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Climate, peace and conflict – mapping linkages and a path forward

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Content

1 Introduction

Amidst the generally underwhelming outcomes of COP28 in December 2023, the COP Presidency's initiative to host the first-ever day dedicated to peace stood out as a notable achievement.[1] Although 'Peace Day' occurred outside the formal negotiations process and no mention of fragility or conflict made its way into the COP28 outcome document, it marked a significant moment. For the first time, the climate community at the highest level formally acknowledged the intrinsic link between climate change and conflict and recognised that fragile and conflict-affected settings deserved special attention. The Declaration on Climate, Relief, Recovery, and Peace, issued on Peace Day, provided a clarion call for concerted, interdisciplinary action to protect the most vulnerable populations from the impact of climate change.[2] The non-binding declaration (signed by 93 countries and 10 organizations as of early July 2024), signals a growing openness in the climate community regarding the distinct impacts of conflict on climate change objectives. It joins similar statements emanating from the peace and security community, which has recognised the climate-conflict link in a number of different statements in recent years, including declarations by the G7, the African Union Peace and Security Council, the European Council, and the UN Security Council.

Connecting the climate change and peace communities, two quite different pillars of our global governance system, is a challenging task. Each operates with its own set of objectives, approaches and taxonomies that have evolved over decades in separate siloes. Climate action, located more commonly within development discourse, primarily operates on long-term timelines, leveraging scientific and technological solutions, and functions within the framework of international environmental agreements. On the other hand, peace support aims at conflict resolution, political stability and reconciliation via more limited mandates in time, scope, and funding.

Yet amid the differences, there is also notable overlap. Both fields share the ambition to create resilient, inclusive, and prosperous societies. Integrated approaches, if carefully designed, can mitigate the contradictions and maximise the synergies between climate action and peacebuilding. Such integrated efforts can help to address the root causes of conflict, like resource scarcity exacerbated by climate change, and simultaneously promote sustainable development, social cohesion and justice.

Many initiatives have recently taken up this challenge, either implementing programmes to integrate a climate lens into peacebuilding and/or make climate change more conflict sensitive, or researching good practices in this field. This paper seeks to provide an overview of this field, to examine some of the main principles relevant to actors working on peacebuilding and mediation support, and to provide some examples of effective initiatives that build on these principles.[3]

1 The 28th Conference of Parties (COP28) to the UN Climate Change Framework Convention (UNFCCC) took place in December 2023 in Dubai. The full title of "Peace Day" was Health, Relief, Recovery and Peace Day.

2 See the Declaration here: https://www.cop28.com/en/cop28-declaration-on-climate-relief-recovery-and-peace

3 In his book *The Burning Question* (2024), Andrew Gilmour provides an overview of the troubling linkages between climate change and conflict, and an agenda for addressing them. Drawing on this work, some of the arguments made in this paper may be read there in full.

2 History of the climate change and conflict discourse

The international discourse on climate and environmental action evolved significantly from early awareness in the 1960s and 1970s to the establishment of key frameworks and institutions like the Intergovernmental Panel on Climate Change (IPCC) in the 1980s. At the 1992 Rio Earth Summit, heads of state convened to discuss how to mitigate the growing concentrations of greenhouse gases in the atmosphere, and to create a space to handle transboundary environmental issues.[4] At the same time, researchers were beginning to take up the challenge of how this might impact the new international security dynamics, fresh out of the Cold War.

One of the pioneering researchers in this area was Thomas Homer-Dixon, a Canadian political scientist. In what was to be a consequential work also for US policy on this issue, his 1991 article "On the Threshold: Environmental Changes as Causes of Acute Conflict" probed into how contemporary environmental changes would affect "acute national and international conflict" (Homer-Dixon 1991). Three years later, US journalist Robert Kaplan captured the public imagination with an article in The Atlantic, outlining the numerous threats posed by environmental changes to US national security interests. Suddenly, the environment was being identified as "the national security issue of the early twenty-first century" (Kaplan 1994).[5]

The developments in the early 2000s reflected a growing awareness of climate-conflict linkages and advanced a new policy discourse around climate change as a "threat multiplier".[6] Critics were quick to respond and push back against a perceived 'securitisation' of climate change and the environment – a charge that continues to be levelled by some today. In the field of security studies, securitisation can be defined as the process through which issues are framed as "an existential threat to a referent object", and in such a way that "justifies the use of extraordinary measures to handle them" (Buzan et al. 1998). While this may seem like something which advocates of climate action may get behind, a concern often raised is that drawing attention to the security implications of climate change encourages policy based on military approaches, which would only lead to greater insecurity. Or as put by the Indian delegate in a UN Security Council (UNSC) debate in 2019, "if all you have is a hammer, everything looks like a nail".[7]

Unpacking this security framing reveals more complexity, however. The choice of whose security one seeks to secure dictates policy outcomes, which vary greatly as a result (McDonald 2013). If one talks in terms of national security (and therein securing the nation state), policy responses all too often involve erecting borders, eschewing cooperation in favour of protectionism even in the case of shared challenges such as climate change. However, beyond the narrow prism of national security, alternative framings emerge that enable a much greater range of policy responses. Looking through the frame of human security – referring to the wellbeing of individuals rather than the nation state – reduces the likelihood of military responses, while retaining the need for extraordinary measures.

4 Its primary achievement was the creation of the United Nations Framework Convention on Climate Change (UNFCCC), which remains to the day the principal body for international cooperation on climate change.

5 This was based on early research into this area, notably coming from North America. Meanwhile in Europe, more differentiated and less sensationalist viewpoints were also emerging; see the Environmental Conflicts Project (ENCOP) led by the scholar Günther Baechler, originally published in German. See Baechler (1999).

6 The use of the term 'threat multiplier' in this context begun in 2007 in a report analysing the risks posed by climate change to US national security led by Sherri Goodman (CNA Corporation 2007).

7 Indian delegate at the open debate held in the UN Security Council on 25 January 2019 (UNSC S/PV.8451).

2.1 Role of the UN Security Council

Since 2007, these debates have taken an increasingly prominent position on the UN Security Council's agenda. That year, the UK spearheaded the first debate on the implications of climate change for peace and security, marking a shift in how these issues were considered at the global level. This early debate put forward how climate change could exacerbate resource conflicts, displace populations, and destabilize regions. The initial focus on national security as its frame of reference helped elevate the climate and security discourse to the agenda of the UNSC. Yet it failed to meet universal acceptance and even further hardened concerns over the securitisation of climate change, hindering advances in the Security Council and other fora.

Despite more than a dozen formal and informal Security Council meetings on climate and peace and the adoption of more than one hundred resolutions with climate and peace references since that initial debate, progress within the UNSC has not been smooth. Resistance from countries like Russia and China, who remain cautious about expanding the Council's mandate into climate change matters, citing sovereignty concerns and fears of distracting from root causes of conflict, has slowed more systematic engagement with climate and environmental matters. These divisions ultimately led to the Russian veto in 2021 of a thematic resolution on climate, peace and security, drafted by Niger and Ireland and co-sponsored by 113 other nations.

Notwithstanding the lack of universal buy-in and the setback of the 2021 veto, the Security Council continues to play an important role driving the global climate and peace discourse. Aided by the 2018 creation of the UN Group of Friends of Climate and Security, co-chaired by Germany and Nauru, as well as the formation in 2020 of the Informal Experts Group of the Security Council on Climate and Security, also initiated by Germany, engagement with the topic became more comprehensive and nuanced, driven in many ways by more assertive voices from countries at the forefront of the climate-conflict nexus. As such, recent years have seen a trend towards a more evidence-based and inclusive approach to climate and security. The growing focus on the potential of climate and environmental action for dialogue, cooperation and conflict prevention represents a marked difference to the narrow understanding of climate-related security risks that characterised the earlier Council discussions.

2.2 Research debates

The trajectory from a scarcity and threat-focused framing to more nuanced and constructive perspectives has similarly marked the evolution of the academic discourse. Beginning with Homer-Dixon, research assessing possible connections between the environment and security has developed in numerous stages. The field's earlier iterations saw a battle to establish (or disprove) a causal link between climate change and violent conflict. Two opposing schools of thought existed: On the one side was a group of researchers, based largely in California, whose 2009 article predicting that climate change would result in a 54 per cent increase in the risk of violent conflict outbreak by 2030, equating to an additional 393,000 battle deaths, received significant attention (Burke et al. 2009).[8] Alarmed perhaps by the findings themselves and the implications that they may have in the policy domain, a research cluster at the Peace Research Institute Oslo responded directly to the article, questioning the methodology employed by the California group. After changing several inclusion criteria for the data, they found an insignificant influence of climate change on conflict (Buhaug 2010). The subsequent back and forth between the two research groups catalysed an entire research field but yielded little rapprochement, reflecting the difficulty in connecting two such different phenomena.

8 Based on emissions scenarios set out in the 2000 IPCC Special Report on Emissions Scenarios.

Even absent a general consensus among scholars regarding the causality of climate-conflict linkages, the growing body of research greatly expanded our collective understanding of this complex interplay. Greater nuance and a fuller appreciation for socio-economic, political and demographic conditions as mediating factors contributed to a shift in terminology from *threat multiplier* to *risk multiplier*, distancing the field from militaristic understandings of climate change impacts. Conveniently, this framing maintains the space to discuss the relationship between climate change and conflict without getting mired in a causality debate. Or as Busby put it, by using this terminology one *"can assert that climate plays a role in making negative security outcomes more likely, but that it is not the sole driver and that its influence happens in concert with other factors"* (Busby 2022).

The rapidly expanding body of "grey literature," driven by a surge in publications from think tanks and NGOs in recent years, has significantly advanced our collective understanding of the links between climate and conflict, as well as potential solutions. Numerous research institutions from both Western and non-Western contexts have played a crucial role in this effort, including Accord, Adelphi, the Center for Climate & Security, the Institute for Security Studies, the Peace Research Institute Oslo, and the Stockholm International Peace Research Institute. Collectively, these organizations have made a significant contribution to a more systematic approach to risk analysis and programming in this field, including by promoting "climate security pathways" as a valuable tool, and broadened the diversity of perspectives shaping the global discourse. NGOs have further enriched this landscape by distilling and disseminating lessons from their frontline work in climate security, with organizations like the Berghof Foundation, International Alert, Interpeace, and Mercy Corps leading the way. Both think tanks and NGOs have actively shared case studies, offering detailed insights into specific contexts and amplifying local experiences, thereby fostering a more nuanced and inclusive global dialogue on climate-conflict linkages. The following section attempts to synthesize some of the current knowledge about these linkages and associated risks.

3 What do we know about the risks?

A great deal of research on the interconnections between climate change, the environment and conflict have used large datasets to assess whether variations in climatic conditions impact the incidence of violence. As above, little consensus was achieved, in part due to variations in how variables were defined (Koubi 2019). For instance, as a proxy for climate change, some have taken long-term changes over many decades (and indeed centuries) (Jia 2014; Zhang et al. 2011), while others have measured it by short-term climate variability, such as rainfall patterns(Salehyan and Hendrix 2014), natural disasters (Ghimire and Ferreira 2016), or drought frequency and intensity (Maystadt and Ecker 2014; von Uexkull 2014). The quantitative approaches adopted by these studies attempt to produce generalisable conclusions about the climate-conflict relationship. However, in areas such as this where complexity is a defining feature, qualitative and mixed methods approaches have shown to offer some advantages.[9]

In recent years, researchers have used these approaches to focus on human factors – social, economic and governance pressures – to understand climate and conflict linkages. The work of two scholars, Marwa Daoudy and Josh Busby stands out in this regard.

9 Adopting a political ecological approach would be one way of doing so, as proposed by Le Billon and Duffy. Distinct from the positivist quantitative approaches, they argue that political ecology provides a frame *"to [understand] conflicts over resources and environmental change, because it is historically grounded, field-based, and generally engages with both the structural and social dimensions of uneven power relations"* (Le Billon and Duffy 2018, 242).

3.1 The importance of human factors

In *The Origins of the Syrian Conflict*, released in 2020, Marwa Daoudy picks up one of the key case studies in climate-conflict research, and one which is often held up as a demonstration for how climate pressures can foster the conditions for violence (Daoudy 2020). Her argument concedes that the severe drought from 2006-2008 contributed to economic hardship and migration in Syria (rates of malnutrition increased by 370% in some areas and a country which had historically been self-sufficient in the production of staple crops was forced to import one million tonnes of wheat) but argues that decades of failed government policy were more influential for the outbreak of violence. In her analysis, the cuts to fuel and fertiliser subsidies, which undermined farmers' capacity to navigate drought conditions, the mismanagement of water resources, corruption, and the misallocation of public funds escalated tensions.

More recently, Joshua Busby released a study on the relationship between climate change and security (Busby 2022). Responding to many of the prior debates in this field, he opts for a qualitative approach using 'paired cases' of countries with comparable climate exposure but different security situations. Busby finds that three key factors mediate the impact of climate change on security, namely state capacity, political exclusion, and the effectiveness of international aid. Minimal international aid and weak state capacity in Myanmar, for instance, diminished the ability of the government and people to cope with cyclones. While in Somalia, weak state capacity and exclusive political institutions made dealing with the drought much more challenging than in neighbouring Ethiopia. In this sense, Busby's findings support those of Daoudy, in that human, political, and governance factors are key determinants of whether the effects of climate change can influence conflict. These conclusions demonstrate the importance of going beyond the direct and indirect effects of climate change and considering the (intended and unintended) effects of policy responses on stability.

3.2 Climate policy and the energy transition

The importance of the human factor and of effective, fair policy responses to the climate crisis is arguably nowhere more evident than in the context of the energy transition. The global shift from fossil fuels to renewable energy, while essential for mitigating climate change, is likely to cause significant disruption across societies. A transition at the scale and speed required to avoid climate chaos will alter political economies, create winners and losers, and generate tensions. Countries heavily reliant on fossil fuel revenues, such as Nigeria, will face significant challenges. Nigeria's economy is deeply dependent on oil, which accounts for more than 88% of its export earnings.[10] This reliance has contributed to chronic instability and conflict, particularly in the oil-rich Niger Delta. Here, local communities have long protested against environmental degradation and inequitable distribution of oil wealth, sometimes resulting in violent clashes with security forces and oil companies.

A global energy transition and thus a reduction in global demand for oil will erode government revenues, potentially exacerbating economic hardships and social unrest. The cessation of fuel subsidies in Nigeria in 2023, a move aimed at economic stabilization, led to widespread protests, highlighting the fragile balance between economic policy and social stability (The Economist 2021). Without substantial investment in alternative industries and infrastructure, Nigeria risks deepening poverty and escalating conflict.

Meanwhile in Europe, the energy transition has also sparked unrest. In 2018, a new fuel tax in France intended to reduce carbon emissions disproportionately affected rural and low-income populations, who rely heavily on cars for commuting. This policy, perceived as elitist and disconnected from the daily struggles of ordinary citizens, ignited the Gilets Jaunes movement, widespread protests and civil unrest –

10 According to 2022 data collected by OEC (https://oec.world/en).

the slogan “Fin du monde? Fin du mois!” (“End of the world? End of the month!”) encapsulating the tension between environmental goals and economic realities. In 2023 and 2024, Germany faced its own fuel tax-induced protests as farmers occupied central Berlin, demanding the government reverse its decision to scrap biofuel subsidies aimed at mitigating CO2 emissions.

The energy transition demands an extremely delicate balance between environmental and socio-economic goals. Effective policies must be inclusive and consider the socio-economic impacts on vulnerable populations, while also being ambitious enough to address the severity of the climate crisis. In Nigeria, this means diversifying the economy and investing in sustainable development to reduce dependency on oil. In Europe, it involves ensuring that climate policies are equitable and do not disproportionately burden lower-income groups. As the world moves towards a greener future, the lessons from Nigeria, France and Germany highlight the need for careful, inclusive planning to avoid new conflicts arising from the transition to renewable energy.

3.3 Climate justice

As these examples show, fairness and justice ought to be central considerations in climate policy. Around the world, the people most vulnerable to the effects of climate change tend to be those who have contributed least to create the crisis in the first place. On the other hand, those who have polluted the most often also possess the resources to protect themselves from the worst consequences. This imbalance holds true across levels of analysis, whether one looks at communities, nations or indeed the whole world. Consider, for instance, that the US has emitted as much CO2 in the past two-and-a-half days as Somalia has since 1960 (Economist 2023).

Such disparity exacerbates social and economic inequalities, fueling resentment and potentially conflict. As communities in the so-called Global South experience more severe consequences of climate change – such as food and water scarcity, displacement, and health crises – tensions are likely to rise both within and between nations. Without equitable climate action, the resulting instability can weaken governance structures, making it harder to maintain peace and security.

In 2009, developed countries agreed to collectively mobilize $100 billion annually by 2020 to support climate action in developing countries. The fact this goal was met only in 2022 has deepened mistrust between developed and developing nations and exacerbated the sense of injustice. Negotiations around the New Collective Quantified Goal on Climate Finance as well as around the newly established Fund for responding to Loss and Damage have demonstrated this state of global fragmentation. The Fund itself is a step in the right direction but has a long way to go to reverse this trend. For too long, the persistent finance gap has hampered the ability of developing countries to build resilience against climate threats, perpetuating a cycle of vulnerability and instability.

Developing countries, bearing the brunt of climate impacts, perceive a lack of commitment from developed nations to address their struggle, leading to reduced collaboration and diminished multilateralism. This fracture hampers collective efforts to tackle global challenges beyond the climate crisis, such as technological regulations, pandemic prevention, and economic instability. A world divided by climate injustice is unlikely to forge the necessary partnerships to effectively address these pressing issues, undermining our collective security and stability.

3.4 Climate change and migration

The challenges posed by migration are no simpler. Climate change is reshaping migration patterns globally, with potentially profound implications for stability. By the end of 2023, over 117 million people were forcibly displaced worldwide, with 32 million moving due to weather-related phenomena such as droughts, floods,

and storms (IDMC 2023). As climate change intensifies, these numbers are expected to rise significantly, creating humanitarian crises and governance challenges.

In Sudan, climate-induced internal displacement has played an important role in conflicts.[11] From the 1970s to the 1990s, recurrent droughts in Darfur drove pastoralists and sedentary farmers to seek livelihoods in more rain-abundant areas. Arab camel herders from northern Darfur encroached on lands owned by non-Arab groups like the Masalit and the Fur in the south. The Sudanese government's 1970 decision to strip traditional tribal institutions of their land management rights left fewer avenues to resolve emerging conflicts. Increased competition for scarce resources, coupled with weak governance, contributed to violent clashes, culminating in the Darfur war and the atrocities that came with it.

In contrast, Europe faces challenges from international climate migration, which has influenced the rise of right-wing parties. From 2015 to 2016, over one million refugees seeking asylum in Europe driven by conflicts in Syria, Afghanistan, and Libya. This influx sparked a political crisis, with far-right parties exploiting anti-immigrant narratives. In Germany, the Alternative for Germany (AfD) gained traction by opposing Chancellor Angela Merkel's welcoming stance. In Sweden, the Sweden Democrats capitalised by building a platform on anti-immigrant sentiment, and eventually joined the government coalition in 2022. Similarly, in France, Marine Le Pen's National Rally has consistently leveraged fears of Mediterranean migrants to bolster support. In many countries across the continent, the EU Parliamentary elections in 2024 echoed this trend.

European right-wing movements have used migration to fuel socio-political divides, often with an environmental twist. Le Pen's Rassemblement National in France, for instance, has campaigned on "ecological localism," comparing immigrants to invasive species and promoting borders as protectors of the environment (McKibben 2022). This rhetoric, though rooted in xenophobia, illustrates how environmental concerns can be co-opted to justify anti-immigrant policies.

The juxtaposition of Sudan's internal displacement and Europe's international migration highlights just two facets of the cascading effects of climate-induced migration. In Sudan, internal displacement has intensified resource conflicts and violence due to weak institutions and poor governance. In Europe, right-wing parties are capitalizing on anti-immigrant sentiments to undermine democratic principles and destabilize governance systems.

Addressing these challenges requires comprehensive strategies that account for the socio-political contexts of affected regions. Strengthening governance, livelihoods and resource management in areas prone to displacement, like Sudan, is crucial to mitigating conflict. In Europe, fostering inclusive policies that address the root causes of migration in source regions while promoting social cohesion on the continent can help counter the divisive narratives of right-wing movements. As climate change continues to drive migration, proactive and adaptive responses are essential to enhancing resilience, preventing conflict, and ensuring stability.

11 For more information on the mechanisms of displacement and conflict in Darfur, see De Juan, A. (2015).

4 Conflict-sensitive adaptation and environmental peacebuilding

In many of the contexts most affected by overlapping climate and conflict risks, adaptation to the changing climate is central to achieving humanitarian, development and peace objectives. Adaptation refers to "the process of adjustment to actual or expected climate and its effects".[12] Such adjustments can range from changing crops to sector-wide economic restructuring or enhancing local governance. By building resilience and addressing factors that can also serve as root causes of conflict (such as weak governance or livelihood insecurity), the goals of climate adaptation are in many cases conducive to peacebuilding.

Resilience considerations for peacebuilding and climate adaptation

The term 'resilience' is widely used in the fields of international development and peacebuilding and is at the heart of many climate security initiatives. It describes the ability of a person, group, or system to mitigate, adapt to and recover from primarily negative shocks.

However, the uncritical application of resilience as a frame of reference has been criticized for stifling meaningful political intervention that could challenge the status quo. Scholars have argued that a resilience-based strategy, especially in contexts of armed conflict, can depoliticize issues, thereby permitting and reinforcing problematic hegemonies (Olsson et al. 2015). This is particularly evident in areas with sustained armed conflict, where resilience-based interventions can overlook the complex political and structural processes at the core of conflicts (Keelan and Browne 2020).

Understanding these dynamics – and the risks of blindly advocating for resilience – is crucial for climate-sensitive peacebuilding. Climate and environmental interventions often employ the language of resilience while proposing technical solutions to environmental problems. In areas where environmental issues factor into grievances in a conflict, there is a greater risk that such programming can stifle efforts to address the resource distribution structures that are driving a conflict. Careful consideration must be paid in such interventions to existing social, political and cultural realities to enable more sustainable and equitable outcomes.

Even though climate adaptation in conflict-affected settings promises peace co-benefits, the very nature of such settings hampers the implementation of adaptation measures. First, conflict tends to distract stakeholders from other policy priorities, often overwhelming institutions and undermining the ability of communities, in particular displaced communities, to prepare for climate impacts. Relatedly, many conflict-affected countries lack sound climate data or the technical expertise to develop strong climate action programs. Second, the uncertainty and volatility of conflict-affected settings drives away climate finance. Climate finance mechanisms are notoriously risk-averse and favour stable environments where projects are more likely to succeed. This has resulted in fragile states receiving only a fraction of the per capita funding compared to non-fragile developing countries. For example, of $14 billion disbursed by the vertical climate funds in 146 countries between 2014 and 2021, fragile states received just one eightieth of the amount per capita given to non-fragile states (UNDP & CSM 2021).

12 Full definition used in the 2022 IPCC 6th Assessment Report: "In human systems, the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate."

Investment from the private sector is also not forthcoming, partially due to a lack of bankable adaptation projects. Unlike more attractive mitigation initiatives (such as the economically lucrative development of electric vehicles or renewable energy sources), the costs involved in some adaptation measures, such as building sea walls, frequently cannot be offset by the prospects of high returns.

Even in the case that adaptation projects are undertaken in conflict-affected contexts, they are not guaranteed to provide co-benefits from a peacebuilding perspective. Like all climate action, adaptation projects often serve a limited audience. The distribution of benefits, in other words the process of selecting which climate challenges to address and which audience to support, can lead to competition between stakeholders. There is also the risk of maladaptation, defined as "changes in natural or human systems that inadvertently increase vulnerability to climatic stimuli".[13] One such example can be found in the development of a hydropower dam in Afghanistan. As shown in research conducted by Krampe et al., the resultant changes in water patterns caused downstream communities to come into conflict with one another, resulting in violent clashes (Krampe et al. 2021b).

Any efforts towards adaptation must be well tailored to the specific political and cultural setting in which they take place. Conflict sensitivity principles must be followed to ensure projects are transparent, inclusive and sustainable. Combining top-down approaches (offering coordination and easier access to funding) with bottom-up approaches (fostering inclusion and local ownership and building on existing knowledge) can help with the design of effective solutions.

Great Green Wall Initiative – a model for locally-tailored climate adaptation?

The Great Green Wall (GGW) Initiative aims to combat desertification across the Sahel region, spanning 8,000 km from Senegal to Djibouti. Launched in 2007, the GGW addresses the severe desertification threatening livelihoods and environments, exacerbated by global warming. In this conflict-prone region, where agriculture is the primary occupation, adaptation to the changing climate is crucial for survival.

Initially, the GGW focused on a top-down approach, envisioning a reforested belt 16km wide across the Sahel. This method involved mass monoculture planting, assuming that wide-scale tree planting would halt desertification. However, many trees were planted in unsuitable locations and failed to survive due to the harsh environment and lack of local involvement in their maintenance. This approach ignored local ecological, cultural, and political nuances, leading to significant project failures and corruption in areas with weak governance. The one-size-fits-all strategy was not adaptable to the diverse conditions across the Sahel, resulting in widespread criticism and limited success.

Since, the GGW has evolved into a "mosaic of land use practices," shifting away from monoculture planting to diverse, locally tailored agricultural and ecological projects.[14] This new approach leverages local and indigenous land management systems, adapting to specific regional conditions and needs. For example, in Ethiopia, the initiative has supplied five billion plants and seeds, restored 800,000 hectares of terraces, and trained over 60,000 people in sustainable practices. In Senegal, twelve million drought-resistant trees have been planted to support agroforestry (UNCCD n.d.). These trees not only enhance soil integrity and fix nitrogen but also provide commercial resin (gum arabic), offering significant economic benefits.

Criticism is still levelled at the GGW. Unmet funding promises and uneven implementation have led to scepticism and mistrust from some states and communities. Nonetheless, its results – which include the creation of over 350,000 jobs and eighteen million hectares of regenerated land – indicate the potential of locally tailored adaptation solutions, which respect cultural, ecological, and political diversity.

13 According to the 2018 IPCC Glossary of Terms.
14 Mohammad Bakarr of the Global Environment Facility, quoted in Smithsonian Magazine (Morrison 2016).

Conflict sensitive climate action in Iraq

Iraq ranks among the countries most vulnerable to the effects of climate change globally, including reduced water and food security, extreme temperatures, and shifts in human mobility patterns. Al-Anbar Governorate – the largest and one of the most sparsely populated governorates in Iraq – faces heightened vulnerability to these climate effects, exacerbated by the aftermath of the ISIS conflict, which left behind devastated industries, shattered infrastructure, and a fractured social contract. While awareness of the climate-conflict nexus in Iraq is growing, there remains a significant gap in political will, resources, and expertise to implement climate adaptation and mitigation strategies with a clear understanding of their impact on different community groups and overall stability.

The Berghof Foundation and Oxfam have recently joined forces to address these challenges by strengthening the skills of government and community leaders in Anbar governorate to foster participatory processes and develop climate action plans that are both contextually aware and geared toward enhancing community resilience. Grounded in comprehensive, gender-sensitive research on the connections between climate change and conflict, this initiative strengthens the evidence base for local climate adaptation practices, driving more forward-thinking and inclusive policymaking.

Drawing on these research findings, government officials receive support in facilitating district-level climate dialogues that encourage state-citizen engagement and lead to the development of integrated climate adaptation plans. These district-level plans not only empower local communities but also foster a sense of ownership and commitment, contributing to their long-term sustainability and overarching peacebuilding objectives.

As discussed earlier, the effects of climate change are mediated by socio-economic and political factors. Climate adaptation measures therefore need to consider those and must not focus solely on the physical impacts of climate change. The quality of governance, gender (in)equality and the presence of armed groups can independently create vulnerability and significantly influence the extent to which climate change impacts human (in)security and conflict. Addressing these social challenges is essential for effective climate adaptation. By building a more resilient society, adaptation not only increases communities' readiness to deal with climate change but also to resolve conflicts more peacefully. In this context, environmental peacebuilding emerges as a vital tool to support both adaptation and peace.

5 Environmental peacebuilding

In policy circles and the academic field of peace and conflict studies, there has, until recently, been a tendency to focus on the conflict outcomes of climate change, rather than the opportunities for peace that our collective response to climate change can generate.

In recognition of this failing, Ken Conca and Geoffrey Dabelko's volume *Environmental Peacemaking* (2002) sought to "stand the core premise of ecological (in)security on its head". Their aim was to establish how environmental degradation could enable peace, rather than trigger violent conflict, reframing this nexus from climate and conflict to climate and peace. Although this may appear a simple change in nomenclature, the latter prompts solution-based thinking as opposed to the various assertions of ecological pandemonium proposed by earlier works. Today, the framework of environmental peacebuilding is often called upon in discussions of the climate conflict nexus.

Environmental Peacemaking was the first extended work to tackle the value of environmental cooperation as a tool to enable peace. Based on case studies, it offers a theoretical framework through which environmental cooperation can lead to peaceful outcomes. In the two decades since, scholars have further developed this framework and adapted it to intrastate contexts. For instance, Florian Krampe, Farah Hegazi and Stacy D. VanDeever propose three mechanisms through which environmental peacebuilding can contribute to peace, namely the contact hypothesis and cooperation, the diffusion of transnational norms, and the service provision-revenue extraction equilibrium (Krampe et al. 2021a).

In recent years, the relative wealth of academic and theoretical literature dealing with environmental peacebuilding is slowly being matched by its practical application. The scope of environmental peacebuilding as a concept has also widened. The term now frequently acts as an umbrella for activities beyond the typical peacebuilding realm, including in fields such as conservation or development, that aim to "integrate natural resource management in conflict prevention, mitigation, resolution, and recovery to build resilience in communities affected by conflict".[15]

However, researchers like Tobias Ide have cautioned against the indiscriminate application of environmental peacebuilding approaches (Ide 2020). He emphasizes the need for careful design and implementation and identifies six categories of risks (the "six Ds") that can lead to negative outcomes if not properly managed: depoliticization, displacement, discrimination, deterioration into conflict, delegitimization of the state, and environmental degradation.

As the number of environmental peacebuilding actors increases, more innovative approaches emerge. Peace organisations such as the Berghof Foundation, the Centre for Humanitarian Dialogue and Accord have independently developed methodologies for addressing environmental dimensions of conflict in their work. Ranging from climate-informed mediation training, awareness raising campaigns in conflict areas, to surveying priorities of those affected by conflict, the approaches each address different aspects of environmental issues in places affected by war.

Environmental peacebuilding in Somalia

Somalia stands at the forefront of the climate-conflict intersections. Decades of ongoing conflict have exacerbated the devastating impact of climate change, leaving 12 million people in urgent need of humanitarian assistance. With the objective of strengthening resilience and reinforcing existing infrastructures for peace in Somalia, the Berghof Foundation has established a network of insider peacebuilders in the federal member states of Hirshabelle and Galmudug, who work to promote dialogue and reconciliation within local communities. These peacebuilders facilitate dialogue assemblies, or *shirarka*, where stakeholders from across tribal and clan lines can voice their perspectives, with the aim of fostering cooperation and resolving conflicts.

In these settings, climate and environmental issues serve as critical entry points for collaboration and trust-building. Through Berghof's Climate Security Action Plans and an environmental peacebuilding curriculum, the latter designed for workshops and dialogue assemblies, insider peacebuilders are equipping community members and government actors with the tools to develop a shared understanding of climate-conflict dynamics. Together, they create strategies to enhance resilience and strengthen peace in the face of these intersecting challenges (see Berghof 2022).

Environmental peacebuilding has largely been implemented in conflict-affected contexts, attempting to use environmental cooperation as a means to sustain peace. The focus has generally been on peace rather than environmental objectives.

15 As defined by the Environmental Peacebuilding Association (https://www.environmentalpeacebuilding.org/)

If successful, an environmental peacebuilding programme will build trust in contexts where conflict has left it in pieces; at best, it will also help strengthen governance and foster interdependencies between parties (Ide 2018). Good governance and trust building allows parties to think along a longer time horizon and therefore address the perceived 'long-term' and collective threat of climate change in a cooperative manner. The role of environmental peacebuilding can therefore connect the all too often separate mechanisms for addressing climate change and conflict by fostering trust between communities and strengthening natural resource management. As such, it may act as an effective platform for climate action – a key component of any strategy to reduce the risks to security posed by climate change, as seen in the section on conflict sensitive climate action above.

6 Climate change in political and peace processes – a missed opportunity

A systematic integration of efforts to address climate and conflict risks requires an alignment of relevant national-level processes and policies. In the area of climate action, National Adaptation Plans (NAPs) and National Determined Contributions (NDCs), which governments are committed to developing under the Paris Agreement, would represent the primary locus to systematically integrate conflict considerations. However, a SIPRI analysis found that few NAPs incorporate considerations of peace and conflict dynamics in their frameworks, even in fragile contexts (Meijer and Remling 2023). Similarly, a review of first-round submissions of NDCs conducted by UNDP and UNFCCC noted that most lack explicit references to conflict sensitivity (UNDP 2020). There is a growing recognition of the importance of integrating these aspects to address the compounded challenges in conflict-affected settings, but there is still a long road ahead.

In the peacebuilding community, conflict analyses, national dialogues and peace agreements represent critical entry points for the integration of climate considerations. Based on anecdotal evidence, significant progress has been made in the area of climate-informed conflict analyses. Peacebuilding organizations and research institutions regularly publish papers that assess the interplay of conflict dynamics and climate change in specific contexts to inform policy development.

Less progress has been made in integrating climate considerations into national dialogues and peace processes. Research by PeaceRep shows that only six out of 1,659 peace agreements signed since 1990 explicitly mention climate change, and only 10% of agreements from 1990 to 2022 include broader environmental provisions (PeaceRep n.d.). Given that many conflict-affected countries are highly vulnerable to climate change, this represents a missed opportunity. During post-war constitution drafting and discussions on power and resource sharing, embedding norms and mechanisms for climate action and sustainable resource governance could play a critical role in ensuring a peaceful and prosperous future.

However, there are signs of mediators being increasingly called upon to address climate-related issues and their impacts on conflict and peace. Notable examples include the 2016 Colombia Final Agreement, the 2020 Northern Ireland New Decade, New Approach Agreement, and the 2021 joint statement between Kyrgyzstan and Tajikistan. Indeed, climate change may pose one of the most important challenges for the field of mediation going forward, given its potential to amplify existing and create new tensions.

Colombian Peace Process and the Environment

The case of the peace process in Colombia underscores the critical importance of integrating environmental considerations into peace agreements. Prior to the 2016 peace accord between the Colombian government and the FARC guerrillas, the insurgents had actively restricted logging activities to maintain tree cover and avoid detection from air raids. However, following their disarmament, deforestation surged dramatically, primarily driven by cattle ranching and coca cultivation. The deforested area more than doubled from 49,600 hectares in 2015 to 128,000 hectares in 2022. Initially, the environment was seen as a beneficiary of the peace process, but the post-agreement period saw severe ecological setbacks. Recognising this, the administration of President Gustavo Petro has shifted strategy, placing environmental considerations at the heart of peace negotiations. This has since resulted in a moratorium on deforestation and resulted in environmental policy becoming one of the four major issues in the ongoing transformation process.

In light of this, and despite the scarce evidence base for climate-smart mediation, initial attempts have been made to translate early lessons into practical guidance. In 2022, the United Nations Department of Political and Peacebuilding Affairs published a practice note on integrating climate considerations into mediation, emphasizing the potential benefits of addressing climate effects in peace processes (UNDPPA 2022). The note suggests that even when climate change is not the primary cause of conflict, tackling its impacts can foster technical cooperation, confidence-building in natural resource management, and gradual conflict resolution. It further stresses the importance of inclusion and of finding the right framing for environmental issues, and provides concrete advice on process details, such as the introduction of climate-related negotiation tracks or the drafting of climate-adaptive agreement. Building on this, an expert workshop on climate and mediation was hosted at The Berlin Moot, developing recommendations which placed an emphasis on navigating the political uncertainties and pressures commonly experienced in fragile contexts (Ritzer 2024).

However, integrating climate-related issues in peace processes is challenging and does not guarantee outcomes that serve both climate and peace objectives. Climate provisions must be rooted in detailed, participatory analysis to avoid negative consequences such as maladaptation or compounding grievances. Failure to anticipate future climate change and the impact of climate provisions at the socio-economic and political level can lead to maladaptation or the inadvertent deepening of tensions.

More sustained efforts are required to harness the potential of integrating climate change in political and peace processes. New methodologies are needed to achieve environmentally sound peace outcomes that ensure a sustainable and stable future. Innovative approaches such as treating the environment as a stakeholder in conflicts, introducing ‘ecological red lines’, or using climate finance as peace conditionalities are worth developing further to better equip mediators in the years to come (ETH 2022).

7 Conclusion and ways forward

No region or country is insulated from the global upheaval that climate change has already started to bring. This paper has sought to take stock of the links between climate change and conflict and identify entry points to align interventions in the two areas.

First, aligning climate and peacebuilding policies will be crucial to ensure that the climate crisis is not accompanied by a major increase in armed violence. Approaches that combine climate action and peacebuilding can help address the root causes of both conflict and environmental degradation and enhance people's ability to cope with them.

In the peacebuilding realm, conflict assessments have made progress in understanding the risks associated with climate change, but political settlements and peace processes remain largely blind to them as drivers of insecurity. Future mediation approaches need to better account for climate impacts and integrate aspects of environmental governance into political processes to prevent resource-based conflicts and build long-term stability. Meanwhile, in the area of climate policy, key strategies such as National Adaptation Plans (NAPs) and Nationally Determined Contributions (NDCs) must become more sensitive to the vulnerabilities of conflict-affected regions and the distinct needs of populations.

Second, the disproportionate impact of climate change on those who have contributed least to the crisis highlights the urgent need for a justice-centered approach to climate action. The failure of developed nations to meet financial commitments has deepened global inequalities, fueling mistrust and undermining collaboration. Going forward, it is essential to close the climate finance gap by making funding accessible to those most in need.

Third, environmental peacebuilding provides a path to address both conflict and climate risks. Effective approaches are tailored to the specific context, combine expertise from across disciplines and prioritize solutions that strengthen social cohesion. Organizations like the Berghof Foundation, the Centre for Humanitarian Dialogue, Accord, and Adelphi have developed methodologies that link climate adaptation with peacebuilding, often grounded in local experiences and knowledge, but efforts will need to be scaled up in the next decade.

Finally, inclusive and localized solutions are key to sustainable outcomes. Women, youth and marginalized groups must be directly involved in developing climate and peace strategies to diversify ownership and equity. Without inclusive approaches, adaptation efforts risk deepening inequalities and fueling future conflict.

The opportunities for meaningful action are there; the solutions are known. What is needed are the resources and the political will to facilitate change. No matter the cost of action now to manage the climate crisis, it will be significantly lower than the cost of our inaction on future generations.

References and further reading

Baechler, G., 1999. Violence Through Environmental Discrimination: Causes, Rwanda Arena, and Conflict Model, Social Indicators Research Series. Springer Netherlands, Dordrecht.

Berghof Foundation, 2022. Climate security in Somalia. https://berghof-foundation.org/work/projects/climate-security-in-somalia.

Buhaug, H., 2010. Climate not to blame for African civil wars. PNAS 107, 16477–16482.

Burke, M.B., Miguel, E., Satyanath, S., Dykema, J.A., Lobell, D.B., 2009. Warming increases the risk of civil war in Africa. PNAS 106, 20670–20674.

Busby, J.W., 2022. States and Nature: The Effects of Climate Change on Security. Cambridge University Press, Cambridge.

Buzan, B., Wæver, O., Wilde, J. de, 1998. Security: A New Framework for Analysis. Lynne Rienner Publishers.

CNA Corporation, 2007. National Security and the Threat of Climate Change.

Conca, K., Dabelko, G.D., 2002. Environmental Peacemaking. Woodrow Wilson Center Press.

Daoudy, M., 2020. The Origins of the Syrian Conflict: Climate Change and Human Security. Cambridge University Press, Cambridge.

ETH, 2022. Innovating Peace Mediation: New Approaches and Strategies A Policy Forum on Peace Mediation. Final Report. MAS ETH Mediation in Peace Processes, Zurich.

Ghimire, R., Ferreira, S., 2016. Floods and armed conflict. Environment and Development Economics 21, 23–52.

Gilmour, A., 2024. The Burning Question: Climate and conflict – why does it matter? Berghof Foundation, Berlin.

Gilmour, A., 2024. Risks of violent conflict will rise as the green transition picks up speed. Financial Times.

Gilmour, A., 2024. Climate change and conflict must be tackled together, argues a foundation head. The Economist.

Homer-Dixon, T., 1991. On the Threshold: Environmental Changes as Causes of Acute Conflict. International Security 12, 76–116.

Ide, T., 2020. The dark side of environmental peacebuilding. World Development 127, 104777.

Ide, T., 2018. The Impact of Environmental Cooperation on Peacemaking: Definitions, Mechanisms, and Empirical Evidence. International Studies Review 21. https://doi.org/10.1093/isr/viy014

IDMC, 2023. Global Report on Internal Displacement 2023. Internal Displacement and Food Security. Internal Displacement Monitoring Centre, Geneva.

Jia, R., 2014. Weather Shocks, Sweet Potatoes and Peasant Revolts in Historical China. The Economic Journal 124, 92–118.

Kaplan, R.D., 1994. The Coming Anarchy. The Atlantic 273, 44–76.

Keelan, E.P., Browne, B.C., 2020. Problematising resilience: development practice and the case of Palestine. Development in Practice 30, 459–471.

Koubi, V., 2019. Climate Change and Conflict. Annual Review of Political Science 22, 343–360.

Krampe, F., Hegazi, F., VanDeveer, S.D., 2021a. Sustaining peace through better resource governance: Three potential mechanisms for environmental peacebuilding. World Development 144, 105508.

Krampe, F., Smith, E.S., Hamidi, M.D., 2021b. Security implications of climate development in conflict-affected states: Implications of local-level effects of rural hydropower development on farmers in Herat. Political Geography 90, 102454.

Le Billon, P., Duffy, R., 2018. Conflict ecologies: Connecting political ecology and peace and conflict studies. Journal of Political Ecology 25, 239–260.

Maystadt, J.-F., Ecker, O., 2014. Extreme Weather and Civil War: Does Drought Fuel Conflict in Somalia through Livestock Price Shocks? American Journal of Agricultural Economics 96, 1157–1182.

McDonald, M., 2013. Discourses of Climate Security. Political Geography 33, 42–51.

McKibben, B., 2022. Where Will We Live? The New York Review of Books 69.

Meijer, K., Remling, E., 2023. Enhancing the Conflict Sensitivity of National Adaptation Plans. SIPRI, Stockholm.

Morrison, J., 2016. The "Great Green Wall" Didn't Stop Desertification, but it Evolved Into Something That Might. Smithsonian Magazine.

Olsson, L., Jerneck, A., Thorén, H., Persson, J., O'Byrne, D., 2015. Why resilience is unappealing to social science: Theoretical and empirical investigations of the scientific use of resilience. Science Advances 1, e1400217–e1400217.

PeaceRep, n.d. Environment & Climate - Key Findings. PeaceRep. https://peacerep.org/key-findings/environment-and-climate/ (accessed 10.2.24).

Raval, A., Cornish, C., & Munshi, N., 2022. Net-zero's high price for fossil fuel economies. Financial Times.

Ritzer, T., 2024. Climate compass: Navigating mediation challenges in a warming world. Berghof Foundation, Berlin.

Salehyan, I., Hendrix, C.S., 2014. Climate shocks and political violence. Global Environmental Change 28, 239–250.

The Economist, 2023. Drought killed 43,000 people in Somalia last year.

UNCCD, n.d. Our Work and Impact - Impact. United Nations Convention to Combat Desertification. https://www.unccd.int/our-work/ggwi/impact (accessed 10.2.24).

UNDP, 2020. Policy Brief - Climate Security: A typology and analysis United Nations Development Programme climate-related security risks in the first round Nationally Determined Contributions. UNDP, New York.

UNDP & CSM, 2021. Climate Finance for Sustaining Peace: Making Climate Finance Work for Conflict-Affected and Fragile Contexts. United Nations Development Programme, New York.

UNDPPA, 2022. The Implications of Climate Change for Mediation and Peace Processes. DPPA Practice Note. United Nations Department of Political and Peacebuilding Affairs, New York.

von Uexkull, N., 2014. Sustained drought, vulnerability and civil conflict in Sub-Saharan Africa. Political Geography, Special Issue: Climate Change and Conflict 43, 16–26.

Zhang, D.D., Lee, H.F., Wang, C., Li, B., Pei, Q., Zhang, J., An, Y., 2011. The causality analysis of climate change and large-scale human crisis. PNAS 108, 17296–17301.

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