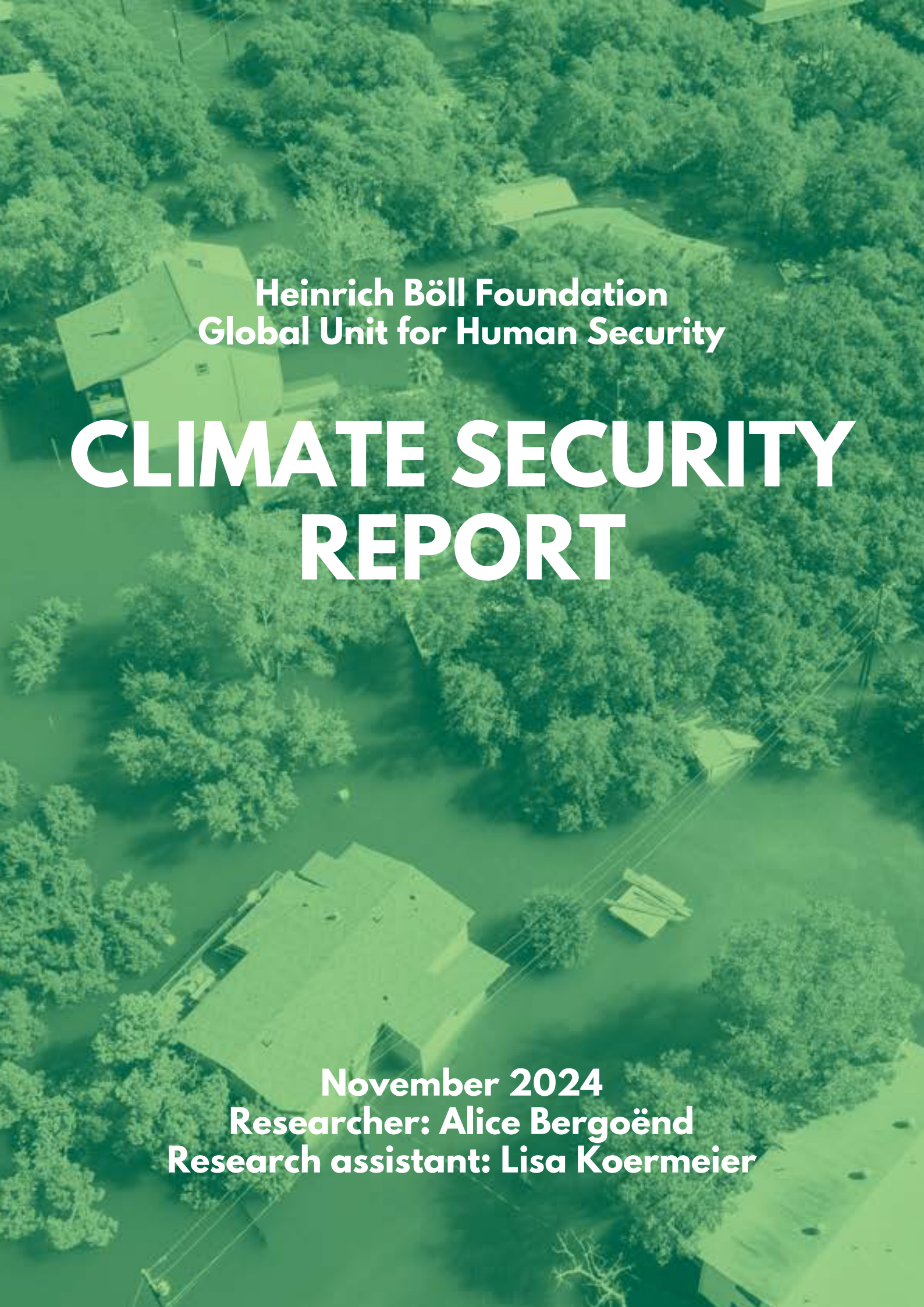

Heinrich Böll Foundation
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CLIMATE SECURITY REPORT

November 2024
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INTRODUCTION

"One of the serious consequences of the war in Gaza has been the massive violation of the right to a clean, healthy, and sustainable environment... which represent a serious risk to life and the enjoyment of all other rights. The region is already experiencing serious climate impacts that could get even worse" said Astrid Puentes Riaño, UN Special Rapporteur on the human right to a healthy environment, in the Guardian of June 6, 2024.

According to the United Nations Development Programme (UNDP), the concept of human security corresponds to an effort to reconceptualize security, recognizing people rather than states as being at the center of security assistance. Human security is part of a broader framework than dominant security paradigms and is based on two overarching notions of the individual and the community: "freedom from want" and "freedom from fear." Over time, several additional elements have been incorporated into the concept of human security, including the impact of climate change on security.

In The Burning Question, Andrew Gilmour claims that "climate change is the issue that will define humanity's future." With natural disasters becoming increasingly frequent, even in Europe—as illustrated by the recent devastating floods in Spain that killed more than 200 people—it is clear that the challenges of human security include environmental issues. As early as 1994, the UNDP's Human Development Report identified the environment as one of the essential dimensions of human security. Today, the organization defines climate security as "the impacts of the climate crisis on peace and security, particularly in fragile and conflict-affected settings."

A few months ago, the first European Climate Risk Assessment (EUCRA) was published. It identified 36 climate risks that threaten Europe's energy and food security, ecosystems, infrastructure, water resources, financial stability, and people's health. The report revealed that "many of these risks have already reached critical levels and can become catastrophic without urgent and decisive action."

The interaction between climate issues and security is often linked to access to resources. As the World Bank explained in a 2022 report:

> *"Natural resources management can be a powerful driver of fragility and conflict or a critical tool for peacebuilding. Protracted, cross-border, and compounded transnational challenges such as climate change, resource scarcity, pandemics, rising inequality, illicit financial flows, organized crime, and violent extremism threaten communities around the globe."*

At a time when environmental issues are at the forefront of debates on human security in foreign affairs, it is essential for foreign policy and development actors to address this challenge. Increasingly, organizations ranging from traditional environmental groups to humanitarian agencies are focusing on the interactions between the environment and conflict. It is therefore necessary to develop effective approaches, leveraging the strengths of each organization, to avoid duplication of efforts across the field.

This article reviews academic literature on climate security and identifies the main players in this field. It also examines specific cases to highlight existing activities and the needs of actors in various contexts. Finally, it provides recommendations on how global, regional, and local actors can engage in the field of climate security, with a particular focus on addressing the needs of the global South.

1 OVERVIEW

What is the current state of research and initiatives on climate security?

LITERATURE

The concept of climate security has undergone significant evolution in academic and non-academic literature. From the 1990s to the early 2000s, scholarly debates primarily focused on defining climate security as a challenge, assessing its significance, and examining the rationale for taking action. During the 2000s and 2010s, the discourse shifted to framing climate security as a political issue, with particular emphasis on its integration into public policy. Since 2015, research efforts have aimed to delineate the scope and boundaries of the climate security field. Notably, since 2017, climate security has been increasingly referenced in United Nations Security Council resolutions and incorporated into international development initiatives. For instance, the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP28) was the first to designate peace as a theme for one of its dedicated days.

Simultaneously, the incidence of violent conflicts and the global number of displaced individuals have risen sharply. According to a 2022 World Bank report, the past decade has witnessed a threefold increase in violent civil conflicts and a twofold rise in the number of people living in proximity to conflict zones. Additionally, the number of forced displacements has reached unprecedented levels. These trends have prompted academics to critically evaluate the role and limitations of approaches such as environmental peacebuilding in addressing climate security challenges.

1 - Defining the challenges posed by climate security

As the impacts of climate change intersect with pre-existing tensions and inequalities, they exacerbate threats, deepen conflicts, and disproportionately affect vulnerable populations. This section explores how climate change acts as a threat multiplier, its role in violent conflicts, and its intersectional implica-

a) Climate change as a multiplier of threats in a context of pre-existing tensions, social inequalities and lack of governance

The majority of literature on climate security identifies climate change as a threat multiplier. At the 59th annual conference held on 1 July 2023 at the Ditchley Foundation in England, CIA Director stated that

"climate change is the quintessential 'threat multiplier' — fueling energy, health, water and food insecurities, setting back our progress on economic and human development, turbocharging what is already the worst period of forced displacement and migration in history, and further exacerbating instability and geopolitical tensions and flashpoints."

In the chapter on climate conflict in The Climate Book by Greta Thunberg, Stanford professor Marshall Burke emphasizes that "climate change could exacerbate the trends towards violence" and demonstrates how increased heat itself raises the likelihood of human conflict. While "climate is never the only cause of a given conflict," it can amplify "individuals' or groups' willingness, ability, or incentives to fight one another." One contributing factor is that "humans are more irritable and act more aggressively when heat rises." Burke cites examples such as hotter temperatures fueling gang violence in Mexico, droughts and extreme heat increasing civil conflict in Africa, and El Niño events leading to more widespread civil unrest globally as a result of climate change.

Adding nuance in The Burning Question, Andrew Gilmour traces the history of climate security and explains that there is no scientific consensus on whether climate change is a direct conflict trigger. However, the CEO of the Berghof Foundation affirms a consensus that climate change exacerbates crises. He cites examples of how climate change strengthens the position of Islamist terrorism by worsening inequalities and making marginalized groups more vulnerable to extremism, while weak governance and political instability amplify these vulnerabilities.

The situation in Nigeria offers a concrete example of how climate change acts as a threat multiplier, as detailed in a 2020 report from Surge Africa. Nigeria is particularly susceptible to climate change, experiencing extreme weather events such as

heat waves, seasonal floods, and droughts, which contribute to biodiversity loss and food insecurity. Desertification is altering mobility patterns, disrupting livelihoods, and intensifying competition for resources, which in turn heightens fragility and social tensions in rural communities. This dynamic exacerbates resource scarcity, loss of livelihoods, and poverty, all of which are further intensified by rapid population growth and rising demands. These challenges unfold in a context marked by poor governance, persistent insecurity, development deficits, inefficient farming and livestock practices, and a lack of alternative livelihoods.

The convergence of resource competition, environmental degradation tied to climate change, and high population growth has plunged the country into a security crisis. This crisis has triggered a cascade of events, including social tensions, armed conflicts, and humanitarian emergencies. In Nigeria's North-West and Central regions, a violent conflict between herders and farmers over resource access has intensified. Survival struggles have led to a surge in violence, including cattle rustling and kidnapping for ransom. As the conflict escalates, self-defense groups have engaged in extrajudicial executions, and tensions have spread to the North-East. This has resulted in thousands of deaths, displacement of people into neighboring Niger, and widespread destruction of livelihoods. Compounding these issues, difficulties in accessing humanitarian aid hinder community recovery and resilience.

In 2017, the UN Security Council adopted Resolution 2349, emphasizing the need to consider climate-related risks in the conflict affecting the Lake Chad Basin. Surge Africa underscores that integrating the climate, environment, and peace nexus into Nigeria's security interventions offers a critical opportunity to address the socio-economic and developmental drivers of armed conflict. This approach focuses on land restoration, sustainable agricultural practices, and environmental resource management as tools for conflict de-escalation. The organization also emphasizes that such measures must be embedded within a broader security strategy that tackles other root causes of instability, such as weak governance and ineffective policy implementation.

In *The burning question*, Gilmour discusses the link between climate security and numerous issues, such as migration. He highlights the influence of the destabilization of countries by violence, amplified by the effects of climate change, and the impact this has on migration trends. The author stresses the importance of climate adaptation measures to avoid the need for migration. For example, the book points to the use of agricultural means, such as the rice intensification system, to improve security of supply in areas severely affected by climate change. In addition, Gilmour writes of the need for host countries to prepare for these migratory flows by modifying international and national law to avoid greater instability in the face of this challenge.

While dominating the discourse to a large extent, many leading scholars encourage moving beyond the "threat multiplier" framework. In a recent publication, Krampe et al. argue that the relationship between climate change, conflict and peace should be conceptualised more broadly. According to this 2024 publication, "climate change [should also be seen as] an opportunity for peacebuilding." In addition, they invite both researchers and policy actors to address the ways in which "climate change can affect peacebuilding." (Krampe et al. 2024)

b) The environmental impact of violent conflicts

In addition to intensifying existing conflicts, climate change contributes to a vicious cycle in which crime negatively impacts the environment. At the 2021 Commission on Crime Prevention and Criminal Justice (CCPCJ), United Nations Office on Drugs and Crime (UNODC) Executive Director Ghada Waly highlighted this issue, stating

> *"Organized crime poses a major threat to our environment, with organized criminal groups around the world engaging in wildlife trafficking, crimes in the fisheries sector, waste trafficking and illegal mining, among other illicit activities. This exploitation has a serious impact on our ecosystems, on our national security, and on the lives of millions of people who depend on these natural resources for their livelihoods."*

The World Bank's 2022 report elaborates on the direct and indirect environmental consequences of conflicts. Direct impacts include the destruction of natural habitats and loss of biodiversity. Indirectly, conflict-driven military priorities, urgent financial needs, and weakened bargaining positions often compel nations to enter unfavorable resource extraction agreements, leaving natural resources more vulnerable to exploitation even after hostilities cease.

A 2024 joint Climate Security Risk Assessment by Adelphi and the African Union further underscores how armed groups in Africa exploit environmental vulnerabilities. These groups weaponize natural resources, target critical infrastructure, and leverage climate-related risks for operational advantage. Their activities—such as resource extraction and environmental crimes—exacerbate environmental degradation, compounding the challenges faced by affected communities.

However, this phenomenon is not limited to Africa. A preliminary UNEP assessment in Gaza reveals the environmental toll of ongoing conflict. Accord-

ing to a June 2024 report, war has severely impacted "environmental management and waste disposal systems; energy, fuel, and associated infrastructure; destruction of buildings and conflict-related debris; marine and terrestrial environments; and air quality." The report also calls for deeper analysis into specific impacts, such as the contamination of soil and coastal aquifers by chemicals and heavy metals, which could pose long-term risks to public health and ecological balance.

The war in Ukraine provides another stark example of the environmental devastation caused by violent conflict. In the summer of 2024, the Seym River, which flows from Russia into Ukraine northeast of Kyiv, was heavily polluted, resulting in the elimination of all aquatic life. Authorities recovered 43 tonnes of dead fish, and the lack of timely warnings to riverside communities heightened concerns about potential contamination of Ukrainian drinking water networks. Experts estimate that it could take at least a decade for the river to recover fully. Initial investigations traced the pollution's source but remain inconclusive regarding its cause. Possible explanations include ecocide as an intentional act by Russian forces or civilians, a deliberate or collateral consequence of armed operations by either country, or a simple accident.

c) Climate security is a climate justice issue, and climate-related security risks are intersectional.

The literature demonstrates that the most vulnerable countries are disproportionately affected by both conflict and the effects of climate change. Within these countries, vulnerable populations bear the brunt of these challenges. As Andrew Gilmour highlights in The Burning Question, the countries that emit the least are often the ones most severely impacted by climate change. Recalling the history of Western colonization and the resulting financial disadvantages for colonized countries, Gilmour supports the "polluter pays" principle, which holds that the nations producing the most emissions should bear the greatest responsibility for funding environmental transitions and addressing climate security issues.
Moreover, the Gender, Climate and Security report by UNEP, UN Women, DPPA, and UNDP underscores how climate change and climate security issues disproportionately affect women and girls. As key providers of food, water, and energy, women often lack the resources needed to adapt to changing conditions. The report highlights a concerning trend of violence against women environmental activists and defenders of environmental rights. While most recorded murders involve men, women face specific and unique threats, including exclusion from land ownership, natural resource governance, and decision-making processes. They also endure defamation, silencing, smear campaigns, sexual violence, and in extreme cases, murder, as exemplified by the killing of indigenous environmental activist Berta Cáceres. Additionally, in the context of climate-induced migration or when men lose employment, women are often required to generate income while managing household responsibilities, which can increase violence against them.

The conflict between farmers and herders in northern Nigeria provides another example of how women are disproportionately affected by climate security challenges. While the conflict has persisted for some time, rising temperatures and unpredictable rainfall push young pastoralists into more dangerous conflict zones to find grazing land. These conflict sites often include farmlands, where pastoralist men are more likely to encroach if a woman is present, and water points, where women fetching water encounter men watering cattle. Both farmer and pastoralist men have committed acts of rape, often as retaliatory violence, citing the need to avenge perceived attacks on "their women."

Urban Pakistan is another example of violence against women resulting from climate change. Due to its geography, Pakistan is exceptionally exposed to climate-related hazards and has experienced an increasing number of climate-related disasters over the last decades, including severe floods and droughts that have had lasting impacts on infrastructure, livelihoods, and resilience.

"The research finds that first, men and women are increasingly unable to live up to their prescribed gender roles which, in some cases, is resulting in domestic or communal violence. For example, damages incurred from extreme flooding have been found to keep men – who are typically daily wage or contract workers – at home, resulting in loss of income and preventing them from fulfilling their prescribed roles as breadwinners. Both women and men explained that the anxieties and frustrations associated with this lack of fulfillment of their socialized responsibilities could lead to domestic violence."

Moreover, women in Pakistan face heightened structural oppression due to extreme water shortages. They are expected to manage the household even as droughts worsen household water security in major cities. Some women reported experiencing physical violence for failing to manage existing water supplies or for breaking norms around mobility by venturing out to secure new sources.

However, as demonstrated by a project run by UNEP, UN Women, and UNDP in Sudan and by the Federation for the Urban and Rural Poor (FEDURP), a women-led network in Freetown, Sierra Leone, the inclusion of women and marginalized groups in natural resource management can create neutral entry points for their involvement in decision-making processes. The UNEP report offers

policy recommendations on this issue. At the multilateral level, it emphasizes the need to incorporate gender considerations into debates and emerging policies on climate-related security risks, as well as into standardized risk analysis methodologies. Environmental and climate-related security risks should also be integrated into policy frameworks for women, peace, and security, such as UNSCR 1325. Governments must adopt policies to protect environmental defenders from physical and verbal threats or attacks, in line with their human rights obligations.

At the national level, recommendations include supporting governments and civil society networks to integrate climate and environmental risks into their planning. This involves including women and marginalized groups in the design and implementation of National Action Plans and promoting their meaningful participation in climate change policy and planning processes in conflict-affected countries. Advocacy efforts led by women's organizations and networks should also receive support. Furthermore, gender equality concerns must be fully integrated into instruments addressing migration and displacement caused by climate change and conflict, such as the Kampala Declaration of Refugees, Returnees and Internally Displaced Persons in Africa, the Global Protection Cluster, the Platform for Disaster Displacement, and the Global Compacts on Migration and Refugees.

The OECD reports that bilateral aid for programs targeting gender equality as a principal objective remains at just 4% of total aid, while 62% of bilateral aid remains "gender blind." Donors and funding institutions should invest in projects that leverage the peacebuilding potential of women and marginalized groups through sustainable natural resource management initiatives, such as sustainable agriculture, forestry, water resource management, or renewable energy. Additionally, greater investment in empirical research is needed to deepen the understanding of gender dimensions in climate-related security risks across a wider range of geographical and cultural contexts.
Finally, ther
e are notable gaps in the literature on the nexus of climate change, gender, and security. Underexplored areas include the gender dynamics of climate and conflict-related migration or displacement, women's roles in peacebuilding and governance in conflict- and climate-affected contexts, and the connections between women's access to land tenure, conflict mitigation, and climate adaptation.

2 - What initiatives and solutions exist to meet the challenges of climate security?

The challenges posed by climate security demand innovative solutions, as they lie at the intersection of environmental degradation, societal vulnerabilities, and geopolitical tensions. Addressing these challenges requires both localized responses and global cooperation. This chapter explores key recommendations, concepts like environmental peacebuilding, and the role of digital tools in addressing climate security issues. Through examples, it highlights the potential of these approaches to foster resilience, cooperation, and sustainable peace.

a) Main recommendations

The main recommendations for tackling the challenges of climate security, as cited in a 2024 Adelphi report, include: developing localized and context-specific solutions by leveraging local and traditional knowledge and institutions; closing the adaptation financing gap to ensure that climate funding reaches the most vulnerable countries, particularly those in conflict-affected and fragile contexts; devising institutional-level solutions to mainstream climate security into strategies and policies; implementing early warning systems and early action measures; and fostering cross-sectoral cooperation. Additional recommendations involve working with civil society to build capacities and raise awareness, partnering for implementation, engaging the private sector, and addressing intersectionality and environmental justice issues. This entails broad inclusivity, with a focus on marginalized groups, including addressing gender-based violence. Andrew Gilmour argues that militarizing the climate security debate is not an appropriate strategy for combating climate change and its consequences. Instead, he advocates for prioritizing adaptation measures, alongside mitigation and prevention efforts.

b) The concept of environmental peacebuilding and the critique it faces

Environmental peacebuilding lies at the crossroads of peace, conflict, and the environment. The Environmental Peacebuilding Association defines it as "integrating natural resource management in conflict prevention, mitigation, resolution, and recovery to build resilience in communities affected by conflict." Another definition by Dresse et al. (2019) presents it as "the process through which environmental challenges shared by the (former) parties to a violent conflict are turned into opportunities to build lasting cooperation and peace." An important part of this approach is natural resource management. Historically, the interest in alternative forms of peacebuilding flourished at the end of the Cold

War (Ide, Bruch et al., 2021: 1), while the birth of the modern environmental movement happened at the 1972 Stockholm Conference on the Human Environment (White Paper: 10). After the first UN Security Council debate on climate change and security in 2007, the debate on climate change and conflict reopened, and environmental peacebuilding as a discipline emerged (Ide, Bruch et al., 2021: 1). The idea of this approach is that shared environmental challenges can be an entry point for cooperation between conflict parties, while providing security through better, more sustainable management of natural resources.

In a literature review, Johnson, Rodriguez, and Hoyos concluded that natural resource management shows direct and indirect linkages to different dimensions of peace (in the context of intrastate peacebuilding). It can contribute to peace especially through creating capabilities by enhancing livelihood security and attending to the justice dimensions of environmental access and distribution (Johnson, Rodriguez, Hoyos, 2020: 15).

For Andrew Gilmour, environmental peacebuilding can be an excellent tool for including marginalized groups in the decision-making process. A good example of how environmental peacebuilding can work is the Good Water Neighbors project by EcoPeace Middle East in 2001, often cited. EcoPeace Middle East implemented the project on the borders between Jordan, Palestine, and Israel, to engage cross-border communities and use their dependency on shared water resources as a basis for cooperation. In their final report, EcoPeace concluded that the direct interaction broke down the stereotypical image of an enemy, creating a foundation for peace through individual friendships. After only three years of the project, 86% of the participants said they understood the need to work together to protect shared water resources, and 78% demonstrated a more positive attitude towards their cross-boundary neighbors. These results were made possible, among other things, by raising over half a billion US dollars through long-standing engagement and political advocacy.

Another example shows how the inclusion of women in environmental peacebuilding initiatives can turn a conflict into cooperation. After the Second Congo War ended in 2003, the peace agreement was fragile, and the water supply in the conflict-affected region of South Kivu was difficult. Poor water management had led to an outbreak of cholera, and the UK-based aid agency Tearfund agreed to support capacity-building in water management in Swima Village, through the establishment of a Committee for Clean Water, which included a women's quota. A disagreement over distribution issues almost escalated into open conflict a few years later when their upstream neighbors from Ihua Village started to throw waste into the river and contaminate it. Instead of escalating the conflict, Swima women from the Committee put together a plan to redesign the water supply while reaching out to the women in Ihua. Together, they built the infrastructure required for the extension of the water system, encouraging reconciliation between both communities, and providing safe water to over 60,000 people in the area.

However, the concept of environmental peacebuilding is facing criticism. In their research, Johnson, Rodriguez, and Hoyos find that environmental peacebuilding can undermine peace outcomes when it does not build capabilities, meaning "the need for individuals or communities to have the options necessary to end, mitigate, or adapt to threats to their human, environmental, and social rights; have the capacity and freedom to exercise these options; and actively participate in pursuing these options" (Matthew, Barnett, McDonald, O'Brien, 2010: 18). Frequent critiques of the field denounce a lack of empirical research on the correlation between environmental peacebuilding and peace (Johnson, Rodriguez, Hoyos, 2020: 16), as well as not enough diversity among researchers and practitioners (who come mostly from Northern Europe or North America). Those critics highlight a lack of voices from Indigenous people, local communities, women, youth, and other minorities in the debate on environmental peacebuilding – who should not only be seen as the targets for aid, but also as change-makers and knowledge-holders (White Paper: 19).

Tobias Ide identifies six risks associated with environmental peacebuilding: Depoliticization, Displacement, Discrimination, Deterioration into conflict, Delegitimization of the state, and Degradation of the environment. When these effects interact, they enforce each other, and environmental peacebuilding efforts can have negative outcomes.

For Andrew Gilmour, the issues of finance and lack of inclusion can be central to the success or failure of environmental peacebuilding projects. He explains that projects can face implementation difficulties due to government corruption or instability, which discourages investors. In addition, the lack of inclusiveness of the process can be problematic, as illustrated by the failure to implement the Great Green Wall initiative, where local communities were not consulted, and plants incapable of living in a desert climate were planted and died immediately.
Recommendations for research on environmental peacebuilding include focusing more on empirical research on the effect of environmental peacebuilding, as well as monitoring and evaluation, and ensuring the inclusion of more diverse researchers, especially from the Global South (White Paper; Johnson, Rodriguez, Hoyos, 2020; Ide, Bruch et al., 2021). In addition, recommendations for practitioners on environmental peacebuilding include implementing and encouraging more bottom-up and

community-based approaches, advocating for leadership that provides necessary funding and entry points, as well as embedding environmental peacebuilding into policy frameworks at all scales. Publications on the subject emphasize the need for players to anticipate and respond to tensions linked to the environment and natural resources before they degenerate into violent conflict. This task should be facilitated by new technical possibilities such as satellite mapping, remote sensing, data analysis, and artificial intelligence.

c) Digital tools used in environmental peacebuilding, to give access to information and to provide early warning

Digital technologies are increasingly being used as a tool for environmental peacebuilding. They correspond to hardware, software, data, approaches, and systems that harness advances in digitalization, connectivity, and processing power. These technologies include AI, blockchain, big data, citizen science, cloud computing, geographic information systems (GIS), earth observation (space-based, remotely sensed data, unmanned aerial vehicles, drones, ground-based sensors, and in-situ data), and geospatial data and analysis.

The UN Environment Programme (UNEP) and Environmental Peacebuilding Association (EnPAx) report Digital Technologies for Environmental Peacebuilding - Horizon Scanning of Opportunities and Risks provides an interesting overview. According to the report, while there is a gap in the literature on the use of digital technologies to predict the risks of conflict and peacebuilding opportunities related to the environment, natural resources, and climate change, prior research has already looked at their interaction with humanitarian operations, mediation, and broader peace and security. Research has found many ways in which digital technologies can benefit in conflict situations, especially when it comes to resource management, cooperation, and communication. Tracking, displaying, and communicating the benefits from natural resources using blockchain, for example, can enhance transparency, traceability, and equity by ensuring all stakeholders in a conflict have a clear and shared understanding of how benefits are being distributed.

Illegal and illicit resource exploitation, which has fueled conflict or served to finance armed groups, can be prevented using blockchain, earth observation systems, and remote sensing. Digital technologies can also include additional stakeholders within decision-making and mediation by offering channels for input and feedback, allowing easy access to environmental and climate data, training materials, good practices, and knowledge-sharing platforms. This also helps bridge the gap created by a lack of traditional education resources. It can also create a more comprehensive and data-driven understanding of potential scenarios, shared risks, and potential solutions, including the prioritization for preventive diplomacy and climate security programming through data analytics and simulation models. This can help increase trust and generate early warning systems.

The use of these new technologies is not without risk. According to the UNEP and EnPAx report, these risks include data security, privacy, and bias risks, which can aggravate conflict, encourage resource capture and illegal exploitation, or targeted violence. By potentially amplifying misinformation, digital technologies can distort public perception of resource management or environmental damages of war or disasters. Rumors about resource scarcity or exploitation can trigger competition or violence. Misinterpretation of complex algorithms used for conflict forecasting can lead to faulty interventions. Additionally, an overreliance on digital technologies can result in marginalizing and overshadowing local dispute resolution mechanisms and traditional knowledge and lead to significant disruptions in areas with underdeveloped or unreliable technological infrastructure. Moreover, with only about 32% of the population in fragile or conflict-affected countries having Internet access, the use of digital technologies is limited and can further exacerbate the digital divide. Especially women may face barriers such as limited Internet access, digital literacy, or control over digital assets. Following top-down approaches can also lead to negative consequences and unsustainable adoptions by local communities.

To face these risks, it is recommended to involve local communities, traditional knowledge systems, and stakeholders at every step into the deployment of digital technologies in environmental peacebuilding. A thorough analysis of the conflict landscape and gender dynamics, as well as monitoring of the impact of technological interventions, is needed. The safeguarding of sensitive environmental and natural resource information, data anonymization, and secure data storage is a must. When expanding access to technology and Internet connectivity, it is also necessary to combat misinformation and provide digital literacy initiatives, for example, through fact-checking services and public awareness campaigns.

Some projects and programs display the variety of digital technology uses for different stages of the environmental peacebuilding process:

- In early warning and early action, the Strata Platform, developed by the EU-UNEP Climate Change, Environment, and Security Partnership and the Food and Agriculture Organization (FAO), can identify and visualize climate-security hotspots in 82 countries. The goal is to

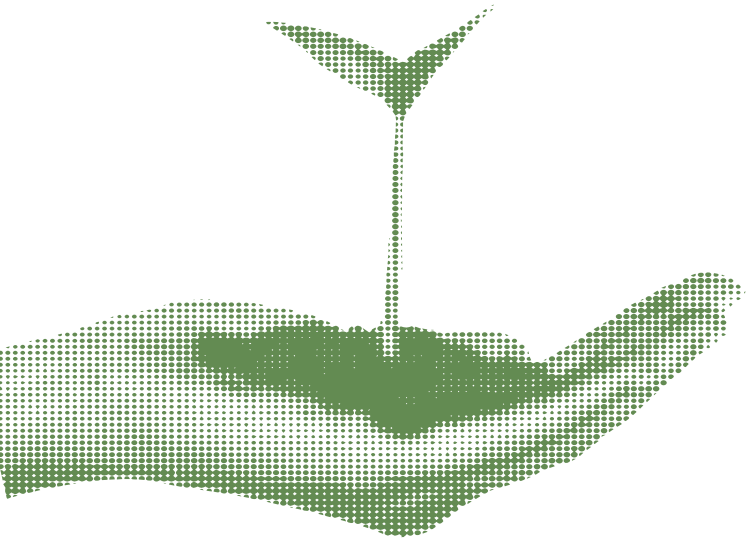
make the analysis of environmental and climate risks available to people without technological knowledge. The platform uses Google Earth Engine (GEE) and FAO's Earth Map technology.

- In preventive diplomacy, the Water, Peace, and Security (WPS) partnership aims to address the increasing levels of water insecurity by creating a digital map that gives a forecast up to a year, using big data, AI, remote sensing, earth observation, machine learning, citizen science, and traditional knowledge. It can provide policymakers with warning signs and decision support tools and offers training, workshops, and capacity development.

- For peacemaking, mediation, and other in-conflict processes, UNEP created the Ecodozor platform, which uses media reports, social media, academia, authorities, and civil society, among other sources, to assess wartime environmental damage in Ukraine.

- Peacekeeping and humanitarian operations can minimize environmental risks to humanitarian operations with the Nexus Environmental Assessment Tool (NEAT+). This tool enables humanitarian practitioners to identify potential environmental hazards by conducting a rapid and simple project-level environmental screening. It provides automated environmental risk reports and mitigation tips and connects users to environmental spatial data on MapX.

- In post-conflict peacebuilding and sustainable development, local cocoa farmers in Colombia are empowered with blockchain through Choco-4Peace, a digital platform that can be accessed via smartphone. It helps small farmers communicate directly with buyers and gives them banking and insurance options, as well as essential market information. This combats the bulk trading of cocoa, which prevents small farmers from accessing international markets.



3 - Policy initiatives and military adaptation strategies are increasingly being introduced.

International organizations and governments are increasingly recognizing the adverse consequences of climate change, ranging from exacerbating conflicts to provoking political and social unrest. These issues are progressively being incorporated into their programs and policies.

At the UN level, the Climate Security Mechanism (CSM) was established in 2018 as a joint initiative of the UN Department of Political and Peacebuilding Affairs (DPPA), the UN Development Programme (UNDP), and the UN Environment Programme (UNEP), later joined by the UN Department of Peace Operations (DPO). The CSM aims to enable the UN system to respond more systematically to climate-related security risks. According to its website, the CSM supports field missions, UN Resident Coordinators, and regional organizations in conducting climate security risk assessments and developing risk management strategies. It has also created a UN Community of Practice on Climate Security, an informal forum for information exchange and collaborative knowledge creation.

At the EU level, several policy documents addressing climate security have been published over the years. In 2020, the Climate Change and Defence Roadmap was released, followed by the Concept for an Integrated Approach on Climate Change and Security in 2021, and the Joint Communication on the Climate-Security Nexus in 2023. Most recently, in 2024, the European Environmental Agency published its first European Climate Risk Assessment (EUCRA). The EUCRA report concluded that Europe remains inadequately prepared for several identified climate risks, including those related to food and energy security, financial stability, and public health. Despite these efforts, critics argue that EU action on climate security falls short in translating policy frameworks into substantial, concrete steps.

The Council of Europe has also identified human rights and the environment as priorities. On its website, the organization highlights the jurisprudence of the European Court of Human Rights and the conclusions of the European Committee of the European Social Charter, which affirm the undeniable links between environmental protection and human rights. Furthermore, successive presidencies of the Council of Europe have called for strengthening existing legal tools to help European states address the significant challenges posed by environmental degradation across the continent.

At the national level, there is a growing recognition of climate security as a critical issue requiring tailored solutions in both the Global South and Global North. For instance, the US Department of

Defense refers to climate change as a “threat multiplier.” Similarly, at the 2021 NATO Brussels Summit, Allied Heads of State and Government endorsed a Climate Change and Security Action Plan, aiming to position NATO as the leading international organization in understanding and adapting to the impact of climate change on security. The document outlines best practices and examples of how individual member states are implementing these measures.

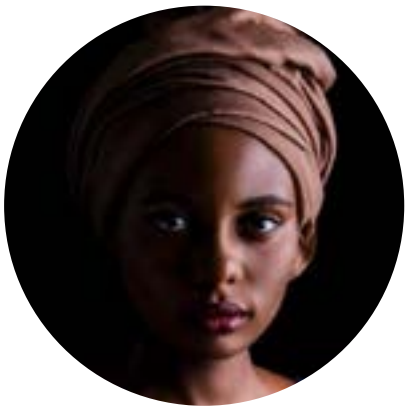
Numerous initiatives are also being introduced at the military level. France, for example, recently launched its Sustainable Defence Strategy (2024-2030). This strategy seeks to transition from a framework focused solely on minimizing the environmental footprint of military activities “without compromising operational capability” to a broader integration of sustainable development into future operationally exploitable capabilities. To achieve its political objective of sustainable defense, the strategy is structured around three pillars: environmental, economic, and social. However, the document does not include the term “human security,” and its approach to security remains traditional.

Germany’s National Security Strategy also underscores the necessity of adapting to the climate crisis to safeguard people and natural areas. The strategy calls for a “robust, resilient, and sustainable” approach and explicitly states that “Global climate, environmental, food, and resource policy is security policy.” While the strategy provides a clear acknowledgment of the interconnectedness of these issues, it stops short of delving into detailed plans. The critical challenge remains ensuring that these guidelines are translated into actionable and effective policies.

2 ANALYSIS

INTERVIEWS

Interviews with six experts from across the world provide a clearer picture of other organizations' work on climate security, the cases they choose to focus on, the challenges they face, and their needs. This information can help global, regional and local actors interested in the topic of climate security to determine how to best promote the work of global south organizations on this subject and define its future role in the debate across the field. The interviewees for this paper were Nasreen Al Amin, Director of Surge Africa (Nigeria); Oli Brown, Founder of Alp Analytica and Associate Fellow of the Energy, Environment, and Resources Department at Chatham House (UK); Hassan Mowlid Yasin, Executive Director and co-founder of Greenpeace Somalia, SOGPA (Somalia); Gerty Pierre, Director of the Climate Change Department at the Haitian Ministry of the Environment (Haiti); Regine Schoenenberg, Director of the Heinrich Böll Foundation office in Rio (Brazil); and Siddharth Nair and Prerana Priyadarshi, researchers at the Institute of Peace and Conflict Studies (IPCS) (India).



Nasreen Al Amin, Director of Surge Africa

Nigeria

Surge Africa, based in Nigeria, delivers climate solutions through politics, media, and resilience. Its political work focuses on themes of energy, financing, and adaptation, and since last year, climate security. The organization is working to identify climate security problems in the Sahel region and is currently determining which frontline states to focus on, such as Burkina Faso and Niger. One of Surge Africa's primary objectives is to explore the link between climate security and migration. The organization studies both climate-induced migration, often linked to resource access issues, and conflict-induced migration. It examines when migration occurs, how it affects populations, and the role migration plays in facilitating the recruitment of young boys by armed groups. For Nasreen Al Amin, the influence of foreign policy on security trends in the Sahel is also central to understanding climate security issues. She highlights how "France's neo-colonial activity" and "the US-Russia proxy conflict in Africa" contribute to the region's resource capture and instability.

Another key activity is the development of a "Climate Security Tracker," an interactive, data-driven tool that provides information on where climate insecurity is present or could emerge. Collaborating with data analysts and climate security experts, the organization aims to anticipate growing tensions caused by armed conflict, natural disasters, and resource access difficulties in the Sahel. The tracker would function similarly to the International Crisis Group's Armed Conflict Tracker but focus on climate security dynamics. Surge Africa is seeking technical support and exploring data-sharing opportunities with the International Crisis Group. One issue identified is the lack of early access to data for governments, as information on violence risks often arrives after conflicts have already begun. The tracker's goal is to provide early warnings to reduce risks and promote peacebuilding. Surge Africa aims to make the tool simple and accessible, with information targeted at people living in these regions. Al Amin describes this mapping exercise as a "work in progress."

Al Amin regrets the limited presence of global south organizations addressing climate security in the Sahel region. According to her, this is due to three main reasons: a lack of funding (1), limited access to information and knowledge (2), and a lack of security in working on the subject (3). Due to limited funding, many organizations can only focus on short-term climate security projects. Additionally, she criticizes the tendency of some organizations to focus solely on resource access challenges without addressing associated security issues. In her view, this highlights a gap in knowledge on climate security. Lastly, some organizations feel intimidated or afraid to address the topic of climate security. "If you deal with the government, you are afraid of being controlled," she explains, adding, "people remember the assassinations of Thomas Sankara and Patrice Lumumba." Al Amin is critical of the neo-colonialism she observes and accuses certain countries, such as France, of perpetuating conflicts in the region. "Most of the time, conflicts are linked to resource extraction. Multinationals and certain foreign governments are involved," she says.

Surge Africa has worked on climate security issues in Nigeria, where these challenges arise amidst pre-existing security problems and governance gaps. There is a conflict with militias in the south, a historic conflict with a separatist movement in the southeast, and the northeast has battled Boko Haram for 15 years. In the northwest, herders are unable to move their livestock, armed groups supply them with weapons, and banditry and kidnappings for ransom are increasing. The problem is spreading geographically. Al Amin asserts that the government cannot solve this problem alone and that solutions require regional communities to "sit down together and think about how to put an end to the conflicts without new violent groups emerging."

For the future, Surge Africa plans to set up a "climate safety expert group" with the Red Cross, starting by identifying relevant stakeholders. The organization needs more funding, access to the right people, and a stronger network. To amplify their narratives and solutions, Al Amin emphasizes the importance of stable funding for African organizations to undertake long-term climate security projects. She also stresses that resolving climate security issues in the Sahel requires addressing their root cause: "neo-colonialism and France's role in the region."

Oli Brown, Associate Fellow in the Energy, Environment and Resources department at Chatham House, and founder of Alp Analytica

United Kingdom

Oli Brown has been working on climate security since the early 2000s. A recognized expert in the field, he is a member of the Climate Security Expert Network and an Associate Fellow in the Energy, Environment and Resources Department at Chatham House. He is also the founder of Alp Analytica, an environmental consultancy specializing in sustainable development and environmental security projects. His extensive experience includes coordinating the United Nations Environment Programme (UNEP) on disasters and conflicts and collaborating with the Heinrich Böll Foundation on climate security in Africa.

When asked about the challenges and limitations of environmental peacebuilding, Brown expressed confidence in the concept's potential but cautioned against overestimating its impact:

"There are different examples of environmental peacebuilding, working or not. The academic criticism around environmental peacebuilding does not undermine the point that environmental degradation exacerbates the humanitarian cost of conflict. Environmental peacebuilding is good for cooperation, we can find ways in which this has an impact. In some places, between farmers and herders for example, it can be a powerful mechanism to build peace. But it is rare that it can be a singular solution itself. We need to keep it in perspective, let's not overestimate what it is. It is not going to be the silver bullet, and it is not going to bring peace between Israël and Hezbollah or Hammas."

When addressing the root causes of climate security problems, Brown emphasized their complexity. Citing examples from Mali, Burkina Faso, and Niger—countries grappling with serious climate security issues—he described varying situations with overlapping challenges: autocratic states, jihadist insurgencies exacerbating governmental weaknesses, farmer-herder conflicts, colonial legacies, and more. He highlighted two critical considerations:

1. Conflict resolution: When negotiating the peaceful settlement of conflicts, what environmental and natural resource issues can be addressed to ensure sustainable resolutions? How can environmental dynamics influencing conflicts be recognized and managed? How can the right stakeholders be involved?
2. Preventative measures: How can conflict-sensitive environmental and natural resource management be supported to prevent these issues from fueling conflicts in the first place?

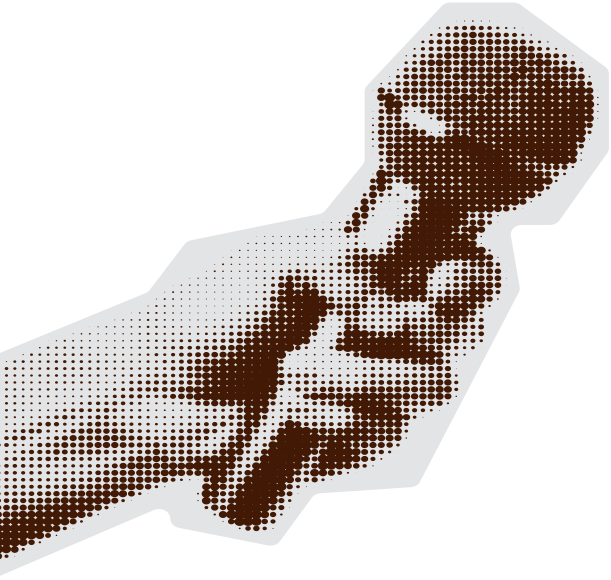
Brown stressed that these two approaches must be pursued simultaneously in regions experiencing ongoing conflicts and political instability.

He also advocated for realism regarding the potential of environmental peacebuilding and urged caution in defining issues as climate security concerns: "We need to be careful about over-attribution, as the environmental issue is rarely the only factor." Brown noted that while many conflicts are linked to resource access challenges, such difficulties are not always caused by climate change. He acknowledged the difficulty of measuring peacebuilding's impact: "It is difficult to track the impact of peacebuilding because you are looking for the absence of something: if you are successful, nothing happens. You never know what would have happened had you not been there."

Regarding collaboration with global south organizations, Brown observed that while the climate security framework originates in the Global North, people and organizations in the Global South understand its implications but frame the discussion differently. He has contributed to amplifying Southern voices by facilitating discussions in venues like Brussels, focusing on integrating climate security into peace agreements.

Brown's recommendations for global actors (especially from the global North) include fostering dia-

logue to understand what works for Southern actors. He stressed that climate justice is a crucial aspect of climate security, noting disparities in climate adaptation funding: “There is a lot of money for adaptation, but it doesn’t go to the people who need it the most. The problem is that the money does not tend to go to fragile states, and within those states, it does not reach the most vulnerable people. If the money arrives in the country, it rarely leaves the capital city.”
He suggested exploring innovative ways to channel climate funds to those in greatest need. His advice for global actors interested in the topic is to define specific questions to address, to analyze its strengths and weaknesses, to avoid overly broad objectives and to focus on areas that require deeper research, such as inclusion and corruption.



Hassan Mowlid Yasin, Executive Director and Co-Founder of the Somali Greenpeace Association

Somalia

The Somali Greenpeace Association (SOGPA) is a civil society non-profit organization accredited to the United Nations Environment Programme (UNEP) and the Convention on Biological Diversity (UNCBD). It is committed to promoting climate and environmental justice in Somalia. SOGPA’s activities include climate change adaptation and resilience programs, environmental education and awareness campaigns, advocacy, action for climate empowerment, tree planting and ecological restoration, and intergenerational dialogue.

Hassan Mowlid Yasin, Executive Director and Co-Founder of the organization, proudly stated that in 2023, approximately 200 participants—from youth to elders, women, and civil society organizations—engaged in SOGPA’s programs. These participants gained knowledge on how to participate in climate justice movements, explored the nexus between climate change and security, and learned about existing environmental policies in Somalia. SOGPA fostered collaborations, provided legal empowerment training, and supported environmental defenders in securing and protecting their rights. The organization has numerous partners, including UNEP, the Geneva Peacebuilding Platform, ACBA African CSOs, the Somalia Food Security Cluster, the Convention on Biological Diversity, and others.

According to Hassan, SOGPA has established a degree of policy influence through the Ministry of Environment and Climate Change. As he explained, “CSOs are now invited to participate in validation

meetings of environmental policy in Somalia, though not enough."

The executive director is pleased that SOGPA has successfully brought climate change and environmental degradation into the public agenda. The organization has made significant contributions to seven national policies, including the Illegal, Unreported, and Unregulated (IUU) Fishing Policy, the Somalia National Determined Contributions Review, and the Development of an Implementation Plan. SOGPA also participated in the National Consultation Meeting on the Implementation of the Rotterdam Convention, the validation workshop of the Environmental and Social Impact Assessment Regulations in Somalia, the Somalia Environmental Act, and Somalia's National Priorities for COP28.

In addition, SOGPA organized and collaborated with other CSOs and the government on five social campaigns: combating plastic pollution, planting trees, raising public awareness about biodiversity protection, and conducting a beach clean-up campaign. In 2023, SOGPA participated in several international events, including COP28 in Dubai, the African Climate Summit in Nairobi, the 19th African Ministerial Conference on Environment and Climate Change in Addis Ababa, and the Pan African Climate Justice Alliance General Congress in Addis Ababa.
During its work, SOGPA identified several gaps. As elaborated by Hassan:

"Knowledge and education on climate change and environmental issues is still very low in Somalia. Community resilience through adaptation and mitigation measures is lacking, and stakeholder engagement on policy issues relating to climate change and the environment is insufficient. Somali CSOs, women and youth are not represented in international negotiations on climate change, biodiversity and the environment. NGOs do not consider Somalia's frequent droughts, floods and conflicts from the perspective of climate change, but see it only as emergency situations. Finally, there is insufficient technical capacity and funding for CSOs to tackle climate change and environmental issues in Somalia."

For the organization itself, the main challenges are access to funding and technical capacity, and especially systems development. Specifically, SOGPA would need support for its Enterprise Resource Planning (ERP) because it is very expensive (around $5,000). Another problem is that SOGPA depends on intermediaries and has no direct contact with its donors. Finally, even though they are present at international level, they sometimes find it difficult to make themselves heard. For example, they did not attend the United Nations Climate Change Conference due to lack of funding and the difficulty of obtaining a visa. To help face these challenges, Hassan Mowlid Yasin suggests that the Global Unit for Human Security could partner global south organizations such as SOGPA by becoming a donor, support technical capacity building, support key personnel in institutions working in these fields, and support representatives of global south organizations to participate in international events.

Gerty Pierre, Director of the Climate Change Department at the Haitian Ministry of the Environment

Haïti

For Gerty Pierre, Director of the Climate Change Department at the Haitian Ministry of the Environment, Haiti faces significant challenges linked to climate security. Since 2018, the country has been enduring a political crisis, with the population experiencing extreme deterioration in security and widespread gang violence. At the same time, Haiti is grappling with the direct impacts of climate change.

According to Pierre, these phenomena are interconnected, with difficulties in accessing natural resources exacerbating ongoing violence:

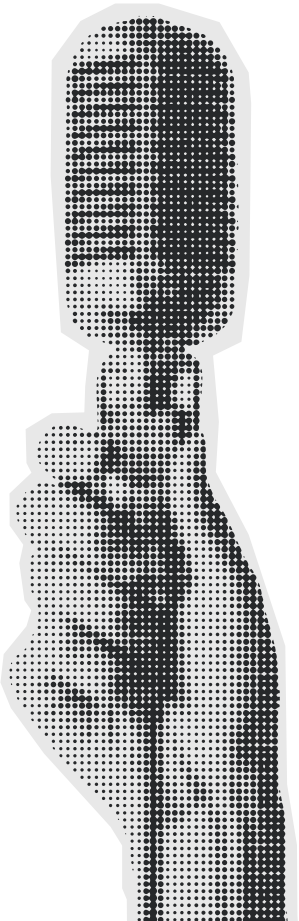
"In rural areas, small-scale fishing is facing challenges as changes in ocean temperatures affect the distribution and abundance of fish. Agriculture has also become more difficult, due to the increased frequency and scale of droughts and floods. Young people working in these sectors see their future becoming uncertain, as they are less able to make a living from their activity. This drives them to the cities, where they hope to find work. In reality, due to the lack of opportunities, they risk being recruited by armed gangs."

Universities are also in a precarious state. With university education now largely online, interaction between young people has been considerably reduced. The unemployment rate is very high, leaving young people with few opportunities. Lacking money, they are increasingly pushed toward gang involvement.

The situation has deteriorated to the point where, in Port-au-Prince, some neighborhoods are entirely controlled by gangs, and many people are emigrating to the United States and Canada. While the country is marked by a high level of food insecurity, Pierre emphasizes that the security crisis in Haiti is, above all, a humanitarian crisis.

She expresses gratitude to the European Union for its financial support of Haiti's environmental transition and stabilization efforts and hopes this aid will continue to pave the way for lasting peace. Pierre believes that Haiti must do more to adapt to climate change and increase resilience. While humanitarian aid and addressing food insecurity are essential, she calls on developed countries to support community-based programs that provide young people with rapid access to technical skills for employment. She stresses that preparing young people for employment is a more sustainable solution.

Pierre also highlights the issue of corruption in Haiti: "The problem of corruption in Haiti is not new to anyone. There's a high level of corruption, and it's serious." She explains the challenge lies in ensuring that foreign financial aid reaches the most vulnerable people who need it the most.



Regine Schoenenberg, Director of the Heinrich Böll Stiftung Rio office

Brazil

Faced with the directly observable effects of climate change and the surge in violence in recent years, particularly in the Amazon rainforest, the Heinrich Böll Stiftung in Brazil is actively addressing climate security issues. The organization examines how the presence of criminal factions in the Amazon affects the environment and how these degradations, amplified by climate change, create a vicious cycle of violence. As Regine Schoenenberg observes:

"There has been a clear aggravation of the situation with violence and the presence of organized crime in the Amazon forest. Groups such as Comando Vermelho and Primeiro Comando da Capital (PCC), the biggest criminal group in the world, use illegal gold-digging, illegal deforestation and provocation of wildfires to clear the land for soy, which has a major negative impact on the environment."

She notes a shift in the Amazon rainforest in recent years, with drug trafficking moving from the informal to the formal economy as workers in industries such as woodcutting and fishing supplement their income with cocaine.

Organized crime has been present in the Amazon since 2012. Schoenenberg recalls that the Brazilian government sent Comando Vermelho and PCC leaders to federal prisons in the Amazon, inadvertently creating recruitment bases. Both groups began intermingling with local gangs: the Comando Vermelho distributed drugs in communities, while the PCC controlled the routes. However, in 2016, the PCC and Comando Vermelho split, leading to an explosion of violence as groups fought for territorial control. As Schoenenberg elaborates:

"Today, indigenous reserves are monopolized by groups who invest and launder money through illegal mining and deforestation. The big landowners, who want to extend their territory into the forest to put in land and cattle, are therefore driving small farmers and indigenous people off their land to take it over. They used to employ private armies or paid militias to kill people, but now they give security contracts to the Comando Vermelho to do their dirty work."

These armed groups are highly effective, and violence has escalated dramatically. Schoenenberg explains: "There are thousands of them, and they have AK-47s. Many people have died; it has become very dangerous. They interfere in elections, and environmental activists are shot dead."

This violence is further exacerbated by climate change. As explained by Schoenenberg: "The rainforest is supposed to be humid, but due to the climate crisis, which is multiplying the frequency of droughts, it has become drier. Normally, tropical forests shouldn't burn, as they should be moist, but this drying out allows forest fires to spread. These fires are 90% artificial and are used to create fields for cattle, which would otherwise be illegal."

Schoenenberg also highlights other challenges:

"People also lack clean drinking water, and the Brazil nut, on which many people depend and which is very important in the forest as a source of income, can no longer grow. As people struggle to survive, they are being recruited by gangs."

To address these issues, the Brazilian federal police have launched a security program for the Amazon and the environment, including the establishment of 23 security centers in the Amazon. This initiative is presented as an environmental defense program, with funding from the Amazon Fund, a fund dedicated to civil society and environmental programs. However, Schoenenberg is investigating whether the program genuinely addresses environmental concerns or is merely framed to secure funding.

Resistance also comes from youth groups defending both the people and the forest. These groups engage in investigative journalism to combat fake news and raise awareness among forest communities about the casualties of climate security issues, helping them resist gang recruitment.

Schoenenberg advises against large institutional projects in Brazil due to widespread corruption. According to her, "The problem is that if the project is too big, it always stops. To really change something, it should be on the ground." Finally, regarding the internationalization of the Amazon rainforest problem, Schoenenberg remains skeptical: "If the external pressure is too strong, it doesn't help."

Interview with Siddharth Nair, Researcher, and Prerana Priyadarshi, Deputy Director (Projects) & Senior Researcher at the Institute of Peace and Conflict Studies

India

Siddharth Nair and Prerana Priyadarshi are researchers at the Institute of Peace and Conflict Studies (IPCS) in India. The organization focuses mainly on traditional security issues, but since 2021 they have also started working on climate security. Their work on the topic is conducted through (1) research and (2) engagement (a term they prefer to "advocacy").

More specifically, Nair and Priyadarshi conduct internal research projects and collaborate with experts in the field of climate security in India and South Asia. Taking a more academic approach than other players interviewed, they focus on defining the term "climate security" and, for their part, prefer the term "climate and security." Indeed, their first engagement on climate security took the form of a

virtual workshop, in which they attempted to define the meaning of climate security with ambassadors from India, Bangladesh, and Sri Lanka.

Since then, the IPCS has organized a regional workshop in Bangkok on climate security and published a final document. According to the researchers, the report on climate security in the Bay of Bengal region is the "first articulation of what climate security means in the region."

The choice of focusing on this region is due to its being geographically the most affected by climate change and a region where it is geopolitically less risky to have a discussion about climate security. They are now interacting with the Centre for Humanitarian Dialogue, with whom they have planned a workshop on policy implementation.

The two researchers are also interested in the adoption of the climate security vocabulary in the more traditional sphere of security. To this end, they participate in events to discuss their work. For example, they attended the Berlin 2023 Climate and Security Conference. As Nair and Priyadarshi point out, "None of us really has expertise in climate security. Our aim is to get as many traditional and non-traditional security experts around the table as possible." The IPCS's work on climate security focuses on South Asia. As it gradually expands its activities, it plans to work in the Indo-Pacific region in the future. Their efforts at engagement have been crowned with success, as much of the vocabulary used by the region's leaders on climate security originates from their work.

Confronted with the question of the lack of awareness of climate change in the general public in India, Nair and Priyadarshi assert the contrary. They explain that in India and South-East Asia in general, "There are no climate deniers in the political sphere. Everyone is on board!" While scientific knowledge of climate change is limited at the global level (a gap they are trying to fill by providing technical expertise), the researchers believe that the general public is aware of the existence of climate change. Priyadarshi explains:

"November 2024 is a very hot month in India right now, and the heat is felt by everyone. This is unusual and people know it. They are curious to know why this is happening, and the media are explaining that it is related to climate change. As India has the largest and cheapest mobile network in the world, people are well informed."

Other factors are also aggravating the rising heat. For instance, the ongoing construction in cities contributes to dust in the air, which traps heat in urban areas.

Regarding what they think global actors could bring them, the answer is not obvious. The IPCS representatives do not have specific needs in mind but would like a more precise proposal for collaboration. However, they are curious about learning what other organizations are doing. Nair points to how actors from the outside of their sphere "could be a resource for [them], to know what other people are working on."

The researcher explains that they are trying to broaden the scope of their research. While maintaining a focus on Asia, they would be happy to engage with people working even beyond the world of climate security. More precisely, the researchers would like to "get in touch with people in Central and East Africa, and in South and Latin America to exchange on key issues."

As they recognize the limited consensus on what climate security means, they are interested in discussing the framing of climate security as a normative concept with others. They are already working with the Hanns Seidel Foundation and "would like to know how these issues are framed in other regions, and particularly in the non-western world."

In this context, IPCS is already part of the GIB-SA quadrilogue, a forum facilitating the exchange of ideas between organizations in Germany, India, Brazil, and South Africa. But, according the researchers, mutual understanding is not always easy:

"Because we experience so many different realities, we are unable to make connections. We are not talking with each other, we are talking at each other."


PRESS

RECOMMENDATIONS

1. Publish research articles and policy papers building on the gaps identified in the literature
2. Become/create a global network of organizations working on climate security
3. Launch initiatives to enable organizations accessing long-term funding
4. Start small-scale projects with global South partners
5. Create a space for dialogue on human and climate security with the military sector
6. Conduct advocacy work

1 - Publish research articles and policy papers building on the gaps identified in the literature

First, actors can contribute to the climate security debate by publishing research articles and policy papers that fill gaps identified in the literature. The following themes could be explored:

- Environmental peacebuilding (1): An empirical research on the effect of environmental peacebuilding, asking what it can succeed to achieve, what are the cases of success and failures, and what are the limitations in practice. This research consists of monitoring and evaluation, and should ensure a greater inclusion of more diverse researchers, especially from the global south.
- Environmental peacebuilding (2): A list of environmental peacebuilding recommendations for practitioners, encouraging a more bottom-up and community-based approach. This research would advocate for a leadership that provides funding and entry points, as well as embedding environmental peacebuilding into policy frameworks at all scales.
- Digital Technologies : An analysis of the use of digital technologies to predict the risks of conflict and environmental peacebuilding opportunities, natural resources and climate change.
- Climate finance, inclusion and corruption: Research exploring how to ensure that climate money reaches the countries most vulnerable to the effects of climate change and conflict, and how, within those countries, to ensure that the most vulnerable people are the first to benefit. How can we deal with corruption issues in this context?
- Neocolonialism and climate security: An analysis of the extent to which neocolonialism plays a role in the persistence of violent conflict in certain regions, such as the Sahel, how information on this subject is made accessible, and how, if such a challenge is identified, it can be overcome.
- Gender (1): Research analyzing gender dynamics associated with climate and conflict-related migration or displacement. Observing linkages between women's access to land tenure, conflict mitigation, and climate adaptation and mitigation.
- Gender (2): Research on women's roles to peacebuilding and governance structures in conflict and climate change affected contexts.

In addition, as recommended by Oli Brown, global actors should invest resources in finding synergies between their different projects around the world to increase impact. In terms of geographical area, the expert suggests analyzing climate security projects in regions less explored on this subject, such as Central Asia or the Pacific islands, whose very existence is threatened by the risk of flooding.

2 - Become a global network of organizations working on climate security

A clear complaint from the interviewees of this article was that organizations working on climate security often operate in silos. There is a pressing need for greater information exchange and collaboration. The organizations interviewed emphasized their desire to establish connections with other actors working on the same topic. Some interviewees expressed a particular interest in gaining knowledge about stakeholders in their geographical region to foster future partnerships. Researchers, in particular, are eager to deepen their understanding of climate security realities in other continents. However, they noted the challenge of mutual understanding when stakeholders have vastly different experiences with climate security, stressing the importance of engaging in dialogue with each other, rather than speaking past one another.

Actors, especially those specializing in organizing cross-cultural and cross-contextual meetings and dialogues, could address this challenge. Similar to Surge Africa's plan to create a "climate security expert group," other interested parties could leverage their international networks to produce a comprehensive map of stakeholders involved in climate security. These actors could serve as coordinators of this network, focusing primarily on organizations from the global South. By facilitating meetings, exchanging experiences and best practices, and strengthening these networks, they could amplify the perspectives of Southern organizations in global and regional political forums to which they have access.

3 - Launch an initiative to enable organizations accessing long-term funding

The organizations interviewed also emphasized their need for funding. Local, regional, and global actors could support these organizations directly or help identify potential funding sources for long-term climate security projects. They could facilitate access to this information by creating an "accessible funding kit" that includes details on available grants, application deadlines, and newly identified funding opportunities.

By leveraging their networks and existing partnerships, these actors could also identify new sponsors and donors to address the specific needs of partners in the global South. For example, they could provide support for technical capacity building, such as assisting SOGPA in implementing an ERP system.

4 - Start small-scale projects with global south partners

For instance, as suggested by Regine Schoenenberg, a partnership in the form of climate security training could be established with youth organizations in Brazil that are already in contact with her Foundation. Existing institutional links or partnerships within a particular geographical context could further facilitate such small-scale projects, as they allow for the easier identification of specific needs.

In the context of Brazil, other small-scale projects could include enabling lawyers to assist environmental NGOs and inform them about the tools available to protect young environmental activists (1), training and funding experts to engage with schools on the theme of climate security (2), and supporting journalists to create simple modules for young people on how to use relevant social media platforms to disseminate and access accurate information (3). Similar needs may exist in other contexts, and this initiative could be replicated in other regions.

5 - Create a space for dialogue on human and climate security with the military sector

As highlighted in the literature review, the terms “human security” and “climate security” remain underutilized within the foreign policy and military sectors. To address this gap, discussion forums on these topics could be organized with representatives of the military from various European countries.

To ensure accountability for Germany’s ambitious commitments, a Germany Climate Security Update (or “Eyes on Berlin”) could be published regularly on the Unit’s social media platforms. This update would analyze progress or setbacks regarding how Germany’s security strategy is adapting to environmental challenges. It is essential to ensure that the interests of women and disadvantaged groups are fully considered in the development of integrated peacebuilding measures, as outlined in the government’s Security Strategy report.

6 - Conduct advocacy work

Local, regional and global actors could increase their participation in international events and help ensure that voices from organisations in the global South are amplified at these events. Below is a calendar containing examples of events related to climate security in 2025:

- European Defence Agency (EDA) annual conference, Brussels & hybrid (January)
- Seventeenth International Conference on Climate Change: Impacts & Responses, Miami (January)
- The Munich Security Conference (February)
- UNODC Commission on Crime Prevention and Criminal Justice, Vienna (May)
- World Bank Land Conference 2025: Securing Land Tenure and Access for Climate Action, Washington (May)
- The International Conference on Environmental Peacebuilding (June)
- EU Green Research Week, Italy (June)
- The Berlin Climate and Security conference (October)
- European Defence and Security Conference (October)
- IUCN World Conservation Congress 2025, Abu Dahbi (October)
- Montréal Climate Security Summit (October)
- 2025 UN Climate Change Conference, Brazil (November)

Finally, Europe-based actors (incl. political foundations, campaigns and institutions) could lobby European representatives on the subject of climate security. The following individuals could be approached:

- **Henna Virkkunen**, Executive Vice-President for Tech Sovereignty, Security and Democracy
- **Kaja Kallas**, High Representative for Foreign Affairs and Security Policy and Vice-President of the European Commission
- **Dubravka Šuica**, Commissioner for Mediterranean
- **Andrius Kubilius**, Commissioner for Defence and Space
- **Magnus Brunner**, Commissioner for Internal Affairs and Migration
- **Jessika Roswall**, Commissioner for Environment, Water Resilience and a Competitive Circular Economy
- Representation of Poland in Brussels, Polish Presidency of the Council of the EU
- Member of the ENVI Committee in the European Parliament

Risks to avoid

As many organizations are already engaged in climate security efforts, it is essential for each actor or organization to define a clear position and remain aware of the work of partners to avoid duplicating efforts. To prevent common pitfalls when launching a new climate security project, interviewees recommend addressing several key questions: Where should I expand climate security research? Am I focusing on a concept that is neither too abstract nor overly broad? Why is my organization particularly well-positioned to undertake this work? Do I aim to produce new information or to transfer existing knowledge and build networks? Can I manage this task alone, or should I collaborate with one or more other organizations?

On a more technical level, when inviting participants from the global South to international events, one significant challenge is the time required to secure visas. Additionally, a common criticism of international climate security events is the limited concrete understanding many participants have of on-the-ground realities in this field. Therefore, it is crucial for individuals or teams responsible for climate security within relevant organizations to conduct study visits to research areas—such as the Sahel region—to observe the realities of climate security issues firsthand and engage with local stakeholders. This approach helps ensure that research is grounded in actual conditions rather than preconceived notions.

Imprint

Publisher: Heinrich-Böll-Stiftung, Dialogue Office for Civil Society Cooperation, Eßlinggasse 9/6, A-1010 Vienna
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Place of publication: www.boell.de
Publication date: February 2025

More e-books are available for download at:
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28th of November, 2024
Vienna