Toda Peace Institute

Policy Brief No. 68 **December 2019**

Environmental Peacebuilding and Climate Change:
Peace and Conflict Studies at the Edge of Transformation [1]

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Summary

This Policy Brief presents a comprehensive review of the literature on environmental conflict and peacebuilding. It traces the development of the field from its beginnings in the 1980s until today, identifying several distinct stages which are characterised by specific research questions, approaches and findings. Based on this literature review we address major gaps and shortcomings as well as problematic implications of the research so far. We develop a critical approach which can inform Environmental Peace and Conflict Studies in the future, taking up incentives from the field of Anthropocene Studies and the concepts of 'sustaining peace' and 'sustainable peace'. The Policy Brief concludes with some recommendations that can give direction for a new wave of research which is currently emerging.

[1] We thank the Toda Policy Brief editors and Juan Telleria for their constructive criticism and support.

Introduction

Research on peacebuilding is evolving over time and remains a central concern of the theory and practice of Peace and Conflict Studies. Peacebuilding concepts have changed progressively, with the inclusion of new dimensions, topics and actors, constantly exposed to perceptions of new challenges, disruptive phenomena and an ever more complex world.

Two main changes in the discourse and practice of peacebuilding have occurred recently, relatively isolated from each other. These are, firstly, the re-adjustment from *peacebuilding* to the blueprint of *sustaining peace* and, secondly, attempts to include environmental issues, especially climate change, in peacebuilding. The first change has been pushed by several United Nations institutions to bring about greater success and prevent further failures that threaten the credibility of the UN in regard to peacebuilding (UNSG, 2015: 33). The shift towards the 'sustaining peace' concept encompasses three main characteristics. First, it addresses the root causes of violent conflicts in order to reach reconciliation and build "a common vision of a society" (UNSG, 2015: 9). Second, national stakeholders, local ownership and domestic actors lie at the centre, while the UN as an external actor is assigned an accompanying role (UNSG, 2015: 47). This change, also referred to as a *local turn*, highlights increasing awareness of the importance of specific societal, cultural and historical characteristics of affected societies. Third, 'sustaining peace' is not limited to post-conflict situations but also aims to prevent a lapse into conflict in the first place and is thereby linked more closely to development (UNSG, 2015: 17).

Hence 'sustaining peace' implies "a constant and longstanding commitment, where benchmarks for exit remain flexible" (Bargués-Pedreny, 2018: 8). Some authors criticise this shift to the 'sustaining peace' concept as it can be understood as abandoning the possibility of reaching peace; the process of peacebuilding is now conceptualised as being without a "final deadline" (Bargués-Pedreny, 2018: 142; see Jahanbegloo, 2017). Others see this strategic shift as a necessary response to the insight that peacebuilding is a multidisciplinary, complex and longer-term process, similar to the multi-dimensional concept of human security (Caparini and Milante, 2017: 221).

The 'sustaining peace' concept is not to be confused with the concept of *sustainable peace*, which evolved in the 1990s, with its attempt to strengthen linkages between sustainable development and peacebuilding. One fundamental difference is that in contrast to 'sustainable peace', the 'sustaining peace' concept makes almost no reference to environmental phenomena, nor to the challenges that result from them, although sustainable development is an important contribution to sustaining peace (UNSG, 2015).

In a parallel and seemingly isolated trend, we detect a growing awareness of the challenges that environmental phenomena, and especially climate change, present to the peacebuilding field. The publication of the Routledge Handbook titled "Environmental Conflict and Peacebuilding" (Swain and Öjendal, 2018: xxi) is advertised as "the first" to present an overall approach of environmental peacebuilding to "policy makers and students/researchers alike". Nevertheless, the research on the linkages between environment, development, peace and conflict has evolved into a relatively broad body of literature since the end of the Cold War.

The central concern of this paper is to propose a pathway to address the links between environmental phenomena and Peace and Conflict Studies in a more comprehensive way. It proceeds in three steps. First, we undertake a literature review on environmental peacebuilding, through the two main strands of the literature, environmental peace and environmental conflict. The purpose is to make the underlying logic of the field more accessible. Second, we offer a critical reading that reveals deficits and pitfalls in some of the main rationales in the literature. Third we explore pathways to further advance the debates and research.

Our approach is informed by the emerging acceptance that we live in a new geological era, the Anthropocene, and, flowing from that insight, the differentiation between *Anthropocene thinking* and *Holocene thinking* (Cudworth and Hobden, 2011). According to Cudworth and Hobden, *Anthropocene thinking* describes a dynamic interrelated human-nature world in contrast to *Holocene thinking* that treats natural processes as separate from human action.

Following this introduction, the paper is organised in three sections. The next section gives an overview of the different conceptualisations of the linkages of environment and climate change on the one hand and conflict and peace on the other, which over time have emerged in the Peace and Conflict Studies literature. The critical analysis of this literature is discussed in Section 3. In Section 4 we present the major conclusions and recommendations with regard to bridging the isolated bodies of literature and further developing the research into the field of Environmental Peace and Conflict Studies.

Stocktaking of the Ties that Bind Environment to Peacebuilding

In this section, we provide an overview of the major underlying and constitutive theories which relate environment and climate change to peacebuilding. We will also show how the approaches to the interrelationship between environmental issues and conflict, peace and cooperation have evolved. In order to facilitate the overview, we classify and differentiate chronologically the different waves of research relating to the main approaches to environmental conflict and environmental peace. As highlighted in Table 1, these focal points of research are still ongoing and are being addressed in parallel.

Table 1: Evolution of research phases of the literature on environmental conflict and environmental peace. Source: Elaborated by the authors on the basis of Dalby (2002), Dalby, Brauch, and Oswald Spring (2009), Hardt (2018: 45).

<table>
<tr><th>Start Year</th><th>Foci and content of the environmental-conflict research</th><th>Foci and content of the environmental-peace research</th></tr>
<tr><td>1989</td><td>First wave

Environmental resources and state security</td><td rowspan="2">Early studies

Concept of sustainable peace</td></tr>
<tr><td>1994-ongoing</td><td rowspan="2">Second wave

Environment and the socio-political dimensions of conflict</td></tr>
<tr><td>2002</td><td>First wave

Environmental issues as constitutive for cooperation and peace</td></tr>
<tr><td>2007- ongoing</td><td rowspan="2">Third wave

Climate change as a trigger for risks and conflicts</td><td>Second wave

Cooperation through and against climate change</td></tr>
<tr><td>2015- ongoing</td><td>Third wave

Environmental peacebuilding</td></tr>
<tr><td>2018- ongoing</td><td colspan="2">The concurrent emergence of a fourth wave of research in both research areas</td></tr>
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The Links Between Environment, Climate Change and Conflict

Research on environmental components of conflict and the importance of environmental issues in relation to conflict goes back to the early 1970s and has remained one of the most important research issues through to the present day.

In the final phase of the Cold War and the period after, a number of publications recognised linkages between military security and environmental security. During this research phase, the main focus was on the observations of increasingly harmful and detrimental repercussions of environmental destruction affecting societies and state security. In particular, concerns about environmental destruction brought about by military force and warfare were raised, including nuclear winter and other environmental risks from the nuclear arms race and war (Westing, 1980, 1990). In this period, there were some mentions of sustainable development as a contribution to security (see WECD, 1987), but the major approaches linking environment and conflict were mostly focused on environmental resources and on how the scarcity or abundance of a resource might cause tensions or exacerbate existing conflict. This link is still one of the most important research issues and is often related to water, food or energy resources, to which we refer below.

The second wave of environmental-conflict research started in the 1990s and, importantly, was triggered by a broadening conception of security. The growing confluences between Peace and Conflict Studies (as well as Security Studies) with Development Studies influenced the conception of security and conflict in the context of multiple complex challenges related to socio-political causes and consequences. The increasing acknowledgement of environmental destruction, and how this influenced conflict, was an important driver for this evolution.

This second wave of research was advanced by the work of several scholars and by institutions such as the University of Toronto, the Swiss Federal Institute of Technology and the Swiss Peace Foundation (Dalby, 2002; Dalby, Brauch and Oswald Spring, 2009). The main concern of these highly diverse research projects was to verify the assumption that environmental issues can trigger conflict in relation to state security (Dalby, 2002). A central reference here is the (University of) Toronto school that marks the traditional approach of the literature on environmental conflict. It focuses mainly on the question of whether environmental scarcity can precipitate violent conflict. According to the lead-author, Thomas Homer-Dixon (1994: 25), the multiple effects of environmental scarcity (including population movement and economic decline) have negative and cumulative social impacts, such as weakening or de-legitimising states. Homer-Dixon's most relevant research finding is that environmental scarcity may contribute to conflict, but that this is more likely to take the form of sub-national diffuse violence than of inter-state war.

Another important reference to environmental-conflict is the *Environment and Conflicts Project* (ENCOP), carried out by the Centre for Security Studies and Conflict Research of the Swiss Federal Institute of Technology and the Swiss Peace Foundation. The main focus was on the interrelationship between environmental degradation, mal-development and violent conflict, whereby conflict was described as a multi-faceted process, highlighting the importance of socio-political factors, such as social injustice and inequitable resource access (Baechler, 1998: 25). In contrast to the Toronto school, ENCOP located the cause and the trigger of possible environmental conflict in society and thereby had a more political and critical approach.

Several other research projects on environmental conflict have been led by adelphi (see Lietzman and Carius 1999), the Environmental Change and Security Program (ECSP) of the Woodrow Wilson Center (www.newsecuritybeat.org), and by the Peace Research Institute Oslo (Diehl and Gleditsch, 2000). Most of these approaches had a specific focus on how environmental issues lead to conflicts in relation to states and the international state system.

During the same time period, other researchers focused on the vulnerability of societies and on the question of how global, regional and local environmental change affects, inhibits and undermines development. Prominent activities of the research community include the project *Global Environmental Change and Human Security* (GECHS) and the *United Nations University Institute of Environment and Human Security*, which further pushed the confluence between the environmental-conflict literature, the concept of human security and Development Studies.

In addition to these joint research efforts, several authors contributed research on environmental conflict (see e.g. Scheffran and Vogt, 1998) and, at the turn of the century, highlighted the importance of the under-researched debate on sustainable development and peace (Scheffran and Vogt, 1998: 9). Among these authors, the consequences of military activity during war and peace times were an important concern (Dalby, 2002; Barnett, 2000; 2001).

Third wave: Climate Change as a Trigger for Security Risks and Conflicts

The third wave of research which commenced in 2007 (the year of the release of the 4th IPCC report), was characterised by a shift of focus to the climate – conflict link. In this context, climate change and its environmental effects are presented as either triggers, stress multipliers or causes of conflicts and risks. Much of the research has focused on quantitative statistical analyses of climate-conflict linkages (see the overview in Mach et al., 2019). Theoretical conceptualisations and system models, such as, for example, the integrated framework of interaction between climate change, natural resources, human security and societal instability (Scheffran et al., 2012), have received less attention.

Some authors conceived more explicit linkages between climate change and conflict by putting forward the notion of so-called *climate wars* (see Welzer, 2012; Dyer, 2009). While this deterministic approach has been heavily debated and criticised, reference is made to, for example, the wars in Darfur and Syria. Implicit in a historical representation of climate determinism is the assumption that climate change has been a key impact factor in long-term cycles over the last centuries of human evolution and related economic crises, social instability, conflict and migration (Zhang et al., 2007: 19214-19219).

Often studies link climate change to conflict more indirectly, for example by exploring how the military affects climate change (see Barnett, 2007) or how climate change contributes to poverty and inequality and thereby creates fertile ground for the recruitment of fighters and terrorists (see Interpol UN Environment Report, 2016).

Another strand of research is connected to the concept of human security and examines the impact that climate change has on societies through undermining development which then leads to conflict (Barnett and Adger, 2007: 651). Several studies suggest that climate change vulnerability increases the likelihood of the outbreak of conflict and thereby leads to a *vicious cycle* (see e.g. Besigye, 2013). Smith and Vivekananda (2007: 158) outline a similar relationship, stating:

> If the relationship between climate change and violent conflict is not addressed, there will be a vicious circle of failure to adapt to climate change, worsening the rise of violent conflict and, in turn, reducing further the ability to adapt.

The 2014 IPCC report also relates climate change to conflict:

> [C]limate change can indirectly increase risks of violent conflicts in the form of civil war and inter-group violence by amplifying well-documented drivers

> of these conflicts such as poverty and economic shocks (*medium confidence*). Multiple lines of evidence relate climate variability to these forms of conflict. (IPCC Summary, 2014: 20).

The nexus between climate change and conflict often includes the factor of migration. Since the strong migration movements in 2015, which affected several countries of the European Union, this climate-migration-conflict nexus has received considerable attention among public and policy-makers, journalists and researchers (Scheffran, 2017)

Criticism of the Environmental-Conflict Theory

Since its inception, the research on the links between the environment and conflict has been accompanied by critical questions. The core criticism is that a clear correlation between environment, climate change and conflict has not been proven. The latest IPCC special report (2018) recommends caution regarding possible sample biases and the overestimation of this link. In response to Hsiang and Burke (2014), Buhaug et al. (2014: 396) highlighted "that research to date has failed to converge on a specific and direct association between climate and violent conflict."

In this context, the research designs that link climate change to conflict are criticised for their over-reliance on mixed-method approaches and broad meta-analysis with little evidence for a strong correlation between the variables of climate change and conflict (see Ide and Scheffran, 2014; Ide et al., 2018). Another important criticism that points at a biased approach to research design and to narrow policy interests is the geographically limited focus on certain regions, mainly Africa, in contrast to, for example, Asia or Oceania (Adams et al., 2018: 200). This is called the streetlight effect (Hendrix, 2017). Along with other authors, Adams et al. (2018: 202) argue that the sampling bias of the climate–conflict research field is due to factors such as geopolitical interest or data availability, which in turn leads to overrepresentation of certain regions that are in consequence "stigmatized as inherently violent and unable to cope with climate change peacefully".

The Links between Environment, Climate Change and Peacebuilding

The criticism of the environmental-conflict literature outlined above has importantly contributed to a shift of focus so as to also address the linkages between environment, peace and cooperation. The environmental-peace thesis has been articulated as a counter-move to environmental conflict. Although environmental peacebuilding emerged in the 2000s, it was pre-empted by other alternative conceptions, in particular the concept of sustainable peace which goes back to the 1990s (e.g. Scheffran, 1996, 2011; for more recent perspectives see Brauch et al., 2016) and addresses multiple linkages in the nexus between sustainability, development and peace. The concept of sustainable peace aims to protect the Earth against environmental threats and to harmonise conflicting goals of environmental and security policy. It furthermore aims to implement local and global governance and develop a preventive strategy of global risk reduction, rooted in the satisfaction of basic human needs without destroying the natural conditions of life. It strives to minimise the negative interactions between armed conflict, environmental destruction and low levels of development, which would lead to a 'vicious cycle' of a non-peaceful and unsustainable world.

Instead, the concept aims at a mutually enforcing 'virtuous cycle' by strengthening positive linkages between human development, environmental protection and peace-building (Scheffran, 2016), thus serving as a framework for environmental peace-building.

First Wave: Environmental Issues as Constitutive of Cooperation

The *first wave* of the environmental-peace debate investigated whether environmental cooperation contributes to peace, discussing several linkages (see Conca, 2001; Conca, Carius and Dabelko, 2005). Different environmental characteristics were identified as constitutive of cooperation, for example: environmental issues require long-term perspectives and anticipatory actions, they ignore political boundaries, different levels (from local to global) must be taken into account when addressing them, as well as sudden, surprising, and dramatic changes. These characteristics are seen as strengthening peacebuilding because cooperation transforms conflict through building trust and confidence, encouraging local and nongovernmental participation, extending community building beyond polarising economic linkages, establishing legal rights and addressing a broad variety of stakeholders and groups (Conca, Carius and Dabelko, 2005: 149-157).

Another argument in favour of the link between environment, peace and cooperation is that environmental cooperation at a large scale is presented as the *ultimate* strategy for effectively facing the ecological challenge (Conca and Dabelko, 2002). The main idea of the environmental peace thesis is to respond to the two challenges of conflict and environmental destruction through one approach. Practical expressions of the environmental peace thesis are, for example, peace parks (see Brock, 1991) and the communitarian use, management and conservation of shared water resources, such as the case of the Okavango River[2].

Second Wave: Cooperation in Response to and against Climate Change

The second wave of environmental peace focuses more explicitly on climate change and was initiated in close proximity to the 4th Assessment Report IPCC (2007). This report provoked a broader awareness of the disruptive consequences that climate change and more generally global environmental change have on societies and states (see Dalby, Brauch and Oswald Spring, 2009). An important argument is similar to the rationale of the first wave, namely that peaceful cooperation is a strategy or even a necessity to address and minimise climate change, which would otherwise lead to conflict (Buhaug, 2016: 336).

Another focus of the climate change-peace approach is on vulnerable societies, based on the acknowledgment that vulnerable societies are often geographically more exposed to climate change and often "lack the capacity to manage these impacts" (see e.g. Matthew, 2014: 114). Furthermore, Matthew (2014: 124) states: "Post-conflict societies are perhaps the most fragile societies on the planet, and to try to assist them while ignoring the insights of climate science would be irresponsible and dangerous".

A further argument is that if efforts to fight climate change and establish peace are not undertaken, dealing with ensuing violent conflicts will be much more expensive than

[2] See at: http://www.tbpa.net/page.php?ndx=78 (accessed in August 2019).

climate change adaptation (Smith and Vivekananda, 2007: 175). Based on these insights, several authors recommend intervention, support and provision of directives for peacebuilding in relation to climate change, arguing that the effects of building resilience against climate change also help in the peacebuilding process (see also Brzoska et al., 2012; Schilling et al., 2017). Therefore, simultaneously addressing climate change and peacebuilding is described as a necessity and as a win-win situation (see Besigye, 2013).

Third Wave: Environmental Peacebuilding

Many of the ties outlined above are taken up again in the recently published Routledge Handbook (Swain and Öjendal, 2018) which presents environmental conflict and peacebuilding and climate change as new and important issue areas. It revives many of the already described linkages between environment, climate change, conflict and peace. As such, we refer to this book as an example for explicitly detecting major rationales that underpin the environmental peacebuilding literature.

This includes the impetus to show the linkages between environment and peace and thus stress the importance of environmental peacebuilding (Swain and Öjendal, 2018). Environment and climate change are also described as a bridge or as a vehicle to bring conflict parties together or to alleviate the mistrust and open up a frozen conflict in which active fighting has stopped without resolving the conflict (Swain and Öjendal, 2018). This is possible because environmental issues are considered as "low politics" (Conca and Beevers, 2018: 63). Furthermore, climate change functions as "a threat to unite against; the need for adaptation offers a task on which to cooperate" and as such brings different (conflicting) actors, communities or parties together (Smith and Vivekananda, 2007: 174). In other words, the environment primarily functions as a dimension and/or as a new entry point to solve conflicts.

Another important rationale is that peace and sustainability are becoming mutually dependent as "neither peace nor sustainability will be possible without the other" (Amster, 2018: 74), an argument also put forward in the literature on sustainable peace (Scheffran, 2016).

These linkages lead to three main consequences. First, processes of conflict and peace cannot be treated or even conceived in isolation from the environment therefore a broad coalition and trans-disciplinary pool of actors, knowledge and experts is required. Second, climate and environmental politics need to be critically analysed as new domains that influence peace and conflict situations. Third, celebrated by several authors, is the resulting win-win strategy of environmental peacebuilding that simultaneously addresses sustainability, peace and conflict (Matthew, 2014; 2018; Milante, 2017).

Criticism and Debates on Environmental Peace and Environmental Peacebuilding

The main debate on environment-peace relations and environmental peacebuilding in connection to climate change questions the validity of the link. Ide (2018) and Ide et al. (2018) makes the point that there is no common definition of what constitutes environmental peace and cooperation. This makes it difficult to prove that environmental cooperation

causes peace(–building). Thus, environmental cooperation can merely be seen as a *facilitator* for more general cooperation and peacebuilding (Ide, 2018: 361).

Another debate focuses on who is in charge of including climate change and environmental issues into peacebuilding. The traditional actor, the military, has been fundamentally criticised by some and praised by others for its ability to serve this purpose.

On the Edge of a New Research Wave

As we compare the basic rationales in the different research waves described above, we recognise that the exploration of the links between environmental and climate change on the one hand and peace and conflict on the other is repeated throughout the evolution of the research on environmental peacebuilding. The progress made in pursuing these relatively broad and mature research questions is therefore relatively limited, if we consider the underlying concepts. There are, however, some promising developments in the research field, which seem to have the potential to invoke substantial progress.

The first is the general motivation to set up better visibility and acceptance of the field (see Swain and Öjendal, 2018). Very recently, the Environmental Peacebuilding Association was created celebrating its first conference in 2019 at the University of Irvine (California).

The second development is a tendency to move from theory to practice. The focus on specific tools and ways to transform the traditional peacebuilding projects and policies through the inclusion of climate and environmental change is innovative and could be viewed as a marker for initiating a new wave of research. Instead of describing, questioning or problematising the link between environment, peace and conflict, the focus is on how and where to implement strategies against climate change or take environmental issues into consideration. In this context, several authors point to the necessity for longer time perspectives for peacebuilding as being beneficial to donors and people in conflict situations (Matthew, 2014; 2018; Milante, 2017). Others suggest focusing on areas that go beyond the nation state boundaries (Mobjörk, 2017) or including mitigation and adaptation policies for climate change in peacebuilding processes (Besigye, 2013: 24).

In order to facilitate the process of including climate change in peacebuilding, Matthew (2014) provides a good overview of several obstacles. He points to the difficulty of establishing an inventory of practical tools that would be easily accessible to the many architects of reconstruction and capacity-building and the necessity of maintaining a general awareness of the people who work on the issue of peacebuilding (Matthew, 2014: 121).

Other authors highlight that the integration of the environment in peacebuilding strategies and activities is important in order to reduce the impact caused by the peacebuilding sector itself. Through “crude exploitation of natural resources, unsustainable environmental practices, and massive threat to resource-based local livelihoods” the peacebuilding sector can create “short-term urgency” and “long-term unsustainability” (Swain and Öjendal, 2018: 10).

Another proposal to move the field into new directions is to include different theories. Le Billon and Duffy (2018: 247) outline fruitful results that have come from informing Peace and Conflict Studies with Political Ecology as a theoretical basis for addressing environmental concerns and human-nature relations. They state that Political Ecology can contribute to Peace and Conflict Studies through reconceptualising "scarcity, abundance and dependence temporally through historically-grounded analysis" and through situating these concepts "within uneven power relations and resource entitlements" (Le Billon and Duffy, 2018: 247).

We also note a promising new research programme that aims to re-focus on regions other than Africa, which so far has received most attention; The Toda Peace Institute has developed a programme dealing with climate–induced conflict and conflict-sensitive climate change policies in Oceania. Another example of such a trend is shown in the fact that the first Environmental Peacebuilding Conference in Irvine included a specific regional focus on Colombia.

After this overview of the evolution of the research field, we come to the interim conclusion that within the field, the search for a broader and encompassing framework that bridges theory and practice seems to be on its way.

Critical Analysis of Rationales for Environmental Peacebuilding in the Context of Climate Change

We turn to a critical examination of the above outlined rationales that underpin the environmental peacebuilding literature, including environmental conflict and climate security risks. This examination is guided by some major insights that emerge from critical approaches to peacebuilding, climate science and Anthropocene studies and points at several deficits and problematic implications. A main motivation for this section is that the field is poised for transformation, and therefore there is an opportunity to provide some impulses that can be useful for policy-makers, such as the emergence of new research programmes which systematically engage with existing knowledge and research results. To do so, we are firstly demarcating the pitfalls and blind spots of the literature, and secondly providing recommendations on how to address important research gaps, along the pathways of critical theory.

Bias Towards Conflict

The overall assessment of the environmental peacebuilding literature confirms the existence of an important bias towards conflict and violence (see Barnett, 2018). Several variations of the climate and environmental conflict thesis dominate a number of publications and receive extensive (public, media, policy and academic) attention, often limiting peace research to the study of war (Gleditsch et al., 2014). Furthermore, the environmental peace thesis is in fact also related to a third wave of environmental conflict studies: several authors criticise that the central focus of analysis is still on violence and conflict (or their absence), not on peace (Dalby, Brauch and Oswald Spring, 2009: 782; Barnett, 2018: 3-4). Another striking fact is that a definition of positive environmental peace remains to be developed (see Dalby, 2018: 11; Swatuk, 2018: 322; 325) - we will elaborate on this below.

Missing Anthropocene Thinking

We observe that most of the environmental peace and conflict literature conceives the environment or climate change as one dimension of, or as a trigger for, peace or conflict. As described above, the environment or climate change is even proposed as a v*ehicle* for reaching conflict resolution and maintaining political stability. This approach is relatively limited because many highly complex phenomena are ignored, along with several other essential characteristics of the environment, such as the indivisible complex interrelations with other ecological processes including disruptions such as biodiversity loss and ocean acidification. The interlinkages of these different processes and the important characteristics of intractability and irreversibility still need to be acknowledged in the literature on environmental peacebuilding. Current approaches mainly communicate the possibility of managing the complex human-nature entanglements, which treat climate change and nature as if they were linear stable processes. In the context of the emerging acceptance of a new geological era, the Anthropocene, and the recent IPCC special report (2018), this assumption of controlling inputs and outputs of human-nature relations has been proven to be profoundly wrong, once again. It is striking that climate change gained so much attention in 2007 as to induce new research waves on environmental peace and conflict, while the concepts of the Anthropocene and the Earth System Sciences (see e.g. Rockström et al., 2009) have received rather little attention. In contrast to the understanding of the Anthropocene as a dynamic human/nature interrelationship, most of the environmental peace and conflict literature is still anchored in the analysis of human-human relations in the tradition of the *Holocene thinking*, where natural processes are separated from and merely seen as a background for human action.

Alienation of Political Causes and Actors

Another important shortcoming that underpins the literature is the assumption of a win-win strategy through a combination of sustainability, peace and equity. We do not negate the likelihood that addressing the effects of climate change may create synergies for tackling development, poverty, security, conflict and peace. Nevertheless, we recommend caution about the assumption that a win-win strategy simultaneously addressing climate change, endangered ecosystems, underdevelopment, conflict and vulnerability can work in one strike. The spill-over effects still require further research (see Dresse et al., 2018). We assume that strategies that claim to address all of these in one approach are likely to fail. This probability of failure increases if the root causes of climate change are not addressed and, as Hayes (2016: 40) highlights, many of the contemporary approaches to environmental peacebuilding deflect attention away from these causes.

The approach focusing on so-called “hotspots” directs political responsibility towards the weakest and most affected regions and people, away from the major structures and centres of power which, in the context of climate change, are located elsewhere. The so-called hotspot focus overloads the communities suffering from conflict situations with the responsibility to reduce the effects of climate change for the sake of humanity and to simultaneously maintain international security. Other issues, such as major environmental polluters that are situated in “peaceful regions” of the world, receive none or little of the attention they deserve as contributors to climate change. This focus away from root causes has also

been described by critical peacebuilding scholars who do not refer to environmental issues. Mac Ginty (2013: 389), for example, pointed out that "many of the roots of violent conflict and the means to turn the tide against conflict reside in the global north".

De-politicisation of Climate Change

In the above outlined rationales, there is a tendency to de-politicise climate change in the sense that it is taken for granted and portrayed as an apolitical phenomenon. At times, it is even described as a positive phenomenon that unites several parties in cooperation and peaceful action. In contrast, a critical political inquiry of these framings posits that the causes of climate change and the actors responsible for it need to be included into the analytical framing of the climate change – conflict nexus. This requires a broader geographic and temporal scope of analysis (see Dalby, 2018; Hardt, 2018) that goes beyond the contemporary state of the art in Peace and Conflict Studies.

Another contribution that critical approaches can make is to unpack how peacebuilding is 'read', by whom and why (Mac Ginty, 2013: 2; 5). The political interests inherent in certain discourses, research designs and geographical foci require more attention, especially in the context of environmental peacebuilding. The technocratic and managerial approaches to environmental peacebuilding rely on certain norms. They include certain actors in the decision-making process, and exclude others and therefore serve different actors. As Cox (1981: 128) states: theory always serves someone or some purpose, which is not necessarily obvious, or even hidden. Furthermore, Aggestam (2018: 104-105) is critical of the technocratic approach to the climate – conflict nexus as it reduces external responsibility and accountability.

Universalist Versus Pluralist Visions of Peace

The analysis also reveals that in spite of the absence of a clear definition of environmental peace(-building), the literature is strongly anchored in the notion of *One Peace*, meaning that there is only one possible definition of peace and one way that it unfolds. This becomes clearer when we look at the literature by making use of the differentiation between 'problem-solving' on the one hand and 'critical change' on the other: it reveals the tendency to de-politicise which ultimately reduces peace(-building) to a technical exercise based on problem-solving theory (Newman, 2013; Aggestam, 2018; Goetze, 2017). This critique particularly applies to the latest calls to move from theory to practice, through the inclusion of mitigation and adaptation policies into peacebuilding. Goetze (2017: 4) describes the rationale of this approach: "The question is to find the right screws to turn, and peacebuilding will build peace". In this reading, the new foci on sustaining peace, the hotspot focus and the inclusion of climate change into peacebuilding seem to be other 'screws' to turn in order to reach the desired goal, which is one particular form of peace, based on universalism. This approach is again linked to the simplification, de-politicisation and technocratic solutions outlined above. The mainstream environmental peacebuilding literature relies on this universalist conception of peace, which falls short in several ways, as it ignores pluralistic visions of peace (see e.g. Juyal, 2017; Koivukoski, 2017) or the possibility of analysing situations in which conflict and cooperation occur at the same times in different forms and places (see Conca and Beevers 2018: 69).

Conclusions and Recommendations for Future Pathways

This policy brief provided an overview and a critical assessment of the major rationales behind the approaches that bind the environment and climate change to conflict and peace. While the acknowledgement of climate change in peacebuilding has been recently presented as a novelty, we have shown that the discourse on the climate change – conflict/peace nexus to a certain extent is "old wine in new bottles": the underlying linkages have been repeatedly addressed in the course of the evolution of the literature on environment and conflict/peace since the end of the Cold War.

A critical analysis allowed the unpacking of the particular ways in which environment and climate change are addressed in Peace and Conflict Studies; we pointed at some of the main constraints and blind spots of the environmental conflict and peace framework. We have shown that an important shortcoming of the major body of literature is that it is limited to a conception of the world that dichotomises humans and Earth as separate entities and, accordingly, addresses climate change or environment as a controllable dimension. This literature lacks a holistic understanding and downplays the importance of climate change as a major global challenge. Hence problem-solving, technocratic approaches and managerial, de-politicising tendencies dominate the field. These approaches are connected to the conception of *One Peace*, with 'peace' defined only in relation to violence and conflict (or the absence thereof). Hence there is a clear bias towards conflict and violence. This makes it necessary to further the work on a definition of (environmental) peace.

An overall conclusion refers to the blueprint of the concept of sustaining peace and to its ignorance with regard to environmental issues, as well to the shortcomings of the environmental peacebuilding literature in general. The aim to work towards peace or to conceptualise peace, will be possible only when the basic condition of our earthbound existence is addressed, and the disruptive changes that humanity and especially the rich and powerful have brought to the world in form of climate change and the Anthropocene are tackled.

In the following, we outline openings for future research, based on our argument that the peacebuilding literature has to deal more explicitly with the shortcomings and blind spots discussed above. We recommend four main future research avenues for the field of environmental peacebuilding and for the broader Peace and Conflict Studies that also include the concept of 'sustaining peace' and which take note of interconnections in the research field:

1. Include complex dynamic human-nature relations

Perspectives on the conceptions of peace and conflict which are confined only to human-human relations need to be expanded to include dynamic and interrelated complex human-nature relations and interactions (see Scheffran et al., 2012). In this context, a central concern is the need to combine the literature on 'sustaining peace', which almost entirely ignores environmental dimensions, with the growing body of literature on environmental peacebuilding, as well as with conceptions of sustainable peace. The challenges of investigating the world of humans as intrinsically interlinked and bound to the Earth system can no longer be ignored by Peace and Conflict scholars and practitioners. Therefore, broader

transdisciplinary research will be necessary (Kalinowski, 2012), including disciplines such as climate science, Earth System science, the emerging Anthropocene Studies and especially the Environmental Humanities (see Hardt, 2018). Some proposals already exist to bring the separate research fields of peace, conflict, development and sustainability studies together. Traditional definitions of conflict and violence also need to be open to new approaches, such as structural violence and political power in relation to the environment. These are important avenues for future research (see Nixon, 2011).

2. Focus on peace

Our second main research proposal is to explore environmental peace in a way that is independent from violence and conflict (see Dalby, 2018; Swatuk, 2018). As Kalinowski (2012: 274-280) states, in relation to environment and climate change, Peace and Conflict Studies is getting lost between strategies against poverty, and for human security and development. Stimulating research on the conception of peace would furthermore help to confront the bias and basic ontology of conflict in the literature. Therefore, we stress the necessity to put more focus on positive instead of negative linkages (Scheffran and Vogt, 1998: 10; Scheffran, 2011; 2016), towards the question of defining positive conceptions of environmental peace and sustainable peace.

3. Include critical approaches to challenge universalism

A specific focus on critical approaches, as opposed to problem-solving approaches, would help to grasp certain phenomena that are currently relatively unexplored. Most of these phenomena have been outlined in the section above: the questioning of power structures, discourse settings, and accompanying political interests and biases. Such critical approaches would also enable us to challenge the mainstream universalism.

4. Initiate a new integrative research wave

Addressing the above points would broaden the study field - opening the debates on the linkages between the different scientific fields and communities and with regard to human-nature relations. The emerging field of Anthropocene Studies, and critical re-thinking and scrutinizing of basic assumptions about and perceptions of the world and of humankind in and as part of the Earth, provide valuable contributions that cannot be ignored any longer. We therefore recommend that the energy for initiating a new wave of research which is currently emerging should explicitly focus on bridging the isolated bodies of literature. We put forward a plea for a broader transdisciplinary, integrative and in-depth approach to analyse and assess the issues at hand, with a focus on interconnectedness and relations. This could lead to a new stage of Environmental Peace and Conflict Studies.

We hope that through this overview of the field, and by unpacking some of the major restraints and blind spots of research on conflict, peace, environment and climate change, we have been able to trigger a first step on this path.

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This text is a further elaborated and extended version of a Spanish text, with the following reference:

Hardt, Judith Nora & Jürgen Scheffran 2019. "Construcción de paz medioambiental y cambio climático: Evaluación, análisis crítico y perspectivas", in Pérez de Armiño, Karlos & Iker Zirion Landaluze (eds.), *Paz Crítica. Aportes teóricos a las perspectivas de paz posliberal*, Tecnos, Madrid, 389-421.

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