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United Nations' Green Peacekeeping: Energy Revolution amidst Safeguarding Global Peace and Security

The global climate catastrophe is one of the greatest challenges of the still young 21st century. At present, the effects of climate change are most evident in developing countries, as these are particularly vulnerable to the adverse impacts. At the same time, countries most affected by climate change also experience disproportionately high levels of civil unrest and armed conflicts. The effects of climate change and societal conflicts are deeply interconnected, often exacerbating one another and limiting the ability of affected countries to implement effective coping strategies and peacefully resolve disputes. Thus, the international community has committed to addressing these issues appropriately.

The United Nations' efforts to both mitigate the effects of the climate catastrophe and to promote peace and security were recently reaffirmed in the final document adopted at the Summit of the Future. In addressing climate change, the emphasis is on accelerating the implementation of the Sustainable Development Goals and the Paris Agreement, while ensuring a just transition from fossil fuels to sustainable energy sources. The roadmap aims to "triple renewable energy capacity globally and double the global average annual rate of energy efficiency improvements by 2030". The Pact for the Future also emphasizes a peaceful future free from the scourge of war and violent conflicts for upcoming generations. In the pursuit of peace and security, the international community continues to rely on UN peacekeeping, a traditional and still the most effective tool of the UN available.

However, the UN obstructs its own goals. Given the impacts of climate change, especially on countries in the Global South and host nations of peace operations, it is paradoxical that the UN's most effective tool for securing peace and security contributes the most to the carbon footprint of all UN Secretariat activities, and often in the host countries themselves. Thus, the increasingly prolonged and complex missions significantly contribute to environmental pollution.

To address this contradiction, the UN and various member states have focused on integrating new energy production processes into peacekeeping in recent years, aiming to significantly reduce the carbon footprint of the Secretariat in host countries. Incorporating renewable energy into peace operations amidst safeguarding peace and security has become essential for addressing the inconsistency of UN's different approaches to different challenges. This interconnecting approach may be termed as the United Nations' Green Peacekeeping initiative.

As early as 2021, the IRENA panel established that by 2030, 80% of peacekeeping power sources should come from renewable energy and greenhouse gas emissions should be reduced by 45%. At the 13th IRENA Assembly in 2023, the Energy Compact on Renewable Energy for Peacekeeping was adopted, not only reaffirming this goal but also providing a detailed roadmap. These strategies also align with the Sustainable Development Goal No. 7, "Affordable and Clean Energy", and together they form a comprehensive plan for the future of peacekeeping.

The fact that this initiative is not just wishful thinking for the future, but is already being implemented in practice, is evidenced by the significant progress made in MONUSCO, the UN peace operation in the Democratic Republic of the Congo. MONUSCO currently uses the highest share of renewable energy among all UN peace operations, particularly by leveraging local hydropower networks. This shift has resulted in a noticeable reduction in diesel consumption since 2018, also leading to cost savings. This demonstrates that MONUSCO is already making a significant contribution to lower the carbon emissions of peacekeeping operation. That means, integrating renewable energy into peace operations is now a reality and has become indispensable.

But improving the environmental footprint is only one of many significant advantages of utilizing new energy sources in UN peace operations. Switching to renewable energy can also enhance the effectiveness of peacekeeping, thereby contributing to the primary goal of peacekeeping: increasing security and promoting political transformation. Specifically, two areas particularly benefit from the energy revolution in peacekeeping:

First, it enhances the protection of peacekeepers. Peace operations become safer through the use of renewable energy, as fuel no longer needs to be transported along dangerous routes. The reduced reliance on resources also makes missions easier to plan, as essential infrastructure can operate without fuel deliveries and dependencies. This simultaneously increases the defensive capabilities of peacekeeping personnel and enhances operational resilience.

Second, the use of renewable energy can itself be part of peacekeeping mandates. This can help ensure basic services for the population in remote or economically weak regions, e.g., through community-based renewable energy projects. This can foster long-term social and economic transformation. Establishing long-term projects also demonstrably improves the relationship between the host country's population and UN personnel. Francesco La Camera, Director-General of IRENA, aptly named the added value of renewable energy in UN peacekeeping at the UN Energy Summit 2021 "a vital building block for creating local markets and a contribution to long-term sustainable development." Consequently, sustainable development – a key goal of multidimensional peace operations, in addition to stabilizing host countries – can also benefit from this approach.

The integration of renewable energy into peacekeeping can thus lead to multidimensional positive outcomes in the nexus of peace, security, and climate protection. However, this path is not only complex in its multifaceted impacts but also in achieving and implementing the stated goals comprehensively. Successfully integrating renewable energy as a power source in UN peace operations requires not only political will and promises but also the cooperation of various stakeholders across multiple levels of cooperation.

On one hand, technical expertise and professional resource diplomacy are essential for successful collaboration. Creative and efficient resources management before and during peace operations is key to success and simultaneously one of the greatest challenges, requiring the integration of various political, scientific, and technical perspectives. Equipping peace operations with green energy thus demands a high level of interdisciplinarity, as reflected in Sustainable Development Goal No. 7, "Affordable and Clean Energy". Moreover, coordination among troop-contributing countries is crucial to achieving synergies in development and implementation. However, the challenges are not limited to technical and scientific aspects. The sensitivity of sharing key technology-know-how among UN member states and establishing highly technological contingents for the deployment in peacekeeping operations poses significant difficulties.

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This dual challenge – revolutionizing peace operations to solve future problems while fostering state cooperation in a highly sensitive area to achieve interoperability – creates a unique area of tension. There is a need for collaboration across borders and institutions, while maintaining the primary purpose of peacekeeping operations. Effective diplomacy and cooperation between scientists, practitioners and states require an integrated approach to overcome implementation obstacles and finally to realize the vision of Green Peacekeeping.

In the Panel on "United Nations' Green Peacekeeping: Energy Revolution amidst Safeguarding Global Peace and Security" we will therefore discuss together the potential of transitioning from fossil fuels to renewable energy in UN peace operations and explore the diverse opportunities hidden behind the neologism Green Peacekeeping. What specific expectations are associated with these ideas by various stakeholders, *inter alia*, the UN, troop-contributing countries, and host nations? Considering best practices already in place, we will examine how renewable energy can contribute to improving mission performance and enhancing the effectiveness of mandate implementation. To what extent can a reimagined climate protection-peace and security nexus lead to sustainable development?

The second major discussion block will focus on the complexity of the undertaking and explain which disciplines are necessary, as well as the technical and political obstacles involved. On the other hand, we will look at the approaches and ambitions of the UN and individual member states. What role does Germany, or the European Union play in implementing the transformation toward Green Peacekeeping? How do approaches differ between countries, e.g., between the global north and south, and what are potential forms for the improvement of private-sector and university cooperation? How can science diplomacy help overcome existing hurdles in key technology transfer, for instance, through research under the UN umbrella or specific knowledge-sharing platforms?

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