

A Climate for Change in the UN Security Council? Member States' Approaches to the Climate-Security Nexus

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RESEARCH REPORT
#005



A Climate for Change in the UN Security Council?

Member States' Approaches to the Climate-Security Nexus

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Abstract

This research report is the first to systematically engage with the growing political agenda of the climate-security nexus and to place a particular focus on the relationship between the state and the only international organ with a mandate to maintain international peace and security: the United Nations Security Council (UNSC). Discussions that have been ongoing since 2007, scattered governmental positions and the difficulty of achieving an overview of the various understandings, topics, concerns and responses of the UNSC member states in relation to the climate-security nexus all indicate a need to address this topic. This report therefore assesses and maps if and how the UNSC members acknowledge the linkages between climate change and security and how they position themselves with respect to these debates in the UNSC.

With a large international network of interdisciplinary and country-specialized partner scientists, the analysis relies on an extensive spectrum of official primary sources from member state governments, various ministry strategies (such as those addressing security and climate change), UNSC documents and interdisciplinary academic literature on the climate-security nexus. It is located in the context of substantiated planetary climate emergencies and existential threats as well as urgent calls for action from the UN and member state representatives, scientific networks in Earth System Sciences and youth protests.

Based on broad empirical research findings, this report concludes that all 15 current UNSC member states acknowledge the climate-security nexus in complex, changing and partly country-dependent ways. The report formulates an outlook and recommendations for decision-makers and scholars with a particular focus on strengthening the science-policy interface and dialogue and emphasizing the urgent need for institutional, multilateral and scientifically-informed change. It also illustrates how essential it is for the UNSC to recognize and adapt institutional working methods to the interrelations of climate change and security and their effects as a cross-cutting issue.

This report contains detailed research results that serve as the basis for the IFSH Policy Brief 5/20: “A Climate for Change in the UNSC? Member States’ Approaches to the Climate-Security Nexus” (Hardt 2020).

Funding

This research report and the related policy brief (Hardt 2020) contain the main research results from the project “The role of climate change in security conceptions and perceptions of the UNSC member states,” which was carried out in cooperation with the Institute of Peace Research and Security Policy at the University of Hamburg (IFSH) and the Research Group Climate Change and Security (CLISEC) at University of Hamburg. The project was funded by the German Federal Foreign Office.

1. Introduction

The world is facing the dramatic implications associated with climate change – ranging from vulnerability, instability and poverty, to statehood loss, violent conflict, global health effects, forced displacements and the increased intensity and frequency of hydrological disasters, to threats to the future of humanity itself (e.g. UNGA 2009c, b; UNSC 2011). In response the UN Secretary-General António Guterres (2019) has warned, “Let us not mince words: the climate crisis is a race against time for the survival of our civilization, a race that we are losing” and urged decisive action. The need for coordinated state and UN actions to successfully address the multiple security threats emanating from climate change – referred to here as the climate-security nexus – has also been expressed by several UN institutions (UNEP 2011; UNDP 2019), and the 2018 creation of the UN Group of Friends on Climate Security and the Climate Security Mechanism illustrates both the mounting concern among the wider UN family and the growing political agenda of the climate-security nexus.

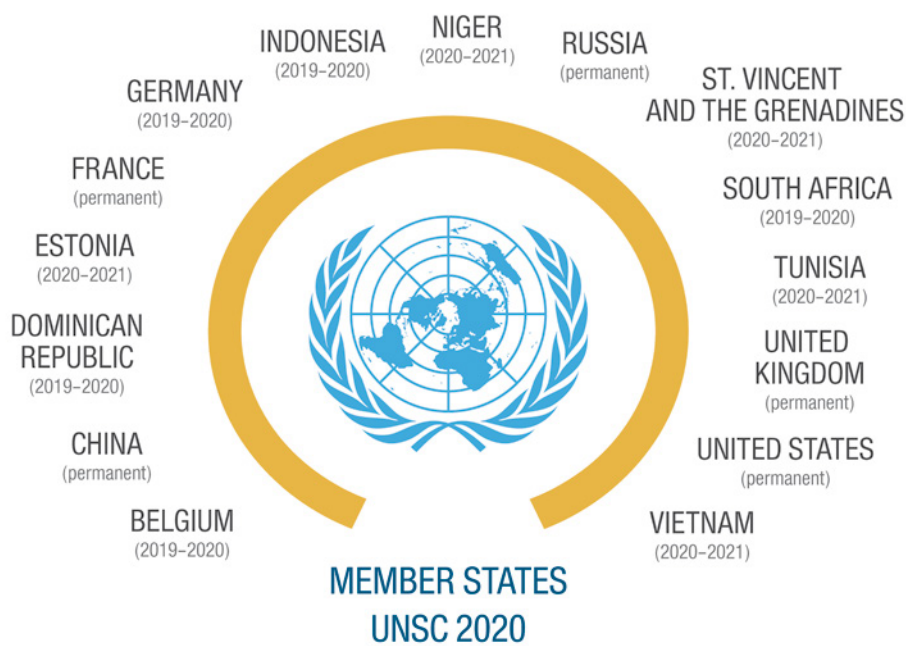
Despite these multiple calls for action, the United Nations Security Council (UNSC) – the international institution most relevant to the issue and with the mandate to maintain international peace and security according to the UN Charter – has thus far refrained from officially recognizing the multiple implications that climate change has on security. Debate on this issue dates back to the year 2007, when the question was first posed.

One of the reasons a consensus has never been reached on this issue is the fact that member states view the UNSC through the lens of diverging individual positions, political concerns, and different understandings of and approaches to security. Moreover, various discussions are repeatedly hampered by the complexity of different concerns, ranging from conflicts, injustice and threats to future generations to questions of adequate responses within contemporary institutional settings and the relationship between the UNSC and national sovereignty.

This research report addresses the growing political agenda of the climate-security nexus by engaging with the member states’ seemingly disparate, scattered positions and approaches in order to make them more accessible. The central questions are whether and how the current 15 members (see Figure) perceive and address climate change in relation to security and approach the so-called climate-security nexus within a broad spectrum of policies and

practices. To this end, the report draws on the research results of the project “The role of climate change in security conceptions and perceptions of the UNSC member states”, which was carried out by the authors in cooperation with a large international network of interdisciplinary and country-specialized partner scientists.

Figure 1: 2020 UNSC Member States



Source: Elaborated by the authors based on the UN (n.d.).

To date, this report is the only systematic and standardized analysis that detects and compares the 15 UNSC member states’ positions on this question (see Zhou 2017; Scott and Ku 2018). It relies on a broad range of official primary sources: member state government policies, various ministry documents (such as security strategies, military doctrines, policy frameworks and presidential orders), UNSC documents and interdisciplinary academic literature on the climate-security nexus. It roughly covers the period from 2007 through April 2020 with a particular emphasis on recent events, and it includes member state activities at the domestic, regional and international levels as well as their corresponding positions in the UNSC.

The analysis is informed by a broad approach to Security, Peace and Conflict Studies and the literature on the climate-security nexus. This research aims

to contribute to the question of whether and how climate and security politics converge at the national and international level and therefore places the analysis in the context of existential threats and the ongoing planetary climate emergency as well as urgent calls for action from the Earth System Sciences (Rockström et al. 2009; IPCC 2018, 2019; Lenton et al. 2019; Steffen et al. 2020), scientific networks (Club of Rome 2020; Ripple et al. 2019; Hagedorn et al. 2019), and youth (Friday For Future, e.g. Thunberg 2018) and broader civil society (e.g. Extinction Rebellion) protests.

The research was carried out through the lens of four main research foci that structure the analysis and provide an overview of how the member states acknowledge, describe and approach the linkages between climate change and security.

The first research focus detects a) whether and how the ministries of defense and the military – the so-called *traditional security sector* – acknowledge and approach climate change. The second research focus detects b) how other state actors (e.g. heads of state and various ministries) include and/or address the connections between climate change and security. This perspective is called the *extended security sector* because it refers to a broad and encompassing understanding of security and security measures. The third analytical category has a topical focus and detects c) descriptions of climate change that indicate a conception of existential security focused mainly on the articulations of existential threats and of humanity's existence as a core value to be secured. This idea is referred to throughout as an *existential security perspective*. In contrast to the classical security categories (e.g. peace and conflict), it detects whether a new understanding of security – one that considers the irreversible and existence-threatening effects often associated with the characteristics of the Anthropocene geological epoch (e.g. Crutzen 2002; Steffen et al. 2020) and Earth System Sciences research results (e.g. IPCC 2018, 2019; Steffen et al. 2020) – is approached and acknowledged. The fourth research focus detects d) the *member states' respective positions* on the issue of addressing climate change in the UNSC.

These four research foci also provide the basis for the comparative analysis and main conclusions, which, in turn, form the basis of recently published policy recommendations (Hardt 2020). Future publications and elaborations of the extensive research findings are envisaged. The elaboration of the country case studies was carried out mostly before the onset of the COVID-19 pandemic.

The research report has been structured into five sections. Following this introduction, section two provides a description of the empirics on the debates in the UNSC. The third section presents the analytical background and approach of this research report. Section four contains the research findings on the climate-security nexus in all 15 current UNSC member states (listed in an alphabetical order). The comparative analysis of the case studies, the main conclusions, key recommendations and outlook concerning policies and theory development are presented in section five.

2. Climate change and security at the United Nations Security Council

Since its creation, the UNSC has focused predominantly on issues of violent conflict, war and military activity. However, the UNSC has evolved significantly in recent years and has dealt with broader security topics including a more encompassing concept of human security, the Responsibility to Protect, and the plight of women (e.g. Resolution 2493 (UNSC 2019b)) and children (e.g. Resolution 2427 (UNSC 2018a)) in conflicts. The highest institution with the mandate to maintain international peace and security is thus a dynamic and evolving institution (Scott and Ku 2018; Conca 2019:14). Debates on addressing climate change in the UNSC can be traced back to the year 2007. The very first debate, initiated by the United Kingdom (UK), was focused on climate change, energy and security. The next open debate, initiated by Germany in 2011, led to a presidential statement which “expresses [the Security Council’s] concern that possible adverse effects of climate change may, in the long run, aggravate certain existing threats to international peace and security” and also addressed potential territory loss in low-lying island states (UNSC 2011).

Several Arria-Formula meetings – an informal UNSC working format that provides an opportunity to exchange views with external experts and civil society representatives (Security Council Report 2020) – followed (see What’s in Blue 2013, 2015). The topics discussed in these meetings revolved around the “security implications of climate change: sea level rise” (Permanent Mission Ukraine 2017), “preparing for [the] security implication of rising temperatures”

(What's in Blue 2017) and the potential to “transform these new threats into opportunities for cooperation” (Eliasson 2015).

The first open debate in the UNSC since 2011 was held in 2018. Initiated by Sweden, it focused on climate-related security risks (UNSC 2018b) and was followed by an open debate in 2019, initiated by the Dominican Republic, that emphasized the effects of climate-related disasters on international peace and security (UNSC 2019c).

More recently, an Arria-Formula meeting on climate and security risk in April 2020 (Permanent Mission of France 2020) resulted in a joint statement of 10 UNSC member states on a joint initiative to address climate-related security risks within the UNSC context (Permanent Mission of Germany 2020). A subsequent debate hosted by Germany took place in July 2020.

Despite various actors' serious concerns and multiple efforts, the UNSC remains reluctant on this topic due to the member states' lack of consensus. The arguments and concerns of the member states for or against including climate change on the UNSC agenda can be summarized as follows (see Maertens 2019; Conca 2019; Scott and Ku 2019 for more detailed descriptions): The critics refer mainly to the risks of further militarization, de-politicization, the co-optation of climate politics to further power politics, the duplication of tasks within the UN, the potential to overrule sovereign decision-making, and inadequate and simplified responses to the interlinked climate-security threats. The proponents underline the need to include the existing and growing threats of climate change in a broader consideration of security. They reject the critics' assertion that viewing a problem as a security problem necessarily leads to militarization, arguing instead that successful security policy has a wide range of instruments at its disposal, including soft security measures. The debates are therefore shaped by the possible directions, tools, and forms of security policy and by how or to what extent the UNSC could or should (not) address and include climate change (thereby officially recognizing socioecological phenomena for the first time) as part of its agenda. The debates are thus not only focused on the different effects of climate change on national and international security but are also influenced by discussions of the responsibilities, capacities, and authority – the very legitimacy – of the council and the lack of reform of the Security Council in a changing world (Conca 2019).

Furthermore, the debates call attention to the fact that, despite refraining from officially addressing climate change, several UNSC resolutions and field missions since 2017 have included references to and operated on the premise of the adverse effects and implications of climate change, natural disasters and other ecological changes on stability and security, though only in relation to specific geographical regions and states, as the Lake Chad Basin Region (Resolution 2349 (UNSC 2017), Darfur (Sudan) (UNAMID, Resolution 2429 (UNSC 2018c)), Somalia (UNSOM, Resolution 2461 (UNSC 2019d)), Central Africa (MINUSCA, Resolution 2499 (UNSC 2019e)), Mali (MINUSMA, Resolution 2480 (UNSC 2019f)) and the Democratic Republic of the Congo (MONUSCO, Resolution 2502 (UNSC 2019g)).

It must also be highlighted that a growing acceptance of and activities on the topic have been noted within the broader UN System, as several UN agencies (UNEP 2011; UNDP 2019) and secretaries-general (e.g. Ki-moon 2011; Guterres 2019) have pushed the agenda on the climate-security nexus. The establishment in 2018 of the Climate Security Mechanism (CSM) at UN Headquarters in New York as a joint initiative of the United Nations Department of Political Affairs (DPPA), United Nations Environmental Programme (UNEP) and the United Nations Development Programme (UNDP), promotes dialogue and exchange on the linkage between climate change and security among UN institutions (UN 2020; UNEP n.d.) and works with UN entities and (sub-) regional organizations to integrate climate-related security risks into analysis, planning and programming. In addition, the Community of Practice on Climate Security, convened by the CSM, is an informal group of over 20 UN entities from across the UN system that meets bimonthly to facilitate the exchange of knowledge, experiences and lessons learned and identify opportunities for cooperation on climate security. It is open to all UN entities with a shared interest in addressing climate-related security risks.

The establishment of the Group of Friends (GoF) on Climate and Security (co-chaired by Germany and Nauru) to enhance actions on climate-related security risks within the UN system (German Federal Foreign Office 2018) also illustrates an increasing embrace of the topic and the necessity of engaging with it.

3. Mapping the climate-security nexus: Analytical background and approach

Security resides at the core of our conception of the world and is critical to central existential values of utmost importance, priority and protection (Hardt 2018). Guided by the ultimate goal of securing survival against existential threats, security policy is often articulated as being above the cut and thrust of domestic political contestations. This means that security policy often operates independent of formal constraints, sometimes necessitating urgent responses to secure what are seen as fundamental or *hard* state interests (Hardt forthcoming 2020a). The particular question of how security policy has included/will include climate change in the face of the increasingly threatening dimensions of climate change and the broader socioecological dynamics described by Earth System Sciences is one that has been the subject of urgent debates in theory and politics – debates to which this research report aims to contribute. The theoretical background and analytical approach are described in the following sections.

3.1. SECURITY STUDIES: SECURITY CONCEPTS, PERCEPTIONS AND ANALYTICAL CATEGORIES

This research is broadly informed by Security, Peace and Conflict Studies, which deal with the multifaceted causes, processes, actors and contexts of security, peace and conflict (see Buzan and Hansen 2009). The analytical framework applied here acknowledges the existence of different approaches and schools of thought, and it attempts to utilize this broad field of existing approaches. These include the traditional approach to security, in which the state security concept adheres closely to national territories and military security responses to ensure the survival of the sovereign state (Mearsheimer 2001), and a concept of human security focused on the individual, in which several dimensions (food, energy and environmental security, among others) are based on the positive aspiration to secure basic human needs (UNDP 1994; CHS 2003; Barnett 2007) and rely on a range of soft, preventive and hard security measures. Both security concepts (state and human security) constitute a fixed, generalized and condensed set of interlinked processes and relations that guide and describe security policies in an international state system both in theory and in practice.

The analysis presented here engages primarily with security perceptions, which locate the actor in historical and sociopolitical contexts and depart from the idea that security lacks an objective meaning, focusing instead on how meaning varies according to the protagonist and his ideology as well as to historical context, culture, theory, worldview, etc. (Peoples and Vaughan-Williams 2010: 4). In reference to the different schools of critical security studies, such as the Copenhagen school (Buzan et al. 1998), the Welsh school (Booth 2005, 2007) and the Paris school (Bigo 2010), security is used here as a research category and a so-called *security prism*. This consists of a set of questions that assesses security perceptions and approaches by identifying the referent object and core value to protect, the threat, the response and the goals of security that lie at the very core of the security understanding of the actor analyzed (see table below), with a particular focus on how climate change is articulated and approached within the case study analysis.

Table 1: Security categories, definitions and characteristics

DEFINITION AND CHARACTERISTICS OF SECURITY CATEGORIES		SECURITY PRISM
Value and asset to secure	<ul style="list-style-type: none"> • Defining value of utmost importance and priority • Existential value or object connected to survival • Constitution of the actor/system 	What is the basic security value?
Security threat	<ul style="list-style-type: none"> • Existential fear and threat • Threat to survival and constitution of the basic value and/or asset to secure 	What is the security threat?
Response	<ul style="list-style-type: none"> • The form and process originate from an integral, groundwork-laying entity or an agency that is conceived for this purpose and is a component of the overall structure • The measures are characterized by <ul style="list-style-type: none"> - priority - urgency - extraordinary measures - routinized processes of immediate response - measures that can be reactive, defensive or precautionary - all-encompassing framework of routinized practices that feed into all other sectors • interests that are pursued regardless of the costs incurred • sacrifice of other values (e.g. violence in the name of security) 	What is the security response?

	<ul style="list-style-type: none"> • Consequence: either overrules everything else and thus renders all other questions and issues moot, and/or the establishment of routinized, all-encompassing/underlying practices on a continuum that feeds into all other sectors • Effect: eradication of the threat through adequate measures and means 	How is the security response brought about
Goal of security	<ul style="list-style-type: none"> • Secure the basic value/asset • Maintain or establish stability through secured survival 	What is the goal of security?

Source: Elaborated by the authors based on Bigo (2020), Buzan et al (1998), Wolfers (1952), Hardt (2018:15-27).

3.2. CLIMATE-SECURITY NEXUS: EVOLUTION AND APPROACHES IN RESEARCH

This research is also informed in particular by the evolution and tools of the literature on climate change and security. Literature on the linkages between environment and security dates back to the 1960s; since the 1990s, this literature has been recognized as its own research strand. The table below provides a simplified overview of the topics typically associated with the field of the climate-security nexus organized into various major research phases. It shows that the main focus arose in 2007 in reference to the publication of the fourth Intergovernmental Panel on Climate Change (IPCC) assessment as well as in relation to the first debate on the topic in the context of the UNSC (Brauch 2009: 83). As can be seen in the table, the main research focuses on the interrelations of environmental issues and climate change with violent conflict (e.g. Homer-Dixon 1994, 2004; Baechler 1998; Welzer 2008; Gleditsch 2015; Mach et al. 2019; Brzoska 2018; Ide 2019; Scheffran 2020), cooperation (e.g. Conca, Carius and Dabelko 2005; Wappner 2013), peacebuilding (e.g. Matthew 2014; Ide 2020; Krampe 2019; Hardt and Scheffran 2019), transformation (e.g. Brauch et al. 2016), and development and humanitarian studies (e.g. Barnett 2001, 2007; Barnett and Adger 2007; Dalby 2002, 2009; Floyd 2007; Floyd and Matthew 2013), or in terms of including ethical considerations on human-nature relations in security thinking (e.g. Dalby 2013; Nyman and Burke 2016; McDonald 2018).

More recently, several scholars have integrated Earth System Sciences research findings with a special focus on the Anthropocene (e.g. Dalby 2009, 2020; Harrington 2016; Hardt 2018, 2019, forthcoming in 2020a) into their work, but further development and integration of a new conception of existential security associated with the irreversible effects and life-threatening implications

of exceeding the *planetary boundaries* and the *hothouse Earth* trajectory (e.g. Steffen et al. 2018; Steffen et al. 2015; Rockström et al. 2009; IPCC 2018, 2019; Ripple et al. 2019) is still to come.

Table 2: Major research phases in the literature

MAJOR RESEARCH PHASES		DOMINANT FOCI AND CONTENT
1st	1989 – ongoing	First wave of research on the interrelation between environment and conflict: empirical case studies, mostly focused on national security
2nd	1994 – ongoing	Second wave of research on the links between environment and conflict: focused on different methods and empirical case studies
3rd	2003 – ongoing	Research on the links between environment and peace
4th	2007 – ongoing	Link between climate change and security: concept of <i>climate security</i> Link to or inclusion of environmental security in human security Environment and energy security/independence Climate change, security and migration Gender, marginalization, environment and security Introduction of complexity theory and a critical focus on the de-politization of climate change through discourses of resilience, risks, adaptation and mitigation
5th	2009 – ongoing	Foci of the Anthropocene as a new geological era and context for the environment/climate security link and human security; strong influence of Earth System Sciences (planetary boundaries) and Climate Sciences; emergence of Ethical Security Studies
6th	2017 – ongoing	Focus on various institutions and on how the link between climate change and security is included/addressed or institutionalized. Discussion on how actors address the link and in what terms, and what future activities, risks and potentials might be
Outlook	2020 – ongoing	Emergence of a next research phase on topics such as complex crises, tipping points, compound risks, how different actors (ranging from global governance and states to civil society) address the climate-security nexus, the merging of research communities and a focus on the science-policy interface

Source: Elaborated by the authors based on Hardt (2018:45).

The question of whether and how the UNSC could or should take action in relation to the link between climate change and security has also become a focus of debate among institutions (e.g. Detraz and Betsill 2009; Cousins 2013; Scott 2015). In recent years, theoretical work on this issue has been driven by the fundamental assertion that climate change has become an inescapable topic for global governance actors and regional institutions and can therefore no longer be ignored by the UNSC (e.g. Krampe 2020; Rüttinger et al. 2015;

Mobjörk et al. 2016; Werell and Femia 2017; Brock et al. 2020). Based on this, several proposals to address climate change in the context of the UNSC have been elaborated (Conca 2019; Dröge 2020; Parker and Burke 2017; Born, Eklöv and Mobjörk 2019; Zhou 2017; Scott and Ku 2018; Vivekananda et al. 2020).

The field, having significantly evolved, thus stands at a juncture that focuses on some of the central concerns of humankind through varying ways of relating environmental phenomena to conflict, cooperation, health, development, well-being and existential threats (Hardt 2019). The climate-security nexus – the central research category – represents a conglomeration of the multiple topics, relations and implications associated with climate change and security in both theory and practice. It is important to highlight here that this report engages neither in an assessment of the scientific basis or validity of the descriptions articulated, nor in an evaluation of the activities with respect to the climate-security nexus described. This is important to emphasize because the numerous linkages between climate change and security have been, in some cases, strongly contested and subject to scrutiny (e.g. Benner et al. 2020), especially due to their normative and political character as well (e.g. Chaturvedi and Doyle; Klepp and Fröhlich 2020).

In addition to the approaches outlined above, the research furthermore draws on securitization theory (Buzan et al. 1998) and the concepts of security as routinized practice and security as a continuum (Bigo 2010), and on the process of climatization of related policies (Aykut et al. 2017; Oels 2012; Maertens 2019).

3.3. ANALYTICAL APPROACH

In the form of a mapping exercise, this research report provides an overview of how the current 15 UNSC member states acknowledge and approach climate change in relation to security. The research design does not distinguish between the categories of permanent members (China, the USA, Russia, France and the UK) and elected members of the UNSC.

The systematic assessment of the UNSC member states' basic policy approaches was developed in two main work phases. In the first step, 15 country-specialized partner scientists elaborated the respective country assessments (from December 2019 until April 2020) based on a provided methodological guideline. This is why the country case analyses, despite this shared approach, are notably influenced by the country-specific context, the integration of local perspectives

and the respective multidisciplinary expertise of the partner scientists. In order to have access to the perceptions as described by the actors themselves and avoid external descriptions, primary sources provided the main basis for the analysis. The emphasis is on relevant governmental documents, public statements and debates with a focus on the latest developments, including UNSC and UNSC member state documents from 2007 to April 2020. Due to time and space constraints on the project, the focus was limited to accessible information and issues explicitly expressed by the actors themselves.

In the second step, the research findings of the country assessments were included in an overall framework that structures the mapping exercise and aims to provide an overview of and better access to the states' positions and approaches. This framework consists of four research foci in relation to different topics and actors and their positions in the UNSC context on the issue in question. In order to tackle the main question of whether and how the so-called *traditional security sector* includes or addresses the issue of climate change in relation to *hard* security approaches, the first line of inquiry focuses on the Ministries of Defense and the military.

The second focus assesses heads of government, governmental policies and various ministries such as those tasked with disaster risk management, health, the environment, economics, foreign affairs and domestic affairs. It asks whether and how these non-traditional security actors acknowledge and/or address the climate-security nexus in their respective policy fields. It is called the *extended security sector* because it enables the inclusion of actors and measures of the so-called *soft* security approach in the analysis. As such, it is influenced by several notions of the concept of human security, including multiple political dimensions as well as positive and preventive/reactive policy responses. In addition, this research focus contains responses to climate change in terms of the securitization and climatization of politics. It furthermore detects the described security effects of environmental phenomenon (e.g. sea level rise, extreme weather events or climate tipping points).

The third focus traces a new dimension of security in relation to descriptions of climate change as an existential threat and/or in relation to the protection of a core value to secure. This idea can be described as an *existential security* awareness or as viewing security from an existential perspective. These descriptions make references to the Earth System Sciences and the Anthropocene, as these subject areas articulate a completely different threat quality and dimension of

security than descriptions of the effects that climate change has on the relatively classical concerns of international relations (e.g. peace, stability, development versus violent conflict, instability and poverty).

The fourth research focus outlines the *member states' positions* on the question of whether and how to include climate change in the UNSC agenda.

To ensure the quality and reliability of the information and comply with scientific standards, all 15 country assessments were reviewed via an anonymous process by a local researcher after the first work phase. An overall review of the research was carried out by the Supervisory Group and with the support of the broader scientific network.

4. Climate-security nexus in UNSC member states: Case studies

This section presents the research findings of the country case studies in alphabetical order. Each country case is structured around the four main research foci of acknowledgements and descriptions of the climate-security nexus, illustrated mostly in tables. The description of the member state's position on the climate-security nexus in the context of the UNSC is highlighted in a box at the end of the case study. Each case study presents different approaches, thereby exemplifying and showcasing the variety and changeability of security approaches in the various countries.

The case studies elaborated in this report can be regarded as entry points for further inquiry. Future publication of a more detailed, in-depth assessment in a format to be determined is envisaged. Finally, it is important to stress that the elaboration of the country case studies was carried out mostly before the COVID-19 pandemic.

4.1. FINDINGS ON THE CLIMATE-SECURITY NEXUS IN BELGIUM

Based on the analysis and substantial contribution by Amandine Orsini

As illustrated in the table below, the climate-security nexus is acknowledged within the traditional security sector, with major concerns placed on foreign affairs and, especially, on how climate change affects living conditions, food security and the interrelation of conflict and instability. In response to these issues, Belgium promotes development aid for capacity building and thereby supports other countries, especially those in unstable regions, in tackling the climate change problem.

Table 3: Findings on the climate-security nexus in Belgium’s traditional security sector

ACKNOWLEDGEMENT	CONTENT
2019 Environment and Security Review by the Ministry of Defense	Issued by the Ministry of Defense, it notes that climate change presents a threat to both national and individual security in developing countries as a “large number of people live in poverty, and climate change makes living conditions more difficult” (MoD 2019:23). The implications of climate change on food security are highlighted in relation to migration and instability, which could result in conflicts, terrorism (especially in the Sahel region) and competition for resources (MoD 2019:27). The MoD focuses on practical solutions based on technology transfer (for sustainable farming, to mitigate climate change or alleviate water scarcity, for example) to help developing countries address the instabilities created by climate change (MoD 2019) and/or intervene in disasters via the emergency support team.
Belgian First Aid and Support Team	As an emergency aid team under the umbrella of the MoD, B-Fast (B-Fast n.d.), created in 2003, immediately provides assistance to countries affected by natural or man-made disasters. As a cross-departmental unit, it includes the Prime Minister and the Ministry of Foreign Affairs, among others. B-Fast interventions are mobilized within 12 hours and last no longer than 10 days. Intervention requirements include receiving countries not being able to manage the crisis alone, agreeing with support and not being affected by armed conflict (MFTD n.d.).

Source: Elaborated by the authors based on Amandine Orsini’s research results.

It is important to note that, since the 2016 Brussels attacks, Belgian security policy has been heavily focused on the fight against terrorism. In addition, Belgium has had no federal government since December 2018, and the institutional system is characterized by fragmentation. Climate change and environmental issues fall under the competencies of three different regional authorities. The National Climate Commission (NCC) functions as a coordinating institution between the different regions.

Several reports, plans and surveys from various actors (see table below) show the Belgian extended security sector's acknowledgement of climate change. The climate-security nexus is depicted in relation to development aid, but also in reference to the domestic vulnerability to sea level rise and slowing economic growth – all reasons for addressing climate change.

Table 4: Findings on the climate-security nexus in Belgium's extended security sector

ACKNOWLEDGEMENT	CONTENT
National Climate Commission, reports to the United Nations Framework Convention on Climate Change (UNFCCC) 2009, 2013, 2014 and 2015	Created in 2002, the NCC is composed of representatives from the federal state and the Flemish, Walloon and Brussels Capital regions. It also includes the Deputy Prime Minister and Minister of Internal Affairs and Security, and it is responsible for the development of Belgium's climate adaptation plans and reporting to the UNFCCC (NCC n.d.). In several reports, climate change is described as "an important source of instability in terms of food security, biodiversity loss, land degradation and desertification, (environmental) migration, public health and tensions that could lead to conflicts," and it presents the reason for the "fight against climate change" in Belgian development cooperation (NCC 2009:125). Adaptation to climate change is seen as crucial for foreign and development policy. The need for climate change adaptation projects, e.g. projects on food and water security in developing countries (mostly in Africa), is emphasized (NCC 2009, 2013, 2014, 2015).
2016 National Adaptation Plan	The NCC issued the National Adaptation Plan with reference to climate change for the years 2017-2020. Focusing on domestic vulnerabilities, it describes Belgium as a country vulnerable due to sea level rise affecting flat coastal areas. It also highlights the need for invasive alien species risk analysis, energy security measures and crisis management (NCC 2016:35), concluding that "future climate change is projected to slow down economic growth, erode food security, and increase global inequalities" (NCC 2016:14).
Surveys to test Belgian citizens' knowledge about climate change	Since 2005, DG Environment regularly organizes surveys to test Belgian citizens' knowledge about climate change and their perception of governmental climate actions. In a comparison of three surveys, the number of problematic consequences of climate change worldwide mentioned by Belgian citizens increased over time, with melting ice, sea level rise and hurricanes mentioned in 2009, while food security, biodiversity impacts, heat waves and rain modifications were added in 2013 and 2017. In 2017, climate change was seen as an increasingly important issue; Belgian citizens perceived its consequences as mostly taking place outside Belgium but still as a threat to their everyday lives (DG Environment 2017b).
2017 Ministry for Foreign Affairs	This Ministry for Foreign Affairs' international seminar on security implications of climate change addressed scientific trends toward "mitigation alternatives through deliberate and large-scale intervention in the Earth's climate system or 'geoengineering,' for example through solar radiation modification" and possible security implications resulting from these emerging climate-altering technologies (MFTD 2019).

Source: Elaborated by the authors based on Amandine Orsini's research results.

Regular surveys of Belgian citizens’ knowledge about climate change by the Ministry of Health, Food Safety and Environment (DG Environment) shows the rising concern for and awareness of adaptation measures within civil society. According to a DG Environment report on environmental impacts of climate change (2017a:23), “climate change has in particular links with food and water supplies, with biodiversity and ecosystem services, with raw material availability, with energy supply, economic development, migration, international relations and security.”

Acknowledgements of the climate-security nexus from an existential security perspective (see table below) have been detected in the Belgian constitution and in a reference to the Small Island Developing States (SIDS).

Table 5: Findings on the climate-security nexus in Belgium from an existential security perspective

ACKNOWLEDGEMENT	CONTENT
2017 Belgian Constitution	Includes the right of Belgian citizens “to the protection of a healthy environment” in Article 23, and sustainable development is recognized as a general policy objective in Article 7bis: “In the exercise of their respective competences, the Federal State, the Communities and the Regions pursue the objectives of sustainable development in its social, economic and environmental aspects, taking into account the solidarity between the generations”(Belgian House of Representatives 2018).
Ministry of Foreign Affairs, 2018 Belgian Intervention	This intervention during a ministerial meeting of the Group of Friends on Climate and Security included the statement that “climate change is a threat multiplier. This is for many the point of departure. It interacts with other risks and threats with direct and indirect implications for international security and stability; rising sea-levels pose a direct threat to existence of the SIDS” (MFTD 2018).

Source: Elaborated by the authors based on Amandine Orsini’s research results.

The diversity of frames and geographical contexts here is striking. Direct global impacts of climate and environmental changes like droughts, floods, weather extremes and sea level rise, or new diseases, economic growth and energy security are identified on a national policy-making level. The dominant concern related to the climate-security nexus is, however, mainly located in developing countries and regions in Africa (e.g. the Sahel) as well as the SIDS. References and linkages to conflict, development, health, global inequalities and loss of economic growth are thereby highlighted. Furthermore, the assessment shows that Belgium mainstreams security issues into its national climate policies because of its own climate vulnerability. It can be observed that, knowing the

extent of domestic climate risks, Belgium has progressively mainstreamed climate change into its international policies by first promoting bilateral aid for climate change adaptation in developing countries, especially to traditional aid partners or unstable regions. Thus, Belgium made the climate-security nexus a key element of its mandate at the United Nations Security Council (UNSC) with regard to conflict prevention in particular.

BELGIUM: CLIMATE CHANGE AND THE UNSC

In 2018, Belgium became part of the *Group of Friends on Climate and Security*, which aims to enhance actions on climate-related security risks within the United Nations (German Federal Foreign Office 2018). During its previous UNSC membership (2007-2008), Belgium was already among the supporters in the first-ever debate on the security implications of climate change (UNSC 2007). The nexus is again a priority of Belgium's during its current membership in the UNSC (2019-2020). It aspires to cooperate closely with Germany in this regard to show that "security is not just armed conflicts" and that the consequences of climate change must be considered (Reynders 2019). Belgium has emphasized the importance of climate change in conflict prevention, especially in countries with high vulnerability, i.e., Least Developed Countries and SIDS. For these, and in unstable regions in particular, climate change is said to function as a threat multiplier and therefore presents direct and indirect implications for international security that need to be addressed. Belgium also highlights the need for knowledge transfer on the nexus from different institutions within the UN system (e.g. the IPCC and UNEP) to the UNSC in order to bring them together to address security threats (MFTD 2018). The African continent and the Sahel region in particular is a security priority of Belgium's, for whom the interlinkage between climate change, development aid, diplomacy and even military presence is regarded as an important aspect of conflict prevention (Reynders 2019). Belgium supports the United Nations Office for West Africa and the Sahel (UNOWAS) and highlights the mission's important role "in studying the impact of climate change on security, as part of 'conflict prevention' approach" (Pecsteen de Buytsverve 2019). The Middle East, Central Asia, and Pacific and Caribbean islands are also described as increasingly unstable and insecure due to climate change (UNSC 2019). Since 2019, Belgium

has been promoting the idea of greening the UN peacekeeping operations and operational consideration of climate risks (UNSC 2019; Van Vlierberge 2019).

During the recent 2020 Arria-Formula meeting, which Belgium co-organized, the Belgian representative recommended further mainstreaming of climate-related security risks into the mandates of the UN and UNSC, including their in-country actions, and better equipping missions with personnel and training (Van Vlierberge 2020). Furthermore, the need for improved data and information management in risk assessments was highlighted. Belgium suggested establishing a “clearing house” within the UN to provide the UNSC with relevant expertise and expressed support for the Climate Security Mechanism. Accordingly, based on this strengthened supply of information, the secretary-general could make reports to the UNSC on climate-related risk and the regions most affected through, for example, horizon-scanning, and include recommendations for preventive measures. Finally, Belgium emphasized the importance of including civil society and, especially, the role of women when looking at these issues (Van Vlierberge 2020).

4.2. FINDINGS ON THE CLIMATE-SECURITY NEXUS IN CHINA

Based on the analysis and substantial contribution by Juha Vuori

As illustrated in the table below, the climate-security nexus is acknowledged in China's traditional security sector, and the military has a broader mandate to address disaster relief and reforestation as well (Information Office 2011:33). Beginning in 1996, China introduced a new concept of security, which includes environmental issues alongside matters of defense, the economy, religion and geopolitics, among other aspects (Information Office 2004, 2006). Due to this broad approach to security, the presented findings that are categorized into three security approaches may appear, at times, to overlap and be in close dialogue with one another.

Table 6: Findings on the climate-security nexus in China's traditional security sector

ACKNOWLEDGEMENT	CONTENT
White Papers on National Defense	Considers environmental pollution (Information Office 1998); environment (Information Office 2004); environmental disasters (Information Office 2008); climate change as a security threat and global challenge alongside terrorism, transnational crime, economic insecurity, natural disasters and health concerns (Information Office 2011).
2008 Expert committee on climate change within the People's Liberation Army	The committee was established with its main focus on disaster relief issues. It consists of experts from the National Development and Reform Commission, Ministry of Foreign Affairs, Ministry of Science and Technology, China Meteorological Administration, State Bureau of Oceanography and National Natural Sciences Foundation Commission (Bo 2016; Freeman 2010).

Source: Elaborated by the authors based on Juha Vuori's research results.

The analysis of the China case study shows many empirical findings in reference to the extended security sector. As illustrated in the table below, climate change has increasingly become a part of fundamental policies at the domestic level in the last several years. While the focus lies mainly on domestic policies, there are some cases in which climate change is included in diplomatic efforts. In joint declarations on climate change by the US and China over the years, both "recognize that the increasing dangers presented by climate change measured against the inadequacy of the global response requires a more focused and urgent initiative" (NSCS 2013). Both countries "have a critical role to play in combating global climate change, one of the greatest threats facing humanity" (US Press Secretary 2014) and announced their united support of the United Nations Framework Convention on Climate Change (UNFCCC) and the implementation of the Paris Agreement "to win the fight against the climate threat" (US Press Secretary 2016). Indeed, "tackling climate change" was seen, rather than an urgent issue

of security, as a chance to “strengthen national and international security” (US Press Secretary 2014). This international policy approach can also be found in China’s South-South cooperation on climate change mitigation, in which China operates under the consideration of “mutual benefits” (NDRC 2013:60).

Table 7: Findings on the climate-security nexus in China’s extended security sector

ACKNOWLEDGEMENT	CONTENT
Change in domestic climate policy of National Development and Reform Commission	Identifies the dire effects of climate change on the domestic situation and presents China as among the states most vulnerable to them: “weather and climate disasters have impacted China’s economic and social development as well as people’s lives and property in a large degree” (NDRC 2012:2).
Mainstreaming of climate change in Chinese society, economy and policy line	Incorporation of climate change into the main Chinese policy line and the mainstay of Xi’s ideological formulation of “socialism with Chinese characteristics” that entails the prioritization of ecological development and its incorporation into socialist ideas, e.g. through promoting green, cyclical and low-carbon development (NDRC 2013:2).
National Climate Change Plan (2014-2020) considers security impacts	Climate change has an impact on “China’s economic and social development and is essential to maintain economic, energy, ecological, food security and the safety of people’s lives and property” (NDRC 2014: foreword).
President’s holistic overall security outlook on ecological security	Contains “ecological security,” among other things (生态安全, <i>shengtai anquan</i>). This “holistic” understanding of national security is characterized by the combination of traditional and new approaches to security. Other issues areas covered are “the spheres of politics, territory, military, economy, culture, society, science and technology, information, ecology, nuclear, and natural resources” (Xinhua 2014).
War on pollution by President Xi’s administration	Declaration of <i>war on pollution</i> through reduction of air pollution (Reuters 2014).
Five-Year Plan (2016-2020) includes climate change	Contains the aim of keeping China ecologically secure and includes national climate policies. The plan states that China is working “hard to both adapt to and slow down climate change” and “take active steps to control carbon emissions, fulfill our commitments for emissions reduction, increase our capability to adapt to climate change, and fully participate in global climate governance, thus making a contribution to the response to global climate change” (NPC 2016:136).
Ministry of Environmental Protection (MEP) and Ministry of Ecology and Environment (MEE) reports on the state of the environment	Direct impacts of climate change for China include: desertification, water shortage, sea level rise, air pollution, mudslides, ocean acidification, loss of biodiversity, and zoonotic diseases (can spread to humans due to changing environments) (MEP 2012, 2014, 2016; MEE 2017).
Holistic security as part of Socialist Chinese Policy	The policy includes, among other aspects, “ensuring harmony between human and nature” and is a part of “socialism with Chinese characteristics in the new era.” Policy is influenced by a “holistic approach to national security” that includes elements such as “traditional and non-traditional security, and China’s own and common security” with the intent to “foster new thinking on common, comprehensive, cooperative, and sustainable security” (Xi 2017b).

Source: Elaborated by the authors based on Juha Vuori’s research results.

In terms of an existential security perspective, the Chinese case study contains a special feature within this larger research project. The following table shows some examples of the acknowledgment of the climate-security nexus from an existential security perspective in the party constitution, the US-Chinese joint statement and in the context of the UNFCCC. In addition to these examples, it is a common and longstanding rationale in Chinese policy that climate change poses an urgent threat to all humankind. Climate change is presented within this policy line as a threat to shared human survival but not as much of a threat to China's national security directly, because these are seen as two different issues, the latter being focused on the state and the ruling state party. Since 2008, developing countries in particular have been regarded as being confronted with an existential threat and constraints to the "development of human society," which could be causing social instability (Information Office 2008).

Table 8: Findings on the climate-security nexus in China from an existential security perspective

ACKNOWLEDGEMENT	CONTENT
US-China joint statement on climate change in 2014, 2016	A prominent instance of climate diplomacy and an example of the existential security approach is the US-China joint presidential statement on climate change, in which both states "have a critical role to play in combating global climate change, one of the greatest threats facing humanity" (Office of the Press Secretary 2014) and the united support of the UNFCCC and the implementation of the Paris Agreement was announced "to win the fight against the climate threat" (Office of the Press Secretary 2016).
The Chinese Constitution (2017) of the Communist Party contains the aim of building a socialist ecological civilization	"The Communist Party of China shall lead the people in building a socialist ecological civilization. It shall strengthen the philosophy underlying ecological civilization that nature should be respected, adapted to, and protected... and take a positive path to development that ensures increased production, higher living standards, and healthy ecosystems" (Constitution 2017).
The connection between the effects of climate change and China's domestic security concerns is expressed in China's action report to the UNFCCC	"To act on climate change in terms of mitigating greenhouse gas emissions and enhancing climate resilience, is not only driven by China's domestic needs for sustainable development in ensuring its economic security, energy security, ecological security, food security as well as the safety of people's life and property and to achieve sustainable development, but also driven by its sense of responsibility to fully engage in global governance, to forge a community of shared destiny for humankind and to promote common development for all human beings" (NDRC 2015:2).
Holistic security as part of Socialist Chinese Policy	The "Beautiful China Initiative" outlines the plan to implement the UN 2030 Agenda for Sustainable Development and the development of a "harmonious" coexistence between humans and nature. In this vision, nature is to be "guarded rather than fought" and a "community of a shared future of mankind" (人类命运共同体, <i>ren lei ming yun gong tong ti</i>) is emphasized (Xi 2017a).

Source: Elaborated by the authors based on Juha Vuori's research results.

Indeed, President Xi Jinping has made environmental issues and an emphasis on “global ecological security” a major part of his policy. He has noted that China has taken a leading role in international climate change cooperation and become “an important participant, contributor, and torchbearer in the global endeavor for ecological civilization” (Xi 2017b:4). Xi has listed climate change among common uncertainties and destabilizing factors such as terrorism and infectious diseases that all of humanity must face (Xi 2017b). Therefore, the “common aspirations” of all nations with regard to the climate issue is emphasized, as the impacts of climate change are global (NDRC 2013:3). Xi has expanded the narrative with the concept of “a community with a shared future for mankind,” for whom tackling climate change and protecting the planet is an existential question (Xi 2017b:53).

In current Chinese policy documents, climate change is listed among a number of issues that challenge human survival on a global scale, and environmental and climate security are also part and parcel of a current overall security outlook that also emphasizes collective and universal security. The government focuses on the effects of climate change on human security in terms of social development, lives, and property. Yet “harmony between human and nature” (Xi 2017b:20) goes beyond security in that it is a vital aspect of “socialism with Chinese characteristics in the new era” (Xi 2017b:22) – an essential part of Xi’s thinking. This indicates that climate change is recognized as a security issue, but the referent object is humanity in general rather than the Chinese nation; therefore, tackling climate change falls to international efforts in which China is expanding its leadership role. Nevertheless, China’s national security focus is still mainly on political security, separatism and terrorism. At the same time, concepts like “ecological civilization” (Xi 2017b:20) have become an integral part of the overall ideology of socialism with Chinese characteristics. While this may be the result of security-oriented thinking, it is not legitimated in national security speech. Climate change is widely mainstreamed in domestic policies; however, it is not a primary security concern.

CHINA: CLIMATE CHANGE AND THE UNSC

Since the first discussion of the topic in 2007, China has positioned itself against the inclusion of climate change as a security issue in the UNSC. The main argument has been that climate change is an issue of “sustainable development” rather than security. Accordingly, the UNSC, as the key instrument in the Council, is not responsible for tackling the issue and lacks the expertise necessary to deal with it (UNSC 2007). Despite this, China approved the 2011 UNSC presidential statement that described climate change as a “threat multiplier” (UNSC 2011). China nevertheless maintained its stance on the fundamental role of development and the view that the Council does not have the “means and resources” to address climate change. There has been a major change in this position. During the 2019 UNSC open debate, the Chinese representative stated that “climate change is a major challenge that affects the future and destiny of humankind” because of the havoc it wreaks and its impacts on water and food security and human life. Crucially, though, these issues are “disruptive factors in certain regions, undermining peace and stability.” China’s representative emphasized the need to “uphold multilateralism and foster a sense of community and shared future for humankind” over individual solutions. Development is still regarded as the main response to climate change-related issues such as “food insecurity, humanitarian crises and mass migration.” Accordingly, efforts need to work toward what the Chinese representative framed as “a world of lasting peace, universal security, common prosperity, openness and inclusiveness – a world that is clean and beautiful” (UNSC 2019).

During the recent Arria-Formula meeting in April 2020, the Chinese representative confirmed this standpoint and underscored that climate change represents a global challenge and poses a threat to food and water security and stability, especially during the COVID-19 pandemic. To address these threats, he emphasized stronger international cooperation and coordination and the inclusion of all UN entities in their respective mandates. Due to the various understandings of the linkages between security and climate change, the representative expressed the need for further, country-specific analysis (Zhang 2020).

4.3. FINDINGS ON THE CLIMATE-SECURITY NEXUS IN THE DOMINICAN REPUBLIC

Based on the analysis and substantial contribution by Ana Sofia Ovalle

The Dominican Republic (DR) is highly vulnerable to natural disasters such as hurricanes and floods, which are especially relevant in relation to the security implications of climate change. In 2007, extreme tropical storms Olga and Noel, which caused multiple deaths and internal displacement and heavily impacted the country's economy, helped encourage a shift in Dominican environmental legislation and contributed to climate change becoming a political concern (ECLAC 2008). In response to the country's vulnerability, the state has put in place several legal instruments and entities related to national emergency. This is how disaster risk management and climate politics have been mainstreamed and, importantly, have come to underpin various policies in a very broad and integrated way. The Ministry of Environment and Natural Resources (MENR) is the principal body responsible for environmental issues, and it cooperates with regional and international actors to fund and implement related projects. The National Council for Climate Change and Clean Development Mechanism (NCCCCDM), chaired by the President, is responsible for formulating, implementing, and enforcing climate change policies and projects. The council also coordinates climate change efforts across different ministries.

While the analysis did not detect acknowledgements of the climate-security nexus in the traditional security sector in the time period available for research, some of the institutionalized approaches (see table below) are related to the Ministry of Defense, which demonstrates a concern on environmental issues and disaster risk management. This underpinning concern of vulnerability to climate change has been especially detected in the long list of findings on the climate-security nexus in the extended security sector (see below).

Table 9: Findings on the climate-security nexus in the Dominican Republic's extended security sector

ACKNOWLEDGEMENT	CONTENT
Ministry of Defense, National Environmental Protection Services (SENPA)	The institutional body SENPA, created in 2000, aims to monitor, detect, prevent and control environmental criminal activity throughout the national territory and also reports directly to the Ministry of Environment. SENPA is directed by military personal, works alongside the Ministry of Environment and plans national reforestation actions. In 2012, environmental border security capacity was reinforced with soldiers (SENPA n.d.). Recently, 881 individuals were arrested for violating the Environmental and Natural Resources Law (64-00) (SENPA 2020).
Emergency Operation Center (EOC)	In 2002, Congress promulgated the Risk Management Law (147-02), which resulted in the creation of the EOC. This objective of this operational body is to integrate all key institutions in the preparation for and response to national emergencies from a cross-cutting perspective. The military is included in part, and the office operates under executive power in the case of an extreme event (EOC n.d.).
National Council for Climate Change and Clean Development Mechanism	The council, established in 2008, is an inter-institutional body under executive power which formulates and coordinates national climate change policies with a cross-cutting view. It is chaired by the president and includes various ministries (e.g. MENR and MEPD) and civil society institutions as well as the private sector (NCCCCDM n.d.).
2010 Economic Development Plan Compatible with Climate Change	The 2010 plan was developed with funds from the German government and technical guidance from the Coalition for Nations with Tropical Forests. The plan is a fundamental strategic tool that established the GHG reduction goals and serves as the basis for mitigation actions. Since the DR's GDP is very vulnerable to extreme event incidences, the plan aims to double the GDP while reducing GHG emissions by 65% by 2030 (NCCCCDM 2010).
2011 Strategic Plan for Climate Change	The 2011 plan outlines the addressing of climate change over the course of twenty years (2011–2030). Its objective, among others, is to achieve high capacities for climate change adaptation based on community knowledge. In particular, the adaptation of sectors vulnerable to disaster risks—e.g. food security, water and marine resources (especially in tourist areas), infrastructure, health, biodiversity, and energy—is envisaged (NCCCCDM 2011).
National Emergency Commission, 2011 Integrated National Risk Management Plan	The commission is responsible for natural disaster policies and is composed of several entities, e.g. the Ministries of Defense, Environment and Health. It defines principles for the political sector but also the public and private sectors to reduce the risk of disasters and guarantee better security conditions for the population and the economy as well as social, environmental and cultural heritage. Climate change is mainstreamed in relation to disaster risk management as the DR is increasingly exposed to extreme events. In this context, the severe impacts of climate change and the need for resiliency are highlighted. Key aspects of the policy are prevention, mitigation, early warning systems and post-disaster management. The plan describes the security implications of climate change in relation to the population's vulnerability to these aforementioned aspects. In response, sustainable production and consumption as well as societal adaptation are highlighted (NEC 2011).
2012 National Development Strategy	The Ministry of Economy, Planning and Development (MEPD) strategy is a long-term vision for national development until 2030. One key element in relation to climate change is the development of a sustainable economy through the establishment of efficient and renewable energy systems (MEPD 2012). The strategy also mainstreams integrated risk management and environmental sustainability, which exemplifies the nation's vision for tackling the country's vulnerability to the risk of climate change-related disasters.

2016 National Climate Change Policy	The MEPCD and NCCCCDM (2016) elaborated the National Climate Change Policy to establish future actions within the political system. Among its objectives is the incorporation of climate change as a transversal political issue and linking climate change to other cross-cutting policies. It promotes a political and institutional framework that supports low-carbon development and enhances climate change resilience.
2015 Nationally Determined Contribution (NDC)	The NDC notes that the DR “is a middle-income country, however, it faces a number of development challenges, such as: poverty, education, health, security, etc. that exacerbate the challenge of adaptation and decoupling emissions from the economy” (NDC 2015: 2), and it includes a focus on climate adaptation in key elements such as food security, extreme events, risk management and early warning systems. It also contains a chapter on loss and damage highlighting DR’s vulnerability to extreme events.
2016 National Adaptation Plan for Climate Change	The plan was established by the NCCCCDM, the Ministry of Environment and Natural Resources, and the United Nations Development Programme with the support of the Plenitud Foundation for the time period 2015–2020. The plan’s vision is “a country resilient to climate change” through increased adaptation capacity to extreme weather events. It outlines the reorganization of the current system and includes local communities as well as broader stakeholders in risk management. The incorporation of adaptation measures in infrastructure and (social and economic) capital investment as well maintenance operations is envisaged. The establishment of smart cities with disaster risk reduction and early warning systems is also encouraged. The key sectors considered are water and coastal-marine resources, biodiversity and forests, agriculture and food security, health, human settlements, infrastructure, energy, and tourism. Water and food security especially are defined as being vulnerable to extreme weather events such as droughts and rainfall phenomena (Plenitud et al. 2016).
2018 Gender and Climate Change Action Plan	The plan was elaborated by a collective of representatives from government, civil society, research institutions and international organizations. It attempts to integrate gender equality into climate change mitigation and adaptation policies. The DR “is among [...] most affected by climate events worldwide, and, in terms of gender equality, it is the fourth most unequal country in Latin America and the Caribbean, after Haiti, Panama and Guatemala. While women have important capacities as agents of transformation, they also have specific vulnerabilities that tend to be exacerbated in the presence of extreme climate events because they normally have fewer opportunities to access and control resources” (MENR et al. 2018: 11). To reduce inequality and vulnerabilities at the same time, a gender-sensitive approach to disaster management is among those envisaged; the approach considers “women’s economic security as well as physical and sexual security as they are more threatened in disaster situations” (MENR et al. 2018:11).

Source: Elaborated by the authors based on Ana Sofia Ovalle’s research results.

Climate change threatens the very existence of island states such as the Dominican Republic. This existential threat and the fact that climate change is mentioned in the constitution are categorized as examples of an existential security perspective (see table below).

Table 10: Findings on the climate-security nexus in the Dominican Republic from an existential security perspective

ACKNOWLEDGEMENT	CONTENT
The Dominican Republic's constitution, 2015	In 2010, the DR embarked on a constitutional amendment process in which the NCCCCDM as well as local environmental groups brought climate change issues to Congress members' attention through public consultations and several open discussions. Consequently, climate change mitigation and adaptation practices were incorporated in a constitutional amendment. Article 194, Plan of territorial ordering, states: "The formulation and execution, through law, of a plan of territorial ordering that ensures the efficient and sustainable use of the natural resources of the Nation, in accordance with the necessity of adaptation to climate change, is a priority of the State." In addition, Article 67, Protection of the environment, holds that "Preventing contamination, protecting and maintaining the environment for the enjoyment of present and future generations constitute duties of the State" (Constitution 2015).
2019 UNSC concept note to open debate	"Disasters are not the only climate change-induced developments that affect security. Slow-onset hazards such as sea-level rise endanger the very existence of some small island developing States, especially the atoll nations in the Pacific and Indian Oceans" (UNSC 2019a:4).

Source: Elaborated by the authors based on Ana Sofia Ovalle's research results.

The DR's vulnerability to climate change is acknowledged by external actors as well. The USAID assessment report (2013) on climate change vulnerability describes aiming for a further "understanding of climate change impacts, both current and future, on resources that are critical to human safety, security, and prosperity – namely watersheds and coastal resources—in four climate-sensitive hotspots" (USAID 2013:9). Subsequent USAID reports have also described the DR's extreme vulnerability to the impacts of climate change (USAID 2017; 2018).

Generally, it was observed that, although the country's strategic actions do not reflect a strong connection between climate change and hard security such as the military, climate change is a relevant issue regarding human security in both national and international affairs. The creation of the NCCCCDM and the constitutional amendment in particular illustrate the political consideration of climate change as a national concern and the concern with the security threat posed by weather events linked to climate change. Based on the literature reviewed and connections elaborated above, the research demonstrates the importance of climate change in the DR's national agenda due to its climate vulnerability, which directly affects the livelihoods of its population through human security aspects such as food and water security and particularly with respect to weather extremes.

DOMINICAN REPUBLIC: CLIMATE CHANGE AND THE UNSC

In context of the UNSC, climate security is one of the Dominican Republic's main priorities during its membership (2019–2020). During its term as UNSC president in January 2019, the country initiated an open debate on *Addressing the impacts of climate-related disasters on international peace and security*. In the concept note to the debate, the country highlighted the need to include climate change in the Council's agenda as it affects as "one of the most urgent challenges the maintenance of international peace and security," and it argued that, because addressing these risks goes beyond the mandate of the UNFCCC, climate change's risks "fall under the responsibility of the Security Council" (UNSC 2019a). During the debate, the Dominican Republic therefore highlighted its own vulnerability to extreme weather events as well as the need to address the challenges collectively and throughout the entire UN system (UNSC 2019b).

In the recent Arria-Formula meeting in 2020, the Dominican Republic's representative underlined the need for the full attention of the UNSC to be on this non-conventional threat because of its impacts on vulnerability, poverty, economy, displacement and insecurities, especially in developing countries. He further stated, "For many of us, it is a matter of existence. In the Caribbean the effects of climate change are not one of the major factors for social and economic challenges, it is the factor that creates multiple threats for [our] economies and our livelihoods." Solidarity, moral share and responsibility are thus necessary to prevent climate change from becoming a direct cause of conflict, as it constitutes the "greatest global challenge facing humanity." The Dominican Republic highlighted the need to consider climate change in the Council's agenda, including in operations on the ground. Therefore, the strengthening of the Council's expertise on the matter through, e.g. "tools to systematically assess the relationship between the effects of climate change and conventional risks, particularly in vulnerable areas" (Singer 2020) is seen as a necessity.

4.4. FINDINGS ON THE CLIMATE-SECURITY NEXUS IN ESTONIA

Based on the analysis and substantial contribution by Evelin Jürgenson

Based on the analytical focal points of this research, the table below illustrates that the climate-security nexus is acknowledged within Estonia's traditional security sector and includes concerns about domestic and foreign affairs. Generally speaking, Estonia's national security is seen as part of a wider international security effort and is therefore influenced by interconnections and global trends such as climate change (Estonian Parliament 2017a).

Table 11: Findings on the climate-security nexus in Estonia's traditional security sector

ACKNOWLEDGEMENT	CONTENT
2010, 2017 National Security Concept	<p>The 2010 security concept states: "Conflicts, tensions and instability may also be caused by the reduction or unequal division of arable land, fresh water and other natural resources. Deterioration of the environment, especially climate change, may add to instability, as it is the poorest and most vulnerable areas that are often affected, and the probability of natural disasters is increasing" (Estonian Parliament 2010:5). It also includes a section titled Environmental Security, which opens with: "Estonia's goal is to apply, through international cooperation, the measures required for tackling climate change and mitigating the risks stemming from it" and contains a focus on, among other things, pollution and the aim to enhance radiation protection and safety (Estonian Parliament 2010:19).</p> <p>In the 2017 concept, climate and environmental changes are said to potentially exacerbate tensions and cause conflict and global instability through their impact on livelihood and development (e.g. through the limitation of vital resources) in affected populations. Humanitarian emergencies and the state of the economic system are challenges for the international community. Accordingly, globalization creates risks for Europe through, for instance, violent conflicts, migration and extremism. To mitigate or even neutralize the risks caused by climate change and reduce vulnerability, the need for international cooperation and development assistance as well as conservancy and environmental protection is expressed. In addition, adaptation measures should be considered in all social dimensions (Estonian Parliament 2017a).</p>
2020 Ministry of Defense, public surveys on security	<p>The Ministry of Defense conducted a public survey which found that, while climate change presents possible threats, other threats are perceived as more urgent. Generally, a large part of the public perceives the world as unstable. Global climate change and worldwide economic crisis took fifth and sixth place in the threat ranking, after cyber-attacks, terrorism, migration and fake news. Nevertheless, the awareness of the connection between climate change and possible threats, as well as the consideration of climate change as a security threat, is growing (Turuuringute AS 2019). The same trend is visible among Estonian CEOs: 70% of the chief officers say that climate change is a considerable risk when planning their undertakings (PwC Estonia 2020).</p>

Source: Elaborated by the authors based on Evelin Jürgenson's research results.

Various ministries depict vulnerability and possible security implications at the domestic level in relation to rising sea levels and temperatures through the lens of the extended security sector. At the international level, the impact of climate change on increasing migration is highlighted in particular. Responses can be found in improved climate politics and strengthening resilience in foreign relations.

Table 12: Findings on the climate-security nexus in Estonia’s extended security sector

ACKNOWLEDGEMENT	CONTENT
2018 General Principles of Climate Policy	The General Principles of Climate Policy, established by the Estonian Parliament and Ministry of Environment, function as a political guideline for the economy and as sectoral policy guidelines for the mitigation of climate change. The principles emphasize a long-term, 80% reduction from 1990 greenhouse gas emission levels by 2050 (Estonian Parliament 2017b). The main goal is to ensure “the preparedness and resilience to react to the impact of climate change” (Ministry of Environment 2018).
2017 Climate Change Adaptation Development Plan	The plan, which the Ministry of Environment issued for the period until 2030, highlights how the state as such is becoming vulnerable due to climate change through rising temperatures and sea levels as well as more severe weather-related natural disasters and coastal erosion. Significant economic and social consequences for Estonian society (e.g. impacts on agriculture and food supply, health and infrastructure) are also expected. Reducing state vulnerability is envisaged through the mitigation of these risks by minimizing GHG emissions and through adaptation measures. However, the main risk is located outside of Estonia, especially in African countries with high vulnerability. Therefore, there is emphasis on development policy in relation to climate change. Estonia supports countries in climate adaptation measures mainly because of the possibility of increased migration to Europe and Estonia caused by climate change (Ministry of Environment 2017).
2016 Strategy for Estonian Development Cooperation	In the strategy issued by the Ministry of Foreign Affairs for Estonian development assistance, Sustainable Development goals (SDGs) are presented as guidelines for Estonian development cooperation with the goal of “strengthening resilience and adaptive capacity to climate-related hazards and natural disasters” (Ministry of Foreign Affairs 2016).

Source: Elaborated by the authors based on Evelin Jürgenson’s research results.

Another important characteristic that needs to be emphasized is the fact that security understanding in Estonia is strongly influenced by the country’s relationship to Russia (see Estonian Parliament 2017a). Therefore, Russia’s behavior constitutes Estonia’s main security priority (Estonian Foreign Intelligence Service 2019). This relationship is also reflected in the consideration of climate change. An example of the climate-security nexus can be found in the link between energy security and climate change. Estonia’s energy sector is relatively import-independent because the country produces nearly 90% of its domestic electricity need from large reserves of oil shale, which accounts for

approximately 80% of the country’s greenhouse gas emissions (World Energy Council Estonia 2016). While the Estonian government supports the low-carbon reform of its energy sector, it also points out that a stricter climate policy affects the country’s energy security (World Energy Council Estonia 2016). To improve the reliability of electric power and the gas supply, the Estonian National Energy and Climate Plan 2030 (NECP 2030) envisions joint projects between the Baltic states and synchronization with European continental networks to achieve independence from the Russian energy supply (Ministry of Economic Affairs 2019). Therefore, energy transition in response to climate change is considered a security implication in and of itself.

An existential security perspective can be detected in the Estonian constitution in references to the environment and future generations, and in the quotes from the Estonian President comparing climate change to a weapon of mass destruction at the 74th United Nations General Assembly in 2019.

Table 13: Findings of the climate-security nexus in Estonia from an existential security perspective

ACKNOWLEDGEMENT	CONTENT
1992 Estonian Constitution	The preamble pledges “to protect the peace and defend the people against aggression from the outside... which forms a pledge to present and future generations for their social progress and welfare.” In Article 53: “Everyone has a duty to preserve the human and natural environment and to compensate for the harm that he or she has caused to the environment. The procedure for compensation is provided by law” (Estonian Constitution 1992).
2019 Statement by the Estonian President	“We took this responsibility [of the elected seat in the UNSC] because we care. We care about the weaker and the weakest among states and within societies. We care about those whose voice needs amplification by the multilateral world in order to be heard. [...] We care about nations facing extinction through the slow weapon of mass destruction– the climate catastrophe. We care about nations facing famine, and famine-induced disturbances due to climate change. We care about nations depending on this multilateral co-operation, based on the rule of law, which is the United Nations. We care because we know that true harmony for humankind– never yet achieved– depends on our capability to show compassion for the fate of others. Multilateralism is nothing but showing compassion for the fate of others” (Kaljulaid 2019).
2020 Statement at the Climate Security Berlin Conference	Climate change “poses an existential threat to small island developing states” (MFA 2020).

Source: Elaborated by the authors based on Evelin Jürgenson’s research results.

The findings show that all three security perspectives have been detected, and that the different threat descriptions range from the national level to the international and global levels. The responses refer mostly to the improvement of climate politics and the fostering of multilateralism.

ESTONIA: CLIMATE CHANGE AND THE UNSC

In 2018, Estonia joined the *Group of Friends on Climate and Security* with the aim of enhancing actions taken on climate-related security risks within the United Nations system (German Federal Foreign Office 2018). Climate change is a priority of Estonia's membership in the UNSC (2020-2021). The connection between climate change and security is clearly made and communicated. Estonia emphasizes that security considerations need to include aspects like climate change that go beyond national borders, and it highlights the fact that consequences of climate change in conflict regions (e.g. the African Great Lake region) are likely. Climate change and related natural disasters and extreme events can cause migration, impoverishment (through water and food scarcity) and, consequently, increase pressure on conflict situations. Therefore, Estonia sees the need to consider climate change in the UNSC and extend the Council's mandate accordingly (Ministry of Foreign Affairs 2019).

During the recent UNSC Arrria-Formula meeting in April 2020, the Estonian representative underlined the implications of climate change as a "driver to insecurity" and the "existential" threat that the SIDS in particular are confronted with. The Estonian representative suggested implementing comprehensive and strategic planning in order to achieve the preparedness necessary to respond to climate-related security risk. Estonia therefore demanded better coordination within the UN (e.g. reporting by the secretary-general and the consideration of impacts on peacekeeping missions) and on the national, regional and international level as well. To expand expertise on the topic, according to Estonia, a framework for knowledge sharing that shows best practices of analysis and forecasting tools is needed. Modern technology should be considered to create the digital infrastructure necessary to guarantee accessibility and meet challenges (Jürgenson 2020).

4.5 FINDINGS ON THE CLIMATE-SECURITY NEXUS IN FRANCE

Based on the analysis and substantial contribution by Adrien Estève

Acknowledgement of the climate-security nexus within France's traditional security sector have been detected in several strategies and a white paper from the Ministry of Armed Forces (see table below). The focus here is mostly on how climate change erodes resilience in fragile countries through conflicts and migration, but the paper also highlights effects on the defense sector in terms of infrastructure, management of natural disasters and the opportunities for strengthening dialogue and cooperation on the topic. While foreign affairs constitutes the dominant focus, the effects on French overseas territories are also considered.

The 2015 COP21 forum and the resulting Paris Agreement have had a substantial influence on France's policies. Since the beginning of the Macron presidency in 2017, climate change has become a key part of France's foreign policy through the creation of new international initiatives, and it has become a dominant framework in domestic policy as well. The COP21 forum also affected the traditional security sector. In preparation for COP21, a study on the security implications of climate change was presented at the 2015 conference *Defence and Climate* (MAF 2018b). This study subsequently became a part of the current military doctrine called the *Strategic Review of Defense and National Security* in 2017 (MAF 2017). A notable feature of this doctrine is a special research unit, the Observatory of Climate Change Impacts on Defence and Security (OCCIDS). More recently, other important agencies (see table below) have been conducting analysis on the topic, and France's involvement in the multilateral coalition International Military Council on Climate Security illustrates growing concern about the climate-security nexus.

Table 14: Findings on the climate-security nexus in France’s traditional security sector

ACKNOWLEDGEMENT	CONTENT
Ministry of Armed Forces’ (MAF) 2008 white paper on defense and national security	The 2008 white paper contains several references to climate change in relation to the military outlook (MAF 2008), and the 2017 strategy establishes connections between climate-induced crises (floods, droughts) and security issues (migrations, armed conflicts). It describes climate change as a “risk” or “hazard” multiplier, particularly in terms of climate migration (MAF 2017).
2017 Strategic Review of Defense and National Security	“Unpredictability and the combination of new forms of risks and threats are now the predominant norm in the strategic environment. The National Security and Defence Strategic Review published in October 2017 highlights ‘an era of great turbulence’, characterised in particular by an amplification of the effects of the risks and threats already identified in the 2013 Defence and National Security White Paper. Climate change is at the forefront of these risks” (MAF 2018b).
2018 Defense and Climate Report	In the 2018 report, climate change is said to erode resilience in fragile countries and potentially exacerbate conflicts. Adaptation of military operations is envisaged, as is the commitment to sustainable development. France and its overseas territories in particular are affected by climate change: “The goal is to provide a collective response, based on the mobilization of French, European and international public and private actors. Although a potential source of tension, these common environmental and climate challenges can also be a source of renewed and extensive dialogue, as well as a ground for effective cooperation between States” (MAF 2018a:3).
Observatory of Climate Change Impacts on Defense and Security (OCCIDS)	<p>The research entity, created in 2016, provides the MAF with a tool to anticipate future climate-induced security risks. OCCIDS works on climate risks within the Directorate General for International Relations and Strategies (DGRIS) and was also involved in the 2019 International Military Council on Climate Security, which is a forum that aims to explore the “high-order security risks” and “geopolitical impacts” of climate change as well as its impact on “military and defense” (IMCCS 2020).</p> <p>The geographic foci are the South Pacific, South Asia, the Indian Ocean, East and North Africa and the Sahel Region (DGRIS 2020). OCCIDS analyzes the resilience of critical infrastructures in relation to climate change, the management of rescue operations during natural disasters, the surveillance of maritime spaces and how climate change can fuel existing tensions (OCCIDS 2018, 2019).</p>
Institute of Advanced Studies in National Defense (IHEDN)	The institute, which falls under the purview of the Office of the Prime Minister, develops strategic thinking and defense studies at the highest level of responsibility. Every year, it offers advanced training on contemporary security and military issues (known as “Defense Policy”) to select public and private executives as well as high-ranking military personnel. Forthcoming reports for the academic year 2019-2020 address the <i>Consequences of Climate Change for Security and Defense</i> (FMES 2019).

Source: Elaborated by the authors based on Adrien Estève’s research results.

Furthermore, it should be highlighted that current French military involvement in initiatives in the Sahel Region can be connected to the climate-security nexus. These initiatives are part of the mandate of the United Nations Multidimensional Integrated Stabilization Mission in Mali (MINUSMA), which addresses the adverse impacts on climate change on security, and that of the Sahel’s 2018 G5 doctrine (G5S 2018). France has also played an important diplomatic role in the international legitimization of the debate on climate security in the Sahel

through other important statements on the issue at the UNSC in 2018 and 2019 (Permanent Mission France 2018, 2019).

As seen through the lens of the extended security sector, acknowledgement of the climate-security nexus spans a broad array of institutional approaches and agencies such as the Ecological Defense Council (see table below). Other international initiatives such as the *One Planet Summit* (MEFA 2017) or *Make Our Planet Great Again* (President of France 2017) reveal a particular concern with the issue. Also worthy of attention in this context is the constitution of a citizens' panel that was established in response to the *gilets jaunes* (yellow vests) protests (see table below).

Table 15: Findings on the climate-security nexus in France's extended security sector

ACKNOWLEDGEMENT	CONTENT
2009 Grenelle I law	Names the "fight against climate change" as its aim and states the necessity of financing research programs on "infectious diseases and sanitary risks linked to climate change" (Légi France 2009).
2017 French Development Agency's (FDA) Adapt'Action program	The FDA launched the program in 2017 following COP21. Its aim is to ensure international adaptation to climate change and tackle climate risks (in relation to economic and human risks) through improved governance mechanisms, better environmental policymaking and innovative engineering projects. It applies to France's partners in Africa, the Caribbean and the Indian Ocean (FDA 2017).
2018 High Council for Climate	In 2018, the president created the council as a new independent advisory authority that gathers thirteen experts from various scientific fields and publishes a critical annual report on France's climate policies. The first report highlighted the insufficiency of France's carbon reduction policies and also issued a general alert about the lack of resiliency of France's forests against wildfire risks (HCC 2019).
2019 Ecological Defense Council (EDC)	Created in 2019 by President Macron, the EDC is a council of various Ministers that deals with environmental issues and makes recommendations to the government on both ecological transition and climate change policies (e.g. preventative flood risk policies). The council has met four times so far (Presidency 2020).
2019 citizens' panel on climate politics	In 2019, the constitution of a citizens' advisory panel (the Citizens' convention for ecological transition) on climate policies became a dominant framework in domestic policy. Created in response to the <i>gilets jaunes</i> protests criticizing inequalities caused by ecological transition measures (though fuel taxes in particular), this initiative strives to prevent tensions and build a more "democratic" and "concrete" approach to climate governance (Government of France 2019).
2019 National Assembly mission on climate imbalances and conflicts	The National Assembly has begun to interview members of the French security community and experts from the governmental initiative OCCIDS in order to develop a report on the linkage between climate change and armed conflicts by the summer of 2020 (NA 2020).

Source: Elaborated by the authors based on Adrien Estève's research results.

The issue of nuclear energy constitutes an additional noteworthy security dimension of climate change. During the 2019 heatwaves, France halted three nuclear reactors after river temperatures rose too high to cool them. A 2018 parliamentary inquiry committee on the safety of nuclear infrastructures had previously highlighted the Nuclear Safety Authority's lack of prevention measures regarding droughts and heat waves and had recommended improving its preventive framework (NA 2018).

France has also addressed the issue of food security in relation to climate change. In 2015, the Ministry of Agriculture and Food launched the *4 per 1000: soils for food security and climate* initiative, which aims to improve climate resilience through the development of new agricultural practices and carbon sequestration to reinforce "agricultural resilience" by sustainably protecting people from food shortages and land degradation in areas such as North Africa (MAAF 2016). In 2018, the Ministry of Europe and Foreign Affairs issued the Strategy of Development, which includes and highlights the link between climate change and food security (MEFA 2018).

France has experienced a large variety of climate hazards in its overseas territories. Since the early 2010s, these territories have been considered the primary focus in the study of extreme weather event impacts due to their natural fragilities (e.g. MAF 2017). 2017's hurricane Irma played an important role in changing how political and military leaders responded to extreme weather events provoked by climate change (President of France 2017). The destruction of numerous buildings on the islands of Saint Martin and Saint Barthelemy shed light on the French military's lack of preparedness in terms of assisting civilian populations in remote overseas territories (NA 2019; Senate 2019). To help ameliorate the effects of climate change overseas, France became part of the international initiative Climate Risks and Early Warning Systems (CREWS), which aims to build resilience in Least Developed Countries (LDC) and Small Island Developing States (SIDS) against climate-related natural events and reduce global disaster mortality. CREWS includes more than 40 countries and four international organizations (e.g. the World Bank) (CREWS 2018).

In the course of the research, a conception of security from an existential perspective was detected in constitutional references to the necessary protection of future generations and with respect to the SIDS.

Table 16: Findings on the climate-security nexus in France from an existential security perspective

ACKNOWLEDGEMENT	CONTENT
2004 constitutional reform	Since 2004, the constitution has included a special environmental chapter that describes the deterioration of the environment and lays out the right to a healthy environment, which includes the precautionary principle, the promotion of sustainable development and the obligation to protect the environment for the sake of future generations (Constitution 2015).
2011 Statement of the French representative at the UNSC	“The climate threat concerns us all. It is, in particular, a threat for our small island Pacific State partners, whose very existence is in peril, as is the survival of their territory, culture and identity [...]. The climate threat means that we must mobilize ourselves: first in the short term, to ensure the success of the Climate Conference in Durban and the Climate Change Conference in Rio; in the medium term, to prevent conflicts that could emerge; and in the long term to save the planet. My delegation is convinced that the Security Council must come back to this and in the future must express itself in a single voice. This is not over-ambitious; it is just taking account of the sad realities that we face” (UNSC 2011).

Source: Elaborated by the authors based on Adrien Estève's research results.

Generally speaking, a growing interest in the security implications of climate change can be detected in France's domestic and foreign affairs, while new programs, initiatives and institutions focused on identifying emerging climate risks have been established. France's military involvement in fragile regions such as the Sahel and the Pacific are also referenced in relation to the climate-security nexus via its linkage to *hard security* issues (such as terrorism and violent conflict). Under the current presidency going forward, France may seek to develop this globally-focused narrative internationally with its strategic partners.

FRANCE: CLIMATE CHANGE AND THE UNSC

Ever since the first debate in 2007, France has supported and become one of the biggest advocates of acknowledging the link between climate change and security within the UNSC (UNSC 2007). In 2011, for instance, France stated that climate change is a global threat with “destabilizing potential” due to its impact on food and water security, among other things. Climate change was said to threaten the “existence” and “survival” of small island states in the Pacific in particular (UNSC 2011). In 2016, France played an important role in the debate on climate security in the Sahel Region, noting that existing security challenges like migration, political instability and extremism could be especially aggravated by climate change. France pointed to the link between climate, security and development and argued that the international community needs a collective approach to counter these long-term challenges not only in the Sahel, but in other vulnerable areas of the world as well (Permanent Mission France 2016). France also emphasized the importance of considering climate change a security threat during the UNSC open debates in 2018 and 2019 (Permanent Mission France 2018, 2019) and, in 2018, France joined the *Group of Friends on Climate and Security*, which was initiated by Germany and Nauru with the aim of getting the topic on the UN’s political agenda (German Federal Foreign Office 2018).

More recently, in April 2020, France hosted the Arria-Formula meeting on climate and security risks, in which the French representative demanded that climate change impacts immediately become a key element of conflict prevention given that the effects on security are already evident (de Rivière 2020). Accordingly, the entire UN system needs to be included and its capacities (e.g. the Climate Security Mechanism) strengthened. France requested a resolution would give the secretary-general a mandate to conduct regular reports for the UNSC on climate-related risk and prevention recommendations, for which access to solid data would need to be provided. France also supports the appointment of a special envoy responsible for climate security to coordinate actions with the UN system (de Rivière 2020).

4.6. FINDINGS ON THE CLIMATE-SECURITY NEXUS IN GERMANY

Based on the analysis and substantial contribution by Franziskus von Lucke

Several acknowledgments of the climate-security nexus can be found in the traditional security sector (see table below). Whereas, in the 2000s and 2010s, the military only rarely participated in debates on the climate-security nexus and undertook few institutional responses, this has changed slightly in recent years. For instance, the 2016 white paper and the 2018 Sustainability Report mention climate security implications, and there has been an increase in forecast meetings and expert hearings on the matter. While climate change is still primarily seen as an issue to be tackled by civilian actors and (international) climate policy (BMVg 2019b), the defense sector and the military increasingly see a role for themselves in networked approaches to security, preventive climate foreign policy and in supporting the development sector (BMVg 2016, 2017). Beyond that, defense actors acknowledge the strategic importance of the effects of climate change on the defense sector and the necessity of further greenhouse gas reductions. Finally, they see an increasing likelihood that the demand for military support in cases of domestic climate-induced disasters (e.g. heatwaves, droughts and wildfires) could grow (Bundeswehr Journal 2018).

Table 17: Findings on the climate-security nexus in Germany’s traditional security sector

ACKNOWLEDGEMENT	CONTENT
2016 White paper on security policy and the future of the Bundeswehr	Issued by the Ministry of Defense (BMVg), the paper is the main government document on security and defense policy and describes climate change as a global trend impacting the “livelihoods of hundreds of millions of people” with “significant and life-threatening consequences for numerous states and their populations” (BMVg 2016:42). Accordingly, climate change has gained relevance for security policy as it exacerbates destabilization and conflict processes in regions of fragile statehood and can thus lead to violent disputes and migration. “Germany is therefore committed to anchoring climate change as a security policy issue in international organisations and forums such as the UN, the EU and the G7.” The focus is mainly on resilience building, conflict prevention and stabilization in affected regions (BMVg 2016:42), the fear being that instability and conflicts could spill over into Europe and Germany through, for example, migration, terrorism or humanitarian catastrophes following civil wars (BMVg 2016).
2018 Sustainability Report	The BMVg’s sustainability report (2018a) supports the Sustainable Development Goals (SDGs) and, in line with the “greening the military” discourse, envisages a reduction of the armed forces’ GHG output through energy savings, renewables and sustainable mobility.

Strategic forecast meetings in 2018, 2019	The BMVg has organized several meetings on climate change, such as the 2018 <i>Strategic Forecast: The Arctic Dialogue</i> meeting that addressed the impacts of climate change in the Arctic as well as questions related to security policy (BMVg 2018b). The 2019 meeting of the <i>Strategy and Foresight</i> network, composed of experts from politics, business, science and civil society, shows efforts to gather expertise on the climate-security nexus within the ministry and prepare for changed mission scenarios (BMVg 2019b). In the same year, a networking meeting on future scenarios concerned itself with the possibility of increased military deployments within NATO to manage migration flows and deliver humanitarian aid if global warming exceeds two degrees Celsius (BMVg 2019a). The connection between climate change and defense and its links to NATO cooperation was also the topic of a 2019 meeting of EU defense ministers in Helsinki (BMVg 2019c).
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Source: Elaborated by the authors based on Franziskus von Lucke's research results.

The lens of the extended security sector reveals that climate security argumentation appears with particular frequency in German foreign and development policy. The dominant focus here is on the negative effects of climate change on poor and vulnerable populations in the Global South as well as their human security. The most prevalent perception is one of climate change as a physical threat that will have several negative effects including extreme weather events, droughts, heatwaves and sea level rise. This will lead to the loss of livelihoods and arable land as well as to resource scarcity, food insecurity and famines (BMZ 2017; AA 2019d).

Debates at the domestic level focus mostly on disaster risk reduction, adaptation and strengthening resilience through the Ministries of Environment and the Interior. Especially since summer 2018, when heatwaves caused damage to the agricultural sector (Federal German Government 2018), and not least due to the massive Fridays for Future demonstrations, climate change has again become increasingly important in domestic political debates. This renewed attention led to the adoption of a new “climate package” in 2019 (Federal German Government 2019), which, however, has been widely criticized – even in internal reviews by the German ministries responsible (Traufetter 2020) – and has been challenged (so far unsuccessfully) in court cases by civil society organizations (Deutsche Welle 2020).

Table 18: Findings on the climate-security nexus in Germany's extended security sector

ACKNOWLEDGEMENT	CONTENT
Federal Foreign Office (AA) policy approach and practices	<p>The AA describes climate change as a potential “catalyst for conflicts” (AA 2019c:2) and as “one of the main security threats of the 21st century” (AA 2019a:1). It thus stresses the role of climate change in the erosion of state structures and in geopolitical as well as resource-based tensions (AA 2019d). However, in accordance with its broad understanding of security, the AA does not regard climate change as a single cause but rather as a risk multiplier which, in conjunction with other stressors, may increase the likelihood and intensity of conflicts, instability and migration (AA 2019a, c).</p> <p>In response, the emphasis is on holistic, networked and preventive approaches, and on climate-risk-management in particular (AA 2017). Thus, the goal is to combine climate, development and peacekeeping elements in order to prevent climate change from affecting the livelihoods and human security of people in the Global South. This could also contribute to preserving stability as well as global peace and security (AA 2019d, 2017). From 2011 onwards (AA 2011), climate foreign policy and climate diplomacy have become key approaches (AA and adelphi 2017). In this vein, the AA sees climate change as an opportunity to improve bilateral and multilateral relations, and it hopes to manage the negative consequences of climate change while simultaneously reaching international climate agreements. As part of this strategy, the AA also mainstreams climate security approaches into its embassies and diplomatic missions around the world (AA 2019d).</p> <p>In terms of concrete practices, the AA's aim is to prevent or control climate risks. Examples of this include a climate security pilot project in the Horn of Africa that utilizes a crisis early detection tool, the Platform of Disaster Replacement (AA 2019d), and the ECC Platform that facilitates exchange on conflict, cooperation and the environment (AA and Adelphi 2017). In 2019, the AA also initiated the Berlin Conference on Climate Security and issued the Berlin Call for Action (AA 2019b). At the second Berlin climate security conference in 2020, the ministry launched a Global Climate Security Risk and Foresight Assessment (AA 2020).</p>
Federal Ministry of Economic Cooperation and Development (BMZ), policy approach and practices	<p>The BMZ focuses on the human security implications of climate change and the mainstreaming of those implications into German and international development cooperation programs. The emphasis is on the most vulnerable people and on “comprehensive climate and disaster risk management” (BMZ 2019a:7-9). This includes a specific consideration of gender (e.g. the heightened vulnerability of women) as well as links to sustainability and the Agenda 2030 (BMZ 2017). A common concern is that climate change could lead to the reversal of development successes and increase global poverty (BMZ 2019b).</p> <p>Concrete practices include preventive measures and early warning and climate insurance schemes (BMZ 2019c) to enhance the resilience of vulnerable groups and states (BMZ 2019b). The InsuResilience Global Partnership initiative, for example, establishes climate finance and insurance partnerships with the aim of strengthening resilience to disasters and moving from ex-post to ex-ante disaster support (BMZ 2019c).</p>
Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (BMU) and Federal Environment Agency (UBA)	<p>In keeping with the discourse of ecological modernization, German climate policy, the BMU and the UBA are all motivated by a desire to modernize the economy through climate measures (BMU 2016). Moreover, they strive to avoid negative economic and societal consequences by taking early action (BMU 2018) and strengthening resilience as well as adaptation efforts in Germany (UBA 2019). In this context, the BMU and UBA established the German Adaptation Strategy and several adaptation action plans, set up an inter-ministerial working group on climate adaptation, and regularly issue monitoring reports on adaptation (UBA 2019).</p>

Federal Office of Civil Protection and Disaster Assistance (BBK) and Federal Ministry of the Interior (BMI)	The BBK increasingly issues reports and planning schemes that deal with the direct implications of climate change for civil protection and disaster management in Germany (BKK 2019a). The BMI occasionally considers the domestic implications of climate change in reports and policies concerning disaster and flood management (BMI 2018). Climate protection and adaptation measures are also considered in urban planning and housing promotion with the aim of ensuring healthy living conditions in cities (BMI et al. 2019).
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Source: Elaborated by the authors based on Franziskus von Lucke's research results.

Turning now to the conception of security as an existential issue, the constitution, descriptions of existential threats and references to the concept of planetary boundaries all constitute acknowledgements of the climate-security nexus from an existential perspective (see table below).

Table 19: Findings on the climate-security nexus in Germany from an existential security perspective

ACKNOWLEDGEMENT	CONTENT
Germany's constitution	While environmental problems are mentioned only indirectly, future generations and natural livelihoods are considered. Article 20a [Protection of the natural foundations of life and animals] holds: "Mindful also of its responsibility towards future generations, the state shall protect the natural foundations of life and animals by legislation and, in accordance with law and justice, by executive and judicial action, all within the framework of the constitutional order" (German Bundestag 1949:27).
White paper of the Federal Ministry of Defense (BMVg)	Holds that climate change has "significant and life-threatening consequences for numerous states and their populations" (BMVg 2016:42).
References to the exceeding of planetary boundaries, threatening of ecosystems and human survival	Several reports—in particular those from the BMU and the BMZ's policy approach and practices—see climate change as a broad systemic threat that could overburden and exceed the planetary boundaries (BMZ 2017; BMU and Schulze 2019) and overwhelm the planet's biological adaptation capacity. This could negatively affect or destabilize global or especially-vulnerable ecosystems (Federal German Government 2019b), lead to crucial losses of biodiversity (BMU 2018b), and ultimately render the earth uninhabitable (AA 2019) and become a <i>question of survival for humanity</i> (BMZ 2019b).
2019 Statement at the UNSC open debate	Statement by Foreign Minister Heiko Maas at the open debate addressing the <i>Impacts of Climate-related Disasters on International Peace and Security</i> , in which he described the effects of climate-induced disasters such as "rising sea levels and hurricanes [that] threaten the very existence of a number of island states" (UNSC 2019).

Source: Elaborated by the authors based on Franziskus von Lucke's research results.

Looking back, it becomes clear that while climate change and climate security perceptions have played a central role in German political debates since the 1980s, the 2007 report of the German Advisory Council on Global Change (WBGU 2007) on the security risks of climate change significantly intensified the climate security debate.

Climate change has gone from being a purely environmental issue to a key foreign policy and (broad) security issue in Germany. Debates and discussions on how climate change causes or exacerbates conflicts and threatens international peace, security and stability have led to increased attention from the BMVg and the Bundeswehr in recent years. Despite this transformation, however, climate change has never penetrated the country's narrow conception of national security and has instead mainly been linked to multilateral solutions and human security concepts. This is in line with both Germany's reluctance toward self-centered ideas of national security (Hellmann et al. 2006:187) and its emphasis on *shared sovereignty* and *collective security* that strives primarily to ensure international stability (Böckenförde 2014; Böckenförde and Gareis 2014). Thus, even in Germany's defense and foreign policy, climate change has mainly been discussed as a threat to the human security of impoverished people in the Global South, and actors have largely avoided connecting in to *hard security* or *national security*. Germany will most likely continue on this path for the foreseeable future, although increased direct impacts of climate change in the country will probably lead to increased integration of (broad) climate security aspects in domestic disaster response and civil protection policies.

GERMANY: CLIMATE CHANGE AND THE UNSC

Germany aims to promote climate security issues in international fora – most importantly in the UNSC. In 2011, Germany had already raised the issue in the UNSC (2011a) and organized the second debate (the first having taken place in 2007) on climate change and security. In the accompanying concept note, Germany stressed that “the impacts of climate change on peace and security are already tangible” and that climate change was a “risk multiplier” with respect to armed conflict, especially in already-fragile countries in the Global South (UNSC 2011b:2). A subsequent presidential statement declared

that climate change could add to existing peace and security threats in the long term (UNSC 2011c). During its current UNSC membership (2019-2020), Germany's aim is to further anchor climate security in the structure of the UNSC and the UN (AA 2019d). Germany describes climate change as one of today's main security threats and, in response, Germany wants to enable the UNSC to act in situations where climate change exacerbates conflicts and to strengthen the Council's information management and early warning systems (AA 2019a). To further these goals, Germany, together with Nauru, founded the *Group of Friends of Climate and Security* in 2018. The group aims to raise awareness of climate security and seeks to integrate the topic into the UN system (AA 2018).

During the recent Arria-Formula meeting in 2020, the German representative emphasized that the UNSC cannot ignore climate change as a "main driver of conflict" (Heusgen 2020). In order to foster conflict prevention and preserve peace, he highlighted the need to provide the Council with appropriate and reliable information on the security implications of climate change though, e.g. sound scientific analysis and systematic reporting that would shorten timelines. Because many peacekeeping missions take place in vulnerable contexts, Germany has suggested that climate change be considered from a more comprehensive perspective that includes climate security risks. However, Germany also sees the need to include all UN entities in discussions of collective action and security risks. It thus supports the appointment of a special representative for the topic in the UN and the strengthening of the Climate Security Mechanism (Heusgen 2020). At the time of writing, a UNSC Council debate on climate security took place in July 2020.

4.7. FINDINGS ON THE CLIMATE-SECURITY NEXUS IN INDONESIA

Based on the analysis and substantial contribution by I Gede Wahyu Wicaksana

Acknowledgement of the climate-security nexus within the traditional security sector has been detected in the Defense White Paper, which shows a broader understanding of security in its references to basic human needs such as insecurities, migration and conflict.

Table 20: Findings on the climate-security nexus in Indonesia’s traditional security sector

ACKNOWLEDGEMENT	CONTENT
2015 Defense White Paper	The paper issued by the Ministry of Defense holds that: “Global climate change impacts on human life environment.” Environmental changes like rising temperatures and sea levels as well as extreme weather events “have a direct and indirect impact on the basic needs of human beings, especially food, water, health and energy. Climate change will affect the security issues indirectly. Non-fulfilment human life basic needs will cause disruption resilience and environment adaptability leading to insecurity. It also affects the dynamics of politics, economy, water and food crisis, the emergence of pandemic disease, the migration and conflict” (MoD 2015:16). Other direct causes of threats include border issues, internal conflict or civil war, weapons of mass destruction, terrorism and transnational crime. The major security focus is on power dynamics in the Asia Pacific region or South China Sea disputes. The highest priority of the Indonesian defense establishment is modernization of the Armed Forces (MoD 2015).

Source: Elaborated by the authors based on I Gede Wahyu Wicaksana’s research results.

Several references to threats and the use of security language and logics have been detected through the lens of the extended security sector at the domestic, environmental and climate politics levels, focusing on sea level rise and natural disasters in particular.

Since 2004 and the democratic shift of the governmental system, Indonesia’s foreign policy has supported linkage and synergy between international and regional environmental regimes. The Bali COP13 in 2007 had an important impact on Indonesia, as it asserted the importance of an ongoing international climate regime. During the conference, tensions arose regarding how to approach climate change internationally. The disagreement was mainly caused by developing countries’ discontent with the approach to reducing emissions through afforestation and improving eco-efficiency in those countries. They called on industrialized nations to support less-developed nations in the realization of their mitigation and adaptation objectives. To mediate, then

President Yudhoyono stressed the moral urgency of climate change solutions for subsequent generations (Wardoyo 2008). He was supported by the UN Secretary-General, Ban Ki-moon (2007), who underlined: “We gather because the time for equivocation is over. The science is clear. Climate change is happening. The impact is real. The time to act is now.”

On the domestic level in 2008, Indonesia founded the National Council for Climate Change, which was tasked with providing policy guidance on mitigating and adapting to climate change. However, the council was dissolved in 2015 by the Jokowi administration because of its failure to reduce GHG emissions caused by deforestation and forest degradation. Its mandate was handed over to the newly-formed Ministry of Ecology and Forestry (MEF), which is in charge of mitigation and adaptation policy guidance, and which points to the relationship between climate change and economic development as being most essential. It describes how the detrimental impacts of climate change such as a shift in biodiversity, explosion of plant and animal disease, and peat land forest fire will adversely affect the economic productivity of local communities. Therefore, its main focus is on reducing GHG emissions by undertaking programs to control deforestation and forest destruction. In response, programs known as social forestry have been established with the aim of benefitting people living in and around the forest (MEF 2018).

Table 21: Findings on the climate-security nexus in Indonesia's extended security sector

ACKNOWLEDGEMENT	CONTENT
2015 ASEAN joint statement	At the regional level, Indonesia engages with ASEAN's intergovernmental initiative in order to shape and maintain its environmentally-oriented policy. ASEAN members released a joint statement on climate change in 2015 confirming their willingness to enhance “cooperation to improve ASEAN's collective capacity to address climate change; and [...] strengthening rapid response capacity to be more efficient and effective in the event of natural disasters” (ASEAN 2015). The joint statement describes Indonesia (among others) as a “specific multi-Hazard hotspot” (ASEAN 2015). In 2019, Indonesia's commitment to the UNFCCC and the Paris Agreement was reaffirmed. In addition, the general willingness for collaboration and dialogue within ASEAN and with external parties with the aim of “enhanc[ing] climate action in the ASEAN region” was highlighted (ASEAN 2019).

2016 Nationally Determined Contributions	Indonesia communicated an unconditional emission reduction target of 26% by 2030 in their NDC to the UNFCCC. With the support of the international community, Indonesia expressed willingness to increase its emissions reduction to 41% by 2030. The importance of poverty reduction and development is highlighted and “the national commitment towards a low-carbon and climate change-resilient development path, in which climate change adaptation and mitigation constitute an integrated and cross-cutting priority” is assured (NDC 2016:1). Accordingly, “[c]limate change presents significant risks for Indonesia’s natural resources that will, in turn, impact the production and distribution of food, water, and energy.” Climate mitigation and adaptation efforts are described “as an integrated concept that is essential for building resilience in safeguarding food, water and energy resources” (NDC 2016:3). The goals are, among others, to improve certainty “in spatial planning and land use; Land tenure security; Food security; Water security; Renewable energy” (NDC 2016:13).
National Disaster Management Desk	The NDMD (2018) notes that, in the long run, climate change can elevate the risk of natural and social destruction because of weak disaster resilience in most of the country’s local communities. Therefore, the focus of the 2020-2025 workplan is on environmental degradation, global warming and natural disasters in addition to the challenge of poverty (NDMD 2019).
Ministry of National Development Planning	According to the MNDP, 18,000 miles of Indonesia’s coastline have been impacted by climate change and “as a tropical country and the largest archipelago in the world, [it] is one of the countries most vulnerable to the negative impacts of climate change. The negative impacts of climate change can be felt both physically and environmentally, as well as socially and economically” (MNDP 2018). The MNDP anticipates more dramatic effects, particularly more frequent and intense hydro-meteorology hazards (e.g. flood, drought), due to increasing temperatures. Additionally, the impact of these warmer conditions on, for example, biodiversity through the whitening coral reefs referenced. The fishery sector is described as especially affected by global ocean warming accompanied by high ocean waves. The MNDP highlights the fact that all people in coastal areas (independent of the fishery sector) are particularly affected by climate change. The ministry report underscores that climate change will restrain Indonesia’s economic growth if the consequences are left unresolved and highlights the importance of low-carbon development and achieving emission reduction targets, implying a neo-developmental strategy (MNDP 2019).
Ministry of Foreign Affairs	At the 50th Pacific Islands Forum Summit (PIF) meeting in Tuvalu in 2019, Ambassador Desra Percaya, who led the Indonesian delegation, stated, “The impact of climate change has now become a real and dangerous threat faced by countries in the Pacific Ocean region, including Indonesia” and that future cooperation schemes at various levels need to be strengthened. “The 50th PIF Summit addresses issues of mutual concern in the Pacific, including regional security, climate change and maritime security. PIF endorsed the Kainaki II Declaration for Urgent Climate Change Action and agreed to draft the 2050 Strategy for the Blue Pacific Continent” (MFA 2019).

Source: Elaborated by the authors based on I Gede Wahyu Wicaksana’s research results.

In addition, the Ministry of Agriculture and Ministry of Research and Technology are involved in climate vulnerability control projects. The Ministry of Agriculture (2017) implemented a climate forecast system in cooperation with the Japanese government to anticipate climate change. The Ministry of Research and Technology advances the use of renewable energy sources in cooperation with the German government (Sulistyawati 2019).

The organization AMAN, *Aliansi Masyarakat Adat Nusantara* (Alliance of Indigenous Peoples of the Archipelago), focuses on empowerment of *masyarakat adat* (indigenous people) as important stakeholders in the process of climate policymaking and application with regard to the forest. In order to support the government's programs on climate change mitigation, AMAN has argued that the government must acknowledge and protect the right of *masyarakat adat* to manage their own forest (Saturi 2015). The Ministry of Ecology and Forestry (MEF 2020) agreed with AMAN's proposal, promising to proceed with legislation on the *adat* forest and to further the participation of indigenous people in dealing with climate change.

Acknowledgement of the climate-security nexus from an existential security perspective has been detected in the Nationally Determined Contributions (NDC)'s reference to the constitution and in the project to move the capital, the latter being based on the supposition that the city is fundamentally threatened. It also includes the threat to island states.

Table 22: Findings on the climate-security nexus in Indonesia from an existential security perspective

ACKNOWLEDGEMENT	CONTENT
2016 Nationally Determined Contributions	The NDC cites the Indonesian Constitution, which stipulates “that ‘every person shall have the right to enjoy a good and healthy environment.’ As climate change becomes a reality, Indonesia continues to seek a balance between its current and future development and poverty reduction priorities” (NDC 2016:1).
2019 Statement at the UNSC	“When there is no capacity to adapt, potential security threats become real security threats– from the loss of livelihoods to irregular migration; from food scarcity to the loss of territory; and perhaps even the survival of a nation is jeopardized. Indonesia therefore truly shares the concerns of small islands developing States about the survival of our nations” (UNSC 2019).
Moving of the capital	<p>In 2019, President Jokowi announced the plan to move the nation’s capital from Jakarta to East Kalimantan. In addition to overpopulation and overloaded administration (Ihsannudin 2019), the reasons for the move are the negative impacts of climate change, especially rising sea levels and uncontrollable floods (MNDP 2019). This plan illustrates the governmental stance towards climate change, which is line with academic studies indicating Jakarta’s vulnerabilities brought on by climate change. Scientific studies anticipate that climate-related disasters in Jakarta will be more frequent and involve heavy, rainy floods (Firman et al. 2011) that are expected to paralyze economic activity, bring about significant infrastructure damage and result in human casualties, as occurred in 2002, 2007, 2013 and 2014 (Budiyono et al. 2016). The flood in early January 2020 submerged about 300 locations in the city, including trade and administrative centers (CNN Indonesia 2020). The plan has been questioned by environmentalists, who are concerned about the possible dangers to rainforests and wildlife in Kalimantan from various infrastructure projects and pollution (Poon 2019). In response, the government announced the planning of a green city concept as part of the environmental protection agenda (Liputan6 2020).</p> <p>At the time of writing, no authentic government document on the planning details for building a new capital has yet been published, though the president and his ministers have spoken of it on many occasions. Pending approval by parliament, the first phase of the new capital construction had been slated to begin in June 2020. Costs are estimated at around 466 trillion rupiah, or 32 billion USD (Liputan6 2019). By July 2020, the government had decided to postpone construction of the new capital, and it has diverted the money to programs dealing with the COVID-19 pandemic (Putra 2020).</p>

Source: Elaborated by the authors based on I Gede Wahyu Wicaksana’s research results.

It has been detected that climate change is generally described as affecting human security rather than state security, and no description of aggression by other states or the risk of interstate war related to climate change was found. Climate change impacts such as sea level rise, extreme weather, natural hazards, reduction in food products, and loss in territory represent increasingly serious challenges to citizens’ lives and to the capital.

INDONESIA: CLIMATE CHANGE AND THE UNSC

During its membership in the UNSC (2019-2020), Indonesia's security priorities are the creation of international peace and stability and the promotion of global-regional multilateral cooperation, which are also enduring components of the normative foundation of Indonesia's foreign policy (Gatra 2019). Climate change is not part of Indonesia's main agenda; however, the Indonesian representative affirmed the importance of the topic and the security challenges arising from it (e.g. loss of livelihood, migration and loss of territory), especially for the small island developing states (SIDS). In the context of these security challenges, Indonesia suggested the UNSC develop a security approach to climate change consisting of three interrelated elements: First, the Council should respond to security implications of climate change, but not to climate change itself. Climate change should be considered in UN peacekeeping missions, for instance. Second, the link between security and sustainable development must be emphasized in peacekeeping and peacebuilding. Third, the responsibility to counter climate-related security implications should fall to states, and regional organizations (e.g. ASEAN) must be taken into account to improve and promote cooperation. Accordingly, the Council needs to better understand the security dimension of climate change generally, and all UN agencies need to include climate change in their respective mandates. Indonesia argued that "while the Security Council can deal with the security dimension of climate change, the United Nations Framework Convention on Climate Change remains the leading forum to address climate change. Upholding the Paris Agreement on climate change is absolutely vital" (UNSC 2019).

During the recent UNSC Arria-Formula meeting in 2020, the Indonesian representative again underscored the importance of coordination between all UN entities and avoiding a duplication of efforts. According to the Indonesian representative, a better understanding of the interconnected factors influencing vulnerability is crucial to finding solutions, as is the support of knowledge production within the UN system. Still, the implementation of the Paris Agreement is of central importance to Indonesia; the Representative therefore emphasized that "[p]revention is far more effective than the cure, collectively we need to enhance climate mitigation and adaptation capacities of national and local authorities in balance and equal manner" (Syihab 2020).

4.8. FINDINGS ON THE CLIMATE-SECURITY NEXUS IN NIGER

Based on the analysis and substantial contribution by Ousseyni Kalilou

Niger sees climate change as a major challenge for the Sahel region and as contributing to existing security issues. However, a sense of urgency as well as atrocities taking place in the region (e.g. the Lake Chad Basin and the tri border area in the Liptako Gourma) are steering policymakers' attention toward immediate action and draining government funds (Issoufou et al. 2019) to the detriment of long-term climate change mitigation and adaptation measures. The climate-security nexus is accordingly acknowledged within the traditional security sector, especially in relation to the Sahel Region and the Lake Chad Basin (see table below).

Table 23: Findings on the climate-security nexus in Niger's traditional security sector

ACKNOWLEDGEMENT	CONTENT
Military involvement in environmental protection and humanitarian assistance	The National Border Police is involved in national reforestation and provides health services and infrastructure for climate refugees and internally displaced persons (Ministry of the Interior 2018a). In the Lake Chad region, the military supports the restoring of basic public services, provides life-saving humanitarian assistance and facilitates the transition from humanitarian aid to sustainable development. The establishment of civil-military cooperation is envisaged as a means of strategizing regional stabilization in a way that can complement and strengthen military efforts (e.g. in the Diffa region) (LCBC 2018).
Sahel Region	<p>Niger's 2016 <i>Strategy of Development and Security for the Sahel-Sahara</i> highlights the connection between droughts and displacement and economic issues as well as the worsening impact of terrorism and organized crime. Armed rebellions and inter-communal conflicts are seen as an additional complicating factor. Climate change and the nexus of governance, peace, development and security is described as a challenge for the overall region and a concern of the G5 Sahel leadership (Prime Minister 2016:18-26).</p> <p>In 2019, during its presidency of the Climate Commission for the Sahel Region (CCSR), Niger called for awareness on the adverse impacts of climate change. President Issoufou (2019a) underlined the effects on water and food security and the connection to conflict and terrorism, concluding that the "link between climate change and terrorism has now been established." In spite of his strong military focus, Issoufou (2019d) has outlined how advancing resilience is the most effective policy approach for Sahel countries in countering the security implications of climate change.</p> <p>Also in 2019, the CCSR decided to create a permanent secretariat with the mandate to coordinate the implementation of the Climate Investment Plan for the Sahel region (2018-2030). 400 billion USD was pledged for the plan, as was 1.32 billion USD for a priority program (<i>Programme Regional Prioritaire</i>, 2018-2023) (CCSR 2019).</p>

Lake Chad Basin Commission (LCBC)	<p>Founded in 1964, the LCBC is responsible for the regional stabilization strategy in areas affected by humanitarian crises exacerbated by the Boko Haram uprising. Its mission includes the coordination of cross-border cooperation, prevention and management of acute crises and addressing their root causes. One approach is to mitigate the harmful effects of environmental change and enhance resilience by preserving the ecosystem. Accordingly, “[a]ll future investments in socio-economic development must be resilient to climate change [...] to strengthen resilience to shocks, support adaptation and mitigation, and ensure long-term sustainability” (LCBC 2018:13). Climate change is thus connected to both conflict and the mitigation of tensions.</p> <p>In order to strengthen the <i>G5 Sahel</i> and the Multinational Joint Force in the Lake Chad Basin, President Issoufou (2018, 2019b, c) has expressed the need for increased military logistics and training from the international community.</p>
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Source: Elaborated by the authors based on Ousseyni Kalilou's research results.

As illustrated in the table above, the traditional security sector also makes reference to the detrimental effects of climate change on human security due to the country's geographic (Sahelian) position and increasing environmental stress. While climate change is a fundamental issue of domestic politics and security, in practice, the primary concern remains military operations and logistics due to the high level of conflict. Niger is, in fact, one of the most militarized states in Africa, hosting foreign troops from France, the USA, Germany, Canada, and Italy who provide military training and logistics. The Sahel Region in particular has attracted a lot of international attention that goes beyond the scope of military presence and can be categorized as belonging to the extended security approach. For example, the project titled *Frexus: Improving security and climate resilience in a fragile context through the Water-Energy-Food Security Nexus*, funded by the consulting office of the German Ministry for Economic Cooperation and Development and the European Commission, references the Paris Agreement and the Sustainable Development Goals. The project focuses on climate resilience in Niger, Mali and Chad (2019-2021) and aims to turn the “vicious cycle of scarcity, competition, conflict and instability [...] into a virtuous cycle of resilience, sustainable resources management, cooperation and security” (GIZ 2019).

In addition to Niger's traditional security sector activities, in Resolution 2349 (2017) on West Africa and the Sahel Region (Lake Chad Basin Region), the UNSC importantly recognized “the adverse effects of climate change and ecological changes among other factors on the stability of the Region, including through water scarcity, drought, desertification, land degradation, and food insecurity, and emphasises the need for adequate risk assessments and risk

management strategies by governments and the United Nations relating to these factors” (UNSC 2017:7).

At the domestic level, the lens of the extended security sector reveals an early awareness (since the early 1970s) of the adverse impacts of desertification and the establishment of several institutional measures (including ones taken in cooperation with neighboring states) in response to these concerns. It furthermore shows that, for the last decade, the Nigerien government has focused on human security in parallel with hard security aspects (see Prime Minister 2016; Ministry of the Interior 2017, 2018a; CNESS 2018; ANADIA 2014, 2018). However, over the last two years, additional concepts such as “the anthropogenic bill,” “food insecurity,” “the impact of climate change on our health” or “future generation” (Issoufou 2019a) have progressively emerged in debates, revealing the increasing influence and prominence of climate politics and the climate-security nexus on the conception of national security (GTC 2018).

Table 24: Findings on the climate-security nexus in Niger’s extended security sector

ACKNOWLEDGEMENT	CONTENT
Early establishment of regional committees on environmental issues	<p>Niger ratified the Algiers Convention (1970) on conservation and sustainable use of land, water, flora and fauna for the well-being of humanity; the Bamako Convention (1998) on hazardous waste produced in or imported to Africa; the Abidjan Convention (1981) on the pollution of the marine environment, coastal waters and river waters of West and Central Africa (NECSD 2015a, 2016b, 2017c) (GTC 2018a, b).</p> <p>Following the severe drought of 1973, Niger joined Burkina Faso, Mali, Mauritania, Niger, Senegal and Chad to create the Inter-State Committee to Combat Drought in the Sahel in 1976 (NECSD 2016a).</p>
National Environment Council for Sustainable Development (NECSD)	<p>Established in 1995 after the Rio de Janeiro summit, NECSD is responsible for communicating with the UNFCCC and outlining climate change adaptation and resilience strategies such as the National Adaptation Program of Action on the adverse effects of climate change, which promotes livestock markets, urban gardening, development of shared water resources and the creation of grain banks (NECSD 2006).</p> <p>The NECSD’s executive secretariat is directly attached to the prime minister’s office, illustrating how important the issue is for the government (NECSD 2012, 2014). Themes such as “agriculture climate insurance,” “green jobs,” “smart climate agriculture,” and “green wall” have gradually been included in Niger’s policy papers and debates (NECSD 2014).</p>
2015 Nationally Determined Contributions (NDCs)	<p>The NDCs contain a strong focus on the link between climate adaptation and mitigation and include assuring food security, combating poverty, strengthening social cohesion and resilience. One example of Niger’s adaptation initiatives is “the Food Security Support Project in the Maradi region (PASADEM) for a cost of \$ US 31.7 million, which is dealing with aspects of resilience in the rural environment” (NDC 2015:12).</p>

2018 Draft Action Plan for National Border Policy	National Border Policy focuses mainly on managing issues of insecurity, border and migration management and alleviating poverty. The need to “strengthen people’s resilience to the effects of climate change and actions” and “build capacity” is included in its national security strategy plans (Ministry of the Interior 2018b: 29). Climate change is taken into account in the regulation of migration, particularly in the context of movements due to the frontier permeability and cross-border family ties (Ministry of the Interior 2018a). Accordingly, difficult circumstances and limited state capacities challenge stability along borders (Ministry of the Interior 2018b).
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Source: Elaborated by the authors based on Ousseyni Kalilou's research results.

In addition, the president has gradually raised concerns about the impacts of climate change on national security (Issoufou 2019b; Ministry of Interior, 2018b: Policy paper), focusing mainly on changing policy approaches and an increase in resilience, adaptation and mitigation. At the COP21 forum, President Issoufou, reaffirming the aim of limiting global temperature rise to 1.5 degrees, said that the main polluters need to support Africa monetarily (e.g. through investment in Niger’s energy transition) as the African states contribute much less pollution and are rather focused on socioeconomic development and food security (Issoufou 2015) in the fight against hunger and poverty. The president also stated in a speech to the nation that the strengthening of resilience to climate change is inseparable from ensuring “the stability and security of our peoples and states” (Issoufou 2017).

Several other presidential statements highlight the importance of the climate-security nexus for Niger in a foreign policy context by outlining, for example, how climate change aggravates the existing humanitarian situation by worsening food security, how water and economic insecurity can lead to competition for depleting resources, and how climate change affects migration and internal displacement (Issoufou 2019a,b). The consequences for women, who are among the most vulnerable to climate and environmental changes, have been described: “We are witnessing the trivialization of violence and the reign of terror daily. In this dramatic situation, women and children pay the heaviest price” (Issoufou 2019b).

From an agricultural standpoint, the Ministry of the Interior (2018b) describes Niger’s vulnerability to climate change by noting that it is losing 100,000 hectares of land per year, and that pastures and water are rapidly being depleted. While the region experienced exceptional droughts in the early 1970s and 80s, lately, those droughts have since become recurrent (NECSD 2016). Lake Chad has lost

90% of its waters since the 1960s, and desertification is advancing toward the south (NECSD 2015).

Over the last decade, the government has established restoration and protection practices in line with climate change mitigation, adaptation and resilience (Ministry of Planning 2018:38). The 2012 3N Initiative (*Nigeriens Nourishing Nigeriens*), with a budget of approximately 22 million euros (aims to strengthen the agro-sylvo-pastoral and fishery sectors, reduce food insecurity and improve the resilience against climate change and disasters (The Presidency n.d.). In the same vein, the government announced the goals of “zero hunger by 2021” (December 21, 2018) and “zero rice imports by 2023” (July 18, 2019) (Issoufou 2017), both of which illustrate the government’s willingness to implement the Sustainable Development Goals.

Niger has since become more active in promoting the climate-security nexus agenda in international forums. It has taken on the roles of presidency of the ECOWAS (Economic Community of West African States), permanent secretariat of the G5 Sahel, command of the Joint Force G5 Sahel and presidency of the CCSR (Climate Commission for the Sahel Region), and it is part of the Peace Agreement Monitoring Committee.

While the traditional and extended sectors are the most prevalent in Niger’s security approaches, an awareness of security from an existential perspective can be detected in Niger’s constitution, which references the right to a healthy environment.

Table 25: Findings on the climate-security nexus in Niger from an existential security perspective

ACKNOWLEDGEMENT	CONTENT
2010 Niger’s constitution	While climate change is not mentioned specifically, desertification and environmental protection are connected to human rights and justice. Article 35 stipulates: “Any person has the right to a healthy environment. The State has the obligation to protect the environment in the interest of present and future generations. Each one is required to contribute to the safeguarding and to the improvement of the environment in which he lives.” Article 36 obligates the state and the collectivities to combat desertification, while Article 37 sets out corporate environmental responsibilities (Constitution 2010).

Source: Elaborated by the authors based on Ousseyni Kalilou’s research results.

Overall, it can be said that, while domestic policymakers have increasingly acknowledged climate change as an impact factor for national security strategy on the international scene, domestic policies are more focused on food security, combating poverty, strengthening resilience and on the socioeconomic effects of climate change (NECSD 2015a, 2016b; Ministry of Planning 2017; Ministry of the Interior 2018a,b). While there is a high likelihood that Niger may strive for more robust involvement in climate security, this is subject to the upcoming Nigerien national elections in December 2020. However, the UNSC (2017) resolution recognizing the adverse impacts of climate change on the stability of the region nevertheless constitutes a very important landmark.

NIGER: CLIMATE CHANGE AND THE UNSC

In context of the UNSC, Niger regards climate change as an issue of importance to both its national security and all other countries as well, and it has made the security implications of climate change a priority for its membership in the Council (2020-2021) (Africa News 2020). Niger has emphasized the need for an international response and a solution to climate deregulation and its related insecurities (Abarry 2020a).

As part of its advocacy on the issue, Niger co-organized the April 2020 UNSC Arria-Formula meeting on climate security. During the meeting, Niger's representative underlined the need to consider climate change a threat to peace and security and pointed to the Sahel region as a clear example of "climate driven conflicts" (Abarry 2020b), the link between climate change and violence having already been established in the 2018 UNSC statement concerning the Lake Chad Basin. Niger's representative also highlighted the importance of implementing the Paris Agreement and stressed that climate change is especially devastating for African nations despite their being minor emitters of CO₂, and the representative called for a stronger information basis and better cooperation between UN entities (e.g. through a report of the secretary-general to the UNSC on climate-related risks and the appointment of a special representative). The representative also noted the "need for cross-disciplinary work in research and policy" and said that efforts "should include local knowledge of communities that have already shown resilience. We should emphasize the need for cross-organisation capacity training" (Abarry 2020b).

4.9. FINDINGS ON THE CLIMATE-SECURITY NEXUS IN RUSSIA

Based on the analysis and substantial contribution by Ilya Stepanov

The climate-security nexus is acknowledged within Russia's traditional security sector, as illustrated in the table below. The evolution of national security policy papers shows that climate change is gradually gaining more and more room in the national security strategy, whereby climate change is described mostly as a cause of other threats to Russian security rather than as a threat in itself.

Table 26: Findings on the climate-security nexus in Russia's traditional security sector

ACKNOWLEDGEMENT	CONTENT
2009, 2015 National Security Strategy	<p>The 2009 strategy includes broader frameworks of environmental problems and disaster security (Russian President 2009a).</p> <p>In 2015, climate change was listed after eight other threats (e.g. foreign espionage, terrorism and corruption). It was not depicted as main threat, but "natural disasters, accidents and catastrophes, including those driven by climate change" are singled out as a threat to Russian "state and social security" (Russian President 2015a:7).</p>
Military activity in domestic and foreign contexts	Frequent deployment of the military to mitigate environmental and climate change damage through cleaning and garbage collection in the Arctic, firefighting or flood management, and social assistance to people suffering from natural disasters and extreme weather events (RIA 2019).

Source: Elaborated by the authors based on Ilya Stepanov's research results.

Acknowledgement of the climate-security nexus can be detected through the lens of the extended security sector in several state programs and broader security strategies (see table below). In addition to the research results listed in the table, climate change is mentioned in descriptions of challenges, risks and threats in the Russian Foreign Policy Concept (Russian President 2016a), Fundamentals of the State Policy in the Field of Civil Defense for the Period until 2030 (Russian President 2016b), Fundamentals of Protection of the Population and Territories from the Emergency Situations up to 2030 (Russian President 2017b), Fundamentals of Chemical and Biological Safety up to 2025 and beyond (Russian President 2019c), and in Energy and Food Security Doctrines (Russian President 2019a and 2020, respectively). The focus thereby rests mostly on domestic issues and in protecting the vital interests of individuals, society and the state, and in reference to domestic energy and reducing, for example, air pollution.

Table 27: Findings on the climate-security nexus in Russia's extended security sector

ACKNOWLEDGEMENT	CONTENT
2009 Climate Doctrine	The doctrine represents the first framework climate policy paper to call for the need to consider climate change as one of the “key long-term security factors” of the Russian Federation and to incorporate the issue of climate change into both national and international dimensions of Russian policy. Climate change is depicted as a phenomenon that will “inevitably affect people’s lives, the state of the animal and plant world in all regions of the planet, and will become a tangible threat to the well-being of the population and sustainable development in some of them” (Russian President 2009b).
2012 State Program on Environmental Protection	The Ministry of Natural Resources and Environment and several other ministries adopted this state program for the period until 2020 with the purpose of “improv[ing] environmental safety and [preserving] natural systems.” It was motivated by, among other aspects, the aim of reducing “the overall anthropogenic impact on the environment by improving the economy’s environmental efficiency” and improving “the environmental situation for the 36.1 million Russians currently residing in urban areas with high or extremely high air pollution levels.” The overall objective is to protect “the vital interests of individuals, society and the state against the effects of natural hazards and climate change” (providing “hydrometeorological safety”) (Russian Government 2012).
Ministry for Civil Defense, Emergencies and Elimination of Consequences of Natural Disasters (EMERCOM)	As can be seen in this statement from the Russian Minister of Emergency, EMERCOM addresses climate change: “[N]ew threats are appearing due to global climate change. Permafrost is going away, earthquakes are hitting the regions, that have never experienced any earthquakes before, landslides, mud flows, emission of gas condensate and others. New requirements for infrastructure protection are already being worked out” (EMERCOM 2015).
2017 Russian Economic Security Strategy	The strategy highlights the fact that climate-induced factors could impact national economic security through increased shortages in food and fresh water supply and intensified competition for access to renewable resources, including the resources of the Arctic and Antarctic zones and the Arctic Ocean (Russian Government 2017).
2019 Energy Security Doctrine	The doctrine is a strategic planning document in the field of national security reflecting the official view on ensuring Russia’s energy security. The legal framework for the doctrine includes the Constitution of the Russian Federation, federal constitutional laws, federal laws, and normative legal acts of the President and the government. It outlines “the discrimination of Russian enterprises of fuel and energy complex in world energy markets by the means of changing international legal regulation in the energy sector, including under the pretext of implementing climate and environmental policies or diversifying sources of energy imports” (Russian President 2019a).
2020 Adopted Strategy from the Ministry of Energy	A new Energy Strategy for the period until 2035 includes references to increased environmental impact, and the need for adaptation of the Russian energy sector to climate change is highlighted as a “breakthrough” towards “more efficient, flexible and sustainable energy that is able to adequately respond to challenges and threats in its field and overcome existing problems” (ME 2020).
2020 Draft Strategy of the Ministry of Economic Development	The draft of the Russian strategy for long-term, low-emission development until the year 2050 includes the threatening impacts of climate change that are associated “with severe, widespread and irreversible consequences for man-made and natural systems, [that contain] high risks for global and regional food safety, life safety and sustainable development” (MED 2020).

2020 National Climate Change Adaptation Plan	The plan for 2020–2022 has been laid out by the Ministry of Economic Development and mainstreamed through the involvement of many ministries, state agencies and executive bodies (e.g. the Ministries of Emergency Situations; Energy, Education and Science, Health; Development of the Russian Far East and Arctic, Economic Development, Foreign Affairs) in its implementation. The plan stresses “the wide socio-economic consequences of temperature and pressure contrasts, extreme precipitation and floods noted in recent years prove the growing vulnerability of the population and the economy to extreme weather and climate impacts.” Measures for adaptation have gained strategic importance and are needed to improve “the level of security (protection of the vital interests of the individual, society and the state) from the effects of climate change on the population and the economy, including natural hazards and natural emergencies.” This is to be achieved with the aid of science, among other things (Russian Government 2020). The plan also mentions some advantageous effects of climate change, such as reduction in energy consumption during the heating period and improved transport conditions in the Arctic.
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Source: Elaborated by the authors based on Ilya Stepanov's research results.

In addition to the main domestic focus, an additional important interrelation of national security and climate change can be detected in the area of Russian Arctic Policy. First, the Arctic is considered one of the regions most affected by climate change due to melting permafrost, desertification, fires and floods (Russian President 2019b). Important infrastructure (like pipelines or strategic military facilities) is also affected, which means funds for maintenance and security measures are increasingly required (Sukhankin 2020). Second, the Arctic region plays a role in reference to the extended security approach, mainly through its crucial role in economic development: The northern regions contribute one-fifth of Russia's gross national product and a quarter of the country's exports. The impacts of climate change on the Arctic are therefore also described as new economic opportunities (Sukhankin 2020). Hence, possible advantageous effects of a warming climate are also considered, especially in the northern regions where oil and gas companies could gain better access (Russian Government 2020). Additionally, the reaction of the global economy to climate change—in other words, the global low-carbon transition—is regarded as a security threat to Russia (Russian President 2019a) as decreasing demand for Russian energy-intensive goods could potentially undermine the security of Russian fossil fuel and energy companies (Makarov et al. 2020; Russian President 2019a), which play a significant role in Russian economic prosperity. Third, the role of the region in connection to environmental and climate change security issues is connected to Arctic diplomacy in a national security context in order to ensure environmental safety and preserve peace and cooperation (Arctic Council n.d.). While the new 2020 Arctic Strategy of development and

national security until 2035 is still being drafted, the Fundamentals of Russian Policy in the Arctic until 2035, adopted in March 2020 (Russian President 2020), highlights that further research “on dangerous natural and natural-technological phenomena in the Arctic [...] under conditions of climate change” is needed. It also points out that new technologies and engineering solutions “for reducing threats to human life” due to climate change need to be investigated (Russian President 2020) and contains “development and application of effective engineering solutions in order to prevent damage to infrastructure elements due to global climate change” and the “development on a scientific basis of a network of specially protected natural territories and water areas in order to preserve ecological systems and their adaptation to climate change” as two of its aims. It goes on to describe “the building up by foreign states of a military presence in the Arctic and an increase in the conflict potential in the region” as one of the threats to national security in the Arctic. One of the desired outcomes of the Arctic Policy is “achieving a high level of cooperation with the Arctic states, contributing to the preservation of the Arctic as a territory of peace, stability and mutually beneficial partnership”.

Another acknowledgement of the climate-security nexus can be detected in the context of the ASEAN *Partnership for Sustainability*, adopted at the East Asian Summit in 2019, which highlights the important role of the Sustainable Development Goals in order to foster cooperation, stability and peace, “sustainable security,” promotion of food and water security, and enhancement of regional energy security (Russian Government 2019; ASEAN 2019).

During COP 21, President Vladimir Putin stated that “[c]limate change is one of the most serious challenges humanity faces today. Hurricanes, floods, droughts and other extreme weather phenomena caused by global warming are causing ever-greater economic losses and destroying our familiar and traditional environment. The quality of life of everyone on this planet, economic growth and sustainable social development of entire regions depend on our ability to resolve the climate problem” (Russian President 2015b). Statements such as these may indicate an awareness of security from an existential perspective; other findings in this vein include references from the constitution and the Environmental Security Strategy.

Table 28: Findings on the climate-security nexus in Russia from an existential security perspective

ACKNOWLEDGEMENT	CONTENT
1993, 2020 Constitution of the Russian Federation	<p>The preamble notes: “We, the multinational people of the Russian Federation, united by a common fate on our land, establishing human rights and freedoms, civic peace and accord, preserving the historically established state unity, proceeding from the universally recognized principles of equality and self-determination of peoples, revering the memory of ancestors who have conveyed to us the love for the Fatherland, belief in the good and justice, reviving the sovereign statehood of Russia and asserting the firmness of its democratic basic, striving to ensure the well-being and prosperity of Russia, proceeding from the responsibility for our Fatherland before the present and future generations, recognizing ourselves as part of the world community.”</p> <p>Article 42 holds: “Everyone shall have the right to favourable environment, reliable information about its state and for a restitution of damage inflicted on his health and property by ecological transgressions.”</p> <p>Article 58 states: “Everyone shall be obliged to preserve nature and the environment, carefully treat the natural wealth” (Constitution 1993).</p>
2017 Environmental Security Strategy	<p>The strategy focuses on domestic affairs in particular. It states that the effects of climate change are considered a global threat to environmental security through the inevitable effects on the lives and health of people and condition of the animal and plant world, while, in some regions of the world, climate change presents a tangible threat to the well-being of the population and sustainable development (Russian President 2017a).</p>

Source: Elaborated by the authors based on Ilya Stepanov's research results.

Generally, security is understood in broader terms, as can be seen in several security strategies on environment, economy and food. The assessment of the climate-security nexus shows that while the attention paid to climate change is relatively minor compared to other topics and concerns on the national political/security agenda, it is gradually gaining more room. The responses focus on climate change adaptation such as planned development and on scientifically-substantiated risk assessments for the country. Within the main approaches to the climate-security nexus, the focus rests on economic and energy security, such as in the positive connotations of how climate change strengthens national security, e.g. through resource extraction and transportation in the warming Arctic, or through climate diplomacy strengthening international cooperation and peace. Furthermore, references to indirect risks related to the global energy transition, which may threaten national security, can be found. This focus on economic and energy security and disaster risk management shows change and a broadening of the actors and policies with respect to climate change and new security approaches. The mainstream vision of the government shows that, even though the man-made origins of climate change are partly in doubt, the existence of climate change itself is not questioned. Environmental degradation

and disasters as well as global warming are recognized as existing phenomena with adverse security effects and severe consequences for the state, individuals and the environment. The creation of several institutions and the mainstreaming of the topic into several ministries and security strategies shows a growing concern and focus on non-traditional security responses.

RUSSIA: CLIMATE CHANGE AND THE UNSC

Since the start of the discussion on climate change in the UNSC (2007), Russia has been skeptical toward the inclusion of climate change in the Council's mandate. This skepticism has been explained with the argument that inclusion would stretch the mandate of the Council, and that the responsibility to act on this topic falls to other UN agencies like the UNFCCC. Additionally, it has been argued that inclusion would cause counterproductive consequences, as it could result in the generalization of the linkage between climate change and security and create the "false assumption that the problems of the environment are unavoidable and always lead to conflict," as stated by the Russian Representative in 2019 (UNSC 2019). In spite of its reserved position on the matter, Russia agreed to several UNSC activities and resolutions that recognize the adverse effects of climate change in certain regions, mostly in Africa. For instance, Russia voted for Resolution 2349 on Lake Chad, which recognizes the adverse effects of climate change on the stability of the region and emphasizes the need for further risk assessment and management (UNSC 2017).

These changes in relation to specific cases and a less skeptical position also became clear in the recent Arria-Formula meeting in 2020. The Russian representative noted that climate change has adverse effects, but that these represent only one among many factors that have an impact on the "vulnerability of countries that may result in instability." Accordingly, the linkage between security and climate change needs to be established through country-specific, scientific analysis in order to avoid overstatement, generalization or simplification of the link, which might otherwise result in a blurred picture of the other causes of conflicts and problems. However, the representative also emphasized the need to avoid duplication of efforts within the UN system or stretching the UNSC mandate, and pointed to the considerable costs resulting from new risk assessment and management strategies (Chumakov 2020).

4.10. FINDINGS ON THE CLIMATE-SECURITY NEXUS IN SAINT VINCENT AND THE GRENADINES

Based on the analysis and substantial contribution by Rose-Ann Smith

An archipelagic state in the Eastern Caribbean comprised of a chain of 32 island cays, Saint Vincent and the Grenadines (SVG) has a population (as of 2019) of 110,608 (Statistical Office 2020). The island, on account of its geography, geology and socioeconomic characteristics, is highly vulnerable to climate change and climate-related hazards. It lies within the Atlantic hurricane belt and has experienced significant hurricane impacts in the past, including from Hurricane Ivan in 2004 and Hurricane Tomas in 2010 (CANARI 2018). Most of the island's population (85%) and a majority of its critical infrastructure (over 90%) such as utilities, airports, hotels and roads are located within the coastal zone (John 2015). This makes it very vulnerable to sea level rise, storm surges and coastal erosion, while steep terrain adds to the risk of landslides and flash flooding. The importance of climate change in SVG is reflected throughout the results of this case study.

This case study analysis has not provided findings concerning the traditional security sector. SVG has no army or defense force but instead relies on a special military arm of the Royal SVG Police Force (Police Force n.d.). Furthermore, the interrelations between climate change and human conflict or civil unrest were not found in any of the analyzed documents. Instead, viewing the climate-security nexus through the lens of the extended security sector reveals that, nationally, one of the greatest impacts that has been stressed in several reports is the impact of climate change on livelihoods. This threat has been witnessed both on a national scale and in terms of sectoral impacts, such as the impact of climate change on agriculture, fisheries and tourism, which are key sectors for SVG. Agriculture, including fishing, is threatened by increased erosion, new pests and diseases, migratory species and low fish stocks. As illustrated in the table below, the country has developed a number of plans and strategies that address climate resilience.

Table 29: Findings on the climate-security nexus in Saint Vincent and the Grenadines' extended security sector

ACKNOWLEDGEMENT	CONTENT
Early advocacy for climate protection	In SVG's first national communication to the UNFCCC, the importance of climate protection was underlined: "Being a tiny island state with most of our infrastructural development on the coast, sea-level rise will have a devastating impact on our ability to remain a proud independent nation. [...] Recognizing our ecological fragility and our dependence on agriculture and tourism, we cannot afford to be spectators on issues as important as Climate Change" (NEAB and MHWE 2000:iii). The communication was prepared in conjunction with the joint regional project Caribbean: Planning for Adaptation to Global Climate Change. As part of this, the country established a climate-monitoring station to record environmental change. It also participated in several regional efforts to establish databases and information systems, inventory coastal resources and uses, and formulate policy frameworks for integrated coastal and marine management (UNDP CCA n.d.).
2013 Third International Conference on Small Island Developing States - National Report	Issued by the Ministry of Health, Wellness and the Environment, the report stated that the island had submitted only one national communication to the UNFCCC because the technology needed for the assessment was incomplete. It continued: "On the ground there is no real indication that the country is able to handle the vagaries of climate change. Adaptation efforts seen are the natural response of the Vincentian people with little infusion of the lessons learnt from the global community" (MHWE 2013:10).
National Economic and Social Development Plan 2013-2025	Issued by the Ministry of Finance, Economic Planning, Sustainable Development and Information Technology, the plan aims to, among other things, improve physical infrastructure, protect the environment, advance climate resilience-building and effectively prepare to mitigate disasters. Efficient use and management of natural resources is envisaged to "ensure a clean, safe and healthy environment," and the importation of fuels should be reduced. Climate change is described as causing unprecedented and fundamental change in SVG due to "[its] negative impacts [...] and the country's increased vulnerability to natural disasters" (MFESI 2013:16). Responses to these challenges focus on awareness-raising and resilience-building to minimize impacts on settlement, infrastructure, agriculture and human health. The development of an "appropriate legislative and regulatory framework, for proper environmental management, and institutional systems for responding and mitigating effects of climate change" is envisaged (MFESI 2013).
2015 Nationally Determined Contributions (NDCs)	SVG recognized the need for an "integrated approach to adaptation by linking local activities with national policies and sector specific experiences." Therefore, resilience-building and "climate change adaptation activities have been mainstreamed into national development planning (through the National Economic and Social Development Plan)." Various areas were considered: "culture, identity and national pride; economic; social capital; governance; national security; energy, disaster management and the environment; physical infrastructure and education, telecommunications, science and technology" (NDC 2015: 9). Examples of concrete steps taken include "support for small scale farmers from the government, in production technologies, agri-business management, good agricultural practices [...] policy initiatives to address climate change issues, environmental protection, risk mitigation and fisheries development; and a national plan for dealing with food security" (NDC 2015:10).

National Climate Change Policy	<p>The 2018 Strategy and Implementation Plan on Climate Change Policy (2020-2030), which was issued by the Organization for Eastern Caribbean States' (OECS) Regional Disaster Vulnerability Reduction Project and funded by the World Bank and the Climate Investment Fund's Pilot Program for Climate Resilience Technical Assistance and implemented by the Caribbean Natural Resources Institute (CANARI), provides the basis for developing the climate change policy plan, which was drafted in 2019.</p> <p>The 2019 National Climate Change Policy provides guidance on adaptation and mitigation measures to reduce climate vulnerability and build resilience over the long term (2020–2030). The importance of an integrated approach to climate change, disaster risk management and national security as a cross-cutting theme with the objective of ensuring the health, safety and security of residents and visitors is highlighted. The text describes impacts on climate-sensitive livelihoods such as agriculture and tourism as well as on national security issues such as “migration, resettlement and threats to law and order triggered by climate related disasters and related issues of food, water and energy security” (CANARI 2019:36).</p>
2019 National Adaptation Plan	<p>The plan was developed with the “support of the Japan-Caribbean Climate Change Partnership (J-CCCP), with the aim of guiding Saint Vincent and the Grenadines towards a green, low-emission and climate resilient development pathway” (Government SVG 2019:3). It describes how the consequences of climate change like increasing temperature or changing precipitation could cause coastal erosion, landslides, droughts, storms and hurricanes, floods, heat waves, fires and diseases, all of which threatens lives, animals, housing, agriculture, economic and physical infrastructure and increases the vulnerability of people below the poverty line, single parents, the elderly, the disabled and homeless persons (Government SVG 2019).</p>

Source: Elaborated by the authors based on Rose-Ann Smith's research results.

In the regional context, it should be emphasized that SVG belongs to organizations that have developed responsive actions and institutional frameworks for confronting the threats of climate change. Some examples include the Caribbean Community's (CARICOM) Liliendaal Declaration on *Climate Change and Development, the Regional Framework for Achieving Development Resilient to a Changing Climate* and its Implementation Plan (2011-2021) as well as the Comprehensive Disaster Management Strategy 2014-2024. Furthermore, in 1991, the CARICOM established the Caribbean Disaster Emergency Management Agency, which embraces “an integrated and proactive approach to disaster management and seeks to reduce the risk and loss associated with natural and technological hazards and the effects of climate change to enhance regional sustainable development” (CDEMA n.d.).

A member of the Organization for Eastern Caribbean States (OECS), SVG has been working alongside other member states on the development of a comprehensive resilience framework which supports the OECS Environmental Management Strategy and addresses climate change causes and impacts, energy efficiency, renewable energy and disaster risk reduction. In addition,

members are in the process of developing the Eastern Caribbean Regional Climate Change Implementation Plan, which aims to reduce large-scale emissions, increase green growth in the region, deliver development co-benefits and improve resilience to climate change impacts (CANARI 2019).

In addition to these domestic- and regional-centered policies and attempts to deal with adverse impacts, the prime minister has, on several occasions at the UN, pointed out SVG's particular vulnerability while underlining that climate change is a threat caused by foreign countries and larger emitters who—unlike SVG—are not committed to the task of mitigating climate change (UNGA 2011, 2015). It is also within the UN context that most of the pertinent references to climate change as an existential threat—in this case to island states – were detected (see table below).

Table 30: Findings on the climate-security nexus in Saint Vincent and the Grenadines from an existential security perspective

ACKNOWLEDGEMENT	CONTENT
2009 Statement by the permanent representative	“As a small island archipelagic state, we, more than most, are affected and threatened by the ravages of climate change. We, more than most, recognize the critical importance of a meaningful, measurable and enforceable global compact on climate change. However, we do not simply want to ‘seal the deal’ at Copenhagen, as posited by the sloganeers in the UN. We want to seal the right deal, the just deal, and the deal that ensures our continued survival. We most emphatically will not seal a suicide pact that will assure the elimination of small island states and our way of life. The Alliance of Small Island States has recently issued a declaration that contains what we consider to be the essential contours of any meaningful agreement on climate change. We trust that our blameless position on the front lines of climate change fallout will be considered and respected in the global effort to ‘seal the deal.’ We cannot, as in the case of the world economy, be excluded in any way from the solutions to a problem that so fundamentally affects us” (UNGA 2009).
2019 Statement by the prime minister	“Marginalized nations and peoples had ‘thirsted too long at the dry spigot of promised trickle-down prosperity,’ and the long-foretold ‘rising tide that lifts all boats’ had come in the form of rising seas which threatened to inundate small island developing States. [...] As big emitters continued to dither, more frequent and intense hurricanes washed away large swaths of his country’s GDP in a matter of hours” (UNGA 2016).
2017 Statements by the deputy prime minister and foreign minister	“Saint Vincent and the Grenadines views any attempt to disavow the freshly-minted commitments of the Paris Accord as an act of hostility, and we draw a direct, causal connection between any such abdication and the future death and destruction that island states face as the result of increasingly frequent and intense weather events” (UNGA 2017).

2018 Statement by the prime minister	During the 2018 general debate of United Nations General Assembly, the prime minister stated: “Beyond the headlines, the story of climate change is grimly told in daily experiences of floods, droughts, landslides, coastal erosions, lost lives and livelihoods across our region.” Major emitters who “fail to set – and honour – ambitious mitigation pledges are committing a direct act of hostility, and we ought to resist the recklessness of those emitters acting against our interests” because climate change represents an “multifaceted existential problem,” especially in the Caribbean (UNGA 2018).
2020 Statement marking the assumption of the UNSC seat	The permanent representative to the UN stated that “in a world in which climate change is an existential threat to the Small Island Developing State (SIDS), in a world where climate change threatens to make the independent citizens of a Small Island Developing State stateless in the not-too-distant future, the Small Island Developing State has the responsibility to its citizens to be bold and advocate vociferously in the international arena for climate justice now... The Small Island Developing State must fight for its protection, it must fight to hold carbon emitters accountable, it must fight for behaviour change, it must do so even as it grapples with its own homegrown challenge” (King 2020a).

Source: Elaborated by the authors based on Rose-Ann Smith research results.

The Commonwealth of Nations (2020, n.d), of which SVG is part, also acknowledges the existential threat and supports the vulnerable island states in the face of climate change by strengthening “the voice of small states and unit[ing] its members to address this existential threat,” and it aims to secure the “historic Paris Accord.” The 2011 CARIBSAVE Climate Change Risk Atlas also describes climate change as a “serious and substantial threat to the economies of Caribbean nations, the livelihoods of communities and the environments and infrastructure across the region” and recommends a strong disaster and emergency management system for SVG in order to ensure “safety and security but also to the socio-economic performance of the country” (Simpson et al. 2012).

Generally speaking, it must be emphasized that SVG displays considerable recognition and awareness of the threats posed by climate change and its consequences. Nevertheless, the general emphasis on adaptation rather than mitigation signifies an implicit understanding that, in spite of the island’s commitment to mitigating climate change, SVG must identify the best means of living with it until the main emitters have accepted that the true responsibility lies with them. The response to climate change can therefore be understood as a global effort of various international frameworks calling for adaptation and mitigation that has trickled down to the regional and national level. While there were no findings on the traditional security sector or on the interrelations between climate change and conflict, there is a recognition of climate change’s potential to cause even broader security issues in terms of an existential threat. SVG’s prime minister has made statements to this effect in his addresses at the general debates

of the United Nations General Assembly over the years. Furthermore, the election of the country as a non-permanent member of the Group of Latin America and the Caribbean and a non-permanent member of the UNSC was motivated by SVG's role in representing the interests of all SIDS in addressing climate change.

SAINT VINCENT AND THE GRENADINES: CLIMATE CHANGE AND THE UNSC

Saint Vincent and the Grenadines is the smallest nation ever to secure a non-permanent seat in the UNSC (2020-2021). In addition to supporting principles like equality, sovereignty and independency, the country advocates sustainable development and is committed to addressing the security implications of climate change, especially for the SIDS. SVG has expressed willingness to cooperate with other members on the matter (UN News 2019). As an elected, non-permanent member of the Group of Latin America and the Caribbean, the country is expected to represent the group's interest in the UNSC (King 2020a). During the UNSC's open debate in 2019, the representative from Saint Vincent and the Grenadines noted that the UNFCCC is the main UN body for addressing climate change; however, a "multi-pronged" approach in which the UNSC recognizes climate change's implications for international peace and security is needed. The representative highlighted that unless major emitters take responsibility for climate change and reduce their emissions, this inaction could be seen as a "direct act of hostility" (UNSC 2019).

During the recent 2020 Arria-Formula meeting, which was co-organized by Saint Vincent and the Grenadines, the country emphasized the need for the UNSC to address climate-related security risks but also to include the whole UN system, as climate change is present across all spectrums. The tenets of the UNFCCC "should undergird coherent action throughout the UN system as fundamental components of all policies, programs and operations." According to Representative King, it is also necessary to support adaptation and mitigation efforts in climate-vulnerable countries through funding. She underlined that a key prevention measure to avoid "climate induced or exacerbated conflict" is mitigating emissions. Saint Vincent and the Grenadines currently endorses initiatives to improve the information base for UN activities on the issue, and it supports the Climate Security Mechanism (King 2020b).

4.11. FINDINGS ON THE CLIMATE-SECURITY NEXUS IN SOUTH AFRICA

Based on the analysis and substantial contribution by Nicholas Simpson and Birgitt Ouweneel

As illustrated in the table below, the climate-security nexus is acknowledged within the traditional security sector, and it can be said that security apparatuses such as the military and the Department of Defence (DoD) have been influenced conceptually and operationally by climate change. The underlying security concept is relatively broad and characterized by the interplay of soft and hard security aspects. Several consequences attributed to climate change are stated in relation to conflict, human insecurity, underdevelopment and migration. In response to perceived insecurity, the DoD (2015:14) underscores the importance of the integration and combination of all government domains in possible interventions. The military is also included in disaster risk management at the domestic and foreign level.

Table 31: Findings on the climate-security nexus in South Africa's traditional security sector

ACKNOWLEDGEMENT	CONTENT
2014 and 2015 Defence Strategies	The Defence Strategy 2014 of the Department of Defence holds that "advancing climate change, poverty and disease continue to exacerbate the social and economic vulnerability of many communities" (DoD 2014:6, 2015:10) and act as global and regional stress factors alongside, e.g. international terrorism (DoD 2014:10). Climate change is linked to conflict due to resource competition and migration across borders (DoD 2015:14) and is described as being one of the "most serious threats to humanity" through, e.g. hurricanes, floods and wildfires (DoD 2014:13, 2015:2). Response objectives are the promotion of well-being and development, protection of the environment and climate for future generations, assurance of prosperity of the country, region and continent, and sustainable economic growth (DoD 2015:4).
South African National Defence Force	Increasing role of the South African National Defence Force in the context of disaster risk management. The mandate includes flood and disaster relief (Hlahla 2006). The defense sector is part of a major framework of natural disaster response (2015 Disaster Management Act, see below); it supports other government departments with humanitarian assistance in response to environmental threats, and it also acts abroad (The Presidency 2015; DoD 2014:13, 2015:28), e.g. in the military operation in Mozambique after the 2019 Cyclone Idai (Maclean 2019).

Source: Elaborated by the authors based on Nicholas Simpson's and Birgitt Ouweneel's research results.

The table below shows multiple acknowledgements of the climate-security nexus in the extended security sector. Generally, several development plans and national frameworks mainstream climate change and disaster risk management

into broader policies based on the argument that climate change and security are interrelated. An important focus is on poverty, underdevelopment, and food and water security in connection to climate change. As such, climate change is described as posing a considerable risk to the country's economy and a threat to the lives and livelihoods of all South Africans (DoD 2015; DEA 2017a) and as disproportionately impacting the poor, especially women and children (NPC 2012). As the Minister of International Relations and Cooperation of the Republic of South Africa stated during the Security Council briefing on peace and security in Africa, "Historically, some of the contributing factors for instability and insecurity on the African Continent include poverty, marginalisation, inequality, unemployment, failure to manage diversity, governance, the scramble for natural resources, external interference, and recently the impact of climate change" (Pandor 2019). President Ramaphosa (2019a) stated that "the devastating effects of global warming on our climate are already being felt, with extreme weather conditions damaging livelihoods, communities and economies." Acknowledgement of the historical responsibility in causing climate change can be detected, for example, in another statement from President Ramaphosa (2019b) in which he expressed that South Africa shares a sense of urgency in addressing the climate emergency and highlighted that, although developing countries "have historically contributed the least to global emissions, they are and will continue to be the most affected by climate change and its impacts." A fair contribution to the global climate change response dependent on respective national capabilities and differentiated responsibilities is also emphasized. Similarly, the Department of Environmental Affairs states that "developed countries [need] to step up and do their fair share," indicating that they see it as their obligation to support "developing countries to enhance their climate actions through technology and skills transfer, financing and others" (DEA 2018).

Table 32: Findings on the climate-security nexus in South Africa's extended security sector

ACKNOWLEDGEMENT	CONTENT
2012 National Development Plan	Climate change is entrenched and mainstreamed in the country's development directory. The National Planning Commission's development plan highlights consequences of climate change on conflicts, migration and food security through its impact on food production and access to water. The general message is that climate change disproportionately impacts the poor, especially women and children (NPC 2012).
2015 Disaster Management Act	The act envisages the consideration of climate change in disaster risk assessments throughout all spheres of government. It mandates measures to reduce the risk of disaster through adaptation to climate change and the development of early warning mechanisms (Presidency 2015).

Department of Environmental Affairs	The department is mainstreaming climate change and response measures into relevant sectors to ensure coordinated and integrated responses by all spheres of government. It seeks to enhance adaptive capacity, strengthen resilience and reduce vulnerability to climate change and ensure an adequate national adaptation response in the context of the global response (DEA 2011, 2018). Accordingly, water is the primary medium through which the impacts of climate change are being felt in South Africa (DEA 2017b).
2016 Nationally Determined Contribution	The NDCs include a strong focus on water and food security in relation to climate change: “The nature of the climate change challenge is one characterized by the overuse of a global commons in an unequal world. Along with other developing countries, South Africa is especially vulnerable to its impacts, particularly in respect of water and food security, as well as impacts on health, human settlements, and infrastructure and ecosystem services” (NDC 2016:1).

Source: Elaborated by the authors based on Nicholas Simpson and Birgitt Ouweneel’s research results.

In addition, cooperation between local government and private actors is evidenced in references to climate change, water and energy security. Provincial and local governments seeking to provide enhanced water and energy security are increasingly using these terms, recognizing the need for the involvement of private actors in response to climate induced disruptions, the limited reach of state response, and the importance of coordination between all security actors. The whole-of-society-approach emphasizes overlapping security roles and the need for cooperation between state and non-state actors, e.g. in the water strategy of Cape Town Municipality (CoCT 2019; Simpson et al. 2019).

Generally, the responses address vulnerability reduction, strengthening of resilience and the cooperation of different actors throughout several sectors and governance levels. The country’s climate change engagements represent a complex system influenced by national, continental and global actors. On the African continent, South Africa has become the main driver of climate negotiations (Nhamo 2011) and plays a vital role in ensuring the implementation of the AU Agenda 2063 and the UN’s 2030 Agenda for Sustainable Development. President Ramaphosa (2019b) emphasized that “the climate crisis cannot be solved outside of a development context. We see the crisis as an opportunity to strengthen global governance and that in addressing the crisis, we can meet the aspirations of the UN Agenda 2030 for Sustainable Development and the Sustainable Development Goals. South Africa’s National Development Plan 2030 identifies poverty, inequality and unemployment as our most serious national development challenges. Overcoming these triple challenges fundamentally informs our approach to addressing climate change.”

The existential security perspective is found in the constitution, the Department of Defence and in UNSC statements.

Table 33: Findings on the climate-security nexus in South Africa from an existential security perspective

ACKNOWLEDGEMENT	CONTENT
1996 Constitution	The constitution states, “Everyone has the right – (a) to an environment that is not harmful to their health or wellbeing; and (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that (i) prevent pollution and ecological degradation; (ii) promote conservation; and (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development” (Constitution 1996).
2014, 2015 Department of Defence	Relatively exceptional is the fact that defense strategies include references to an existential understanding of security, with climate change being described as part of the “most serious threats to humanity” through, e.g. hurricanes, floods and wildfires (DoD 2014:13, 2015:2) and that, in alignment with the environmental right, the strategies highlight the protection of the environment and future generations through the promotion of wellbeing, for example.
Department of Environmental Affairs	The South African representative stated: “The true nature of the threat posed by climate change is existential and global in nature” (UNSC 2019).

Source: Elaborated by the authors based on Nicholas Simpson and Birgitt Ouweneel's research results.

As an overall insight, it can be concluded that South Africa sees an important correlation between addressing the causes and consequences of insecurity and promoting an environment conducive to human development. This people-centered approach to national security thus places a legitimate, credible and cohesive developmental state at the center of driving the overarching agenda to build a better South Africa, a better and safer Africa, and a better world for all peoples.

To date, more substantive effort has been focused on notions of security that have extended to water, food, energy and other “second-generation” rights. This derives in part from the recognition that climate change presents a range of risks to essential goods, which have a potentially greater and immediate impact on domestic insecurities, as well as the co-benefit of addressing broader societal goals.

SOUTH AFRICA: CLIMATE CHANGE AND THE UNSC

Through its membership in the UNSC (2019-2020), South Africa aims to champion the positioning of Africa as a strong, resilient and influential global player by bolstering the African Union's relationship with the United Nations (Ramaphosa 2020). The main priority of South Africa's membership is advocating preventative diplomacy, mainstreaming gender perspectives into all of the Council's resolutions (DIRCO 2018), and promoting greater equitability for countries of the Global South within the UN system (Landers 2019). During its previous memberships in 2007 and 2011, South Africa argued that inclusion went beyond the Council's mandate and needed to be addressed in other UN forums (UNSC 2007, 2011). Again in 2019, South Africa questioned the appropriateness of the Council dealing with climate change, arguing that the high level of uncertainty makes it difficult to determine a direct causal nexus between climate change and natural disasters as well as threats to international peace and security. A possible duplication of efforts with other UN entities who are better suited to deal with this matter was also pointed out (UNSC 2019). Additionally, the possibility of undermining states' sovereignty and a fracturing of the international system were expressed as main concerns (Murphy 2018).

The recent UNSC Arria-Formula meeting in 2020 showed that the position rejecting inclusion has changed. The South African representative stated that, while it is still important to question the exact role of the Council, it has become clear that climate change is a matter of security that acts as a "conflict multiplier" and is contributing to conflicts, e.g. in the Sahel, Lake Chad, and the Horn of Africa (Mogashoa 2020). She highlighted the importance of unpacking the linkages between climate change and security and considering possible ways in which the UNSC can address these challenges, which are regarded as especially important in context of COVID-19. South Africa recommends considering the scientific consensus on this topic and strengthening multilateral solutions in which the UNFCCC plays an important role. It is therefore highlighted as "absolutely critical" that the UN coordinate collective responses to this "existential threat of this nature" as well as cooperate with regional organizations like the African Union and partners on the ground (Mogashoa 2020). The country encourages greater research and analyses not only on this topic, but other environmental challenges that affect security as well in order to plan timely and appropriate interventions.

In this context, it is regarded as crucial to consider as many voices as possible and to promote resilient livelihoods to create social cohesion. Accordingly, the UNSC needs to address these challenges “holistically” and integrate aspects of (sustainable) development (Mogashoa 2020).

4.12. FINDINGS ON THE CLIMATE-SECURITY NEXUS IN TUNISIA

Based on the analysis and substantial contribution by Hatem Jammeli

No references to the climate-security nexus with respect to traditional security considerations have been detected among the Tunisian government documents analyzed during the available research period. While the traditional security sector is thus not an aspect of this case study, it can nevertheless be highlighted that the Tunisian army is actively involved in disaster risk management and civil security missions to rescue people from devastated regions. Recently, in 2019, the army assisted in the evacuation of people from the flood-affected area of the Ariana Governorate and participated in water pumping efforts (Dejoul 2019). Military forces are also involved in fighting desertification and harvesting crops. In 2019, for instance, the military secured about 600 thousand quintals of freshly-harvested cereals from the northwestern governorate of Siliana (Realities 2019). Furthermore, the Ministry of Defense has contributed considerably to agriculture development projects concerning date palm production in particular (Marsad 2017).

The extended security sector does show acknowledgement of the climate-security nexus on the domestic level in relation to energy and food security and extreme events, as the state has already experienced several flood disasters primarily affecting the North (Medjerda River basin), Midwest, and Northeast in 2007, 2009 and 2018, respectively (Fehri 2014; France 24 2018). In the findings that focus on foreign affairs, reference is made to aims to strengthen dialogue and cooperation in reducing and managing disasters, the fight against ecological degradation, and to descriptions of the African States as being particularly exposed and vulnerable to climate change.

Table 34: Findings on the climate-security nexus in Tunisia’s extended security sector

ACKNOWLEDGEMENT	CONTENT
2007 National Strategy for Adaptation to Climate Change	The 2007 strategy was first developed for the agricultural sector and also included several sectors directly or indirectly related to agriculture. However, it subsequently moved beyond those sectors and became a cross-cutting strategy, attracting great interest in the country and raising awareness of the challenges of climate change (MAWRF and GIZ 2007).
2012 National Strategy on Climate Change	In 2012, a new national strategy was adopted. It provided a multi-sectoral response to climate change and created a roadmap for the enhancement of the country’s adaptive capacity. It describes possible pathways forward following the revolution, but it places future Tunisian development on insecure ground and highlights the needs of the Tunisian people, namely socioeconomic development and protection of the poor. These aims can be achieved with the help of robust climate politics that includes, e.g. spatial equilibrium and adaptation to sea level rise. The strategy also includes the possibility of conflicts resulting from resource competition (MESD and GIZ 2012). Both strategies were developed with the support of the German development agency GIZ.
2015 Nationally Determined Contributions (NDCs)	Tunisia “supports international efforts to combat climate change” (NDC 2015: 4) and the commitments of the UNFCCC. The nexus of energy and security is prominent as the “policy of fighting climate change is particularly emphasized in the energy sector.” Security issues are thereby said to arise from the “growing energy balance deficit and the heavy reliance on conventional energy” (NDC 2015:4). Additionally, economic sustainability issues are associated with fluctuations of global energy prices and their implications in terms of the balance of payments and public finances. In addition, the expected impact on the agricultural sector is highlighted. Extreme droughts could decrease the available land area for rain-fed cereal production by 30%, which could lead to a decline of 5-10% of the GDP by 2030 compared to 2010. To meet these challenges, an energy transition process that strengthens energy efficiency and renewable energies is envisaged. The government aims to lower its carbon intensity by 41% by 2030 compared to 2010 (NDC 2015).
Foreign policy principles	The principles and objectives of Tunisian diplomacy in foreign policy are formulated “[o]n the basis of a global and comprehensive approach to international relations based on a close correlation between the notions of peace, security, stability, development and democracy” and include three overall goals. In addition to enhancing cooperation, reducing “tension and crises in international relations and fostering a favorable climate for the promotion of peace, security and stability in the world,” a third goal is “[r]ectifying the disequilibria characterizing international economic relations and enhancing complementarity and solidarity partnership between States,” which includes the aim of “[e]nhancing international cooperation in the field of fight against the phenomenon of ecological degradation and cleanliness of global environment” (MFA n.d.).

2018 Declaration on Disaster Risk Reduction	<p>The Tunis Declaration on accelerating the implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030 recognizes “the ever-increasing risk of disasters and their devastating effects, including loss of life, livelihoods and infrastructure, and forced displacement. The differentiated impact on men and women across the continent is exacerbated mostly by climate change and variability, environmental degradation, unplanned urbanisation, inequality, as well as conflicts. This trend undermines the efforts aimed at achieving the global targets of Agenda 2030 for Sustainable Development and the aspirations of Agenda 2063.” Furthermore, it recognizes “the increasing vulnerability of island states of Africa, as well African states emerging from conflicts and disasters to climate change, and the impact of natural hazards on their economies and development” (UNDRR and AU 2018:2). In response, “the integration of climate change, disaster risk reduction and sustainable development strategies, policies, programmes and plans of action at all levels to ensure disaster risk informed, inclusive, resilient and sustainable development in Africa” is envisaged (UNDRR and AU 2018:4f). This aim employs the whole-of-society approach, which addresses disaster risk reduction in cooperation with civil society and the disadvantaged and vulnerable in a mainstreaming approach.</p> <p>During a 2012 meeting, Tunisia highlighted the need for better disaster risk and management and increasing resiliency due to extreme events like heavy floods. Tunisia announced the establishment of a risk information system and risk-sensitive policies in response (UNDRR 2012).</p>
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Source: Elaborated by the authors based on Hatem Jammeli's research results.

When it comes to viewing climate change's impact on security from an existential perspective, the focus rests primarily on the Tunisian constitution (see table below). Drafted after the 2011 uprising known as the Arab Spring, the new constitution was adopted in 2014 and emphasizes the importance of environmental issues in a specially-designated section. Constitutionalizing the right to a “healthy” environment shows that Tunisian legislators are aware of the implications of climate change and that environmental and climate protection are part of the political agenda. The constitution specifically references climate change: “[I]n the wake of the political changes triggered in December 2010, Tunisia adopted a new constitution on 26 January 2014, which incorporated the fight against climate change as a permanent feature. Under Article 44 of the new constitution, the state shall ‘provide the means necessary to guarantee a healthy and balanced environment and contribute to the climate's integrity’” (NDC 2015:4). The USAID (2018) factsheet Climate Risk Profile Tunisia also states that the “Government of Tunisia recognizes the threat that climate change poses, with climate change explicitly discussed in the country's constitution.”

Table 35: Findings on the climate-security nexus in Tunisia from an existential perspective

ACKNOWLEDGEMENT	CONTENT
Tunisia's constitution	The preamble highlights the "necessity of contributing to the preservation of a healthy environment that guarantees the sustainability of our natural resources and bequeathing a secure life to future generations." Article 45 holds that the "state guarantees the right to a healthy and balanced environment and the right to participate in the protection of the climate. The state shall provide the necessary means to eradicate pollution of the environment" (Tunisian Constitution 2014).

Source: Elaborated by the authors based on Hatem Jammeli's research results.

Some external actors have illustrated the climate-security nexus by specifically connecting climate change to water security in the "water scarce low-lying islands off Tunisia's coast," to coastal erosion (USAID 2018:1; UNDP 2017), or by focusing on environmental degradation, environmentally-dependent socioeconomic systems and population displacement (Gsir and Bounouh 2017). According to a study carried out by the World Bank, IPCC projections indicate that Tunisia and neighboring countries are projected to experience strongly reduced hydrological cycles and, therefore, drier conditions with increased risks of droughts throughout the 21st century under high greenhouse gas (GHG) emission scenarios (Verner et al. 2018). The potential socioeconomic impacts of soil erosion and desertification may include reduced income for farmers and agribusinesses, increased prices for food and other primary products, rural unemployment, lower tax revenues, increased crime and insecurity, and increased migration to urban areas and elsewhere (Verner 2018).

The findings to date indicate that, in spite of several acknowledgements included in this case study, the climate-security nexus is not a key concern at the domestic level. As indicated below, however, Tunisia's position during its membership in the UNSC shows an increasing concern with the issue.

TUNISIA: CLIMATE CHANGE AND THE UNSC

During its membership in the UNSC (2020-2021), Tunisia's focus is mainly on conflict prevention and settlement, with particular attention paid to both the role of women and younger generations in this context and to the importance

of enhancing developmental cooperation. Combatting terrorism is another security priority. Following Tunisia's election to the Council in 2019, climate change was not mentioned as a main priority, but the global challenges "facing human beings and international community" were referenced by the Minister of Foreign Affairs (Jhinaoui 2019).

However, in April 2020, Tunisia co-organized the Arria-Formula on climate and security risks, during which the Tunisian representative advocated for the topic's inclusion in the UNSC. He pointed out that the impacts of climate change on livelihoods (e.g. food security) can "exacerbate existing conflicts," and that the UN does not have the appropriate tools to deal with the situation. Tunisia therefore sees the need to strengthen the UN's data- and knowledge base on the topic and integrate risk assessment of this threat in all levels of security, especially preventative strategies. Tunisia supports periodic reporting from the secretary-general to the UNSC that includes in-depth analysis of the current and future risks posed by climate change. The Council could then take these aspects into consideration in peacekeeping missions and preventive measures. To improve coordination within the UN, Tunisia also favors the appointment of a special envoy for climate security. The representative emphasized that a "holistic" security approach that includes all UN entities is needed and, lastly, underlined the key role of the Paris Agreement and the Agenda 2030 in collectively tackling climate change (Ladeb 2020).

4.13. FINDINGS ON THE CLIMATE-SECURITY NEXUS IN THE UNITED KINGDOM

Based on the analysis and substantial contribution by Cameron Harrington

As illustrated in the table below, the climate-security nexus is acknowledged within the UK's traditional security sector, and climate change concerns are included in domestic and foreign affairs. It also shows that climate change is framed in relation to the activity of the military itself and unstable regions. Climate change as a root cause of conflict is absent in most of the security documents reviewed. Most strategic outlooks and assessments from the Ministry of Defence (MoD) are focused on building military preparedness rather than emphasizing

mitigation or climate conflict prevention. Certainly, the militarization of the topic is possible, but the UK has not, as yet, designated climate change as a problem to be solved militarily. Instead, the MoD and UK Forces see themselves as being positioned to provide assistance and expertise to developing countries bearing the brunt of deleterious climate effects and do not have the resources necessary for mitigation (MoD 2015). Therefore, the Ministry demonstrates the prevailing view that climate security is better handled politically than militarily.

Table 36: Findings on the climate-security nexus in the UK’s traditional security sector

ACKNOWLEDGEMENT	CONTENT
<p>National Security Strategy of the Cabinet includes climate change (2009) as “threat multiplier” (2015) and “national security priority” (2019)</p>	<p>Climate change is referred to as “potentially the greatest challenge to global stability and security, and therefore to national security” (Cabinet Office 2009:18) and as a “threat multiplier” (Cabinet Office 2010:17), the impacts of which are exacerbating instability, conflict and migration in many countries, particularly in North Africa and the Middle East (Cabinet Office 2015:17). The UK’s security has been described as more complex, intertwined and dangerous since 2015, and new security priorities affecting the UK, like diseases and natural hazards that exist peripherally to climate change, are considered (Cabinet Office 2015). In this context, civil emergency risks and their direct effects on the UK and are also seemingly of growing importance to national security. Finally, in 2019 in the third Annual Report, it is noted that “climate change is rightly treated as a national security priority” (Cabinet Office 2019:3).</p>
<p>Ministry of Defence</p>	<p>In 2010, the Ministry of Defence (MoD) (2010:12) released climate change strategies and highlighted the effect of climate change on the UK’s interests “both at home through increased migration, and abroad as climate change acts as a threat multiplier, destabilising areas of the world that are of strategic importance to the UK.”</p> <p>On a strategic level, future scenarios of climate change impacts are emphasized as climate and related risks are listed among the highest impact and certainty threats to defense (MoD 2018).</p> <p>Climate change is framed as an institutional challenge that threatens the “defence’s ability to meet its strategic objectives.” It affects the type, frequency and location of military operations and the “availability and cost of energy, products and services.” The identification and understanding of the worldwide and local consequences of climate change is seen as crucial (MoD 2017). Reducing military GHG emissions if envisaged (MoD 2020) and the importance of an eco-friendly image to bolster recruitment amongst the younger generation is also highlighted (Makin-Isherwood 2019).</p> <p>In 2020, a new climate change strategy and strategic outlook was announced. It will highlight “the need to be prepared to operate more often in the Arctic region as ice sheets recede and Russian submarine activity increases; our forces are increasingly called upon to assist with natural disasters across the globe; and they need to be able to operate in environments that will and are experiencing more extreme weather patterns” (MoD 2020).</p>

Role of the military in disaster management (domestic and abroad)	The Royal Navy, British Army, and Royal Air Force have played key roles in responding to disasters such as the 2004 tsunami in South East Asia, the 2015 earthquake in Nepal, Hurricane Dorian in the Bahamas, Hurricane Irma in 2017, and the 2018 earthquake in Indonesia. Domestically, forces were also used during the flooding caused by Storm Desmond in 2015 (Forces Network 2019), for example.
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Source: Elaborated by the authors based on Cameron Harrington's research results.

The UK has been at the forefront of linking climate and security for decades. Even as far back as 1989, then-Prime Minister Margaret Thatcher framed climate change as a global existential risk, using a speech in the UN General Assembly to proclaim that “it is life itself that we must battle to preserve” (Thatcher 1989). Since at least 2007, climate change has been acknowledged as an important security issue in and for the UK and is gaining more room in the UK’s security policy. It is now utilized in multiple ways across departments and in different ways across time and place.

The table below shows the multiple acknowledgments of the climate-security nexus within the extended security sector. The focus is mostly on foreign affairs as the UK champions climate diplomacy, aid, and the building of resilient and adaptive societies. Climate change is thereby used to further a vision of global security that is advanced through international cooperation and multilateral aid. Accordingly, the “UK has taken a proactive approach to mainstream climate talks through other channels including the Foreign and Commonwealth Office (with its highly-regarded network of climate attachés) [...] the G7 and G20, the UN Security Council and other ‘soft diplomacy’ routes” (CCC 2019:119). However, domestic vulnerability is also taken into account. Climate impacts on the UK itself are said to be significant, diverse, and increasing (CCC 2017b; DEFRA 2018; DBEIS 2017). The Meteorology Office (Met Office 2018) projects that all areas of the UK will become warmer, with wetter winters and drier summers by the end of the 21st century and a consistently rising sea level (under all emission scenarios) as well.

Another important aspect that is not highlighted in the following table but has already had an important influence on UK politics is the fact that the country will host the upcoming UN Conference of Parties (COP26), which has been postponed until 2021 due to the COVID-19 pandemic, in Glasgow.

Table 37: Findings on the climate-security nexus in the UK's extended security sector

ACKNOWLEDGEMENT	CONTENT
Foreign and Commonwealth Office (FCO)	<p>In the context of the FCO, strong concerns about climate change exist, and several diplomats and officials are advocating for the acknowledgement of climate-security links. Minister Mark Field, for example, highlighted the importance of factoring the risks of climate change into all governmental decision-making and states, "climate security must be at the heart of foreign policy work at a global level" (FCO 2019a).</p> <p>A particular concern lies on the impacts of climate change for the Island Developing States and Least Developed Countries, including almost 60% of the Commonwealth members, which accordingly face an existential threat from climate change and associated natural disasters (FCO 2019b).</p>
Department for International Development (DFID)	<p>The DFID states: "We face a climate cataclysm that could undermine all our efforts. We are helping to make countries and populations more resilient in the face of the climate crisis and better able to anticipate and manage risks and shocks. We are mitigating the impact of climate change including through low carbon growth supported by innovation and technology; and providing stronger protection of biodiversity and the environment" (DFID 2019).</p>
International Climate Finance as primary mechanism of development and aid policy	<p>The "UK International Climate Finance (ICF) plays a crucial role in addressing this global challenge [...]. Our ICF delivers in the national interest, delivering all 4 aims of the UK aid strategy: strengthening global peace, security and governance; strengthening resilience and response to crises; promoting global prosperity; tackling extreme poverty and helping the world's most vulnerable" (UK Government 2020).</p>
Climate Change Risk Assessment of the Committee on Climate Change (CCC)	<p>The CCC includes security in relation to domestic and international dimensions. Climate security is not seen as a direct cause of global instability but rather one important piece in a larger suite of factors. It poses a risk to the UK because of its potential impacts on the following:</p> <ol style="list-style-type: none"> 1. State failure in a given area may require greater proportions of UK aid to be channeled to humanitarian assistance, thereby reducing the funds available for longer-term economic development and adaptation actions and thus failing to address some of the root causes. 2. Second, the breakdown of state structures can lead to greater insecurity in trade and transportation through the area. This also acknowledges that conflicts can lead to migration or, conversely, that populations might also be rendered less mobile and effectively trapped in conflict zones. 3. Finally, in extreme cases, state failure may require military presence by international forces (including from the UK) to control non-state elements including terrorist organizations (CCC 2017b). <p>Domestically, flooding and coastal changes are presented as a high risk to communities, businesses and infrastructure in the UK. Also, heatwaves and rising temperatures are an increasing risk for people's health and will possibly lead to droughts and water supply shortages (water security) with devastating effects for agriculture (food security) and the public (CCC 2017a).</p> <p>The latest CCC report (2020:101) states that the UK has a reputation "as one of the largest development aid donors and is respected for its efforts to help support vulnerable countries dealing with the impacts of climate change. This has helped the UK play an important role in the international climate negotiations (including through the EU) that resulted in the global Paris Agreement on climate change."</p>

Source: Elaborated by the authors based on Cameron Harrington's research results.

An existential security perspective can be detected in the 2019 declaration of climate emergency by the UK Parliament, which makes references to future generations and irreversible destruction, as well as in references to other countries.

Table 38: Findings on the climate-security nexus in the UK from an existential security perspective

ACKNOWLEDGEMENT	CONTENT
2019 UK Parliament climate emergency declaration	States that: "Today the House must declare an environment and climate emergency. We have no time to waste. We are living in a climate crisis that will spiral dangerously out of control unless we take rapid and dramatic action now. This is no longer about a distant future; we are talking about nothing less than the irreversible destruction of the environment within the lifetimes of Members. Young people know this. They have the most to lose" (House of Commons 2019).
2019 Statement at the UNSC	"This is also an extremely important issue for the United Kingdom. Indeed, we were the first country to raise the issue in the Security Council, in 2007 (see S/PV.5663). We are particularly concerned about small island developing States and least developed countries, including almost 60 per cent of our fellow Commonwealth members, which face an existential threat from climate change and associated natural disasters" (UNSC 2019).

Source: Elaborated by the authors based on Cameron Harrington's research results.

While the declaration of climate emergency demonstrates the will of Parliament, it does not legally compel any specific actions. Discursively, declaring an emergency captures the mood of the general population, which views climate change to be one of— perhaps the most — pressing global issue (Taylor 2019). The last years have seen a marked increase in UK acknowledgement of climate change threats and risks. Furthermore, it must be emphasized that climate politics has long been considered a fundamental principle in the UK, given that the 2008 Climate Change Act is law. The law sets out carbon budgets (e.g. 80% GHG reductions by 2050) that the government is legally required to meet (CCC 2014).

The findings to date indicate that no sustained emphasis connecting climate change to UK state security is prevalent, though the country frequently connects its global interests to climate action. The Earth System was not detected in government discourse, but the importance of climate change is repeatedly highlighted, generally in connection to a variety of "knock-on" security effects (e.g. fueling instability, impacting food and water security, impacting growth and development, flood risk and other extreme weather events). What this all suggests is that climate change has been framed as a broad-based security risk, no matter what type of security one employs.

That said, if one takes traditional security as state security, it is rare to find any mention of climate change as an existential threat to the United Kingdom itself. While it views with concern and alarm the potential and real effects of climate change on areas around the world (particularly already-vulnerable regions), there is little mention of existential domestic threats from climate change. However, state security and national self-interest (in the form of state preservation) is found in the UK's climate security discourse and practices. Indeed, the dominant frame of climate security in the UK today seems to emphasize the managing of risk and building resilience.

Looking ahead, one could expect climate change to increase in visibility in national strategic documents and climate security to become increasingly prevalent. In light of the 2017 Climate Change Risk Assessment (CCC 2017a), the next National Security Strategy (due in 2020 or 2021) is likely to emphasize the role of climate change in exacerbating existing conflict dynamics and the need for UK armed forces to better prepare to respond both at home and abroad. However, the Conservative government, in power until at least 2024, has not yet produced a compelling suite of action plans to combat climate change despite its net-zero by 2050 pledge. Looking further ahead to the next decade—as the effects of climate change grow larger, more consistent and more easily connected to social effects—a number of security logics will inevitably be employed by the UK to justify its responses. How specifically these logics will manifest themselves, and what type of governance is produced in their image, remains to be seen.

UNITED KINGDOM: CLIMATE CHANGE AND THE UNSC

The UK is a strong advocate for having climate change on the UNSC's agenda and initiated the first-ever debate on climate security in the Council in 2007. The UK's stated rationale was that climate change poses a potential threat to international peace because it would trigger border disputes, migration, and humanitarian crises (UNSC 2007a), representing an implication for "collective security" (UNSC 2007b) worldwide. Again, in 2011, the UK along with countries like the US and the Small Island Developing States (SIDs) argued the UNSC had the responsibility to act because climate change is a "threat multiplier" and part of a wave of new crosscutting security challenges (UNSC 2011). Since then, the UK has been a key actor alongside European allies like Germany, France, Sweden, and the European Council in continuing the discussion within the UNSC (Harris 2012). In 2018, it joined the *Group of Friends on Climate and Security* with the aim of enhancing action on climate-related security risks within the United Nations system (German Federal Foreign Office 2018). During the UNSC open debate in 2019, the UK emphasized that climate change is a contemporary security risk that threatens the whole world and therefore requires shared solutions (FCO 2019b).

Recently, during the Arria-Formula meeting co-organized by the UK, the British representative stressed the importance of considering climate change as a security threat to lives and livelihoods even though the world's attention is currently focused on the COVID-19 pandemic. The UK representative underscored the importance of an evidence-based approach that takes regional factors (e.g. the resolutions on Lake Chad Basin, the Sahel, Somalia and Darfur) into account. Therefore, a better understanding by the UN and UNSC of conflict drivers and impacts on stability—as well as ways to mitigate them—is seen as a necessity. The UK supports reporting from the secretary-general to the UNSC and including risk assessment (e.g. forecasting and risk data) in conflict prevention efforts. The representative stated, "addressing climate risks and resilience should be an integral part of the Council's work and factored into UN operations, conflict preventions and solution strategies and peacebuilding plans" (Allan 2020).

4.14. FINDINGS ON THE CLIMATE-SECURITY NEXUS IN THE UNITED STATES

Based on the analysis and substantial contribution by Daniel Abrahams

In the assessment of the US's approach to climate change, significant differences can be detected in the respective administrations of Barack Obama (2009-2017) and President Donald Trump (2017-to date). The shift in approach from one that strongly emphasized climate change policy (Obama administration) to one that has actively deemphasized the importance of climate change carries with it significant implications. This can be seen most clearly in the agreement and ratification of the Paris Agreement under Obama in 2016 and the stated intent to withdraw by President Trump in 2017 (Hermwille and Sanderink 2019). This change is of considerable importance when considering the role of the executive branch and its direction of federal agencies with a direct role in addressing climate security (e.g. the Department of State, Department of Defense, Department of Homeland Security, the Environmental Protection Agency and United States Agency for International Development (USAID)).

The table below shows the different acknowledgements of the climate-security nexus within the traditional security sector during both administrations. In spite of the differences and changes over time, there are policy efforts and discursive formations that have stayed consistent. Some efforts concerning the climate-security nexus continue within key agencies and other branches of the Federal Government under the Trump administration (Abrahams 2019). For example, a cross-cutting issue is that the impacts of climate change on military infrastructure, basing, training and logistics are consistently depicted as “a national security issue” (e.g. DoD 2014, 2019a). This concern is also described in several hearings before the US legislature (see US Senate 2017; Conger 2019).

Table 39: Findings on the climate-security nexus in the US’s traditional security sector

ACKNOWLEDGEMENT	CONTENT	
	Obama Administration	Trump Administration
National Security Strategy	The 2015 <i>National Security Strategy</i> notes: “Climate change is an urgent and growing threat to our national security, contributing to increased natural disasters, refugee flows, and conflicts over basic resources like food and water. The present-day effects of climate change are being felt from the Arctic to the Midwest. Increased sea levels and storm surges threaten coastal regions, infrastructure, and property” (Obama 2015a:12).	Climate policy is included in relation to the energy sector in the 2017 National Security Strategy. The aim is to secure the US’s dominant and leading position and energy dominance. Therefore, the energy sector must be diversified and the “importance of environmental stewardship” recognized. To “safeguard the environment,” initiatives and investment in clean energy sources are envisaged: “[C]limate policies will continue to shape the global energy system.” Energy security and environmental protection need to be balanced and “the United States will remain a global leader in reducing traditional pollution, as well as greenhouse gases, while expanding our economy” (Trump 2017b:22).
Department of Defense	<i>The 2014 Quadrennial Defense Review’s</i> focus is on climate change as a threat to military infrastructure: “The impacts of climate change may increase the frequency, scale, and complexity of future missions, including defense support to civil authorities, while at the same time undermining the capacity of our domestic installations to support training activities and other forms of violence” (DoD 2014:8). Climate change is also connected to water, food and economic security, and is said to act as a “threat multiplier” that can lead to violence and terrorism.	The 2019 <i>Report on Effects of a Changing Climate</i> assesses the “significant vulnerabilities from climate-related events in order to identify high risks to mission effectiveness on installations and to operations” and “the Efforts to Increase Installation Resiliency & Operational Viability” (DoD 2019a:2). It also holds that “the effects of a changing climate are a national security issue” as they are potentially impacting the DoD and its infrastructure, operations and plans (DoD 2019a:2).
US Military	The Navy’s <i>Roadmap on Climate Change</i> (DoN 2010) set up a special envoy on climate change (active until 2019) (Simkins 2019). US Army Corps of Engineers Engineering examine the changing climate effects in the Arctic (DoD 2019b:17).	

Source: Elaborated by the authors based on Daniel Abrahams’s research results.

Another continuity in both administrations is detected in references to the Arctic. During the Obama administration, the Arctic was a clear concern for the DoD with an emphasis on risk mitigation, strategic and future planning, and opportunities, as can be seen in the following quote: “Climate change also creates both a need and an opportunity for nations to work together” (DoD 2014:25). The 2019 Arctic strategy under Trump points out that the changing physical environment (receding sea ice, concerns over oil and gas exploration, the opening of new

shipping lanes and access to resources) is of growing concern to national security (DoD 2019b). Similarly, the 2019 *Report on Effects of a Changing Climate to the Department of Defense* highlights that “[c]limate-related effects impact accessibility and activity in the Arctic,” which will increase the “demand for Arctic-specific search and rescue (SAR) resources” and requires “further military support to civil authorities to enable the peaceful opening of the Arctic” (DoD 2019a:8).

The lens of the extended security sector reveals several acknowledgements of the climate-security nexus by other agencies including, for example, the Department of Homeland Security (DHS). Created in 2002 in response to the September 11 attacks and coordinated by the White House, its broad mandate is “to secure the nation from the many threats we face,” including border security, cyber security and disaster response (DHS 2019). The administrations refer differently to this mandate, but it becomes apparent that while climate change has been de-emphasized under the Trump administration, topics such as climatic hazards, shocks and resilience persist. Similarly, the USAID sees its mission as “support of America’s foreign policy leading,” and “the U.S. Government’s international development and disaster assistance through partnerships and investments that save lives, reduce poverty, strengthen democratic governance, and help people emerge from humanitarian crises and progress beyond assistance” (USAID n.d.). In addition, it sees its work in the advancement of “U.S. national security and economic prosperity,” the demonstration of “American generosity” and the promotion of “a path to recipient self-reliance and resilience” (USAID n.d.), and it partly includes or indirectly mentions the climate-security nexus. As shown in several other sections of this research report, the USAID carries out several projects in other states with reference to the climate-security nexus (e.g. the Dominican Republic).

Table 40: Findings on the climate-security nexus in the US’s extended security sector

ACKNOWLEDGEMENT	CONTENT	
	Obama Administration	Trump Administration
Department of Homeland Security	<p>The 2012 <i>Climate Change Adaptation Roadmap</i> “presents the Department’s long-range planning effort to frame, analyze, and adapt to the potential impacts of climate change across its homeland security missions” (DHS 2012:IV).</p> <p>The 2014 <i>Quadrennial Homeland Security Review</i> describes climate change as a “threat multiplier” in relation to terrorism, violence, poverty, migration, environmental degradation, natural disasters and pandemics. Extremes as hurricanes are described as a particular threat to the life of populations and the economy (DHS 2014a:21f).</p> <p>The 2015 <i>Climate Action Plan</i> examined issues of climate resilience and the support of state, local and non-governmental actors in preparing for local risks of climate change (DHS 2014b).</p> <p>The 2016 DHS budget earmarked \$616 million to support President Obama’s Climate Resiliency Initiative (DHS 2015).</p>	<p>In 2017, more than \$130 billion had been appropriated for disaster spending in response to hurricanes and wildfires (estimated total damage: \$300 billion) (Wharton Risk Center 2018).</p> <p>The DHS’s Federal Emergency Management Agency does not mention climate change in its 2018 <i>Disaster Recovery Reform Act</i>, however, the report’s preamble references an unprecedented year in terms of climatic hazards like hurricanes and wildfires (FEMA 2018).</p> <p>Several hearings with experts on climate change as a threat to national security (e.g. the Committee on Foreign Affairs’ 2019 hearing on <i>How Climate Change Threatens U.S. National Security</i>) were carried out.</p>
Presidential frameworks and orders related to climate change	<p>Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance (Obama 2009); Executive Order 13653, Preparing the United States for the Impacts of Climate Change (Obama 2013a); Executive Order 13693, Planning for Federal Sustainability in the Next Decade (Obama 2015b).</p> <p>The President’s 2013 Climate Action Plan holds that “[w]hile no single step can reverse the effects of climate change, we have a moral obligation to future generations to leave them a planet that is not polluted and damaged. Through steady, responsible action to cut carbon pollution, we can protect our children’s health and begin to slow the effects of climate change so that we leave behind a cleaner, more stable environment” (Obama 2013b:4).</p> <p><i>The Presidential Memorandum on Climate Change and National Security</i> acts as a “framework and directs Federal departments and agencies to perform certain functions to ensure that climate change-related impacts are fully considered in the development of national security doctrine, policies, and plans” (Obama 2016:sec. 1).</p>	<p>Executive Order 13783, Promoting Energy Independence and Economic Growth (Trump 2017a) formally disbanded and nullified the former administration’s main frameworks on these issues.</p>

USAID	The 2015 Policy document <i>Climate Change and Conflict</i> holds that climate change affects security and stability, but also that conflict and fragility limit the ability to deal with a changing climate whereas peace can support the effort. The need to analyze the climate change-conflict nexus and address the overlap of socioeconomic vulnerability, fragility, and security through conflict-sensitive programming with the goal of “strengthen[ing] efforts to promote both the peace and climate resilience” is emphasized (USAID 2015:X).	The 2019 <i>USAID Policy Framework</i> states its mission as “ending the need for foreign assistance” through the promotion of self-reliance and reform of development assistance. While, notably, climate change is not mentioned, it describes how complex crises as well as natural disasters hinder progress and points out underlying fragilities worldwide. “Even in more stable countries, many communities lack resilience to shocks and stresses, particularly in the face of rising environmental pressures” (USAID 2019:8).
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Source: Elaborated by the authors based on Daniel Abrahams’s research results.

Several cases illustrated in the table below and express concern for the SIDS and future generations, indicating the US’ acknowledgement of the climate-security nexus from an existential perspective

Table 41: Findings on the climate-security nexus in the US from an existential security perspective

ACKNOWLEDGEMENT	CONTENT
Obama’s State of the Union speech in 2015	States that “no challenge poses a greater threat to future generations than climate change” (Obama 2015c).
US-China joint statement on climate change in 2014, 2016	A prominent instance of climate diplomacy and an example of the existential security approach is the US-China joint presidential statement on climate change, in which both states “have a critical role to play in combating global climate change, one of the greatest threats facing humanity” (Office of the Press Secretary 2014) and the united support of the UNFCCC and the implementation of the Paris Agreement was announced “to win the fight against the climate threat” (Office of the Press Secretary 2016).
2018 Statement at the UNSC	The US representative Johnathan Cohen stated that “the United States acknowledges the special challenges that small island developing States face in achieving sustainable development, challenges related to their size, geographic isolation from markets and limited infrastructure and institutional capacity. We have heard from our friends in the Pacific that they consider climate change to be an existential threat to their populations, and we understand the priority they place on the United Nations system and the international community supporting their unique needs” (UNSC 2018).

Source: Elaborated by the authors based on Daniel Abrahams’s research results.

The focus on climate security among US policy actors varies between the need to secure the state, the people of the US, or the US military. In addition to the domestic focus, the foreign focus connects climate change mainly with conflict, terrorism, instability and socioeconomic vulnerability. It is notable that, despite

the clear shift from the explicit attention paid to climate change during the Obama administration to, in turn, climate security in the Trump administration, the discursive positioning of climate change as a threat multiplier continues. The Department of Defense is considered a particularly important voice due to its perceived appeal to right-leaning political communities (Abrahams 2019).

UNITED STATES: CLIMATE CHANGE AND THE UNSC

In the first debate on climate change in 2007, the US was relatively reluctant during the discussion of the topic (UNSC 2007). However, in 2009, climate change was declared as one of the highest priorities of the Obama administration, and the need for intensified efforts by the UN System was highlighted (UNGA 2009). In 2011, the US representative stressed that climate change impacts international peace and security through its effects on “vulnerable communities and greater instability.” Accordingly, the Council has a responsibility to address these security implications (UNSC 2011). Furthermore, in 2015, the urgent need to address both climate change and energy security was highlighted (UN 2015). In comparison, under the Trump administration, US representatives deemphasized the importance of climate change in the context of the UNSC. In 2019, the US representative highlighted the devastating domestic effects of disasters (e.g. fires and hurricanes) for the country and their exacerbating effect on existing vulnerabilities, and he described the relationship between natural disasters and violence as well as instability. The US representative did not use the term *climate change* in open debates before the UNSC, but did refer to climate disasters or extreme climate events; however, he noted the importance of considering natural phenomena and disasters as a threat to international peace and security. Accordingly, it was emphasized that “post-disaster recovery” and “post-disaster resilience” should play greater role in the UN and the UNSC (UNSC 2019).

During the recent Arria-Formula meeting in 2020, the US shared the concerns of the attendees that climate change acts as a contributing factor, among others, to instability and conflict. The US representative noted that natural disasters and climate change “can increase poverty, food scarcity, and displacement, especially in vulnerable states” (Barkin 2020). Accordingly, cooperation with global partners on the topic remains part of US foreign policy in order to

increase resilience through economic growth and the establishment of clean energy technologies in particular. The US sees a need for risk assessment and (voluntary and mutually agreed-upon) management and highlights the intersection of conflict prevention, peacebuilding and disaster response. A recent partnership between USAID and SERVIR of NASA, which “provides state-of-the-art, satellite-based Earth monitoring data, geospatial information and tools to help improve environmental decision-making among developing nations” (NASA n.d.) was presented as an example of successful assessment of global climate-related risk. Nonetheless, the explicit role of the UNSC in this was not mentioned, and funding for additional initiatives would be based on voluntary donations (Barkin 2020).

4.15. FINDINGS ON THE CLIMATE-SECURITY NEXUS IN VIETNAM

Based on the analysis and substantial contribution by Vo Dao Chi

Vietnam, a disaster-prone country with 3,260 kilometers of coastline and many islands, recognized early on that climate change constitutes a threat affecting not only vulnerable groups whose livelihoods are largely dependent on agriculture, but national security as well. In the traditional security sector (see table below), the military and the Ministry of Defense (MoD) are involved in various activities and cooperation formats in order to respond to climate-induced disasters. A 2004 law on national security, defined as the “sustainable development of the socialist regime and the State of the Socialist Republic of Vietnam, the inviolability of independence, sovereignty, unity and territorial integrity of the whole country,” (National Assembly 2004) contains a security definition that includes military and defense protection but also broader aspects such as political, social and economic instabilities in development processes. The National Defense White Paper (MoD 2019), adopted in 2019, highlights the importance of climate change as a non-traditional security issue with respect to national security and emphasizes cooperative response at the global level and in the context of the Mekong Delta (see below). Vietnam’s diplomatic focus emphasizes peace to address conflict and enhance international cooperation on climate change.

Table 42: Findings on the climate-security nexus in Vietnam’s traditional security sector

ACKNOWLEDGEMENT	CONTENT
Ministry of Defense and the military	<p>The MoD takes a leading role in the National (steering) Committee for Disaster, Incident Response, Search and Rescue, ensures the sovereignty of the sea, islands, territory and border sovereignty, and supports rescues and damage containment (Prime Minister 2017b).</p> <p>Military forces at the border cooperate with local authorities and fishery agencies to manage and monitor vessels and assist fishermen in response to storms and tropical low pressures, mitigating damage to people and vessels. This ensures social stability and the livelihoods of the fishing community and strengthens individuals’ involvement in protecting Vietnam’s sovereignty over the sea and islands. The MoD also cooperates with other ministries to perform rescue operations and minimize damage from, e.g. natural disasters and epidemics. It assists the Ministry of Health – which also deals with natural disasters and epidemics – in developing health information systems and carrying out training and communication related to climate change and health.</p>
2019 National Defense White Paper	<p>The white paper states: “Global security issues, ranging from finance, energy, water and food to climate change, natural calamities, and epidemics are unfolding with complicated developments” (MoD 2019:9ff). And: “Non-traditional security issues, as seen in cyberspace, terrorism, energy, food, climate change, natural disasters, epidemics, drug trafficking, people smuggling, illegal migration, transnational crime, and maritime piracy, are posing acute challenges to peace, security, stability, and cooperation for development in the region” (MoD 2019:12). The same non-traditional security issues “also pose perpetual challenges to the national defence and security of Viet Nam” (MoD 2019:19). In response to these issues, “Viet Nam promotes cooperation with countries inside and outside the region to address common security challenges. Prevention and response to global climate change is one of Viet Nam’s national strategic goals. Viet Nam prioritises the use of clean energy, reduction of greenhouse gas emissions, and mitigation of sea-level rise impacts. Additionally, it endorses efforts of the Mekong River Commission and effective management and use of Mekong’s water resources according to the rules of international law that govern interstate relations over transboundary rivers” (MoD 2019:32).</p>

Source: Elaborated by the authors based on Vo Dao Chi’s research results.

At the ASEAN Regional Forum Security Policy Conference 2020, hosted by Vietnam, the deputy defense minister highlighted the effects of non-traditional threats such as COVID-19 and environmental challenges in the need for ASEAN to further “strengthen their cooperation to solve these problems on the basis of international laws and by peaceful means, for the benefits of all nations” (MoD 2020).

Viewing acknowledgement of the climate-security nexus through the lens of the extended security sector (see table below) places a focus on the fact that Vietnam has established and developed legal frameworks, institutions and resolutions (e.g. the Communist Party 2013 and the 2013 law on natural disaster

prevention and control) to improve its national capacity to address and respond to challenges related to climate change. These measures emphasize disaster risk management, early warning and rapid response actions to rescue people and mitigate the negative impacts of climate extremes and disasters. Several national committees also aim to enhance the integration and cooperation of various ministries, whereby an important focus rests on the fact that climate change, along with disease, has been recognized as a direct threat.

Table 43: Findings on the climate-security nexus in Vietnam’s extended security sector

ACKNOWLEDGEMENT	CONTENT
2007 National Strategy on Natural Disaster Prevention, Response and Mitigation	Envisages prevention and the minimization of damage caused by natural disasters and aims to ensure national security with regard to social stability, security and national defense. The strategy also emphasizes the role of the People’s Army in rapid response and in dealing with serious environmental issues such as disasters, climate extremes and epidemics (Prime Minister 2007). Established the Central Committee for Flood and Storm Control as the main body in charge of national disaster preparedness and mitigation.
2008 National Target Program to Respond to Climate Change (NTP-RCC)	Describes climate change as a global challenge that greatly affects and alters social life on a global scale. Its related consequences include threatening “national strength”, “national [competition]” and “social living” in Vietnam. Responses to these phenomena are therefore considered a “matter of living”, and sustainable development of a low-carbon economy is a main strategic aim (Prime Minister 2008).
2011 National Climate Change Strategy	Identifies strategic tasks and priorities such as food, energy and water security in the national response to climate change. The strategy envisages the protection of quality of life, security and sustainable development of the nation. The strategy also aims to increase the ability of the population and the economy to adapt to climate variabilities. It also highlights international cooperation in protecting the global climate system (Prime Minister 2011a).
2013 Resolution in response to climate change	The resolution on the active response to climate change, increasing natural resources management and environmental protection, issued by the Communist Party and the Party Central Executive Committee, shows that responding to climate change is a crucial task for the entire political system (Communist Party 2013).
2013 Law on disaster prevention and control	Issued by the National Assembly, the law specifies the role and responsibilities of the central government, government agencies, the armed forces and communities in protecting human safety against storms and sea level rise and ensuring national defense and security in the context of sovereignty disputes in the East Sea (National Assembly 2013).
Congress, 2011 and 2016	Congress categorized climate change as a non-traditional security issue alongside population explosion, diseases, international and transnational crime, inequality, migration, scarcity of energy and natural resources. It identified climate change as threat due to its specific impact on food, water, climate disaster, disease, and energy (Communist Party 2011, 2016; Doan 2017).

National Action Plan on Climate Change for the period 2012-2020	Aims to enhance climate monitoring and early warning systems for disasters, ensure food and water security, create initiatives to respond to disasters, prevent flooding in large cities, protect the dike system and reservoirs, minimize GHGs and promote a low-carbon economy, enhance management capacity, further develop the climate change mechanism, enable the participation of economic sectors in response to climate change, raise awareness of climate change and develop human resources, enhance international cooperation and Vietnam's position and role in international activities on climate change, and mobilize resources and funds to cope with climate change (Prime Minister 2012a).
National strategy on environment protection	Aims to control and minimize increases in environmental pollution, resource degradation and biodiversity decline, to continuously improve the quality of the living environment, to improve the ability to proactively respond to climate change, and to pursue the country's sustainable development goals (Prime Minister 2012b).
2015 Nationally Determined Contributions	<p>The NDCs contain several references to security, as illustrated in the following quotes. Vietnam aims to “[a]ssure national energy security by developing and exploiting different energy sources, while simultaneously using energy sources effectively” (NDC 2015:5). “The National Climate Change Strategy has identified that priorities are food security, energy security, water security, poverty reduction, gender equality, social security, public health, livelihood improvements and the protection of natural resources. These goals can only be achieved through enhancing the adaptive capacity of human and socio-economic systems as well as natural systems. Through its NDC, Viet Nam can communicate its current and future climate change response efforts implemented with national resources, and what can be done better with additional international support” (NDC 2015:8). The NDCs also state that the implementation of “disaster prevention plans and measures [...] protect peoples’ lives, and ensure national defence and security” (NDC 2015:10).</p> <p>Social security is connected to water and food security: “Implement integrated water resources management in river basin systems; ensure reservoir safety; strengthen international cooperation in addressing transboundary water issues; ensure water security [...] Ensure food security through protecting, sustainably maintaining and managing agricultural land; restructuring of crops and livestock; create new climate change resilient varieties; complete the disease control and prevention system” (NDC 2015:10).</p>
2017 National Green Growth Strategy	As shown in the 2017 National Green Growth Strategy, the concept of “green growth” has become a main political approach. Climate change is considered not only a threat, but also a potential opportunity for Vietnam to motivate innovative development thinking and enhance its competitiveness and national strength (Prime Minister 2017a).
2018 National Action Strategy on health includes climate change	The general aim of this strategy is to enhance the ability of the health sector to respond to climate change; the central focus is on prevention and minimization of the environmental and climate change risks affecting the health system (Ministry of Health 2018).

Source: Elaborated by the authors based on Vo Dao Chi's research results.

Moving beyond these domestic approaches, the Mekong Delta, which covers 3.9 million hectares at one meter above sea level (Smajgl 2018) and is home to 17.3 million people living in 13 provinces, 74.9% of which are rural (GSO 2018), plays an important role in Vietnam's consideration of climate security. As one of Vietnam's most productive agricultural zones, the Mekong Delta has

received considerable attention due to the adverse impacts of climate change (such as storm surges, saline water intrusion and sea level rise) on the local agriculture-based economy (Vu et al. 2018) and the livelihoods of the population (Smajgl 2018). In addition, the Mekong River passes through six countries that share water resources with Vietnam. Investment in agriculture and hydrology plants in upstream countries, particularly China, Cambodia and Laos, have exposed Vietnam to high risk in terms of food and water security. In this conflict-laden context, the inter-governmental organization Mekong River Commission, established in 1995, aims to enhance international cooperation and sustainable water management among the countries, support its members in coping with extreme floods, drought and sea level rise, and facilitate dialogue among governments, the private sector and civil society (Mekong River Commission 2014). The commission has called for cooperation in addressing climate change and has included adaptation to climate change as a priority area in its development strategy (Mekong River Commission n.d.). Vietnam participated alongside commission members in the Climate Change Adaption Initiative (2011-2015), which concluded: “Climate change is no longer just a threat in the Lower Mekong Basin. Its impact is present and is affecting the livelihoods of millions that rely on the river’s natural resources.” The commission thus “works to determine, with greater certainty, the impacts of climate change, and how the organisation can help Mekong countries better adapt to these changes” and highlights that a basin-wide approach “ensures that climate change adaptation is harmonized with effective strategies, plans at various levels and is applied at priority locations throughout the basin” (Mekong River Commission 2015). Vietnam cooperates on several other Mekong Delta frameworks with Japan, the US, China, European countries, the World Bank and the Asian Development Bank, among others, and has received attention—varying from research to practical actions to funding of community development projects at the local level—from international agencies.

The research found that the issue of climate change is anchored in the constitution and that the threat to the existence of island states is of particular concern. These aspects indicate an awareness of an existential security perspective on climate change.

Table 44: Findings on the climate-security nexus in Vietnam from an existential security perspective

ACKNOWLEDGEMENT	CONTENT
2013 Constitution of Vietnam	Article 63 holds that the “State has a policy to protect the environment; to manage and effectively and stably use natural resources; to protect nature and biodiversity; to take initiative in prevention, control and response to climate change” (Constitution 2013).
2019 Statement at the UNSC open debate	The permanent representative to the UN emphasized that the “most threatening impact of climate change is sea level rise. Studies showed that, in the most optimistic scenario, by 2050, without concrete climate and development actions from the international community, hundreds of countries and territories will be affected. The very survival of small islands states is at risk. Climate change[’s] direct impact to international peace and security has become more evident. The threat is already here and now. The way we [respond] to it will define our future” (UNSC 2019).

Source: Elaborated by the authors based on Vo Dao Chi’s research results.

Overall, it must be emphasized that Vietnam is one of the countries most vulnerable to climate change, which is why the Vietnamese government considers it a “matter of living” (Primer Minister 2008). However, climate change has been viewed primarily as a non-traditional security issue, and the security implications of climate change are mostly seen as being linked with food, water and energy security as well as natural disasters and epidemics. Vietnam has gradually established and developed legal frameworks and institutions to enhance its ability to address and respond to these issues, and climate change has been integrated in most of its national plans, strategies, programs and international policies as well.

VIETNAM: CLIMATE CHANGE AND THE UNSC

In context of the UNSC, Vietnam has made the impacts of climate change on peace and security a main priority of its membership (2020-2021). Climate change is included among seven priorities, following issues such as conflict prevention and preventive diplomacy as well as the strengthening of regional organizations and the protection of children in military conflicts (Foreign Ministry 2019). During the UNSC open debate in 2019, Vietnam stressed that climate change poses major security risks through increasingly frequent and intense extreme weather events (e.g. floods and droughts) that have already “caused untold suffering to hundreds of millions of people” and can lead to displacement, food and water insecurities and potentially cause conflict. Vietnam highlighted that sea level rise has the biggest security impact because “hundreds of countries and territories will be affected” if no action is taken by the international community. Accordingly, the UN needs a comprehensive response plan that includes the security implications of climate change and involves all UN entities in all regions and levels, and which integrates national governments and regional organizations such as ASEAN (UNSC 2019).

Vietnam was a co-organizer of the recent Arria-Formula meeting on climate security in April 2020. The Vietnamese representative stated that Vietnam itself is heavily affected by climate change, and that it especially shares in the concerns related to the Sahel Region and the SIDS. Climate change is thus “undeniably” a security threat—one that must be recognized and considered by the UNSC. Vietnam therefore emphasized the need for a better information basis and analysis of climate-related security risk in order for the UNSC to prepare for complex situations by, e.g. monitoring the impacts of climate change on peace operations and peacebuilding efforts (Dang 2020).

5. Cross-cutting research findings, recommendations and outlook

The comparative analysis shows that the climate-security nexus is acknowledged by all UNSC member states throughout the traditional security sector as well as by a number of other state actors, ranging from heads of state to ministries. An overview of how climate change is related to security can be seen in the table below and illustrates the broad array of understandings that apply throughout the different sectors. These conceptions primarily refer to climate change as a threat, challenge, risk and vulnerability, or they address the need to respond with certain policies or actions. In addition to the entities, fields and processes broadly outlined below, the climate-security nexus often appears in references to specific geographical locations such as the Sahel, the Arctic, the Mekong River, and the Small Island states.

Table 45: Overview of the climate-security nexus in the comparative analysis of the UNSC member states

CLIMATE CHANGE is - interrelated with / - impacts on	CLIMATE CHANGE is - interrelated with / - impacts on / - a challenge to - linked with multiple threats to/- a threat to	
<ul style="list-style-type: none"> • conflict, terrorism, war and peace 	<ul style="list-style-type: none"> • national security, international peace and stability 	<ul style="list-style-type: none"> • poor and vulnerable populations
<ul style="list-style-type: none"> • military forces, infrastructure, military activity 	<ul style="list-style-type: none"> • vulnerability of sovereignty, statehood and regions 	<ul style="list-style-type: none"> • future generations and humanity
<ul style="list-style-type: none"> • social vulnerability, instability and migration 	<ul style="list-style-type: none"> • livelihood and health of people via socioeconomic and socioecological impact of extreme weather events 	<ul style="list-style-type: none"> • wildlife, nature and the planet

Source: Elaborated by the authors.

As this research was limited to a mapping approach, a qualitative evaluation of the responses and activities described in the case studies – an evaluation that measures certain assertions against what is documented or communicated in official sources – remains a task for future elaborations. In the meantime, however, a sense of change in the treatment of climate security as a topic can be detected. While the US in particular has displayed a strong inverse trend since the beginning of the Trump administration, inclusion and integration

of the climate-security nexus and other adverse effects of climate change outlined above is generally increasing in several policy fields at the domestic level (for example, by including climate change in the constitution – see section on existential security below) as well as in other international organizations and within the UNSC itself. In contrast to these tendencies and as a general observation of mainstreaming, in most of the case studies the issue receives relatively little attention in comparison to other policy fields. This furthermore calls attention to the fact that the responses and actions are mostly limited to climate politics despite widespread acknowledgement of the broad topics and processes involved (see table above) and also in reference to the scope and dramatic implications of existential security threats. Particularly striking, too, are the occasional discrepancies between national state policies and the state's UNSC position on the matter.

Also striking is the general absence of references to the scientific descriptions and assessments of the world concerning, e.g. fundamental research from the Earth System Science and/or the broader Environmental Humanities. References to the importance of scientific advice is surprisingly low as well.

In the following, the main research findings and recommendations of the comparative analysis will be described in reference to the four analytical research foci.

5.1. CLIMATE-SECURITY NEXUS FINDINGS IN THE TRADITIONAL SECURITY SECTOR

The comparative analysis shows that climate change is addressed or integrated in the traditional security sector in 12 member states (Belgium, Estonia, China, Germany, France, Indonesia, Niger, Russia, South Africa, the US, the UK and Vietnam). In three member states (the Dominican Republic, Tunisia and SVG), no acknowledgement of the climate-security nexus was found in the traditional sector. Eleven member states (Estonia, Vietnam, Russia, China, South Africa, Niger, the UK, the US, Indonesia, Germany and France) include climate change in their security strategy, and some states (Russia, the UK) even have a specifically environment- or climate change-focused security strategy while others (e.g. China, South Africa) reference a holistic security concept that explicitly includes the broader security dimensions of an evolving world. The different acknowledgements of climate change and security in the traditional security sector include its impacts on violent conflict, migration and statehood loss (e.g. in Germany); on dialogue, cooperation and peace (e.g. in France);

and especially on military forces, infrastructure and activity (e.g. in the US). The existential threat to future generations is also acknowledged by the traditional security sector (e.g. in South Africa and Germany).

The suggested responses in the documents mostly involve mitigation and greenhouse gas reduction (e.g. in Vietnam), international cooperation (e.g. in Estonia), environmental protection (e.g. in Estonia and South Africa) and development assistance (e.g. in Estonia and Belgium). In addition to the descriptions by different actors, the research detected activity on the subject, ranging from personnel and institutional divisions (e.g. in the US, China and France) to research, monitoring and reporting on the topic (e.g. in Belgium, Germany, France, Estonia and the US). In many member states, the military is included in disaster risk management and in responses to weather extremes and the corresponding humanitarian issues on a domestic level (e.g. in China, the Dominican Republic, Niger, Tunisia and Vietnam) as well as the international level (e.g. in Belgium, South Africa, Russia and the UK).

Generally, it needs to be emphasized that the traditional security sector and its conceptions of the world and *realpolitik* are changing with respect to climate change. The case studies show that, while the multiple implications and effects of climate change are acknowledged in member states' traditional security sectors and may result in corresponding activities, a militarization of the topic through increased war preparation measures was not detected. Instead, the traditional security sector engages mostly in activities of establishing expertise in fostering cooperation on the issue. On the basis of these findings, scholars as well as practitioners will need to engage further with the re-assessment and new definitions of state and human security concepts, such as the classical division between traditional, *hard* and *soft* security. The approaches described in the case studies thereby provide a research basis for scholars and can also serve as models for initiating processes of learning and adaptation for other security institutions and actors. It is also important to evaluate the acknowledgments and approaches of the traditional security sector in terms of the seriousness of the threat. The acknowledgments of climate change and the inclusion of expertise and scientific advice on the matter shows a growing concern with the issues. Questions of how the traditional security sector is and will be further engaged in socioecological phenomena remain subject to further research and policy development.

5.2. CLIMATE-SECURITY NEXUS FINDINGS IN THE EXTENDED SECURITY SECTOR

The climate-security nexus is also acknowledged in a broad sense by other state actors, ranging from heads of governments to parliaments and various ministries. It is notable that the importance attributed to the climate-security nexus varies widely among the member states. While a qualitative analysis is still needed, the research shows that especially vulnerable or affected countries such as the Dominican Republic have included climate change adaptation in their constitution as a state priority. In addition, Niger, whose vulnerability has already been recognized in the UNSC resolution on the Sahel (UNSC 2017), suffers from desertification and climate change as well as from the instability and governmental fragility associated with these phenomena and deserves a special mention among the case studies. It was furthermore detected that some member states (e.g. France, Germany, the UK) approach the issue primarily in the foreign policy domain while others (e.g. China, the Dominican Republic, Niger, Russia and South Africa) include and/or address the issue on the level of domestic affairs and policies.

Climate change is treated as a cross-cutting issue in most states (Belgium, Estonia, China, the Dominican Republic, France, Germany, Niger, Russia, SVG, Tunisia, the UK and Vietnam) through a National Adaptation Plan for Climate Change. Furthermore, the climate-security nexus is included in several climate policies (e.g. those of Belgium and Estonia) by describing, for example, physical threats to the state itself such as sea level rise and weather extremes and their impacts on not only the security of the population (e.g. in Russia) but also on food security (e.g. in SVG, Niger and South Africa), water security (e.g. in Indonesia and South Africa) and energy security (e.g. in Tunisia). Some national environmental and climate policies (e.g. those of Belgium, Estonia and the UK) describe, as a means of justification, the relationship between climate change and violent conflicts in other parts of the world, or they stress the need for implementation based on the policies' potential effect on domestic tensions (e.g. in France's reference to the gilet jaunes protests). The National Determined Contributions communications to the UNFCCC (from the Dominican Republic, China Niger, Indonesia, South Africa, SVG, Tunisia and Vietnam) also contain different references to the term *security*.

It is also worth noting that the particular focus of some member states' (e.g. SVG and the Dominican Republic) on extreme weather events and disaster risk management reflects these issues' fundamental importance to the protection of the state. This focus cross-cuts through all other sectors and is included in several regional cooperation frameworks on disaster risk management.

Extended security sector responses can be described as including largely preventive and protective approaches such as climate change mainstreaming, institutionalization, scientific assessment, strategic or presidential policy plans and frameworks, disaster risk management, humanitarian and development aid, and climate politics and diplomacy. Some institutionalization can be detected (e.g. France's Ecological Defense Council).

Generally speaking, security thinking is included in several other policies ranging from development aid to domestic security and to environmental and climate politics. It is also notable that most of the broad incorporations of climate change into politics are often underpinned by a threat-response approach. Sometimes the very creation of the climate policy itself is justified using references to security implications.

An important conclusion in terms of the general picture is that, while the majority of the literature and practitioners associate the climate-security nexus with traditional security actors and topics, the actual actors and policies involved, implicated and (indirectly) affected are much broader. This also applies to the general geographic focus on vulnerable or conflict- and violence-prone areas such as the Sahel or on resource-rich and geopolitically relevant regions such as the Arctic. Recognition of these broad, cross-cutting acknowledgements in all the case studies provides an important basis for further research as well as more coherent policymaking and an alignment of strategies at several levels, ranging from the domestic and foreign levels up to the UNSC level.

5.3. CLIMATE-SECURITY NEXUS FINDINGS AND EXISTENTIAL SECURITY

Climate change has been acknowledged by 13 member states (see table below) as an existential security threat to future generations and the SIDS, among others. These acknowledgements have mostly been detected in statements at events such as COP21 or in institutional contexts such as the UN General Assembly (UNGA) and the UNSC itself. The following table illustrates the topics detected in several statements and documents.

Table 46: Comparative research findings on UNSC member states' existential security descriptions of the climate-security nexus

CLIMATE CHANGE itself challenges/is a threat to/is interrelated with/is linked with multiple threats to	DETECTED in
<ul style="list-style-type: none"> the existence of the SIDS or small islands in general through sea level rise 	Belgium, Estonia, the Dominican Republic, France, Germany, Indonesia, SVG, the UK, Vietnam
<ul style="list-style-type: none"> the very survival of the nation itself 	SVG
<ul style="list-style-type: none"> nations, states and populations 	Estonia, Germany, Indonesia
<ul style="list-style-type: none"> humankind and future generations 	China, Germany, South Africa, the UK, the US
<ul style="list-style-type: none"> life and the planet 	France, Germany, Russia, the UK

Source: Elaborated by the authors.

One unique feature among the case studies is that SVG has, over the years, repeatedly emphasized the existential threat to SVG itself as well as other island states in several statements within the UN context. Also notable is the fact that, as described in the case study, the UK parliament has declared a state of climate emergency and therefore seems to be particularly concerned about the issue. The German case study stands out because it carries the only detected reference to planetary boundaries and the Earth System, which points to an acknowledgement of scientific research results on the global threat of climate change. In the Chinese case study, it is interesting to note that the aims of protecting the planet and achieving ecological security were detected even though these aspirations are not to be directly related to the especially party-centered Chinese national security concept.

It is particularly striking that the responses articulated in relation to the existential security perspective also comply with the ones outlined in the other two sector approaches. The only exceptions are several statements (from, e.g. SVG, the Dominican Republic, South Africa and Niger) that highlight responsibilities of member states in the Global North and stress that the survival of more-vulnerable countries depends on multilateral action.

In addition to the classical threat description, this research focused on the central value to secure and placed a special focus on member state constitutions. The results of this research shows that, despite being relatively old, most of the constitutions made reference to the protection of the environment (in Belgium, Estonia, China, the Dominican Republic, Niger, France, Germany, Russia, South Africa, Tunisia

and Vietnam) and future generations (in Belgium, Estonia, the Dominican Republic, Niger, France, Germany, Russia, South Africa and Tunisia). In SVG, the Dominican Republic, Vietnam and (according to several references) Tunisia, the constitutions include the need to address and/or to adapt to climate change.

Given the number of acknowledgements, it is striking that this existential security perspective neither plays a major role nor seems to merit particular response in comparison to other areas of politics, whether domestic or international. Currently, no UN institution provides a mandate on these fundamental questions of climate change threat or on the impacts on insecurity linked to broader socioecological phenomena that measures up to the scientific descriptions of massive, disruptive consequences such as, for example, biodiversity loss and the COVID-19 pandemic. Indeed, the UN itself has not included the fundamental principles of protecting the future generations and life in general in the UN Charter. This research thus renders especially visible the missing theoretical gap and policy gap that youth protests and scientists point to (see Thunberg 2018; Hagedorn et al. 2019; Ripple et al. 2019). Immediate steps to address this would include several crucial fundamental starting points. These include protecting of fundamental values (human life and future generations) in the UN Charter (Fopp 2019), including the sciences and strengthening the science-policy interface (especially engaging with research on existential security through joint efforts in the natural and social sciences), and including different research communities such as Earth System Sciences, Peace and Conflict and Security Studies, among others, and providing a voice to children, future generations and those especially threatened, such as the SIDS and other groups or populations.

5.4. POSITIONS AND PROPOSALS: CLIMATE CHANGE AND THE UNSC

The comparative analysis of the member states' different positions in the context of the UNSC and, particularly, during the April 2020 Arria-Formula meeting (Permanent Mission France 2020), shows that most of the member states are in agreement on proposed systematic and periodic reporting by the Secretary-General to the Security Council on climate and security issues as well as preventive measures. Some member states suggested additional support for the Climate Security Mechanism and the appointment of a special envoy to better coordinate UN responses. While sometimes expressed in a hesitant manner and with skepticism toward addressing climate change within the UNSC, all 15 Council members acknowledged during this meeting that climate change has an impact on international security, even if some states described

it as representing one factor among several (Permanent Mission France 2020). All member states also emphasized the necessity of engaging in multilateral actions and strengthening the UN. The analysis of their statements detected the need for an improved information basis supported by further scientific and case-specific assessment of the linkages between security and climate change. Furthermore, most of the states expressed the need for responses to include the whole UN system and to support better coordination and synergy while avoiding the duplication of efforts. On the basis of these findings, a next step in strengthening the science-policy interface on the matter would be to establish a science network and research body that would explicitly address and tackle the multiple topics associated within the climate-security nexus.

The comparison between the UNSC positions on integrating climate change into national policy agendas reveals several discrepancies. While, some states (e.g. Russia, China, the US) have mostly been skeptical or have even refrained from addressing climate change in the UNSC, these same states include and mainstream (to an extent) climate change in the traditional and extended security sectors on the domestic level. Furthermore, it is notable that while some states are willing to acknowledge the climate-security nexus in the UNSC context in reference to a certain geographical focus (see the UNSC resolutions with climate-security references limited to the African continent), they refrain from recognizing the link generally and as a cross-cutting issue. While these discrepancies require further research, it is suggested here that establishing a regular dialogue between member states on national and local experiences with and approaches to the issue, and supporting state dialogue might improve the information basis for action and increase awareness of the states' own domestic matters well, given that most of the states already engage in these activities at domestic level. An understanding of the state of the Earth System and of the dramatic socioecological processes and consequences, of the impossibility to sovereign delimitable action and securing of national security, and of the need to develop decisive and concrete policies that place a special focus on existential security is fundamentally important and a responsibility of the international community.

5.5. RECOMMENDATIONS FOR THE UNSC CONTEXT

An important goal of this research project was to formulate policy recommendations that reflect the widespread acknowledgment by the member states of the climate-security nexus.

Based on the key research results, the IFSH Policy Brief (Hardt 2020) formulated the following main recommendations for the UNSC context:

- “That the UNSC formally recognize the complex interrelations of climate change and security and their effects as a cross-cutting issue, and adapt institutional working methods in order to comprehend the challenges
- Improving dialogue within the UN by strengthening work capacity and knowledge provision in the Climate Security Mechanism and establishing a systematic forum for sharing lessons learned and responses to the climate-security nexus between countries
- Establishing an international, interdisciplinary science hub/network” that “deals explicitly with questions in this ample research field and provides knowledge to the UNSC, CSM, UN and the broader international community. The network’s assessments could provide the UNSC with a scientific basis for future decision-making, dialogue and bargaining concerning:
 - The building of case-by-case analyses of complex, dynamic, context-dependent connections between the forms and sociopolitical roots of the climate-security nexus in possible responses at the local level. The accompanying scientific analysis should include local experts and be informed by the disciplines of Peace and Conflict, Security Studies and Earth System Sciences, among others.
 - The development of proposals for specific institutional adaptation and improved working methods. A central goal should be developing preventive and multilateral responses to protect essential conditions for life and the most vulnerable, thereby protecting other core aspects of global security—the environment and future generations—as already addressed in multiple member states’ constitutions”.

5.6. LIMITATIONS AND OUTLOOK

This research has not engaged with the multiple power structures and relations that importantly influence political dynamics, nor with the fact that the UNSC largely concentrates on the basic five permanent members versus the elected members. Also, the scope of this project did not include other (not as easily visible) political bargaining processes related to geopolitical interests influenced by other political dimensions, nor could it address the tension between state- and nationally-focused action and the fear of loss of sovereignty that stands partly in contrast to the collective and multilateral cooperation necessary to face these

massive threats. Furthermore, a qualitative evaluation of the member states' actions in contrast to their discourse as well as a discussion of the normative and political implications of the different approaches will need to be addressed in future research. This research outline was based on a relatively classical approach and on the assumption of a clear delineation of actors and different policy levels. Furthermore, the research on civil society and on the respective research communities will need to be tackled in a future approach.

Additional central topics that have not been alluded to within this research include multiple risks and political implications on securitization and climatization (e.g. Chaturvedi and Doyle 2016; Ide 2020; Maertens 2019; Maertens and Hardt forthcoming in 2021) and a renewed discussion of the limits or broadness of the field.

Finally, it is important to highlight the fact that, even though a broad acknowledgement of the link between climate change and security was detected in the case studies, the importance placed on effective responses to climate change does not adequately correspond to the severity of the threats nor to the complex and partly unknown yet profound impact these threats have had and will have. The seriousness of existential threats and of what is at stake as these irreversible and partly unforeseeable consequences cross-cut livelihoods, nations, peoples, the vulnerable and future generations is obviously not sufficiently understood by decision-makers.

Generally, it should be highlighted that a sound body of knowledge already exists on the matter and that many of the above outlined future research questions are already partly tackled by some research communities and/or individual scholars, mostly those with a Security, Peace and Conflict research background. However, the scholarship that engages with the nexus of broader socioecological phenomenon and security requires further support, elaboration and integration of different sciences. Connecting existing scholarship on the climate-security nexus to the broader fields of Security, Peace and Conflict Studies and the Earth System Sciences, as well as improving the science-policy interface in order to fully comprehend and begin to engage with the development of policies on and approaches to the existential security threats, remain central challenges that lie ahead.

This research hopes to provide a basis that will encourage future research, policy responses and action on the topic.

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The research project “The role of climate change in security conceptions and perceptions of the UNSC member states” analyses how members of the UN Security Council approach the climate-security nexus in their policies and practices. It was carried out in collaboration with the Research Group Climate Change and Security (CLISEC) at Universität Hamburg and funded by the German Federal Foreign Office.



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