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Contingent-Owned Equipment and Environmental Considerations in UN Peacekeeping Operations

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Executive Summary

Peacekeeping operations are one of the largest contributors to the UN's environmental footprint. Through poor environmental practices, UN peacekeeping operations risk not only altering or deteriorating local ecologies but also disrupting the lives of local populations and undermining the UN's reputation and legitimacy. Recognizing this risk, the UN has increasingly focused on improving the environmental practices of its missions. However, these efforts have focused mainly on the actions of the UN Secretariat. Greater focus is also needed on the role of member states, whose uniformed contingents provide a considerable portion of the equipment they need to participate in peacekeeping operations. This contingent-owned equipment (COE) and the financial incentive structure that shapes its deployment can significantly impact a mission's environmental footprint.

Since 2011, environmental considerations have slowly begun to emerge in the UN General Assembly's COE Working Group. The 2017 session in particular was a turning point, with member states approving several changes intended to reduce missions' footprints. Environmental issues are likely to come under discussion again during the COE Working Group negotiations in January 2023.

Changing how member states approach environmental considerations in COE requires change at both the intergovernmental and the domestic levels. At the intergovernmental level, member states must reconcile their varying interests, particularly disagreements between troop- and police-contributing countries (T/PCCs) and major financial contributors. Domestically, T/PCCs need to shift their military infrastructures to prioritize the procurement and deployment of eco-friendly equipment, though this also requires shifts in the UN's financial incentive structure for COE.

There are four important takeaways that member states may consider when engaging in future conversations around the COE framework. First, member states will need to expand their focus beyond the important area of renewable energy. Second, adjustments to the COE framework hinge on progress both by member states and by the UN Secretariat. Third, member states would benefit from a dedicated forum for sharing data and best practices on environmentally friendly equipment. Finally, the need to reduce missions' environmental footprints will only become more urgent as the pace of climate change-induced environmental degradation accelerates.

Introduction

Peacekeeping operations are one of the United Nations' flagship initiatives, incorporating over 80,000 personnel from 120 countries across twelve missions. They are also among the largest contributors to the UN's environmental footprint and the biggest potential vectors for pollution.

The environmental practices of UN peacekeeping operations affect not only the ecosystems in which they operate but also their mandate implementation. Activities that alter or deteriorate local ecologies can change relationships between communities, fuel conflict, impact the health and safety of local populations and UN staff, alter local economic practices, and undermine the UN's reputation and legitimacy.¹ The 2010 outbreak of cholera in Haiti, which was linked to poor wastewater-management practices by the UN Stabilization Mission in Haiti (MINUSTAH), sharply exposed these potential consequences.²

The environmental practices of UN peacekeeping operations affect not only the ecosystems in which they operate but also their mandate implementation.

Since 2009, the UN has increased its focus on improving the environmental practices of its missions. Member states have made broad commitments to this effect in resolutions, budgets, and political declarations, and the UN Secretariat has developed strategies, policies, and monitoring systems to support missions in reducing their environmental footprints. However, these efforts have focused mostly on the UN Secretariat's actions and not those of member states.

For UN peacekeeping operations to meet the organization's ambitious climate goals, member states will also need to focus on reducing the impact of uniformed contingents and their equipment on missions' environmental footprints. Uniformed contingents provide a considerable portion of the equipment they need to participate

in peacekeeping operations. Some of these items, ranging from diesel electrical generators to air conditioners, can significantly impact a mission's footprint.

The contingent-owned equipment (COE) framework sets out how the UN reimburses member states for the equipment they provide to peacekeeping operations. Every three years, member states convene in the COE Working Group, a subsidiary body of the UN General Assembly's Fifth Committee, to update the COE Manual and negotiate the definitions of and reimbursement rates for various categories of equipment.³ The COE framework is therefore an important financial mechanism that can incentivize states to contribute eco-friendly equipment to UN peacekeeping.

Since 2011, environmental considerations have slowly begun to emerge throughout the COE framework, mirroring the UN's growing focus on environmental responsibility. However, only a handful of member states,

along with the UN Secretariat, have driven these efforts. Broader political, financial, and structural dynamics inhibit many member states from embracing the wholesale incorporation of environmentally friendly equipment into UN peacekeeping.

This issue brief analyzes how environmental considerations have emerged within the COE framework. It begins by providing an overview of UN peacekeeping's environmental footprint and the policies that have emerged in response. It then traces the evolution of the COE Working Group to track how environmental issues have featured in previous sessions and how they may come under consideration in 2023. Next, it surveys the dynamics that impact how member states engage with these issues and highlights member states' best

1 UN Environment Programme, "Greening the Blue Helmets: Environment, Natural Resources and UN Peacekeeping Operations," May 2012, p. 18; Lucile Maertens and Malkit Shoshan, "Greening Peacekeeping: The Environmental Impact of UN Peace Operations," International Peace Institute, April 2018, p. 6.

2 The mismanagement of wastewater in the UN Stabilization Mission in Haiti's (MINUSTAH) Mirebalais camp triggered a cholera epidemic that killed more than 9,000 people and affected nearly 807,000 civilians. See: UN General Assembly, *Report of the Special Rapporteur on Extreme Poverty and Human Rights*, UN Doc. A/71/367, August 26, 2016, paras. 14–18.

3 The COE Working Group is open to all member states. See: UN Department of Operational Support (DOS), "2023 Contingent-Owned Equipment Working Group." The formal title of the manual is the Manual on Policies and Procedures Concerning the Reimbursement and Control of Contingent-Owned Equipment of Troop/Police Contributors Participating in Peacekeeping Missions (the COE Manual).

practices on improving environmental standards for COE. The issue brief concludes with longer-term considerations for mitigating the environmental footprints of UN peacekeeping operations.

Landscape of UN Peacekeeping Operations and Environmental Policies

Peacekeeping operations are the UN's largest source of greenhouse gas emissions and can unintentionally pollute often-fragile local communities. Because of this impact, the UN has increasingly focused on reducing its environmental footprint and leaving a sustainable legacy in host communities. This section surveys relevant UN policies on environmental management in UN peacekeeping operations. It also addresses the role and impact of uniformed contingents and their equipment on missions' environmental footprints.

In 2020, UN peacekeeping operations contributed over 44 percent of the UN system's total carbon emissions.

toward renewable-energy sources. And although missions' wastewater management has improved significantly, their management of physical waste has not

tions contributed over 44 percent of the UN system's total carbon emissions, a considerable portion of which comes from the consumption of fuel for electric generators, vehicles, and noncommercial air travel.⁵ Missions also account for nearly all of the UN Secretariat's risk of generating pollution through solid waste or wastewater.⁶

UN peacekeeping operations' progress in reducing their environmental footprints has been mixed (see Table 1). The UN Department of Operational Support's (DOS) Environment Strategy for Field Missions has precipitated increased data collection on environmental impact and more consistent site inspections. Missions have begun embracing the call to limit their greenhouse gas emissions, including by reducing the amount of fuel consumed by generators, though they have been slower to shift

improved at the same rate.

Overview of the Environmental Footprints of UN Peacekeeping Operations

UN peacekeeping operations have large presences across countries that often have limited preexisting infrastructure. The UN establishes both temporary and permanent structures such as headquarters, camps and super-camps, temporary bases, airfields, and logistics hubs that provide physical protection, serve as offices, accommodate personnel, and house equipment. In most cases, mission presences are self-sustaining, which requires the UN to source food, water, fuel, electricity, waste disposal, and medical services.⁴

These presences have an unavoidable environmental impact. In 2020, UN peacekeeping opera-

UN Policies and Strategies on Environmental Management by Peacekeeping Operations

The UN has established a considerable body of policies to guide missions in reducing their environmental impact. The 2009 Environmental Policy for Peacekeeping Operations was the Secretariat's first effort to shift from ad hoc environmental measures toward a standardized, system-wide approach.⁷ It required each mission to develop an environmental policy and objectives and to put in place control measures across all phases of its lifecycle.

Recent UN policies build on this foundation. DOS's Environment Strategy for Field Missions (2017–2023) commits the UN to ensuring

4 Maertens and Shoshan, "Greening Peacekeeping," p. 6.

5 The UN Secretariat contributes approximately 64 percent of the organization's total carbon emissions. UN peacekeeping operations contribute over 70 percent of the UN Secretariat's overall emissions. See: UN Environment Programme, "Greening the Blue Report 2021," November 8, 2021, pp. 12–14; and UN Secretariat, "Climate Action Plan 2020–2030," September 2019, p. 10.

6 According to the UN, field missions account for between 96 and 100 percent of all of the organization's pollution risks. See: UN Department of Peace Operations (DPO), "Training Materials on Negotiation, Planning, Deployment, Sustainment of National Contingents," April 2019, Draft Version, p. 639.

7 UN Department of Peacekeeping Operations (DPKO) and UN Department of Field Support (DFS), "Environmental Policy for UN Field Missions," 2009, para. 4.

Table 1. Key performance indicators for Phase 2 (2020–2023) of the UN Department of Operational Support’s Environment Strategy for Field Missions⁸

Global strategy key performance indicators	2018/2019	2019/2020 (Phase 2 Baseline)	2020/2021
Range of mission environmental management scores	51–87	58–88	51–89
Proportion of data measured (not estimated) (percentage)	30%	65%	75%
Proportion of sites where environmental inspections were conducted (percentage)	67%	91%	88%
Generator fuel consumption per capita per day (UN-owned and contingent-owned equipment) (liters)	4.88	4.46	3.95
Proportion of renewable energy (percentage)	3%	3%	5%
Greenhouse gas emissions per capita per year (tons of CO ₂ equivalent)	8.2	7.8	7.4
Freshwater use per capita per day (liters)	127	146	124
Sites where wastewater is assessed as posing a minimum risk (percentage)	47%	64%	70%
Sites that use some alternative water sources (e.g., treated wastewater, collected rainwater) (percentage)	18%	27%	25%
Generation of solid waste per capita per day (kilograms)	1.60	1.64	1.70
Sites where waste is assessed as posing a minimum risk (percentage)	20%	23%	16%
Share of waste disposed using preferred disposal methods (percentage)	32%	40%	43%

“maximum efficiency” in using natural resources while operating at “minimum risk” to all people and ecosystems and leaving a “positive impact on these wherever possible.”⁹ It also encourages missions to consider their broader impact on the ecosystem and provides a detailed set of management systems and performance indicators.¹⁰

The UN’s 2019 Environmental Policy for the Secretariat reinforces the principles of “maximum

efficiency” and “minimum risk” and adds three more: the continuous improvement of environmental performance, systematic engagement with all stakeholders, and commitment to adaptation and resilience.¹¹ In 2022, DOS, the Department of Peace Operations (DPO), and the Department of Political and Peacebuilding Affairs endorsed a new Environmental Policy for Peacekeeping Operations and Field-Based Special Political Missions, which tailors the 2019 Secretariat-wide framework to

⁸ UN General Assembly, *Overview of the Financing of the United Nations’ Peacekeeping Operations: Budget Performance for the Period from 1 July 2020 to 30 June 2021 and Budget for the Period from 1 July 2022 to 30 June 2023—Report of the Secretary General*, UN Doc. A/76/717, February 22, 2022, p. 50.

⁹ UN DOS, “DOS Environment Strategy for Field Missions: Executive Summary,” November 2018.

¹⁰ See: UN DOS, “DOS Environment Strategy for Field Missions”; UN Secretariat, “Climate Action Plan”; and UN Environment Programme, “Greening the Blue.”

¹¹ UN Secretariat, *Environmental Policy for the United Nations Secretariat*, UN Doc. ST/SGB/2019/7, September 4, 2019, paras. 5 and 9.

peace operations.¹²

These policies focus on a few core areas, including water, energy, solid and hazardous waste, wastewater, wildlife, and the management of cultural and historical sites.¹³ The UN has also developed issue-specific policies like the 2015 Waste Management Policy for UN Field Missions.¹⁴

The responsibility for complying with these policies has fallen to an increasing number of personnel, ranging from heads of mission and force commanders to environmental focal points within individual contingents.¹⁵ DPO has also begun to impose environmental obligations on uniformed contingents, requiring them to report to mission support components on a series of environmental indicators, including total water and fuel consumption and the number of sites with structures to prevent fuel spills.¹⁶

Member States' Role in Shaping Environmental Peacekeeping Policy

Member states also play an important role in helping UN peacekeeping operations meet their environmental goals. In 2017, the UN Security Council issued a press statement acknowledging the importance of comprehensively addressing missions' environmental impact and the positive links between environmental management and mandate implementation.¹⁷ Security Council resolutions on multiple peacekeeping operations and field-based special political missions now feature language related to addressing their environmental impact,

Uniformed contingents and the equipment they provide contribute a significant percentage of missions' overall environmental footprints.

tial positive legacy for host communities," particularly in light of the upcoming conclusion of phase two of the DOS Environment Strategy for Field Missions.²⁰

including resolutions on the missions in Mali (Resolution 2100 on MINUSMA), Darfur (Resolution 2013 on UNAMID), and Somalia (Resolution 2245 on UNSOM).

In the 2018 Declaration of Shared Commitments, member states committed to "sound environmental management" for UN peacekeeping and to "support environmentally-responsible solutions."¹⁸ In its 2021 report, the General Assembly's Special Committee on Peacekeeping Operations (C-34) reinforced member states' obligation to support missions in reducing their environmental footprints. The committee also encouraged missions to shift toward renewable resources, clean technology, and green solutions and to eliminate single-use plastics where possible.¹⁹

The General Assembly's Fifth Committee negotiated a cross-cutting resolution on UN peacekeeping in July 2022 that called on the UN "to intensify the efforts aimed at reducing the overall environmental footprint of missions" and to work toward a "potential

Despite these commitments, much of the UN's focus has been on the Secretariat's efforts. This focus on the Secretariat is necessary to standardize best practices, collect data more systematically, and foster an institutional culture that prioritizes environmental responsibility. But uniformed contingents and the equipment they provide contribute a significant percentage of missions' overall environmental footprints. In the 2020/2021 budget cycle, COE

12 UN DOS, *Environmental Policy for Peacekeeping Operations and Field-Based Special Political Missions*, UN Doc. DOS/2022.1, 2022, paras. 14–92.

13 UN DPKO and UN DFS, "Environmental Policy for UN Field," paras. 39–45.

14 Guidance from the 2015 policy has since been updated and included in the 2022 Environmental Policy for Peacekeeping Operations and Field-Based Special Political Missions.

15 This includes heads of mission, force and police commanders, directors of mission support, designated environmental officers, designated waste management officers, and environmental focal points in the civilian and uniformed components. UN DPO and DOS, "UN Environmental Management Handbook for Military Commanders in UN Peace Operations," March 2021.

16 UN DPO, "Training Materials on Negotiation," p. 644.

17 UN Security Council, "Press Statement on Environmental Management of Peacekeeping Operations," Press Release, UN Doc. SC/13134-ENV/DEV/1830-PKO/700, December 21, 2017.

18 UN DPO, "Action for Peacekeeping: Declaration of Shared Commitments on UN Peacekeeping Operations," para. 23.

19 UN General Assembly, *Report of the Special Committee on Peacekeeping Operations*, UN Doc. A/75/19, para. 44, 2021.

20 UN General Assembly Resolution 76/247 (June 29, 2022), UN Doc. A/RES/76/274.

reimbursements accounted for approximately 12 percent of the total UN peacekeeping budget, and in some missions their share of the budget is even higher.²¹ COE also accounts for approximately 40 percent of peacekeeping operations' total fuel consumption.²² These statistics underscore that financial incentives through the COE reimbursement framework could shape member states' decisions on whether and how to deployment eco-friendly equipment.²³

Environmental Considerations in the COE Manual and Working Group Negotiations

COE is an important, but under-examined, component of how peacekeeping operations generate uniformed capabilities. While the COE process leaves little space for thematic priorities to emerge, environmental issues have gradually come into the spotlight. This section briefly summarizes the evolution of environmental issues through the previous four COE Working Group negotiations (2011, 2014, 2017, and 2020) and previews the issues likely to emerge during the upcoming negotiations (2023).

2011 and 2014 COE Working Group Negotiations

Environmental issues first emerged in the Working Group's discussions during its 2011 and 2014 sessions. The 2011 session was the first opportunity

for member states to consider the COE Manual after the UN adopted its 2009 Environmental Policy for Peacekeeping Operations, but there was little consensus about whether to discuss these issues. One member state submitted an issue paper on waste management, but the Working Group concluded that it was "policy driven" and that there was insufficient legislative guidance from the C-34 or other member-state bodies.²⁴

The 2014 Working Group session broke normative ground as member states acknowledged the impact of contingents on the environmental footprints of UN peacekeeping operations. One issue paper proposed updating the COE Manual's guidance on environmental and waste management. In contrast to the 2011 session, and thanks to new language in recent C-34 reports,²⁵ the Working Group agreed to discuss this subset of environmental issues and appointed a group of member states to facilitate negotiations on the paper.²⁶

The negotiations culminated in narrow but tangible progress. Although the COE Working Group did not approve any changes to the reimbursement framework, it recommended amending the contracts between troop- and police-contributing countries (T/PCCs) to require stricter adherence to environmental policies and practices. The working group also approved updates to the MOU template by adding new language on compliance with UN environmental and waste-management policies. Member states reinforced the code of conduct in this MOU by requiring that uniformed personnel "respect the environment of the host country" and that they never litter or improperly dispose of material or equipment.²⁷

21 For example, COE accounted for approximately 17 percent of MINUSCA's budget in 2022/2023. UN DOS, "Briefing to Member States on COE Working Group," January 2022, p.14.

22 UN Secretariat, "Climate Action Plan," p. 12.

23 Katharina P. Coleman, "The Political Economy of UN Peacekeeping: Incentivizing Effective Participation," International Peace Institute, May, 2014, p. 1.

24 Bianca Selway, "Peacekeeping Reimbursements: Key Topics for the Next COE Working Group," International Peace Institute, December 2013, p. 5; UN General Assembly, UN Doc. A/C.5/65/16, March 2, 2011, para. 69.

25 During the three-year interval between the 2011 and 2014 COE Working Group sessions, the C-34 included language in its annual report acknowledging that peacekeeping operations should commit to environmental practices and reduce their footprint. The 2010 report (the last before the 2011 COE Working Group) included no reference to environmental issues. The 2011 report featured one paragraph that focused on missions implementing sound environmental practices. The 2012 report expanded on this concept to emphasize that missions should implement sound environmental practices "in order to reduce the environmental footprint of UN peacekeeping missions." In the 2013 C-34 session, member states did not agree on a substantive report. See: UN General Assembly, *Report of the Special Committee on Peacekeeping Operations*, UN Doc. A/64/19, 2010; UN General Assembly, *Report of the Special Committee on Peacekeeping Operations*, UN Doc. A/65/19, 2011, para. 278; and UN General Assembly, *Report of the Special Committee on Peacekeeping Operations*, UN Doc. A/66/19, 2012, para. 288.

26 This group included Brazil, China, Pakistan, and Uganda. The large, geographically diverse group of TCC focal points (in contrast to other issue papers, which had one or at most two geographically similar countries) was a small signal of the issue's growing political importance. See: UN General Assembly, UN Doc. A/C.5/68/22, April 2014, para. 77(e).

27 See: UN Doc. A/C.5/68/22, paras. 118–119.

Box 1. Overview of the COE Manual and COE Working Group negotiations

The COE Manual is the centerpiece of the UN's reimbursement framework. Member states developed the current methodology in 1996 and have updated it every three years since. The manual includes definitions and standards to categorize eligible equipment; worksheets and formulas to calculate reimbursement rates; and policies, explanations, clarifications, and guidance on how the reimbursement framework is applied. It also contains a template for the memoranda of understanding (MOU) between the UN and individual member states.

COE is grouped into three main classifications. Major equipment includes (but is not limited to) vehicles, energy generators, communications infrastructure, engineering equipment, police and riot-control equipment, airfield support, armaments, and logistics equipment. Self-sustainment equipment includes equipment related to catering, accommodations, electricity generation, welfare, disposal of explosive ordnance, cleaning, and observation. The third category, medical support equipment, can be reimbursed either as major or self-sustainment equipment, depending on the specific item.

The triennial COE Working Group negotiations take place over a two-week period in January. DOS has established multiple steps to help prepare member states for this exercise. One year before the negotiations, the UN sends an optional survey to all member states requesting detailed data on how much it costs their national government to purchase equipment in each category. Member states and the UN Secretariat also prepare issue papers to submit to the COE Working Group. These papers propose either substantive policy changes or technical changes to the COE Manual and often discuss the proposed changes' financial impact. The UN Secretariat shares the survey data and issue papers with member states in the months before the Working Group convenes.

Member states begin the Working Group discussions in subgroups (one for each equipment category) to discuss the issue papers and submit recommendations to the Working Group's plenary. The Working Group makes decisions by consensus only. Member states prepare a final set of recommendations to submit to the Fifth Committee, which drafts a formal resolution for adoption by the General Assembly. After the General Assembly adopts the resolution, the UN Secretariat revises the COE Manual and publishes the updated version.

2017 COE Working Group Negotiations

The 2017 session was a turning point for environmental issues and the COE Working Group. It took place weeks after the UN Secretariat launched its new Environmental Strategy for Peacekeeping Operations. This timing helped incentivize member states and UN officials to discuss environmental issues beyond waste management.²⁸ Issue papers submitted during the 2017 session became the foundation for significant changes to the COE

Manual, specifically on energy-efficiency standards and renewable-energy sources.²⁹

Member states approved four prominent changes to the COE Manual intended to reduce missions' environmental footprints. First, they introduced new financial incentives for energy-efficient generators based on the internationally recognized ISO 8528 standards, which improve generator efficiency by over 10 percent.³⁰ Member states agreed that these new standards should complement the existing scheme for reimbursing COE generators but not replace it. As a result, member states could

28 UN News, "UN Launches New Strategy to Minimize Environmental Footprint of its Peace Operations," November 29, 2016. See: UN General Assembly, *Report of the Working Group on Contingent-Owned Equipment*, February 28, 2017, UN Doc. A/C.5/71/20, para. 5.

29 UN, "Change to Language in the Model Memorandum of Understanding on Environmental Management," Member State Working Paper, 2016 (on file); UN, "Generators," Member State Working Paper, 2016 (on file); UN DFS, "Disposal of Contingent-Owned Equipment," Secretariat Working Paper 7, 2016 (on file).

30 Abdi Aynte and Eugene Chen, "Powering Ahead: The United Nations and Somalia's Renewable Energy Opportunity," Stimson, March 17, 2022, pp. 27-29; ISO, "ISO 8528-1:2018: Reciprocating Internal Combustion Engine Driven Alternating Current Generating Sets—Part 1: Application, Ratings and Performance," February 2018; UN, "Generators," Member State Working Paper, 2016 (on file); UN Doc. A/C.5/71/20, paras. 34–35 and Annex 5.1.

continue using generators that did not conform with these new energy-efficiency standards.

Second, they introduced new equipment categories for renewable-energy systems and hybrid generators. Prior to this, the COE Manual and COE Working Group reports had never mentioned renewable energy. The new language explicitly encouraged T/PCCs to replace fuel generators with renewable-energy systems and acknowledged that renewable energy was “beneficial for the safety, security and health” of UN personnel.³¹

Member states agreed to consider reimbursing renewable-energy systems in special cases, meaning that the reimbursement rates for this equipment would not be standardized and instead would be determined for each specific item. They also formalized reimbursement rates for hybrid generators (generators with both fuel-based and renewable-energy-based components) by agreeing to pay 20 to 80 percent more for hybrid systems than for diesel-only generators that produce similar levels of energy.³²

Third, they agreed to add a 5 percent premium to reimbursements for accommodations that included environmental enhancements. These include features like double roofing and wall shading; additional thermal insulation for walls, roofs, floors, and doors; and air conditioners or heating systems with appropriate sizing and energy-efficiency ratios.³³

Finally, member states strengthened language on environmental compliance in the MOU template. This included requirements that contingents appoint environmental focal points, conserve water and energy, and take a “do-no-harm” approach to the local environment. It also included a heavily debated clause requiring contingents to leave the physical environment in the condition in which they

found it except in extraordinary circumstances.³⁴

2020 COE Working Group Negotiations

In contrast to the watershed progress in 2017, the 2020 COE Working Group only agreed to minor adjustments related to environmental issues. One tangible improvement related to the reduction of potential fuel spills. During the 2017 session, the UN Secretariat had proposed amending the COE Manual to require T/PCCs to construct basins to capture

potential leaks or spills. Member states did not reach consensus on this due to the proposal’s financial implications.³⁵ However, the Secretariat refined its proposal and resubmitted it during the 2020 session, with member states agreeing to new requirements

that they construct berms around generators and install dedicated fuel-storage containers.³⁶

Other environmentally focused proposals were either minor or not accepted. For example, the UN Secretariat submitted a successful proposal for the COE Manual to encourage synchronized banks of generators (multiple sets of generators working together) that conform to ISO 8528 standards.³⁷ Member states could not achieve consensus on a 6 percent increase in monthly catering reimbursements if they switched from single-use plastics to reusable or biodegradable cutlery, plates, and cups.³⁸

2023 COE Working Group Negotiations

Environmental issues are likely to come under discussion again during the COE Working Group negotiations in January 2023. Seven of the over seventy issue papers submitted deal with environmental aspects of UN peacekeeping. The focus is

In 2023, the COE Working Group is likely to focus on simplifying environmental financial incentives and expanding the breadth of environmental issues covered by the COE manual.

31 UN Doc. A/C.5/71/20, Chapter 3, Annex A, Appendix 1, para. 9.

32 Ibid., Annex 3, pp. 57-58.

33 See: UN Doc. A/C.5/71/20, para. 57(b).

34 Ibid., para. 72 (d).

35 See: Ibid., para. 65.

36 UN General Assembly, Letter Dated 10 February 2020 from the Chair of the 2020 Working Group on Contingent-Owned Equipment to the Chair of the Fifth Committee, UN Doc. A/74/689, February 13, 2020, p. 46.

37 Ibid., para. 29.

38 UN, “Issue Paper 1: Reducing Plastic Pollution: Non-use of Plastic Cutlery and Non-biodegradable Plastic,” Member State Issue Paper, 2019 (on file).

likely to be on two main priorities: simplifying environmental financial incentives and expanding the breadth of environmental issues covered by the COE manual.

One batch of issue papers aims to accelerate member states' uptake of financial incentives for deploying hybrid generators and renewable-energy systems. The 2020 COE Manual set reimbursement rates for hybrid generators based on a percentage of the amount that member states would receive for diesel generators with a similar energy output. The manual also deals with renewable-energy systems on a case-by-case basis.³⁹ Without specific dollar amounts, this setup is too complex for member states to easily interpret and has resulted in limited uptake. To address this problem, some of the COE issue papers propose concrete reimbursement amounts for each of the hybrid generator categories and for renewable-energy systems based on the amount of renewable energy each can produce.⁴⁰

A second batch of issue papers aims to expand the environmental issues covered by the COE Manual. These issue papers include proposals to update the COE Manual's MOU template to reflect new UN policy guidance on the environment, improve wastewater management at temporary operating basis, and create financial incentives to reduce single-use plastics, construct eco-friendly "smart camps," and more consistently and accurately track fuel consumption.⁴¹

Dynamics and Tradeoffs Shaping COE Negotiations on Environmental Issues

Discussions about the COE framework do not take place in a vacuum. These technical negotiations—and the extent to which they grapple with environmental issues—are shaped by broader political, economic, and institutional dynamics. This section discusses these dynamics, highlighting the tradeoffs negotiators confront beyond a binary decision of

whether or not to support eco-friendly equipment.

Political Considerations in the COE Working Group

Despite its focus on technical issues, the COE Working Group is an inherently political body. Political dynamics that play out across other Fifth Committee negotiations are also present in the COE Working Group.⁴² The largest divide is between member states that provide the majority of financial support to UN peacekeeping and those that provide the majority of uniformed personnel and equipment; the former generally favor stricter environmental standards for UN peacekeeping, while the latter want the UN to spend its financial resources more directly on their personnel and current equipment.⁴³ This structural tension is "where the rubber meets the road," according to one member-state representative, and necessitates the largest financial compromises among member states.

The consensus-based nature of the COE Working Group's deliberations amplifies these divisions. Efforts to find common ground across such a wide range of political positions and financial issues usually lead to consensus on the lowest common denominator, often the option that breaks even financially.⁴⁴ This was evident with the addition of the ISO 8258 generator standards to the COE Manual in 2017, when member states agreed on this new incentive structure but did not make it compulsory.

These political dynamics have led member states and the UN Secretariat to take an incremental approach to environmental issues in the COE framework. UN and member-state officials feel that a balance needs to be struck between environmental sensitivity and effectiveness: they cannot risk changes to the COE framework that might lead T/PCCs to reduce their participation in UN peacekeeping operations for the singular goal of improved environmental outcomes.⁴⁵

39 See: UN Doc. A/75/121, Chapter 8, Annex A, p. 180.

40 Interview with UN member-state representative, August 2022; Interview with UN official, August 2022.

41 Ibid.

42 Coleman, "The Political Economy of UN Peacekeeping," p. 1.

43 Interviews with UN member-state representatives, May and June 2022.

44 Interview with UN member-state representative, May 2022.

45 Interview with UN officials, March 2022; Interviews with UN member states, May 2022.

Member States' Domestic Procurement Priorities

Long-term changes to the UN's COE framework depend on member states' domestic procurement priorities. T/PCCs rarely source equipment for use exclusively in peacekeeping operations. Instead, they match the equipment their domestic security forces already have available with what DPO and DOS require.⁴⁶ Each country has its own national priorities, military structures, and procurement cycles. Many T/PCCs do not have large stocks of environmentally sensitive equipment like renewable-energy systems.⁴⁷ Therefore, systematic changes to COE require countries to shift their military structures and procurement strategies so their own institutions can absorb these tools in the long term.

Potential changes to national procurement practices also have financial implications at both the domestic and multi-lateral levels. T/PCCs often highlight that they do not have the financial flexibility to cover the up-front cost of environmentally sensitive equipment and would prefer that the UN reimburses them for these upgrades. However, major financial-contributing countries have pushed back against this approach. Some argue that the long-term financial savings of switching to environmentally friendly equipment should exceed the short-term capital expenditure and that this should be a sufficient incentive for T/PCCs.⁴⁸ Some are also concerned that any UN-led reimbursement scheme to cover up-front costs would not conform with the COE Manual's financial regulations for verifying performance prior to reimbursement.⁴⁹

The largest divide is between member states that provide the majority of financial support to UN peacekeeping and those that provide the majority of uniformed personnel and equipment.

Several additional procurement-related factors may impact how countries engage on COE-related issues. Some member states have access to newer, more eco-friendly equipment but still deploy older equipment with lower environmental standards to peacekeeping operations if they will be reimbursed for it.⁵⁰ Others may not have the expertise to systematically maintain eco-friendly technology. The UN and each T/PCC have to come to an agreement on who is responsible for maintaining and supporting COE, and T/PCCs are reimbursed at a higher rate when they assume this responsibility.⁵¹ This incentivizes T/PCCs to provide COE they can maintain and support, with the unintended consequence of disincentivizing them from adopting new, more environmentally friendly equipment.

Accountability Practices

Discussions about shifting to more environmentally friendly COE play into broader discussions about improving accountability. The UN regularly inspects COE to ensure that each member state is complying with the terms of its MOU and that all equipment is functional.⁵² For any equipment that does not meet the standards outlined in the COE Manual or is nonfunctional, the UN reserves the right to reduce the member state's reimbursement.⁵³ Multiple member-state officials suggested that this accountability system is effective as a financial deterrent.⁵⁴

However, there are concerns that this system does not adequately hold member states accountable for meeting environmental standards. The UN is only in the initial stages of collecting data on best

46 These requirements are in the Statement of Current and Emerging Uniformed Capabilities Requirements, individual statements of unit requirements, and the COE Manual. UN DPO, "Current and Emerging Uniformed Capability Requirements for United Nations Peacekeeping: Executive Summary," March 2022.

47 Aynte and Chen, "Powering Ahead," Stimson, March 17, 2022, p. 29.

48 Interview with UN member-state representative, May 2022.

49 Interviews with UN member-state representatives, May and June 2022.

50 One study from 2013 found that strict environmental standards would disadvantage some member states from competing effectively in UN procurement processes. As per this study, "India declined to provide air-conditioning systems without ozone-depleting substances (ODS) for its troops in Haiti, as required by MINUSTAH in accordance with the Montreal Protocol's phaseout deadlines, while it still had stock of air conditioners with ODS in India." Lucile Maertens, "Quand les Casques bleus passent au vert : Environnementalisation des activités de maintien de la paix de l'ONU," *Études internationales* 47, no. 1 (March 2016), p. 7.

51 See: UN Doc. A/75/121, Chapter 8, paras. 5–9.

52 UN Doc. A/75/121, Chapter 3, paras. 8–17.

53 See: UN General Assembly Resolution 67/251 (March 13, 2013), UN Doc. A/RES/67/251.

54 Interviews with UN member states, May–June 2022; Aynte and Chen, "Powering Ahead," p. 28.

environmental practices and cost savings. The DOS Environmental Strategy for Peacekeeping Operations has allowed the Secretariat to begin collecting detailed usage and cost data, and the 2023 COE Working Group negotiations will be among the first to significantly benefit from this. However, the UN does not require that contingents collect data on the energy efficiency of individual pieces of equipment, leading to an incomplete assessment of missions' environmental impact. Some T/PCCs have been reluctant to collect this data more systematically out of fear that it could reduce their reimbursement or expose inefficient practices.

This challenge comes to the fore when considering how uniformed contingents use fuel. The UN usually provides fuel, oil, and other lubricants to T/PCC contingents.⁵⁵ However, the COE Manual does not require uniformed contingents to supply equipment that can accurately monitor how much fuel they consume. Oil spills and fuel leaks have also been persistent problems, and while member states have added language to the COE Manual on this issue, there are no financial penalties for such pollution.

In addition, member states hold different interpretations of environmental standards. Through its verification and enforcement processes, the UN checks the functionality of equipment but does not check in detail whether it adheres to environmental standards.⁵⁶ As a result, some member states push back against the UN when it deems them to be noncompliant.⁵⁷

Heightened Geopolitical Risks and Climate Degradation

A final dynamic is that heightened geopolitical risks and climate degradation are changing the landscape of UN peacekeeping. Climate degradation is becoming more extreme in many of the areas where UN peacekeeping operations are deployed.⁵⁸ This may result in more frequent breakdowns in equipment, reductions in performance and efficiency, and increased maintenance costs for both the UN and member states.⁵⁹ The COE reimbursement formula includes a variable for “environmental factors” that is based on the environmental conditions, terrain, and logistical conditions where contingents are deployed.⁶⁰ Over the coming years, the UN may increasingly find itself having to adjust the reimbursement formula due to such environmental factors, thereby increasing costs to member states.

Rising fuel costs also place UN peacekeeping operations in a precarious financial position. Because the UN provides fuel to T/PCCs on an as-needed basis, they have no immediate financial incentive to reduce their fuel consumption. But while continued fuel consumption may not impact each member state's reimbursement, it has a significant impact on the overall peacekeeping budget (most evidenced by increased fuel spending in the 2022/2023 budget).⁶¹ Absent meaningful efforts to incentivize individual contingents to reduce their fuel consumption, all UN member states will continue to bear the finan-

55 There are a few exceptions at the beginning of a contingent's deployment. See: UN Doc. A/75/121, Chapter 2, Annex A, para. 18, Chapter 3, Annex B, para. 12, Chapter 4, para. 12.

56 Interview with UN member state, June 2022.

57 UN, “Issue Paper No 5: Delinking of Environmental Section Guidelines from Minor Engineering,” Member state issue paper, 2020 (on file).

58 For example, see: Norwegian Institute of International Affairs (NUPI) and Stockholm International Peace Institute (SIPRI), *Climate, Peace and Security Fact Sheet: Mali*, May 2021; NUPI and SIPRI, *Climate, Peace and Security Fact Sheet: South Sudan*, March 2021; Ashley Moran, Joshua Busby, and Clionadh, “Stretched Thin: When Fragile States Face Climate Hazards,” *War on the Rocks*, November 20, 2018; and Florian Krampe, “Why United Nations Peace Operations Cannot Ignore Climate Change,” SIPRI, February 22, 2021.

59 Stars and Stripes, “Climate Change Could Make ‘Military Equipment Useless,’ Experts Warn,” *Armed Forces Connect*, 2021, available at <https://armedforcesconnect.org/2021/09/10/climate-change-could-make-military-equipment-useless-experts-warn/>; Patrick Tucker, “Climate Change is Already Disrupting the Military. It Will Get Worse, Officials Say,” *Defense One*, August 10, 2021; Lt. Col Rene Heise and Jack Saynor, “Climate Change and Impact on Military Operations: Status Quo, Integration of Scenarios and Operational Planning Processes,” available at https://euromil.org/wp-content/uploads/2019/09/191024_Presentation_LtCol_Heise_Climate-Change-and-Impact-on-Military-Operations_GMACCC_excerpt.pdf; Krampe, “Why United Nations Peace Operations Cannot Ignore.”

60 See: UN Doc. A/75/121, Chapter 7, paras. 1-5, Chapter 7, Annex A, paras 1-13.

61 Daniel Forti, “The 2022 UN Peacekeeping Budget: Signs of Progress or a Fleeting Moment of Consensus?” the *Global Observatory*, July 20, 2022.

cial costs of this environmentally damaging practice. This high level of fuel use also increases the UN's operational vulnerability in an era of rising fuel prices and growing fuel shortages.

Best Practices by Member States on Environmentally Sensitive COE

This section provides an overview of member states' commitments and initiatives to support UN peacekeeping operations in reducing their environmental footprints. These initiatives have largely been ad hoc, done in relative isolation from one another, and driven by domestic priorities. Although they are only small steps toward transforming COE, these efforts demonstrate areas for short- and long-term progress.

Member states have begun to show more consistent political support for deploying eco-friendly technology to UN peacekeeping operations. The New York-based Group of Friends for Leading on Environmental Management in the Field (LEAF), co-convened by Bangladesh and Italy, is an emerging forum for these discussions. Since its creation in 2017, the group of friends has focused almost entirely on supporting the DOS Environmental Strategy for Peacekeeping Operations.⁶² Nonetheless, it could also serve as a forum where member states can discuss their own efforts and share best practices related to COE.⁶³

The Annual Partnership for Technology in Peacekeeping International Symposium, organized by DOS's Office of Information and

Communications Technology (OICT), has emerged as another avenue for member states to offer political support for eco-friendly equipment.⁶⁴ This conference first addressed these issues in 2019, and the discussion continued at its next session in June 2022.⁶⁵ During the 2022 symposium, the UN emphasized that reducing the environmental impact of peacekeeping is a "shared responsibility with [T/PCCs]." Conference participants discussed ways to reduce missions' overall environmental impact, the importance of global and local environmental monitoring, and ways in which innovative technologies can improve the effectiveness and environmental sensitivity of member states' deployments to UN peacekeeping.⁶⁶

Some T/PCCs have begun to deploy eco-friendly COE. During the 2021 Seoul UN Peacekeeping Ministerial, seven countries committed to at least part of their pledge to reducing the environmental footprint of UN peacekeeping.⁶⁷

Bangladesh was among the first of these countries to implement its pledge, recently deploying solar panels to support its engineering company in the UN Mission in South Sudan (UNMISS). DOS described this pilot as "a great step forward in demonstrating to other [T/PCCs] the feasibility of solar photovoltaic solutions in military settings."⁶⁸ Bhutan also committed to using solar panels for its contingents and providing environmentally friendly diesel generators, as well as mobile kitchens and ablution facilities to reduce the footprint of temporary operating bases.⁶⁹ Somalia, as host of the UN Support Office in Somalia (UNSOS), UN Assistance Mission in Somalia (UNSAM), and African Union Mission to Somalia (AMISOM), has worked closely

Member states have begun to show more consistent political support for deploying eco-friendly technology to UN peacekeeping operations.

62 The Permanent Representative of Italy, "Press Release – Launch of the Group of Friends Leading on Environmental Management in the Field, Co-Chaired by Italy and Bangladesh," press release, February 16, 2018; UN DOS, "Our Approach.," The Permanent Representative of Italy, "High Level Meeting of the 'Group of Friends for Leading on Environmental Management in the Field' (LEAF)," March 19, 2021.

63 Interviews with UN member states, May-June 2022.

64 The Symposium markets itself as "the only information-sharing conference on field technology organized for the peacekeeping community." UN DOS, "Partnership for Technology in Peacekeeping."

65 The Symposium did not convene in either 2020 or 2021 due to the coronavirus pandemic. UN DOS, "Partnership for Technology in Peacekeeping: 5th International Symposium," 2019.

66 UN DOS, "Partnership for Technology in Peacekeeping: 6th International Symposium," 2022, p. 27, available at <https://operationalsupport.un.org/sites/default/files/6symp-2022-brochure.pdf>.

67 These include Bangladesh, Bhutan, Greece, Mongolia, Nepal, Romania, and the United States. UN Peacekeeping, "2021 Seoul UN Peacekeeping Ministerial Member State Pledges," available at https://peacekeeping.un.org/sites/default/files/2021_peacekeeping_ministerial_pledge_list_revision_posted_4_march_2022.pdf.

68 UN DOS, "Protecting the Environment: Peacekeepers from Bangladesh Install Photovoltaic System for UN Mission in South Sudan."

69 Pema Choden, speech delivered on the theme of partnership at the 4th UN Peacekeeping Ministerial, December 2021, available at <https://peacekeeping.un.org/sites/default/files/bhutan.pdf>.

with the UN and the African Union to shift toward renewable energy in these peace operations through public-private partnerships.⁷⁰

Other countries have drawn on their own national practices to bring environmentally sensitive COE and approaches to UN peacekeeping. Drawing on the expertise of its Carabinieri forces, Italy has established an international training center that promotes environmentally sensitive practices. The Italian contingent deployed to the UN Interim Force in Lebanon (UNIFIL) has installed UN-owned photovoltaic panels and solar-powered lighting systems, which have cut fuel costs by 35 percent.⁷¹ The Republic of Korea has prioritized financial and technological support to UN “smart camps”—based on Korea’s “smart city” model—which use advanced technologies to monitor resource consumption and improve energy efficiency.⁷²

Some member states are forging partnerships to more rapidly bring eco-friendly COE to UN peacekeeping. The UN COE Manual elaborates a model whereby T/PCCs make bilateral arrangements with a third party (e.g., another member state or private entity) to provide major equipment for use in peacekeeping operations at no cost to the UN, provided that the UN reimburses the T/PCC for maintenance.⁷³ This partnership model is now being explored by the United States and Nepal, which will pilot the deployment of energy-efficient generators to support Nepal’s uniformed contingents in UNMISS.⁷⁴

Conclusion

The COE framework does not receive as much attention as other intergovernmental processes on UN peacekeeping, yet it has a considerable impact on how the UN mobilizes uniformed capabilities and how missions implement their mandates. As

UN peacekeeping operations strive to reduce their environmental impact, COE will increasingly come into the spotlight. UN peacekeeping operations cannot achieve their environmental objectives without a full-fledged partnership with member states, and the COE framework is an important component of that partnership.

Changing how member states approach environmental considerations in COE requires change at both the intergovernmental and the domestic levels. At the intergovernmental level, member states must reconcile their varying interests in negotiations that often devolve into zero-sum compromises between T/PCCs and major financial contributors.

Domestically, T/PCCs often lack eco-friendly equipment to deploy en masse, and the UN’s financial incentive structure does not compensate them for the significant up-front cost of capital investments. Even when member states do find it in their national interest to shift to eco-friendly equipment, domestic military procurement processes operate over long time horizons and require whole-of-government buy-in. The UN can set best practices and model behavior but cannot single-handedly shift countries’ military infrastructures. And with the COE Working Group meeting triennially, the COE incentive structure is less responsive to short-term changes than other intergovernmental processes.

There are four important takeaways that member states may consider when engaging in future of conversations around the COE framework. First, member states will need to expand their focus beyond renewable energy. The disproportionate impact of diesel energy on the UN’s footprint makes renewable energy and energy-efficiency necessary focuses. Nonetheless, COE can also impact how the UN manages waste and pollution to mitigate damage to local ecosystems. As the COE Working Group sustains its focus on environmental issues,

70 Aynte and Chen, “Powering Ahead.”

71 International Trade Administration, “Italy—Country Commercial Guide: Renewable Energy,” October 9, 2020, available at <https://www.trade.gov/country-commercial-guides/italy-renewable-energy>. Ente Editoriale per l’Arma dei Carabinieri, “The Sabaudia Project” (on file); UN Interim Force in Lebanon (UNIFIL), “Italian Peacekeepers Rehabilitate Archeological Site in Tyre,” November 29, 2021.

72 Korean Ministry of Land, Infrastructure, and Transport, “Smart City Korea” (website), available at <https://smartcity.go.kr/en/>. The current smart-camp pilot is being conducted in the UN Interim Security Force for Abyei (UNISFA). UN DOS, “Partnership for Technology in Peacekeeping: 6th International Symposium.”

73 See: UN Doc. A/75/121, Chapter 2, Annex B.

74 Linda Thomas-Greenfield, speech delivered on the United States’ pledges at the 2021 Seoul UN Peacekeeping Ministerial, available at <https://peacekeeping.un.org/sites/default/files/usa.pdf>; Minendra Prasad Rijal, speech delivered on Nepal’s pledge announcement at the 2021 Seoul UN Peacekeeping Ministerial, available at <https://peacekeeping.un.org/sites/default/files/nepal.pdf>.

member states should become more familiar with the different ways their deployments impact the UN's environmental footprint.

Second, adjustments to the COE framework hinge on progress both by member states and by the UN Secretariat. With a considerable body of UN policies and intergovernmental resolutions on reducing the environmental footprints of UN peacekeeping missions, DOS has a clear mandate to propose changes to the COE Manual. Nonetheless, consensus-driven change will depend on the extent to which member states can undertake their own initiatives and translate national and international best practices into gradual shifts in the reimbursement framework. It will also depend on the systematic collection of data on missions' environmental impact and the cost implications of efforts to reduce it.

Third, member states would benefit from a dedicated forum for sharing data and best practices on environmentally friendly equipment. Such a

space could also facilitate partnerships among member states and the UN Secretariat to build expertise on eco-friendly technologies, including through trainings or the secondment of experts to missions or T/PCCs. Whether this engagement takes place through informal conversations among member states (e.g., the Group of Friends on LEAF) or formal discussions in UN-sponsored sessions, it needs to take place consistently.

Finally, the pace of climate change-induced environmental degradation is accelerating, and its impact on conflict-affected countries is profound. Reducing missions' environmental footprints is thus not solely necessary to mitigate environmental degradation; it is also necessary to improve missions' delivery of their mandates, build their legitimacy and credibility, and ensure the safety and security of peacekeepers. Although the COE Working Group is among the slower-moving inter-governmental processes, it is imperative that member states prioritize these issues now to reduce missions' environmental impact in the long term.

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