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Toward an Environmental and Climate-Sensitive Approach to Protection in UN Peacekeeping Operations

Agathe Sarfati

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Agathe Sarfati is a Senior Policy Analyst at the International Peace Institute (IPI).

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Executive Summary

Environmental degradation, including degradation caused by climate change, armed conflict, or the illegal exploitation of resources, can be a catalyst for violence against civilians. When environmental degradation contributes to violence, UN peacekeeping operations should include environmental and climate security considerations in their assessment and planning, as well as in the implementation of their mandated activities related to protection.

While several missions have environmental and climate-related language in their mandates, thus far, they have primarily emphasized the reduction of their environmental footprint. Nevertheless, given the number of missions that operate in contexts affected by climate change, the UN Department of Peace Operations (DPO) has signaled its intention to focus more on climate-related security threats, including by joining the Climate Security Mechanism in December 2021. However, peacekeeping operations could take additional steps to better factor environmental and climate-related risks into their planning and activities related to protection.

By including environmental and climate-related factors in assessments and planning, UN peacekeeping operations could prevent conflict more effectively, including by identifying potential hot spots for resource-related violence. There are also opportunities for missions to more systematically integrate environmental and climate-related considerations into activities related to protection, including support to environmental peacebuilding and mediation. Moreover, missions could engage with state and non-state actors to reinforce the rules of international humanitarian law pertaining to respect for the natural environment in armed conflict and help strengthen domestic capacity and expertise to promote accountability for protecting the natural environment. Finally, collaboration with UN country teams is vital for missions to address the root causes of environmental degradation that go beyond their mandates, particularly when preparing transition and exit strategies.

While some missions are already engaging in good practices in this regard, these efforts could be more systematic, and missions could continue exploring new approaches. Likewise, at headquarters, while DPO has taken incremental steps to increase its engagement on climate security, these steps should only be the beginning, especially as environmental conditions worsen in the years ahead.

Introduction

UN peacekeeping operations are often deployed in regions that suffer from both armed conflict and environmental degradation, including degradation caused by climate change and the illegal exploitation of natural resources.¹ These phenomena tend to mutually reinforce each other in a vicious cycle: environmental degradation can exacerbate drivers of armed conflict, especially when it converges with other political, social, and economic pressures, while armed conflict, in turn, can intensify environmental degradation. This vicious cycle can pose a risk to the physical integrity and livelihoods of civilians.

Addressing environmental degradation goes well beyond the mandates of UN peacekeeping operations. This is particularly the case when it comes to addressing climate change—a major driver of environmental degradation—through mitigation, adaptation and loss and damage, where the host state, with the support of the UN country team and other partners, has the lead. In some areas, however, UN missions can play a role. So far, peacekeeping missions have mainly focused on mitigating their impact on the environment by reducing their environmental footprint.² Yet increasingly they are also focusing on climate-related security risks. Notably, in December 2021, the UN Department of Peace Operations (DPO) joined the Climate Security Mechanism, an initiative that brings it together with the UN

Department of Political and Peacebuilding Affairs (DPPA), UN Environment Programme (UNEP), and UN Development Programme (UNDP) to jointly address climate-related security risks. Within this framework, DPO will build the capacity of missions to incorporate environmental and climate-related factors into their mandated work, including by deploying climate security advisers and developing climate-security trainings for staff.

This issue brief discusses how peacekeeping operations can better factor environmental and climate-related security risks in planning and implementing protection-related activities.³ It considers activities that are part of current mandates for the protection of civilians as well as other mandated activities that support protection outcomes.⁴ The report first reviews how environmental degradation and armed conflict can mutually reinforce each other and how this can impact civilians. It then reviews how peacekeeping operations can help disrupt this vicious cycle by applying an environmental and climate-sensitive lens to protection-related activities. While some peacekeeping operations are already developing good practices in this regard, these remain ad hoc, and missions could be more systematically taking a holistic environmental and climate-sensitive approach to their protection work. Ultimately, a whole-of-UN approach is needed, with missions working in close partnership with the UN country team and the host country.

1 “Of the 15 countries most exposed to climate risks, eight host a United Nations peacekeeping or special political mission.” UN Meetings Coverage and Press Releases, “Climate Change ‘a Multiplier Effect,’ Aggravating Instability, Conflict, Terrorism, Secretary-General Warns Security Council,” UN Doc. SG/SM/21074, December 9, 2021.

2 The UN Security Council has mandated several peacekeeping missions to design and implement strategies to mitigate their impact on the environment. See: UN Department of Peacekeeping Operations and Department of Field Support, “Environmental Policy for UN Field Missions,” June 1, 2009; UN Department of Operational Support, “Environment Strategy for Field Missions: Executive Summary,” October 2019; Lucile Maertens and Malkit Shoshan, “Greening Peacekeeping: The Environmental Impact of UN Peace Operations,” International Peace Institute, April 17, 2018; Office of Internal Oversight Services (OIOS) Internal Audit Division, “Report 2019/075: Audit of Implementation of Environmental Action Plan in the United Nations Organizational Stabilization Mission in the Democratic Republic of the Congo,” August 22, 2019; OIOS, “Report 2019/053: Audit of Implementation of the Environmental Action Plan in the United Nations Multidimensional Integrated Stabilization Mission in the Central African Republic,” June 25, 2019. Also see references to the 2009 Environmental Policy for UN Field Missions and the environmental impact of field missions in: UN General Assembly, *Manual on Policies and Procedures Concerning the Reimbursement and Control of Contingent-Owned Equipment of Troop/Police Contributors Participating in Peacekeeping Missions*, UN Doc. A/75/121, August 31, 2020, pp. 4, 10, 46; and Daniel Forti and Emmanuelle Cousin, “Contingent-Owned Equipment and Environmental Considerations in UN Peacekeeping Operations,” International Peace Institute, September 2022.

3 This paper also draws on the experiences of some special political missions, particularly the UN Assistance Mission in Somalia (UNSOM), the UN Regional Centre for Preventive Diplomacy for Central Asia (UNRCCA), and the UN Office for West Africa and the Sahel (UNOWAS).

4 For the definition of protection and protection outcomes, see: International Committee of the Red Cross, “Professional Standards for Protection Work,” 2018.

Box 1. Key definitions

Environmental degradation: “Environmental degradation is a process through which the natural environment is compromised in some way, reducing biological diversity and the general health of the environment. This process can be entirely natural in origin, or it can be accelerated or caused by human activities.”⁵ Environmental degradation can be driven by climate change, exploitation of natural resources, armed conflict, or other causes such as pollution and natural disasters.

Climate change: According to the Intergovernmental Panel on Climate Change (IPCC), climate change “refers to a change in the state of the climate that can be identified ... by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. It refers to any change in climate over time, whether due to natural variability or as a result of human activity.”⁶

Environmental and climate security: The term “environmental security” came about in the 1980s as a precursor to the concept of human security to raise the alarm about pressing nonmilitary threats to human lives and the consequences of environmental degradation. In the 1990s, the debate shifted toward emphasizing the relationship between environmental degradation and armed conflict. After the 9/11 terrorist attacks, the environmental security discourse lost momentum in the face of new global priorities, including countering terrorism. Recently, this discourse has resurfaced through the lens of climate change, and the UN and other institutions now often use the term “climate security.”⁷ There are no authoritative definitions of “environmental security” and “climate security,” but this report adopts the following definitions:

- **Environmental security:** “The suite of environmental threats, both anthropogenic and natural, that may harm ecologies, people, communities, or even countries, and has the potential to undermine national, regional, and global security.”⁸
- **Climate security:** “The physical, economic, or societal impacts associated with climate change that substantially alter political stability, human security, or national security infrastructure.”⁹

While these terms have been coined in different contexts and by different constituencies, they can be regarded as complementary, and climate security can be regarded as a subset of environmental security. This report therefore uses the term “environmental and climate security” to highlight the need to mainstream both environmental and climate-related considerations in the protection activities of UN peacekeeping operations.

The Double Impact of Environmental Degradation and Armed Conflict on Civilians

Environmental degradation and armed conflict have mutually reinforcing impacts on civilians. This section reviews both the impact of environmental degradation on armed conflict and the impact of armed conflict on the natural environment and

civilians. While environmental degradation can have many causes, this section focuses on the role of armed conflict, the illegal exploitation of natural resources, and climate change, which are the causes that peace operations could act upon most directly.

Impact of Environmental Degradation on Armed Conflict

It has been generally acknowledged that climate change is a threat multiplier that can compound existing vulnerabilities, though the exact nature of

⁵ General Multilingual Environmental Thesaurus, “Environmental Degradation,” available at <https://www.eionet.europa.eu/gemet/en/concept/15154>.

⁶ UN Framework Convention on Climate Change (UNFCCC), “Fact Sheet: Climate Change Science—The Status of Climate Change Today,” February 2011, available at https://unfccc.int/files/press/backgrounders/application/pdf/press_factsh_science.pdf.

⁷ Maria Julia Trombetta, “Environmental Security and Climate Change: Analysing the Discourse,” *Cambridge Review of International Affairs* 21, no. 4 (2008).

⁸ Amanda Shaver and Sally Yozel, “Casting a Wider Net: The Security Implications of Illegal, Unreported, and Unregulated Fishing,” Stimson Center, 2018.

⁹ Pacific Northwest National Laboratory, “Climate Security,” available at <https://www.pnnl.gov/climate-security>.

the link between climate change and armed conflict is contested among researchers.¹⁰ Nonetheless, peace and security practitioners have increasingly found themselves addressing environmental and climate-related factors in their work. Furthermore, the mandates of three of the four largest peacekeeping missions recognize the adverse effects of climate change and related factors on the host country's stability and humanitarian situation (see Annex).

The latest report of the Intergovernmental Panel on Climate Change (IPCC) notes that “climate-change does contribute to increase conflict, but along indirect pathways and via intermediate factors.”¹¹ The linkages between climate change and violence are not linear and are highly contextual. They are “determined by the specific climate impact present, as well as the exposure, vulnerability, and coping capacity of the affected group of people.”¹² Climate change adds stress to natural resources, which can have a socioeconomic impact by reducing food and water security, threatening livelihoods, and limiting the ability of governments to provide basic services. This deterioration of socioeconomic conditions may compound existing drivers of violence by exacerbating inequalities, creating new grievances, and fueling tensions between communities.¹³ For example, severe droughts, floods, and other extreme weather events can spur or exacerbate competition over land and other natural resources, as has been the

Environmental degradation and armed conflict have mutually reinforcing impacts on civilians.

case between farmers and herders.¹⁴ This has been seen in central Mali between the Dogon and Fulani and in Jonglei state in South Sudan among the Nuer, Murle, and Dinka.¹⁵

Some non-state armed groups have taken advantage of this resource scarcity, further driving conflict. For example, the Séléka armed groups and their allies in the Central African Republic (CAR) and Jama'at Nasr al-Islam wal Muslimin (JNIM) in the Mopti region of Mali have positioned themselves as “guardians” of transhumance corridors, thus destabilizing traditional governance mechanisms between farmers and herders. There are also concerns that private military companies could exploit these corridors to increase their revenues.¹⁶ In some cases, armed groups have directly taken control over diminishing natural resources to finance their activities, act as service providers, and spur recruitment into their ranks. In central Mali, for example, the Macina Liberation Front has instrumentalized land-rights disputes to attract new recruits among Fulani herders by denouncing their marginalization and addressing their priorities as pastoralists.¹⁷ Other armed groups in Mali have also filled the vacuum left by the government to help manage natural resources and mediate resource-related disputes.¹⁸ Similarly, in Somalia, al-Shabaab has taken advantage of droughts to boost its legitimacy among local popula-

10 Ken Conca, “Is There a Role for the UN Security Council on Climate Change?” *Environment: Science and Policy for Sustainable Development* 61, no. 1 (2019). The UN Security Council has acknowledged that climate change is a “threat multiplier.” See: UN Security Council, 6587th Meeting, UN Doc. S/PV.6587 (Resumption 1), July 20, 2011, pp. 13, 21; UN Security Council, 8307th Meeting, UN Doc. S/PV.8307, July 11, 2018, pp. 9, 23; UN Security Council, 8451st Meeting, UN Doc. S/PV.8451, January 25, 2019, pp. 33, 37; and UN Security Council, *Letter Dated 25 February 2021 from the President of the Security Council Addressed to the Secretary-General and the Permanent Representatives of the Members of the Security Council*, UN Doc S/2021/198, March 1, 2021, pp. 11, 36, 49.

11 Intergovernmental Panel on Climate Change (IPCC), “Climate Change 2022: Impacts, Adaptation and Vulnerability,” Hans-Otto Pörtner et al., eds., 2022.

12 UN Institute for Training and Research (UNITAR), “Module 1: Climate Change, Peace and Security,” in *Climate Change, Peace, and Security: Understanding Climate-Related Security Risks through an Integrated Lens*.

13 Weathering Risk, “Joint Statement on Climate Change and Conflict in IPCC Report,” April 4, 2022; Mary Potts, Lukas Rüttinger, and Janani Vivekananda, “What Does the IPCC Report Tell Us about Climate and Conflict?” *Climate Diplomacy*, March 7, 2022; Anthony Navone, “The Intertwined Futures of Climate Action, Fragility and Peacebuilding,” United States Institute of Peace, April 15, 2021; Tegan Blaine, “The Peacebuilding Implications of the Latest U.N. Climate Report,” United States Institute of Peace, March 3, 2022.

14 See: UN Peacekeeping, “Preventing, Mitigating & Resolving Transhumance-Related Conflicts in UN Peacekeeping: A Survey of Practice,” 2020, available at https://peacekeeping.un.org/sites/default/files/transhumance_and_un_pkos_final_web.pdf; Gabriel Delsol, “UN Peacekeeping Operations and Pastoralism-Related Insecurity: Adopting a Coordinated Approach for the Sahel,” International Peace Institute, July 2020.

15 Basak Kalkavan, “The When and How of Climate Conflict: The Case of Mali,” *ECDPM Great Insights Magazine* 8, no. 4 (October 2019); Tor A. Benjaminsen and Boubacar Ba, “Fulani-Dogon Killings in Mali: Farmer-Herder Conflicts as Insurgency and Counterinsurgency,” *African Security* 14, no. 1 (2021); Cedric de Coning et al., “Climate, Peace and Security Fact Sheet: Mali,” Norwegian Institute of International Affairs (NUPI) and Stockholm International Peace Research Institute (SIPRI), May 2021; Phillip T. Manyok, “Cattle Rustling and Its Effects among Three Communities (Dinka, Murle and Nuer) in Jonglei State, South Sudan,” Nova Southeastern University, January 1, 2017; International Crisis Group, “South Sudan: Jonglei—‘We Have Always Been at War,’” December 22, 2014.

16 Interview with UN representative in CAR, June 2022.

17 Pauline Le Roux, “Confronting Central Mali’s Extremist Threat,” Africa Center for Strategic Studies, February 22, 2019; Signe Marie Cold-Ravnkilde and Boubacar Ba, “Jihadist Ideological Conflict and Local Governance in Mali,” *Studies in Conflict & Terrorism* (2022).

18 Anca-Elena Ursu, “Chapter 3: Resource Conflict and Radical Armed Governance in Central Mali,” in *CRU Report*, Clingendael Institute, July 2018, available at <https://www.clingendael.org/pub/2018/under-the-gun/3-resource-conflict-and-rebel-governance-in-central-mali/>; Kheira Tarif and Anab Ovidie Grand, “Climate Change and Violent Conflict in Mali,” ACCORD, June 10, 2021.

Box 2. Impact of climate change on women and girls

Climate change affects men, women, boys, and girls differently. Depending on the context, certain groups of people find themselves more vulnerable than others in the face of environmental degradation, which amplifies existing inequalities and risks, including along gendered lines. For women and girls,

climate change can amplify and accelerate pre-existing gender inequalities, exacerbating dispossession, marginalization and discrimination of women and girls in affected communities. This impact in turn affects women and girls' ability to adapt or recover from a climate-induced emergency and risks their livelihoods disproportionately.¹⁹

Because women and girls are often more reliant on climate-sensitive work such as agriculture, they are more affected by climate shocks.²⁰ In contexts where women and girls are regarded as the primary caretakers of their families, climate-related events may also make it harder for them to meet their families' needs. As a result, they might have to take more risks, including by traveling longer distances to collect water, potentially exposing themselves to attack. When resources tighten, girls are also often the first to be withdrawn from school.²¹ Fighting over natural resources or displacement due to environmental degradation or natural disasters also increase the risk of sexual and gender-based violence (SGBV) and conflict-related sexual violence (CRSV), which disproportionately impact women and girls.²² They can also disrupt access to essential services, including health services, which can particularly affect reproductive healthcare for women and girls.²³

Given the gendered impact of climate change, there is increasing awareness of the need to develop and implement gender-sensitive, community-based adaptation programs, including through peacebuilding and prevention.²⁴

tions by providing emergency relief and establishing committees to manage scarce resources.²⁵

In addition to climate change, the illegal exploitation of natural resources can also fuel armed conflict and violence by contributing to environmental degradation. Organized environmental crime—including crime that results in the depletion of natural resources, such as illegal mining and

logging—is a major source of revenue for many non-state armed groups, allowing them to sustain their engagement in armed conflict.²⁶ In both the Democratic Republic of the Congo (DRC) and South Sudan, for example, illegal logging and charcoal production have financed armed groups and contributed to environmental degradation.²⁷ Likewise, in Mali, artisanal gold mining has not only financed armed groups but also harmed the

19 Gender-Based Violence AoR, "Climate Change and Gender-Based Violence: What Are the Links?" 2021.

20 Estimates of women in sub-Saharan Africa working in agriculture vary between 40 and 60 percent. See: World Bank, "Women, Agriculture and Work in Africa"; and World Food Programme, "Empowering Women and Girls Is Crucial to Ensure Sustainable Food Security in the Aftermath of COVID-19, Say UN Food Agency Heads on International Women's Day," March 8, 2021.

21 World Food Programme, "Empowering Women and Girls."

22 See: Jenna Russo, "UN Peacekeeping and Protection of Civilians from Sexual and Gender-Based Violence," International Peace Institute, May 2022.

23 UNHCR and Potsdam Institute for Climate Impact Research, "Gender, Displacement and Climate Change," July 2020; UN Economic and Social Council, "Achieving Gender Equality and Empowerment of All Women and Girls in the Context of Climate Change, Environmental and Disaster Risk Reduction Policies and Programmes, UN Doc. E/CN.6/2022/L.7, March 29, 2022.

24 UN Development Programme (UNDP), "Gender, Climate Change and Community-Based Adaptation: A Guidebook for Designing and Implementing Gender-Sensitive Community-Based Adaptation Programmes and Projects," July 2010.

25 See: Will Marshall, "Is Climate Change Fuelling Al-Shabaab's Resurgence in Somalia?," *Global Risk Insights*, September 30, 2021; NUPI, "Climate, Peace and Security Fact Sheet: Somalia," February 2021; Raquel Munayer, Hannah Kurnoth, and Christophe Hodder, "When a Country Mandate Includes Climate Language: Lessons from UNSOM," *Climate Diplomacy*, May 23, 2022, in *Climate Diplomacy Podcast*, available at https://www.podomatic.com/podcasts/climate-diplomacy/episodes/2022-05-23T01_27_25-07_00; Florian Krampe and Karolina Eklöv, "Climate-Related Security Risks and Peacebuilding in Somalia," SIPRI, October 2019.

26 On organized environmental crime, see: UN Office on Drugs and Crime (UNODC), "UNODC Approach to Crimes That Affect the Environment," 2021. Almost 40 percent of armed groups' revenues are generated by illegal exploitation of resources. Interpol, RHIPTO, and the Global Initiative against Transnational Organized Crime, "World Atlas of Illicit Flows," 2018. See also: Marina Caparini, "Organized Environmental Crime: Why It Matters for Peace Operations," SIPRI, May 12, 2022; UN Security Council Counter-Terrorism Committee Executive Directorate (CTED), "CTED Trends Alert: Concerns over the Use of Proceeds from the Exploitation, Trade and Trafficking of Natural Resources for the Purposes of Terrorism Financing," June 2022.

27 See Group of Experts reports on the DRC, available at <https://www.un.org/securitycouncil/sanctions/1533/panel-of-experts/expert-reports>; Caparini, "Organized Environmental Crime."

health of local communities and the environment through the illegal use of mercury and cyanide.²⁸ The mandate of the UN mission in CAR (MINUSCA) explicitly recognizes the illegal exploitation of natural resources as a root cause of conflict, and several missions are mandated to address this issue (see Annex).

Impact of Armed Conflict on Environmental Degradation

Just as environmental degradation can exacerbate armed conflict, armed conflict can also exacerbate environmental degradation.²⁹ In some cases, belligerents deliberately target the natural environment even when it does not constitute a military target. Such conduct may amount to war crimes under international humanitarian law (IHL).³⁰

Given the links between environmental degradation, armed conflict, and protection, UN peacekeeping operations need to take environmental and climate considerations into account.

Armed conflict can also lead to the destruction, diminution, or contamination of natural resources. Bombing, landmines, and the targeting of infrastructure can lead to deforestation, desertification, environmental contamination, and groundwater pollution.³¹ For example, the Islamic State has destroyed irrigation wells and targeted the rural environment in Iraq and used incendiary bombs to burn fields and crops in Syria.³² Similarly, in Nigeria, Chad, and Cameroon, Boko Haram has burned crops and destroyed farming infrastructure.³³ In South Sudan, hostilities in the vicinity

of oil refineries and pipelines have raised the risk of groundwater pollution.³⁴

The environmental threats of armed conflict can also have a long-term impact on civilians' physical security and livelihoods by exacerbating stress on and competition over natural resources and leading to displacement and violence.³⁵ Land mines and explosive remnants of war, in particular, affect livelihoods years after conflicts end. For instance, land mines continue to pose a threat to civilians in

South Sudan seventeen years after the signing of the 2005 Comprehensive Peace Agreement.³⁶ There is an emerging recognition of an "inextricable link between the protection of the environment and the protection of civilians,"³⁷ including in the secretary-

general's last two reports on the protection of civilians.³⁸

Considering the Environment and Climate in Protection-Related Activities in Peacekeeping

Given the links between environmental degradation, armed conflict, and protection, UN peacekeeping operations need to take environmental and climate considerations into account. Given that 80 percent of UN peace operations personnel are

28 Interview with MINUSMA representative, March 2022. See also: Fahiraman Rodrigue Koné and Nadia Adam, "Going for Gold in Western Mali Threatens Human Security," Institute for Security Studies, July 8, 2021.

29 This issue was identified by the UN as a concerning one more than two decades ago. Since 2001, November 6th has been the International Day for Preventing the Exploitation of the Environment in War and Armed Conflict.

30 See: Article 35(3) and Article 55 of the 1977 Additional Protocol I to the 1949 Geneva Conventions; Rules 43, 44, and 45, International Committee of the Red Cross (ICRC) Customary IHL Database; ICRC, "Guidelines on the Protection of the Environment in Armed Conflict," September 25, 2020; and Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD), 1976. See also: Kirsten Stefanik, "The Environment and Armed Conflict: Employing General Principles to Protect the Environment," in *Environmental Protection and Transitions from Conflict to Peace: Clarifying Norms, Principles, and Practices*, Carsten Stahn, Jens Iverson, and Jennifer S. Easterday, eds. (Oxford University Press, 2017).

31 Wim Zwijnenburg, "Data-Driven Environmental Decision-Making and Action in Armed Conflict," *Humanitarian Law & Policy*, June 1, 2021.

32 PAX, "Witnessing the Environmental Impacts of War: Environmental Case Studies from Conflict Zones around the World," November 6, 2020, p. 6; Wim Zwijnenburg, "The Environment Has Become a Hostage of Armed Conflict," *New Security Beat*, November 6, 2019.

33 Africa Defense Forum, "When Food Is A Weapon," November 10, 2016.

34 Wim Zwijnenburg, "South Sudan's Broken Oil Industry Increasingly Becoming a Hazard," *New Security Beat*, May 2, 2016.

35 ICRC, "Twelve Issues: What States Can Do to Improve Respect for IHL in 2022," March 21, 2022.

36 Deng Machol, "South Sudan's Legacy of Land Mines Hurts Recovery from War," AP, February 4, 2022.

37 PAX, "Witnessing the Environmental Impacts"; PAX, "Protecting the Environment Is Protecting Civilians: The Humanitarian Dimensions of the Environment, Peace and Security Agenda: Event Summary," May 26, 2021; PAX, "PoC Week Event: Protecting the Environment is Protecting Civilians," available at <https://protectionofcivilians.org/event/poc-week-event-protecting-the-environment-is-protecting-civilians-2/>; Conflict and Environment Observatory, "How Does War Damage the Environment?" June 4, 2020.

38 See: UN Security Council, Protection of Civilians in Armed Conflict, Report of the Secretary-General, UN Doc. S/2022/381, May 10, 2022; UN Security Council, Protection of Civilians in Armed Conflict, Report of the Secretary-General, UN Doc. S/2021/423, May 3, 2021.

deployed in the countries most affected by climate change, failing to do so would provide an incomplete understanding of civilian protection needs.³⁹

This is not to suggest that missions should be directly undertaking climate action, which is beyond the scope of their mandates. However, they should integrate environmental and climate-related considerations into the work they are mandated to do, in particular when analyzing potential drivers of violence and planning for protection activities. While it is beyond the scope of this report, peacekeeping missions may also have to adapt their operations to the growing impact of environmental degradation, including on the mobility of troops. As they move ahead in this area, missions can draw on existing language in several peacekeeping mandates, as well as existing tools and practices.

Assessment and Planning

The mandates of three of the four biggest peacekeeping operations (MINUSCA, MINUSMA, and UNMISS) emphasize the need for the UN and host governments to assess climate-related risks (see Annex). By systematically factoring environmental considerations into their strategic threat assessments and response, missions can better anticipate, prevent, and respond to environmental and climate-related threats, thus limiting protection risks.

At the field level, some missions are already considering environmental and climate-related factors in their assessment and planning, including how these factors may both affect their operations and compound drivers of violence. For example, MINUSCA's POC strategy features transhumance and minefields—both of which have environmental components—as drivers of violence, though the mission still mainly examines these issues from a socioeconomic rather than an environmental perspective. The UN Mission in South Sudan (UNMISS) has established dedicated

focal points and task forces on climate-related security issues, and the joint mission analysis center regularly incorporates climate-related security risks into its assessments. The UN mission in Somalia (UNSOM) has integrated climate-related risks into its risk register.⁴⁰

Factoring environmental considerations into assessment and planning enables missions to prevent conflict more effectively. For example, by incorporating environmental factors into early-warning mechanisms, missions can identify potential hot spots for resource-related violence. In South Sudan, this has allowed UNMISS, together with the UN country team, to provide alternative water pools for cattle to prevent tension as water becomes scarce during the dry season.⁴¹ In CAR and South Sudan, it has allowed the missions to deploy military patrols along transhumance migration routes to defuse tensions and prevent altercations, though more data is needed to allow missions to assess how changing climate conditions are changing migrations patterns.⁴² In the DRC, the mission has deployed peacekeepers to gold mining sites, where the exploitation of natural resources by non-state armed groups can spur violence against civilians.⁴³

However, those initiatives remain ad hoc. They often depend on whether mission leaders or individuals in key positions in the mission or at headquarters prioritize environmental and climate-related issues, as well as the availability of dedicated expertise and a relevant mandate. The Department of Peace Operations (DPO) is taking incremental steps to address these challenges. In December 2021, DPO joined the Climate Security Mechanism, which was established by DPPA, UNDP, and UNEP to harness the expertise of each entity to better tackle the interlinkages between climate, peace, and security. Within this framework, DPO is deploying climate security advisers to several missions to provide technical advice and expertise on risk analysis and solutions.⁴⁴ Further, it is planning to train peacekeepers on climate

39 Florian Krampe, Elizabeth Smith, and Farah Hegazi, "Climate-Related Security Risks and Peacebuilding in Mali," Stockholm International Peace Research Institute (SIPRI), April 2021.

40 Jenna Russo, "The Environmental and Climate Adviser in UNSOM," International Peace Institute, October 2022.

41 Interview with DRC expert, May 2022.

42 UN Peacekeeping, "Preventing, Mitigating & Resolving Transhumance-Related Conflicts."

43 Interview with DRC expert, July 2022.

44 As of September 2022, a climate- security adviser was deployed in UNMISS and approved for MINUSMA.

security to raise their awareness of climate-related security risks and provide them tools to include climate-related considerations in assessments and planning.⁴⁵ While these initiatives are focused on missions' overall strategy, analysis, and programming, they could also inform threat assessments and response plans in specific mandated areas, including the protection of civilians.

Environmental Peacebuilding and Mediation

Environmental peacebuilding aims at fostering environmental cooperation with the objective of peacefully resolving disputes and preventing violence. This is based on the idea that mutual benefits can arise from the appropriate, and sometimes shared, management of natural resources and collective responses to climate change and other sources of environmental degradation. The benefits of integrating climate-related issues into peacebuilding efforts were recognized in the 2022 IPCC report.⁴⁶ UNEP and DPPA have also issued guidance on how to better integrate environmental considerations into mediation efforts.⁴⁷

While no current peacekeeping missions have a dedicated mandate to engage in environmental peacebuilding, they can incorporate such efforts into other mandated activities, including the protection of civilians, the provision of good offices, and support to reconciliation and mediation. For example, in CAR, Mali, and South Sudan, peacekeeping operations have supported dialogue between farmers and herders to prevent violence on transhumance migration routes, including by organizing pre- and post-migration conferences, supporting communities in agreeing on migration routes, and bolstering traditional dispute-resolution mechanisms.⁴⁸

Some UN special political missions and country teams have also applied a climate-oriented lens to their efforts to prevent and address other types of conflicts related to shrinking natural resources. For example, the environment and climate security adviser in Somalia has supported a community-led environmental mediation process in the Mataban district, offering “nature-based solutions to grazing lands and water provision.”⁴⁹ In Sudan's Blue Nile state, UNEP, UN Women, and UNDP are implementing a project aimed at supporting the peace process “by enhancing climate resilient livelihoods option for women, youth and marginalized groups, improving the local governance of natural resources by ensuring the full and equal participation of women, and strengthening the local conflict resolution mechanisms that underpin the development prospects of all groups.”⁵⁰ Beyond the UN, humanitarian and development NGOs have sought to strengthen resilience to climate and food-security shocks through community-level cooperation on resource management. They have also integrated environmental considerations into peace negotiations, including in Yemen and Colombia.⁵¹ Peacekeeping operations could consider supporting those practices and tools.

Protection of the Natural Environment in Armed Conflict and Other Situations of Violence

As part of their prevention and protection activities, missions could strengthen their engagement with both governments and non-state armed groups to promote respect for the natural environment in armed conflict situations. This is not only a matter of complying with obligations under inter-

45 The three-module training is developed in cooperation between DPO, DPPA, the Folke Bernadotte Academy, and SIPRI. The pilot training is expected to be rolled out in UNMISS by the end of 2022.

46 Weathering Risk, “Joint Statement.”

47 Alexander Grzybowski and Chanda Hunnie, “Mediating Peace with Climate Change: Integrating Climate Change Considerations into Mediation,” October 2021; UNEP, “Addressing the Role of Natural Resources in Conflict and Peacebuilding: A Summary of Progress from UNEP's Environmental Cooperation for Peacebuilding Programme 2008-2015,” 2015; UN Department of Political Affairs and UNEP, “Natural Resources and Conflict: A Guide for Mediation Practitioners,” 2015; UNEP, “From Conflict to Peacebuilding: The Role of Natural Resources and the Environment,” February 2009.

48 UN Peacekeeping, “Preventing, Mitigating & Resolving Transhumance-Related Conflicts.” See also: Delsol, “UN Peacekeeping Operations and Pastoralism-Related Insecurity.”

49 Challenges Forum and Center for International Peace Operations (ZIF), “Opportunities: Developing a People-Centered Approach to Climate Security in Somalia,” November 2021.

50 UN MPTF Office Partners Gateway, “PBF/SDN/B-1: Supporting Sustainable Peace in Blue Nile State through Gender-Responsive Natural Resource Governance, Inclusive Conflict Resolution Mechanisms and Climate-Resilient,” available at <https://mptf.undp.org/project/00128019>.

51 Gracie Cook, “Pathways to Resilience: Evidence on Links between Conflict Management, Natural Resources and Food Security,” *New Security Beat*, April 26, 2016; Bilkis Zabara and Tobias Zumbrägel, “The Role of the Environment in Peacebuilding in Yemen,” Centre for Applied Research in Partnership with the Orient, March 9, 2022.

national humanitarian law but is also essential to prevent the long-term impact of environmental degradation on civilians.

In advocating restraint toward the natural environment and other civilian objects during the conduct of hostilities, missions can draw on the International Committee of the Red Cross's Guidelines on the Protection of the Natural Environment in Armed Conflict and the International Law Commission's twenty-seven draft principles for the Protection of the Environment in Relation to Armed Conflict, which are expected to be adopted by the UN General Assembly in October 2022.⁵² For example, they could use principle 4 to map out critical environmental infrastructure and encourage conflict parties to agree on protected demilitarized zones with the objective of protecting the natural environment. Missions could also encourage conflict parties to address these principles during peace negotiations.⁵³ In their engagement with conflict parties, missions could also leverage relevant UN sanctions regimes related to natural resources.⁵⁴ To provide more direct protection, some experts have called for the UN to deploy peacekeepers to protect natural resources or provide more support to national authorities, including park rangers, for them to protect these resources in a human rights-compliant manner, including in the DRC.⁵⁵

Several missions are also mandated to support the lawful management of natural resources. MINUSCA and MONUSCO are mandated to support the government in stopping the illegal exploitation of natural resources, while MINUSMA is mandated to build the government's capacity to address organized crime, including related to natural resources (see Annex). Toward this end, the justice and corrections section of peacekeeping operations, as well as UN police, could build the

capacity and expertise of judicial authorities to prosecute crimes related to the natural environment, including war crimes.⁵⁶

Additionally, missions could more systematically consider environmental drivers of conflict and violence during security sector reform (SSR) and disarmament, demobilization, and reintegration (DDR) processes. For example, as part of DDR, they could work with other actors to provide economic alternatives to the illegal exploitation of natural resources.⁵⁷ As part of SSR, missions could work with national security sector institutions to mitigate their environmental impact, adapt their operations to environmental changes, and take into account environmental and climate-related risks in their operations. DPO's SSR Unit will also include these considerations in its forthcoming guidance note on climate security and SSR.

To complement engagement with governments and non-state armed groups, missions could also promote environmental preservation through strategic communications campaigns targeting security actors and the general population. These campaigns could raise awareness of the gravity of environmental crimes, the scarcity of natural resources, and the long-term impact of the illegal exploitation of these resources on the physical integrity and livelihoods of civilian populations.

Support to the UN Country Team

When considering the impact of environmental degradation on civilians, missions need to work in close partnership with the UN country team and host government. Environmental degradation has a broad set of humanitarian and development impacts, including related to food and water insecurity and displacement, that go beyond peacekeeping mandates and fall under the remit of UN

52 ICRC, "Twelve Issues"; ICRC, "Guidelines on the Protection of the Natural Environment"; UN International Law Commission (ILC), "Chapter VI: Protection of the Environment in Relation to Armed Conflicts," UN Doc. A/74/10, 2019; ICRC, "The Roots of Restraints in War," June 12, 2020; UN General Assembly, *Protection of the Environment in Relation to Armed Conflicts: Draft Principles on Protection of the Environment in Relation to Armed Conflict*, UN Doc. A/CN.4/LL.968, May 20, 2022; Conflict and Environment Observatory, "States to Adopt a New Legal Framework on War and the Environment," September 14, 2022.

53 Grzybowski and Hunnie, "Mediating Peace."

54 Caparini, "Organized Environmental Crime"; Rebecca Brubaker and Thomas Dörfler, "UN Sanctions and the Prevention of Conflict: A Thematic Paper for the United Nations—World Bank Study on Conflict Prevention," UN University Centre for Policy Research, August 2017.

55 Interview with DRC expert, July 2022.

56 Caparini, "Organized Environmental Crime."

57 UN DPO and Bonn International Center for Conversion, "The Evolving Nature of DDR: Study on Engaging Armed Groups Across the Peace Continuum," 2021; UNDP and UNEP, "The Role of Natural Resources in Disarmament, Demobilization and Reintegration: Addressing Risks and Seizing Opportunities," 2013.

country teams. Ultimately, therefore, expertise on the environment and climate is needed across the peace-humanitarian-development nexus. Many missions are already engaging in this type of cooperation. For instance, MINUSCA is collaborating with the Food and Agriculture Organization and the International Organization for Migration on transhumance, the UN Office for West Africa and the Sahel is cooperating with UNEP on climate data, and the UN Regional Centre for Preventive Diplomacy for Central Asia and UNSOM are working with various actors on issues related to water.⁵⁸

A whole-of-UN approach is particularly important as UN missions plan their transition and exit strategies, which require handing over activities to UN entities remaining in the country, as well as to the host state and civil society. Environment-related benchmarks could thus be included in transition plans. For example, the joint UN-government transition plan for the phased withdrawal of MONUSCO included natural resource-related benchmarks.⁵⁹ Such benchmarks could also include agreement among local authorities on new transhumance migration routes and natural resource-management practices.

Missions could continue exploring opportunities for new approaches, including environmental peacebuilding and mediation.

Conclusion

Environmental degradation caused by climate change, armed conflict, or the illegal exploitation of resources can be a catalyst for violence against civilians. UN peacekeeping operations should thus include environmental and climate security considerations in their assessment and planning as well as in the implementation of mandated activities related to protection. They should do this through a whole-of-mission approach and in close partnership with the UN country team and the host government.

While some missions are already engaging in good practices in this regard, these efforts could be more systematic. Missions could also continue exploring opportunities for new approaches, including environmental peacebuilding and mediation. Likewise, at headquarters, DPO has started to take incremental steps to increase its engagement on climate security, including by joining the Climate Security Mechanism. DPO is also working to endow peacekeepers with the tools they need to consider the relationship between the environment, conflict dynamics, and peacebuilding opportunities. While these steps are encouraging, they should only be the beginning, especially as environmental conditions worsen in the years ahead.

⁵⁸ UN Peacebuilding Commission, “Thematic Two-Pager on Climate Security—SG’s Report on Sustaining Peace,” 2019.

⁵⁹ See benchmark 16 and 17 of the transition plan, respectively on the formalization of the mining sector and the finalization of land reform. UN Security Council, *United Nations Organization Stabilization Mission in the Democratic Republic of the Congo: Report of the Secretary-General*, UN Doc. S/2021/807, September 17, 2021, Annex, p. 39.

Annex: Language Related to Environmental and Climate Security in the Four Largest Peacekeeping Missions’ Most Recent Mandates

	MINUSCA	MONUSCO	MINUSMA	UNMISS
Preambular Language				
Recognizes the adverse effects of climate change and ecological change	“ <i>Recognising</i> the adverse effects of climate change, ecological changes and natural disasters, among other factors, on the stability of the Central African region, including through drought, desertification, land degradation, food insecurity, and energy access”	“ <i>Recognising</i> the adverse effects of climate change, ecological changes, natural disasters, and lack of energy access, among other factors, on the stability of the DRC, including through increasingly frequent and extreme weather phenomena, flooding, forest fires, erratic precipitation, volcanic eruptions and food insecurity, welcoming the leadership of the DRC in the development of national strategies to address these issues and in the preservation of the Congo basin forest”		“ <i>Recognizing</i> the adverse effects of climate change, ecological changes, and natural disasters, among other factors, on the humanitarian situation and stability in South Sudan”
Emphasizes the need for risk assessment and management related to climate change and ecological change	“ <i>Stressing</i> the need for comprehensive risk assessment by the United Nations relating to [the adverse effects of climate change, ecological changes and natural disasters] and for long-term strategies by governments of the Central African region and the United Nations to		“ <i>Emphasizing</i> the need for adequate risk assessment and risk management strategies, by the Government of Mali and the United Nations, of ecological changes, natural disasters, drought, desertification, land degradation, food insecurity, energy access, climate change, among	“ <i>Emphasizing</i> the need for comprehensive risk assessments and risk management strategies by the [government of South Sudan] and the United Nations to inform programs relating to [the adverse effects of climate change, ecological changes, and natural disas-

	MINUSCA	MONUSCO	MINUSMA	UNMISS
Preambular Language				
	support stabilisation and build resilience”		other factors, on the security and stability of Mali”	ters], and acknowledging the United Nations Framework Convention on Climate Change and the Paris Agreement”
Notes or condemns the illegal exploitation of natural resources as a root cause of conflict	<p>“<i>Noting</i> that a sustainable solution to the crisis in the CAR and the elimination of the threat posed by armed groups requires an integrated regional strategy and a strong political commitment from the CAR authorities and regional countries, also noting the importance of addressing the root causes of conflict, including illicit exploitation and trade of natural resources”</p> <p>“<i>Condemning</i> cross-border criminal activities, such as... trafficking of natural resources... that threaten the peace and stability of the CAR...calling upon the Government of CAR to work with neighbouring countries to secure its borders and other entry points to prevent the cross-border flows of... conflict</p>			

	MINUSCA	MONUSCO	MINUSMA	UNMISS
Preambular Language				
	minerals, stressing the need for CAR authorities to finalise and implement, in cooperation with relevant partners, a strategy to tackle the illegal exploitation and smuggling of natural resources”			
Operative Language				
Mandates the mission to consider and manage the environmental impact of its operations	“Requests MINUSCA to consider the environmental impacts of its operations when fulfilling its mandated tasks and, in this context, to manage them as appropriate and in accordance with applicable and relevant General Assembly resolutions and United Nations rules and regulations” (op. para. 44)	“Requests MONUSCO to consider the environmental impacts of its operations when fulfilling its mandated tasks and, in this context, to manage them as appropriate and in accordance with applicable and relevant General Assembly resolutions and United Nations rules and regulations” (op. para. 45)	“Requests MINUSMA to consider the environmental impacts of its operations when fulfilling its mandated tasks and, in this context, to manage them as appropriate and in accordance with applicable and relevant General Assembly resolutions and United Nations rules and regulations” (op. para. 53)	
Mandates the mission to support the host state in stopping the illegal exploitation of natural resources and/or to better manage natural resources	Authorizes MINUSCA to support “the extension of State authority, the deployment of security forces, and the preservation of territorial integrity” including to “address cross-border illicit trade in natural resources” (op. para. 35(c))	Mandates MONUSCO to “provide technical advice to the Government of the DRC in the consolidation of an effective national civilian structure that controls key mining activities and manages in an equitable manner the extraction, transport, and trade	Mandates MINUSMA to “help ensur[e] the effectiveness of justice and corrections officials as well as Malian judicial institutions, particularly regarding the detention, investigation and prosecution of individuals suspected of, and sentencing of...	

	MINUSCA	MONUSCO	MINUSMA	UNMISS
Operative Language				
	Authorizes MINUSCA to “advise the CAR authorities on efforts to keep armed groups from exploiting natural resources” (op. para. 36(b))	of natural resources in eastern DRC, in coordination with the Special Envoy for the Great Lakes Region’s technical assistance efforts” (op. para. 29(ii)(b))	transnational organized crime activities (including trafficking in persons, arms, drugs and natural resources)” (op. para. 26(a)(iv))	
Calls on armed groups to end the illegal exploitation of natural resources		<p>“<i>Demands</i> that all armed groups cease immediately all forms of violence and other destabilising activities, the illegal exploitation and trafficking of natural resources” (op. para. 13)</p> <p>“<i>Condemns</i> the continued illegal exploitation and trafficking of natural resources, particularly timber, so-called ‘conflict minerals’ like tin, tantalum, tungsten and gold, as well as diamonds, cobalt, charcoal and wildlife, by armed groups and criminal networks supporting them, the negative impact of armed conflict on protected natural areas, which undermines lasting peace and development for the DRC, and <i>encourages</i> the Government of the DRC to strengthen efforts to safeguard</p>		

	MINUSCA	MONUSCO	MINUSMA	UNMISS
Operative Language				
		those areas, calls on member States of ICGLR and regional economic communities to jointly fight illegal exploitation and trade of natural resources, and encourages them to promote the transparent and lawful management of natural resources, including the adoption of government revenue targets to finance development, sustainable regulatory and customs frameworks, and responsible mineral sourcing supply chain due diligence” (op. para. 16)		
Calls on host-state authorities to cooperate at the regional level to stop the illegal exploitation of natural resources	“Calls on the CAR authorities and the authorities of neighbouring countries to cooperate at the regional level to investigate and combat transnational criminal networks and armed groups involved in arms trafficking and in the illegal exploitation of natural resources” (op. para. 6)	“Conduct information-sharing with security forces in the region to interdict cross-border flows of... natural resources that threaten peace and stability in the DRC” (op. para. 54(d))		

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777 United Nations Plaza, New York, NY 10017-3521, USA
TEL +1-212-687-4300 FAX +1-212-983-8246

52-52 Harbour House, Bahrain Financial Harbour
P.O. Box 1467, Manama, Bahrain

www.ipinst.org