawing on existing international environmental, humanitarian and human rights law, the PERAC principles also aim to push for progressive development of international law and provide a more systematic protection of the environment during armed conflict. The PERAC principles are non-binding, so their effectiveness is primarily based on their ability to lay down some internationally shared grounds for understanding the status of the environment during conflict.

The PERAC principles do not provide a mechanism for accountability or compensation.

Currently, there is no overarching framework within international law specifically aimed to deal with wartime damage to the environment. The Rome Statute of the International Criminal Court does include the provision that an attack causing ‘widespread, long-term and severe damage to the environment’ can constitute a war

61. Gaafar, R. (2021) The Environmental Impact of Syria’s Conflict: A Preliminary Survey of Issues. Arab Reform Initiative <https://www.arab-reform.net/publication/the-environmental-impact-of-syrias-conflict-a-preliminary-survey-of-issues/>

62. Averin, D.; van der Vet, F.; Nikolaieva, I. & Denisov, N. (2022) The Environmental Cost of the War in Ukraine. The Green Europe Journal. <https://www.greeneuropeanjournal.eu/the-environmental-cost-of-the-war-in-ukraine/>

crime, but the threshold for culpable acts remains very high under this formulation.⁶³ Different ways of extending legal liability for environmental damage in armed conflict have been discussed, for example by amending the Rome Statute to lower the threshold of culpability. However, even under amended legal provisions, many complications would remain with regard to adequately establishing responsibility, let alone assigning compensation for those who have been harmed.

One reason for the difficulty of seeking legal accountability is that environmental damage can occur in a range of forms and with very varied consequences in different contexts. Even in one conflict, the range of impacts and their direct causes can vary significantly. For example, in Syria, as a direct result of bombings, many urban areas have been turned into rubble and debris that often contains heavy metals and other toxic substances that pose a health risk. Meanwhile, the breakdown of the oil industry, which has led to severe pollution that threatens the health of nearby inhabitants, has been caused in part by deliberate attacks but also by a lack of resources to maintain the facilities. Similarly, the lingering war has led to the collapse of many critical functions of the society, such as waste management, resulting in pollution and toxic leakages from informal dumping sites.⁶⁴

Such varied impacts have different causes, some clearly more direct and deliberate than others. For legal frameworks it is particularly challenging to address indirect and indeliberate acts, where it often is impossible to establish a responsible party for the damage. In addition, the consequences of different kinds of impacts may vary in scope and over time. For example, the leakage of toxic materials from mining waste into soil and rivers may begin to show up as health impacts over a very long period of time. In such cases, it is particularly difficult to show a causal linkage between a specific act of war and its environmental consequence.

However, post-conflict environmental assessment has important functions beyond establishing accountability. In particular, trustworthy knowledge about impacts is a prerequisite for being able to address them. This, in itself, is no easy task, as adequate data is often missing in post-conflict settings and the task of collecting it may be further hampered by an unstable security situation. Yet methods and tools for data collection have advanced and, for instance, considerably benefited from new data-driven open-source analysis capabilities.⁶⁵

Yet the assessment also needs to be followed up with remediation. This linkage is

63. Freeland, S. (2015). *Addressing the Intentional Destruction of the Environment During Warfare Under the Rome Statute of the International Criminal Court*. Intersentia, Cambridge.

64. Zwijnenburg, W. (2019). In Syria, the Environmental Toll of War Beginning to Emerge. Planetary Security Initiative News <https://www.planetarysecurityinitiative.org/news/syria-environmental-toll-war-beginning-emerge>

65. Zwijnenburg, W., Hochhauser, D., Dewachi, O., Sullivan, R., & Nguyen, V. K. (2020). Solving the jigsaw of conflict-related environmental damage: Utilizing open-source analysis to improve research into environmental health risks. *Journal of Public Health*, 42(3), e352-e360.

not always self-evident, as responsibility for the implementation of the remediation may not always be clearly established. Remediation projects often also are costly and complex, and especially difficult to carry out in post-conflict contexts where institutional structures may have broken down and administrative resources are low.⁶⁶ In addition, in many cases it may be difficult to define whether the conflict has in fact moved into a 'post' stage, as instability and insecurity may linger on for a long time after active fighting has ceased, hampering any remediation efforts.

The post-conflict environmental assessments of the UN Environment Programme (UNEP) provide an interesting example where the aim has been both to produce reliable assessment data on the environmental situation immediately or soon after a conflict, but also to facilitate and give recommendations for more long-term remediation and reconstruction work. After the conflict in Kosovo⁶⁷ in 1999 UNEP carried out a task force assessment of the environmental consequences, which is likely to have contributed to the recognition of environmental aspects in international post-conflict reconstruction efforts. This gave rise to a broader clean-up programme to remediate the damage done in several 'hot spots' identified in the post-conflict assessment.⁶⁸

The work of UNEP after the Kosovo conflict eventually evolved into the Disasters and Conflicts Branch, which has since carried out post-conflict assessments for example in Afghanistan, Liberia, Sudan and Iraq and many other places. However, the variety of post-conflict contexts is perhaps also reflected in the evolution of the assessment process at UNEP. It has contributed to the development of several assessment models and tools, from the rapid-response Flash Environmental Assessment Tool (FEAT) to comprehensive needs assessments that also consider long term issues such as the development of environmental governance. Meanwhile, a clear-cut combination of a post conflict environmental assessment and a clean-up programme, such as in the case of the Kosovo conflict, has not been carried out in recent years.

Environmental damage from armed conflict needs to be addressed in order to ensure human rights and sustainable peace. As the impacts are comprehensive, they need to be tackled through various means ranging from legal frameworks to humanitarian assistance and long-term capacity-building. The environment may be a silent victim while the war is raging, but it may have unexpected and wide-ranging consequences if it is not taken into account in remediation and reconstruction efforts.

66. Jensen, D., & Lonergan, S. (2013). Natural resources and post-conflict assessment, remediation, restoration, and reconstruction: Lessons and emerging issues. In *Assessing and restoring natural resources in post-conflict peacebuilding* (pp. 414-464). Routledge.

67. This designation is without prejudice to positions on status and is in line with UN Security Council Resolution 1244.

68. Hakala, E. (2018). *International Organisations and the Securitization of the Environment in post-Conflict Western Balkans*. Doctoral dissertation. Unigrafia, Helsinki.

Ms. Yulia Mogutova

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There are three questions or legal dimensions linked to the exploitation of natural resources: who can exploit natural resources apart from the sovereign; how are the rights of the civilian population affected when the enemy is exploiting natural resources in the territory; and who is accountable when there are various actors involved in an exploitation in natural resource.

Today, I will focus on the first two questions and talk a little bit about what the IHL says about the management of national resources. Then I will tackle the issue of human rights that are affected when it comes to the exploration of natural resources.

So, what does IHL say about the exploitation of natural resources? Not much. In armed conflicts belligerents still often get access to natural resources, which they want to exploit to their own benefit, or sometimes for the benefit of the civilian population. While there are no specific rules addressing natural resources, there are quite extensive rules on the use of property by belligerents, especially in international armed conflicts. In terms of use of property, we can look at what is prohibited, what cannot be done with the property of the enemy, be the public or private, and how the belligerents can benefit from or make use of property.

Pillage is prohibited, which is the appropriation of the property of the enemy without consent. In terms of natural resources such appropriation can happen in different forms. It can be **direct appropriation** where you can see the enemy extracting directly for example minerals or exploiting fisheries in the territory that it is controlling.

The appropriation of property can also be **indirect appropriation**, where rights over natural resources are traded [RDN1] during armed conflict. You probably have heard of the so called *blood diamonds* that have in the context of war, especially in Congo, been looted from the territories controlled by belligerents and then sold all over the world.

What is problematic in international law is the question of ownership, to whom natural resources actually belong. Looking at domestic law, the answer is usually that the State possesses the natural resources on its territory. However, from a human rights perspective or the public international law perspective of sovereign national resources, the answer is not that evident.

Some say that it is the people who own the natural resources and not the State.

What is permitted?

International and non-international armed conflicts are governed differently. In non-international armed conflicts, when non-State armed groups gain control over natural resources, they are usually operating outside the legal framework, as they are not permitted to exploit them.

The situation is different for the occupying power. IHL is operating with the Roman principles, which are derived from Roman law and refer to the right to enjoy and use property without the title of ownership (usufruct principle). In this situation the occupying power can use and exploit natural resources, but it does not become their owner. But can the occupying power continue the exploitation at the same level as was previously done by the sovereign? Can it for example exploit and operate new mines if it knows there is oil in the territory? These questions are even more pertinent when the occupation continues over a prolonged period, for example in the case of Palestine and Western Sahara.

What is also interesting is that the Roman law came from the misconception that all natural resources are renewable and therefore cannot be exhausted. Today science shows that resources can be exhausted, and therefore we can see situations where the occupying power has basically depleted the natural resources and then leave the territory, as they no longer have any interest in it.

Human Rights at stake

In the situation of exploitation of natural resources in armed conflict, many human rights are affected. This include the right to food, right to water, children's rights, right to life, right to development and the recently recognised right to a safe, clean, healthy and sustainable environment. The most important is the right to self-determination of people who live on the territory.

I will highlight two examples which show the complexity of the issue.

In several cases in the **European Court of Justice** regarding Western Sahara the Front Polisario challenged the Fisheries Agreement between Morocco, the European Union and the United Kingdom. The claim of the Front Polisario was that these are occupied territories and Morocco cannot exploit their natural resources, including fisheries. The European Court of Justice decided that, without consultations with the local population and considering their interests, such agreements are in contradiction with the Saharans' right to self-determination.

In the context of the conflict in Congo, a UN Report (1993 – 2003) analyzed that exploitation of natural resources affect human rights of the civilian population. The report referred specifically to the right to life, the prohibition of sexual violence, displacement, right to health, right to work and prohibition of forced labor. It stated that the illicit exploitation of natural resources in certain zones was the sole mechanism guaranteeing the survival of large parts of the population. In this context, if the exploitation of natural resources in conflict zones was completely banned, the human rights and survival of the civilian population would also be put at stake.

It is important to not only have a dialogue with the States, but also with the corporate actors involved as in the example of Western Sahara, who are influencing actions and investments.

Panel Two: Experiences from the Field

Prof. Mohamed Ahmed Bin Fahad

Chairman of the Higher Committee, Zayed International Foundation for the Environment

The past two years have witnessed major disruptions around the world – one caused by the outbreak of COVID-19 and the other, by the unfolding of wars.

In my view, no war can ever be justified; no war has ever brought about any good or positive results in any part of the world. Whether they stem from social differences or conflicts between political groups or because of disturbances caused by socio-political regimes, wars affect all individuals, groups, nations, and international systems.

Wars cause catastrophic loss of life; it destroys villages, cities, and livelihoods. We witness widespread displacement year after year. Today, the ongoing war in Ukraine has even led to a growing global food crisis that will impact millions including the poorest of the poor, the world over.

Even as human rights get eroded during wars, the silent victim is often nature. Man's decisions and actions have a great impact on our natural resources and the environment that sustains us.

Restoring or rebuilding the environment should be part of both conflict prevention and peacebuilding strategies. When ecosystems collapse and natural resources are destroyed, we can never find lasting peace. Without a healthy sustainable natural environment, we cannot guarantee food, medicine, education, or good health for humanity.

I am very pleased that these issues are being given vital importance through conferences like these. We need to build a greater understanding of the complex and intricate relationship between man's actions and our natural environment.

I wish the organisers every success in this endeavour!

Mr. Hassan Partow

Programme Manager, Disasters and Conflicts Branch, (UNEP)

Environmental damage from armed conflicts and its implications on human rights

As a fundamentally destructive force, war and armed conflict will almost invariably have negative effects on the surrounding environment. The environmental consequences of conflict are typically grouped in two main categories: direct and indirect impacts. Both types of impacts may have serious repercussions on human rights, particularly in terms of enjoyment of a clean, healthy and sustainable environment.

Amongst the direct impacts, the weaponization of the environment is probably the most dramatic because of its visual nature, and the one which most clearly undermines human rights. Scorched earth tactics are almost as old as human history. Growing human ability to manipulate the environment as a means of warfare, however, has brought the scale and severity of destruction to a new level. Some emblematic examples include large scale spraying of the powerful defoliant Agent Orange and weather modification during the Vietnam war; the drainage of southern Iraq's marshes in the early 1990s and the Kuwait oil fires. A more recent example is the 'total war' strategy pursued by the terrorist group ISIL, especially during the final campaign to retake Mosul in 2017 when it started setting alight oil wells and blowing-up diversion dams.

The development of high-risk industrial assets and critical infrastructure – such as oil fields and pipelines, chemical facilities, mines, power plants, drinking water and wastewater treatment plans, dams, and dikes – significantly increases the dangers of conflict damage especially from toxic pollution and waste. This is to an important extent why the ongoing conflict in Ukraine with its dense industrial base poses particularly high environmental risks.

The millions of tons of rubble created by the destruction of housing and other infrastructure in cities such as Aleppo, Mosul, Gaza, and Mariupol create a massive waste problem. In addition to posing a physical hazard, conflict debris is often contaminated with unexploded ordnance and may contain hazardous substances such as asbestos. This can seriously hinder the ability of displaced persons to return and rebuild their lives in a safe and healthy environment. In more rural contexts, as in Darfur, Syria and Libya, the poisoning and sabotage of drinking water supplies, cutting and burning of trees and forests to deny livelihoods, and burning of crops are some of the examples of environmental damage witnessed. Although this may appear comparatively limited, the cumulative impact of environmental destruction can reach substantial levels.

The type of ammunition used also has direct implications on the ability of people and future generations to enjoy a clean and healthy environment. Weapons and explosives contain hazardous substances that contaminate explosion sites and leach into the wi-

der environment. A prominent example is the use of depleted uranium in the Balkans and Iraq conflicts which can cause elevated levels of kidney failures and risk of cancer. In addition, contamination of agricultural land with land mines, disrupts farming and makes land unavailable for food production. This directly undermines peoples' food security and livelihoods, worsens and prolongs hardship for war victims, and contributes to prolonged population displacement.

Indirect impacts refer to governance breakdown and the negative coping strategies used by local authorities, communities and displaced populations to survive the socio-economic disruption and loss of basic services caused by conflict. Although they may be less visual, secondary impacts are often more widespread and have a longer-term impact on environmental sustainability and securing a clean and healthy environment.

Some of the key causes of indirect damage include liquidation of natural assets to earn a basic income and survive. A typical case is the depletion of woodlands, such as that of the pistachio forest belt in northern Afghanistan, or over-abstraction of groundwater reservoirs around displacement camps in Darfur and Syrian refugee camps in Jordan. In other instances, natural resources may be pillaged by armed and criminal groups. Prominent examples of these "conflict resources" include artisanal mining of gold and other high value minerals in eastern DR Congo, Sierra Leone and Angola. Serious violations of human rights in such contexts are well documented.

The breakdown of environmental governance, especially in protracted conflicts, ultimately presents the most complex challenges to people's health and livelihoods over the long-term. As environmental oversight drops, the risks to polluting the environment and depleting natural resources and biodiversity can accelerate in a dramatic manner. Weak governance also creates a conducive situation for unscrupulous actors including corporations to loot natural resources, as has been the case for example with mining and forestry concessions in Liberia and DR Congo – where again serious violations of human rights have been reported.

Furthermore, the inability of conflict-affected countries to engage in regional and international environmental agreements, means that they effectively lose access to international support and are left out of the global environmental agenda, as is currently the case with Afghanistan and Myanmar. This not only weakens environmental management and protection in conflict-affected countries, but equally undermines international efforts to address global environmental crisis including climate change and biodiversity loss.

In conclusion, while it is critical that environmental assessments of conflicts are driven by sound science, there is scope for both environmental and human rights experts to learn more about each other's mandates, approaches and needs. Determining how environmental data collection methods can better integrate certain human rights information is one important area that can be explored and further developed. A dedicated dialogue space or mechanism to help bridge reporting between human

rights and environmental impacts of conflicts may need to be developed and adequately resourced.

Note on UNEP's work on the environmental impacts of conflict: *The UN Environment Programme has been addressing the environmental impacts of conflict in a structured manner for over twenty years. It was the Kosovo conflict in 1998, which marked UNEP's first detailed assessment of the environmental impacts of a specific conflict. Since then, UNEP has established a dedicated capacity – the Disasters and Conflicts Branch - to assess environmental consequences of conflict and to support environmental recovery actions in the post-conflict period and which has been involved in over 50 crisis-affected countries.*

Ms. Nazanine Moshiri*Senior Climate & Security Analyst (Africa), International Crisis Group***Regarding conflicts in the Sahel and Horn of Africa region – how has the environment been exploited and used as a weapon/means of control in regional conflicts by different conflict actors?**

Conflict dynamics in the Sahel and in the Horn are extremely complex and context specific. The Sahel region faces a crisis that consists of the proliferation of armed groups, criminal gangs, climate and environmental stresses, as well as state weaknesses and poor governance. In terms of the climate and environment, the Sahel is facing a risk of higher temperatures and erratic precipitation over the next few decades, which will further degrade land and water resources and contribute to issues over resource competition and livelihood insecurity. The impact of these climatic changes, compounded by the social, economic and political vulnerabilities, increase the risk of violent conflict.

Population growth and a growing commercial agricultural sector has led to a change in land use and land cover, while more intensive use of natural resources exacerbating environmental degradation and water availability. This increases the Sahel's exposure to the negative impact of those rising temperatures and more erratic rainfall, on water resources and crop and livestock health. Climate change and environmental stresses also frequently affect the poorest in communities and those tasked with subsistence farming which are traditionally women-led activities in these regions. They take on the burden of agriculture and domestic work such as the collection of water and wood for cooking.

According to gender experts, women have less access than men to resources such as land, credit, technology and training that would build their resilience to adapt to climate change. In one study UNDP found that climate stresses impact access to education. In the most direct sense, extreme weather events such as floods can destroy or damage school buildings, or schools may be used to shelter people fleeing from conflict and/or climate hazards. Food insecurity due to poor drought or flood hit harvests can also reduce agricultural production and negatively affect the nutrition of pregnant women or young children. Normally droughts can lead to the early marriage of girls, as pastoralist families look for dowry payments to help cushion the impact of livestock losses.

The Horn of Africa, defined as the eight member states of the International Governmental Authority on Development (IGAD), is also facing a myriad of crises. US-based Famine Early Warning Systems Network (FEWS NET) recently warned the drought in Somalia continues to be “exceptionally severe”, and more than 200,000 people are likely to experience what are effectively famine levels of food insecurity, while more than 7 million are likely to need food aid for the next year.

The current “gu” long rains, which usually last from April to June, have been up to 70 per cent below average. Almost one million people have been displaced, while hundreds of thousands of animals have died from hunger and thirst. A fifth consecutive rainy season — which usually happens between October and December — may also fail later this year. That would be a fifth consecutive record-breaking drought.

In the long-term, the Horn will experience increasingly severe climate hazards that are likely to exacerbate existing political and social fragility with potential conflict risks. While it is uncertain whether the region will become uniformly wetter or dryer there is broad scientific consensus across ten- and twenty-year forecasts that the Horn will become hotter and extreme weather events will become more frequent and severe. The relationship between conflict and climate change is neither simple nor linear. The impact of climate change on conflict largely depends on whether states are governed inclusively, are well equipped to mediate resource conflicts, or can support citizens when their livelihoods are decimated.

In parts of the Sahel and Horn of Africa region, several identified interrelated pathways link climate stresses, degradation and exploitation of the environment and their impact on the risk of violent conflict:

- Climate-related stresses and environmental erosion also erode livelihoods, marginalise affected groups and contribute to escalating grievances.
- Climate extremes and environmental degradation or destruction can lead to displacement. For example, they can change migration patterns and the mobility of herders.
- Extreme climate-related events such as droughts can also be used by elites with wealth, privilege, power or influence to increase their control over resources. We are seeing this in parts of Kenya where climate stresses are amplifying intercommunal conflict and interplaying with tense electoral politics. The ongoing drought – the worst in 40 years - has undermined semi-nomadic pastoralism and livelihoods leading to increased tension between various tribes such as the Pokot and the Turkana. In the run-up to the August vote, many conflict prevention observers have rightly focused on the country’s ethno-political dynamics, which previously triggered election-related violence and could do so again. Yet the role of climate stresses as a potential conflict accelerator should not be overlooked. I am currently in northern Laikipia where pastoralists, farmers and conservationists came to blows in 2017 in violence that was triggered by drought but worsened by political tensions. Again in 2022, we are seeing similar kinds of violence, where political and business elites have armed herders who are displacing populations and cattle raiding. In some parts of this region, herders are staring into a bleak future, having lost millions of animals. They are desperate and many are armed.
- Climate change can also be viewed as a strategic risk that can influence the tactics of non-state armed groups, such as Al-Shabaab in Somalia, which I will come to

subsequently. The Islamic State in the Greater Sahara (ISGS) and the Al Qaeda-affiliated JNIM have shifted their efforts to geographic areas beyond the immediate reach of external forces in the face of military pressure in the tri-state border region. This is where longstanding grievances held by pastoralist communities may provide an entry point for extremist interests.

- Over the years, parties to armed conflicts in both regions have torched crops, destroyed boreholes, cut down forests, and killed animals to gain advantage or subjugate populations or displace them.
- Threats posed by land and resource competition are most destructive in areas with underlying political and economic problems, longstanding ethnic tensions and a history of political mismanagement. While it is unclear how these factors influence future land/resource competition and diminished livelihoods, any future pressures from climate hazards will likely increase conflict risks.

How has this affected the human rights situation of local populations?

The current drought in the Horn of Africa has led to displacement and hunger, hitting many areas with already inadequate health systems, killing livestock and diminishing community resilience to these climatic shocks. It has also led to the risk of more recruitment by the Somalia's Islamist group Al-Shabaab. The Al-Qaeda aligned group is stepping in to help some communities in central and Southern Somalia cope with the drought. The group has formed a special committee made up of seven leading members to respond to the drought. There are images published on their media outlets, of this committee surrounded by armed fighters with AK47s slung over their shoulders, visiting communities in several regions to distribute cooking oil, rice, sugar and other aid.

The crisis could make it easier for Al-Shabaab to recruit new members. Vulnerable communities are more likely to hand over their youngsters in return for access to water points and aid if they are desperate. Over the past 15 years Al-Shabab has recruited thousands of children for indoctrination, to become fighters, or suicide-bombers.

The group's capacity to stay a step ahead of local and regional military operations combined with internal dysfunction within the government which recently managed to hold delayed elections has allowed it to thoroughly embed itself in Somali society and earned the militants long-term staying power.

How can the resilience of local populations be supported and especially the situation of vulnerable groups?

Resilience of local populations can be supported through an increase in conflict-sensitive adaptation:

- Climate finance is often risk averse and often not reaching the most vulnerable. International and regional climate financing mechanisms should increase funding for climate adaptation that is conflict-sensitive.

- Donor governments should prioritise providing grants, rather than loans or co-financing alternatives, for adaptation in conflict-ridden climate fragile states - recognising the wide reach of conflicts, grants should also incorporate cross-border and regional approaches where needed.
- EU member states should increase the amount of funds allocated to climate adaptation, particularly in fragile and conflict countries.
- Donor governments should increase funding for existing regionally-led adaptation efforts, such as the AFDB's Africa Adaptation Acceleration Programme, to ensure locally-led, conflict-sensitive, adaptation strategies.
- International agencies, multilateral banks and donor governments should ensure gender is systematically integrated into climate adaptation, to ensure that the implementation of these activities does not exacerbate existing inequalities and other vulnerabilities.

Regarding shaping policies and influencing conflict prevention, what can be done to address the issue of environmental degradation due to armed conflicts and its inverse impact on human rights?

Addressing the issue of environmental degradation due to armed conflicts and its inverse impact on human rights is complex and difficult. In Somalia, for example, wood charcoal is the main cooking fuel. The Horn of Africa country had already lost more than 73 percent of its forest cover, all due to unregulated and illegal tree harvesting. This loss has now been linked to increasing rates of flooding and drought. While on the UN Panel of Experts on Somalia in 2019, my team's research found that the UN ban on the sale and export of Somali charcoal abroad had helped curtailed the group's ability to raise money that way to some extent.

For years Al-Shabaab made millions from the illicit charcoal trade, which financed their activities, including the purchasing of weapons and sponsoring attacks on security forces and civilians. While Al-Shabaab generates some income from "taxing" vehicles transporting charcoal in Somalia, it has diversified its revenue base and is no longer purely dependent on the trade.

The UN's Security Council has acknowledged a link between the illicit exploitation and trade in natural resources and that of armed conflicts and the financing of terrorism. It has adopted sanctions on certain natural resource commodities linked to armed groups involved in conflict, including timber, diamonds, charcoal, as I just mentioned. Panels of experts such as the one I was a member of are involved in monitoring and tracking trade in illegal resources. As SIPRI and others have reported on, more should be done to build capacity in post conflict zones for environmental management and governance. One example is a recommendation that natural resource and environmental issues should be incorporated more into disarmament, demobilization and reintegration (DDR) programmes.

Mr. Doug Weir

Research and Policy Director, Conflict and Environment Observatory (CEOBS)

[CEOBS is a UK charity working to increase the protection of people and ecosystems from the impact of armed conflicts and military activities.]

Thank you to the Geneva Centre for Human Rights Advancement and Global Dialogue, and the Geneva Academy, for the invitation to contribute today. I would like to speak a little about the role of data and advocacy in addressing the impact of conflict pollution and the toxic remnants of war on the enjoyment of Human Rights.

Armed conflicts generate pollution and create and sustain the conditions where polluting incidents are more likely, in particular by disrupting and degrading environmental governance. It is a fact of many conflicts that these high levels of environmental stress occur at a point where the state is least equipped to deal with them, for example due to competing priorities or reduced institutional capacity.

Conflict pollution creates acute and chronic health risks for communities and ecosystems, and affects the quality and accessibility of the natural resources upon which they depend. Therefore conflict-linked environmental degradation undermines the enjoyment of environmental human rights or, to put it another way, the protection of civilians and the protection of the environment are profoundly connected. And yet we still face the situation where humanitarian and environmental considerations are viewed by some as somehow separate and distinct objectives. These few points help illustrate several of the focal areas for advocacy work and policy initiatives over the last few years, these are: how the problem is defined; how it is documented; how its consequences are understood; and how those consequences are subsequently addressed.

On definitions, while conflict pollution dates back beyond the industrialisation of warfare, its often slow violence has tended to be overshadowed by acute harms, such as those from explosive weapons. While this is entirely understandable, it has also been the result of the deliberate reframing of these problems by civil society organisations, for example where the broad “material remnants of war” of the 1970s became the narrower “explosive remnants of war” of the 1990s onwards. This has meant it has been necessary to reframe the issue, since 2011 we and others have used a holistic framing – the toxic remnants of war – to achieve this.

The term “toxic and hazardous remnants of war” has now gained international legal recognition from the UN International Law Commission, as part of its study on the protection of the environment in relation to armed conflicts, or PERAC. The 27 PERAC principles, which we expect to be adopted by the UN General Assembly this autumn, feature a principle on remnants of war, whose commentary contains the definition of toxic remnants of war, that was proposed by our civil society research project. The Commission’s PERAC project also contains principles on sharing and granting access to information on environmental risks in relation to armed conflicts,

and a principle on environmental assessments.

This speaks to the second challenge, the problem of documentation, and the collection of environmental data in areas affected by conflicts. Open-source intelligence and improved access to satellite imagery have massively improved and, in many cases, democratised remote data collection. This is not only significant for the immediate humanitarian response to conflicts but also because historically, many of the legal and policy changes on conflict and the environment were linked to the most visually arresting incidents. For example, mass deforestation, oil well fires or, the deliberate destruction of petrochemical plants.

Since 1999, UNEP's post conflict environmental assessments have also made a huge contribution to our understanding of the scope and sources of harm. But for advocacy efforts to be sustainable, we need a steady supply of environmental data, and these new tools are facilitating that. This awareness has helped lead to the first ever UN resolution dedicated to conflict pollution at the UN Environment Assembly in 2017. As with the more general text on conflict and the environment that preceded it in 2016, it made explicit reference to the relationship between environmental harm and the enjoyment of human rights. Deliberate advocacy, and the increasing visibility of serious harms in ongoing conflicts, also encouraged attention in the Human Rights Council, which has addressed conflict and military pollution intermittently since 2008.

However, remote documentation has its limits. Chief among them is characterising the extent of the health and ecological risks from the toxic remnants of war. In many cases, when it comes to documenting harm, we remain reliant on internationally mandated environmental assessments, which may be temporally or geographically limited, or on the limited capacity of affected states. Access, cost and prioritisation issues mean that environmental sampling is problematic enough; but biomonitoring for pollutants in people, or the long-term epidemiological studies necessary to identify health outcomes like cancer, are hugely challenging in post-conflict settings. That these areas are typically complex polluted environments, where people may face mixed exposures to a range of toxics, makes research all the more challenging.

New methodologies are needed, and low cost, participatory citizen science approaches hold promise in complementing remotely gathered datasets. They also have the benefit of strengthening the agency of the communities who implement them. Identifying victims is vital for addressing harm and assisting those affected. We have helped develop rights-based principles for assisting the victims of toxic remnants of war, and these are already helping to inform the positive obligations in the treaty on the prohibition of nuclear weapons.

The PERAC principles also address relief and assistance, and the invasion of Ukraine has once again drawn attention to both the question of environmental reparations – and the very limited precedent that exists for them. Accountability for conflict pollution is not a technical question, the methodologies for identifying those harmed, or for evaluating harm are complex, but they do exist. Instead, and as is so often

the case, it is a question of political will. In this respect, it is perhaps instructive to consider the US approach to the health legacy of dioxin exposure in Vietnam; for US military personnel, healthcare based on presumption; for Vietnamese civilians, decades waiting for remediation.

However, while we may focus on the exposures and harms caused by the fighting itself, we do so at the risk of neglecting the environmental health burden linked to the collapse of governance, and the reversal of sustainable development caused by armed conflicts: the legacy of which may last decades.

Thank you.

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