POLICY BRIEF

Climate Change as a Threat to Security: Strategic Framings and Policy Responses

Examples of national, regional, and intergovernmental strategies and policies on the climate–security nexus

Lisa Schultheiß and Vera Künzel

GERMANWATCH

Imprint

Authors:
Lisa Schultheiß, Vera Künzel

Contributors: Laura Schäfer, Anselm Vogler, Sabine Minninger

Edited by:
Penelope Krumm

Published by:
Germanwatch e. V.
Office Bonn:
Kaiserstr. 201
D-53113 Bonn
Phone +49 (0)228 / 60 492-0, Fax -19

Office Berlin:
Stresemannstr. 72
D-10963 Berlin
Phone +49 (0)30 / 57 71 328-0, Fax -11

Internet: www.germanwatch.org
E-mail: info@germanwatch.org

June 2026

Suggested citation:
Schultheiss, L., Kuenzel, V., 2026, Climate Change as a Threat to Security: Strategic Framings and Policy Responses, Germanwatch.

Download this document at:
www.germanwatch.org/en/93521

Financially supported by Bread for the World.
Responsibility for the contents lies with Germanwatch.

Contents

List of abbreviations

AF	Adaptation Fund
AMOC	Atlantic Meridional Overturning Circulation
AU	African Union
BND	German Federal Intelligence Service (Bundesnachrichtendienst)
CFPS	Climate Foreign Policy Strategy
COP	Conference of the Parties
DPO	Department of Peace Operations
DPPA	Department of Political and Peacebuilding Affairs
EU	European Union
GCF	Green Climate Fund
GEF	Global Environment Facility
HDP	Humanitarian–Development–Peace nexus
ICJ	International Court of Justice
IPCC	Intergovernmental Panel on Climate Change
NATO	North Atlantic Treaty Organization
NIKE	National Interdisciplinary Climate Risk Assessment (Nationale Interdisziplinäre Klimarisiko-Einschätzung)
OECD	Organisation for Economic Co-operation and Development
PSC	Peace and Security Council
PIF	Pacific Islands Forum
PSIDS	Pacific Small Island Developing States
SLR	Sea-Level Rise
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNSC	United Nations Security Council
UNSG	United Nations Secretary General
UNFCCC	United Nations Framework Convention on Climate Change

Executive summary

Climate change is no longer perceived solely as an environmental or development challenge; it is increasingly understood as a matter of security. However, there is limited systematic comparative analysis of how climate change is framed and hence understood as a security issue across different national and international policy contexts. This study therefore aims to systematically assess: (1) how states and international organisations define climate-related security risks, (2) which dimensions of security are prioritised (national, international, human, or ecological security), (3) which climate risks receive the greatest attention – such as extreme weather events, slow-onset processes, or tipping points, and (4) which policy responses are derived from these understandings.

The study analyses national security, foreign policy, defence strategies, and climate risk assessments from Germany, the United Kingdom, Norway, the Philippines, Kenya, and Vanuatu. It is complemented by official statements and strategies from the United Nations, NATO, the European Union, the African Union, the OECD, and the Pacific Islands Forum. This selection captures diverse regional contexts, levels of climate vulnerability, and geopolitical perspectives.

Key findings

1. Climate change is firmly embedded in the documents analysed; nonetheless, the dominant framing and focus remain state-centric and stability-oriented, tending to rely on a traditional understanding of security.

- National security is the primary lens in the analysed documents, with climate change often framed as an existential threat. Focus areas include economic stability, infrastructure, energy security, territorial integrity and sovereignty, state fragility and internal stability, and military readiness and operational capacities.
- Human security is acknowledged and prominent in problem definition but less operationalised in rights-based terms. Climate change is linked to health risks, deteriorating livelihoods, food and water insecurity, migration and displacement, and even to loss of life. Yet human security remains typically embedded in national and geopolitical logics, indicating that current approaches remain insufficiently people centred.
- Climate change is described as a threat multiplier affecting international stability and geopolitics.
- The concept of ecological security is rarely used in the analysed documents. Ecological security is the least prominent security dimension, even in problem descriptions, and is raised mainly by actors from the Global South. The value of ecosystems and biodiversity in themselves and as providers of protection for human beings is rarely recognised, with exceptions like the UK's nature security assessment.

2. Short-term risks dominate discourses on the climate–security nexus; a governance gap exists for slow-onset processes and tipping points.

Climate change is consistently seen as a threat multiplier, but attention centres on immediate climate impacts such as extreme weather events, while slow-onset processes and tipping points remain underemphasised. When mentioned, they are often abstract and lack concrete policy responses, revealing a disconnect between climate science and preventative security governance. Additional planning with different climate scenarios and pathways or the intersection of tipping points is lacking.

3. Climate change is widely recognised as a systemic risk and threat multiplier that will shape geopolitics and challenge international security for decades to come.

The documents acknowledge that climate change is intensifying geopolitical competition, regional instability, and pressure on the international order, while reshaping energy and trade systems through impacts such as sea-level rise, melting ice bodies, and the global energy transition. At the same time, climate change is seen as amplifying existing social, economic, and political vulnerabilities – especially in fragile and conflict-affected states – thereby increasing risks of resource scarcity, displacement, migration, violence, and ungovernable areas. These feedback loops undermine resilience and adaptive capacity, making climate change increasingly relevant to multilateralism, cooperation, and global governance.

4. Military actors increasingly frame climate change as an operational threat that strains capacities.

Military actors see climate change as both an immediate and long-term operational challenge, already affecting infrastructure, personnel, and readiness, as well as reshaping the strategic environment. It is increasingly integrated into planning, including scenario analysis. Increasing climate impacts are expected to expand civil–military cooperation in the context of disaster response and protection tasks, potentially straining military capacity and limiting traditional defence capacities.

5. The prevailing responses that are proposed focus on mitigation, risk management including adaptation but leave substantial gaps.

Across the analysed documents, the proposed responses to climate-related security risks focus primarily on:

- increased climate action, especially adaptation, but also mitigation and instruments related to loss and damage
- multilateral cooperation and partnership
- mainstreaming climate security across institutions, thinking climate and security together, and seeing climate change as a cross-cutting issue
- integrating climate risks into strategic and defence planning, instead of ad hoc reactions
- adapting international legal frameworks (e.g. in relation to sea-level rise)

Even if proposed responses focus on approaches to address the challenges, there are a number of key gaps named that potentially hinder successful implementation of the proposed responses, including:

- insufficient climate finance to implement measures, especially in Global South countries
- inadequate legal frameworks for emerging challenges (e.g. regarding loss of statehood, maritime zones as coastlines shift)
- limited attention towards migration and displacement governance, compared to the challenge identified
- limited linkages to structural transformation, despite its relevance for long-term security (e.g. reducing energy dependencies)
- insufficient consideration of internal societal tensions and threats to social cohesion that result from unfair burden-sharing in e.g. the context of the energy transition or reduced access to resources or services due to climate impacts

Our recommendations

To address the shortcomings identified in the study, we recommend that governments, international and regional organisations, and security actors take the following six steps:

1. Mainstream climate change into (long-term) national security governance and institutions and enhance the understanding of security.
2. Integrate biodiversity into security analysis and planning in order to tackle disruptive/systemic challenges.
3. Climate risk management, including adaptation measures, should be understood and treated as a core instrument of preventive (human) security policy.
4. Shift from reactive to anticipatory climate and security governance to better prepare for extreme weather events, slow-onset processes, and tipping points.
5. Strengthen international and regional cooperation and increase climate finance to lower conflict risks.
6. Closing legal gaps related to climate impacts

1 Understanding climate change as a security issue

Climate change is no longer debated solely as an environmental or development challenge; it is increasingly understood as a matter of security. Climate impacts – ranging from extreme weather events such as storms, floods, and heatwaves to slow-onset processes like sea-level rise or ecosystem degradation – are now widely recognised as affecting the stability and security of individuals, communities, and states. These impacts interact with existing social, economic, and political vulnerabilities, creating risks that extend far beyond environmental degradation, including the exacerbation of social tensions and existing conflicts. At the same time, fossil fuel dependency leads to another layer of security implications. Those energy sources are intensifying the climate crisis and hence its impacts while energy security concerns also potentially lead to conflict when access is limited.

As a result, the climate–security nexus has become an increasingly prominent framing in policy, practice, and academic debates.

Academic discussions on the climate–security nexus date back to the early 1990s. Today, research sees climate change not as directly causing conflict, but as potentially acting as a 'threat multiplier' by exacerbating existing vulnerabilities and pressures.[1] This understanding shapes current debates, in which climate change is analysed as a cross-cutting risk affecting multiple dimensions of security. Recent geopolitical challenges, like in the Lake Chad region, show that climate change often exacerbates existing conflicts and creates new tensions, especially in fragile settings.[2] Additionally, climate-induced melting ice in the Arctic is opening new sea routes and exposing valuable resources, contributing to rising geopolitical tensions involving Greenland. Four main perspectives dominate the discussion: climate change as a threat to national, international, human, and ecological security.[3]

At the same time, the understanding of security itself has broadened. In contrast to the traditional focus on military threats and territorial integrity, the concept of 'integrated' security takes economic, environmental, and societal dimensions into account, including topics such as climate change, as well as emerging issues like cybersecurity. The first German national security strategy, published in 2023, underlines this development: led by the foreign ministry, it is a joint strategy from the entire government, considering multiple policy fields, rather than focusing solely on defence policy, as the previous security and defence strategy, the 'Weißbuch', had done. At the Petersberg Climate Dialogue in April 2026, German Chancellor Merz emphasised that Germany would firmly place the climate–peace–security nexus at the centre of its international engagement and underlined that the climate crisis was 'intensifying existing conflicts around the world and threatening to trigger new

[1] See McDonald, M., 2013, Discourses of climate security (accessed 11.05.2026); Baysal, B.; Karakaş, U., 2017, Climate Change and Security: different perceptions, different approaches (accessed 11.05.2026); German Advisory Council on Global Change, 2007, Climate Change as Security Risk (accessed 11.05.2026).

[2] Okpara, U.T., Yunus, S., 2025, The nexus of climate and conflict in the Lake Chad Region: what we know, don't know and need to know (accessed 15.05.2026).

[3] See McDonald, M., 2018, Climate Change and Security towards ecological security (accessed 11.05.2026).

ones.'[4] He also noted the relevance of extreme weather impacts for production sites, supply chains, and critical infrastructure.

These developments are reflected in international politics as well. The security implications of climate change have become an increasingly prominent issue within the United Nations. As the Secretary-General António Guterres remarked: 'Even a temporary overshoot will have dramatic consequences. It could push ecosystems past irreversible tipping points, expose billions to unliveable conditions and amplify threats to peace and security. Every fraction of a degree means more hunger, displacement and loss – especially for those least responsible. This is moral failure – and deadly negligence.'[5]

The United Nations Security Council (UNSC), the central body responsible for the maintenance of international peace and security, held the first climate-related debate in 2007 and then one in 2011; the number of respective debates increased significantly between 2018 and 2024. More broadly, governments, international organisations, and security actors have begun to integrate climate-related risks into their strategic policy frameworks.

With these existing and emerging challenges that increasingly threaten peace and security, a central question concerns the nature of adequate solutions and policy responses. A sound understanding of climate impacts as contributing drivers of security challenges requires actors to address these root causes (the climate crisis) directly but also to minimise their wider implications. This demands responses complementary to the instruments traditionally available to security actors, such as military measures. Additionally, first and foremost comprehensive climate policies are needed, including mitigation, climate-risk management (including adaptation), and dealing with losses and damages.

Despite this growing attention, significant analytical gaps remain. There is limited systematic comparative analysis of how climate change is framed and hence understood as a security issue across different national and international policy contexts. In particular, it remains unclear which security dimensions are prioritised, which climate risks are emphasised, and which policy responses are proposed. Without such analysis, the term 'climate security' is at risk of becoming a catch-all concept – politically powerful but analytically vague.

Objective and method

This paper addresses the growing relevance of the climate–security nexus by providing a systematic mapping of how climate change is framed as a security issue across national and international policy arenas. The paper examines (1) how states and intergovernmental actors concretely conceptualise and understand climate-related security risks , (2) which dimensions of security they prioritise (national, international, ecological, or human security, (3) which specific climate-related risks are highlighted, with particular attention to extreme weather events, slow-onset processes, and climate tipping points, and (4) which policy responses are derived from this conceptualisation and understanding. The analysis (5) aims to identify strengths, gaps, challenges, and needs in order to advance the integration of climate and security agendas – including in the context of foreign and

[4] See Bundesregierung, 2026, Rede von Bundeskanzler Merz anlässlich des Petersberger Klimadialogs High-Level Segment am 22. April 2026 in Berlin (accessed 11.05.2026).

[5] United Nations, 2025, Secretary-General Calls 1.5°C Limit 'Red Line for Humanity', Urges Leaders at Climate Summit to Speed Fossil Fuel Phase-Out, Reach Global Net Zero by 2050 (accessed 11.05.2026).

development policy – not only in the description of problems but also in the design of actionable policy measures.[6]

The analysis draws on national security, defence, and foreign policies and strategies, as well as national climate risk assessments and official statements from Germany, the United Kingdom, Norway, the Philippines, Kenya, and Vanuatu, e.g. in the UNSC, alongside strategies and policies of NATO, the OECD, the African Union,[7] the European Union, and the Pacific Islands Forum. The case selection reflects variations in geography, climate vulnerability, and political influence. It includes European countries that are very vocal on security politics, such as Germany, the United Kingdom, and Norway; highly climate-vulnerable countries like the Philippines, Vanuatu, and Kenya; and influential regional and international organisations including the European Union, African Union, Pacific Islands Forum, Organisation for Economic Co-operation and Development, and NATO. The selection is not intended to be exhaustive but is primarily guided by the availability of relevant documents, particularly in English, as well as by the aim to reflect a broad spectrum of regional coverage, affectedness, and diverse perspectives. This combination of national and international sources enables a multi-level analysis of the climate–security nexus.

2 Climate change in national security–relevant strategies and the international security architecture

In recent years, there has been a greater understanding of the interconnectedness of different policy spheres and their security implications, and a more integrated concept of security has prevailed. This has led to greater inclusion of climate change and its impacts in security thinking. This chapter aims to give a brief overview of how this has been unfolding on the national and international level.

On the national level, more and more states are publishing national security strategies and similar high-level strategic security policy documents that include references to climate change. Through these security documents, governments communicate their political positions to both domestic and international audiences. In this way, security strategies become a kind of business card for the government that publishes them.[8] To this end, they identify and assess foreign and security policy issues. They provide governments an opportunity to announce measures and position themselves with regard to international agreements and institutions. By now, a large majority of security strategies present climate change as a relevant security policy issue.

[6] Methodologically, the paper applies a qualitative content analysis following Mayring (2015). This approach allows for the systematic analysis of a large body of documents while capturing underlying meanings through a qualitative-interpretive framework. The analysis is category-based and relies on an abductively developed coding scheme, created iteratively in interaction between existing literature and the empirical material. Text passages are assigned to defined categories according to established coding rules and subsequently structured into main and subcategories.

[7] Unfortunately, many documents of the African Union were not available for analysis.

[8] See Caudle, S., 2009, National Security Strategies: Security from What, for Whom, and by What Means (accessed 05.04.2026).

The inclusion of the climate crisis in security strategies has become prominent in the last two decades.[9] Several of the first known public national security strategies to include climate change were published by countries of the Global South. For example, Mongolia (1998), Cambodia (2000), Colombia (2003), and Sierra Leone (2004) publicly warned in their security strategies about the negative effects of climate change. From 2007 on, the number of countries defining climate change as a security issue began to rise steadily, influenced by publications of the IPCC and influential think tanks.[10] A study conducted in 2022 found that more than 80% of the most recent national security strategies covered climate change.[11] In addition to Germany, its closest allies, including the United Kingdom and France, discuss the consequences of climate change in their key security policy documents.[12] When the former German government adopted the country's first National Security Strategy, it made sustainability one of its three pillars, alongside robustness and resilience.[13] In new developments, some countries seem to moving away from that focus, e.g. the new US National Security Strategy of Donald Trump's administration, in which climate change is described not as a security threat, but as a 'disastrous' ideology[14]: a dramatic change of direction compared to the former Biden Administration[15].

There are considerable differences in how national security strategies deal with the climate crisis, reflecting the different approaches taken to climate security. In particular, the strategies differ in terms of who or what is actually portrayed as being endangered by climate change (e.g. ecosystems or people), what triggers the specific danger (e.g. extreme weather events, human reactions to climate change (migration)), under what *circumstances*, how *certain* it is that this danger will materialise, and whether it genuinely calls for a response targeting its *root causes*. Whether and in what capacity the national security strategy presents climate change as a threat differs in various ways, for example through what is being endangered by climate change, what is seen as a threat, or the likelihood of the danger materialising.

The climate–security nexus in the international security architecture

The nexus between climate change and security has also become increasingly prominent within debates of international and regional security actors. Over the past two decades, climate-related risks have moved from the margins of environmental debates to the core of security discourses, with a growing number of international organisations and forums integrating climate considerations into the context of their mandates, their strategies, and their operations.

Among the most relevant international security actors and institutions are NATO, the UN Security Council, the OSCE, the EU's Common Foreign and Security Policy, the EU's Common Security and Defence Policy, and the Peace and Security Council (PSC) of the African Union (AU).

[9] See Vogler, A., 2023, Barking up the tree wrongly? How national security strategies frame climate and other environmental change as security issues (accessed 05.04.2026), See Brzoska, M., 2012, Climate Change as a Driver of Security Policy (accessed 05.04.2026).

[10] See Brzoska, M., 2009, The Securitization of climate change and the power of conceptions of security (accessed 05.04.2026).

[11] See Wik, T. M. und Neal, A. W., 2025, The Prioritisation of Climate Security: A Content Analysis of National Security Agendas (accessed: 05.04.2026).

[12] See Vogler, A. und Hardt, J. N., 2025, Eine klimafeste Strategie? Sicherheitsimplikationen des Klimawandels in der Nationalen Sicherheitsstrategie (accessed 05.04.2026).

[13] See. Dörfler, T. und Janusch, H., 2025, Die Nationale Sicherheitsstrategie Deutschlands, ihre Entstehung und Funktionen (accessed 05.04.2026).

[14] Whitehouse USA, 2025: National Security Strategy of the United States of America (accessed 02.03.2026).

[15] Whitehouse USA, 2022: National Security Strategy (accessed 02.03.2026).

NATO cites climate change as one of the 'defining challenges of our time'[16] with a 'profound impact on security.' It aims at 'becoming the leading international organisation when it comes to understanding and adapting to the impact of climate change on security.'[17] Its recent Strategic Concept identifies climate change and human security as cross-cutting challenges across all core tasks. In this context, climate change is framed as a factor that affects operational environments, infrastructure, and crisis dynamics, while collective resilience is highlighted as a critical prerequisite for effective security and defence. Interestingly, human security is specifically underlined.

In its ministerial council decision of 2021, the OECD acknowledged that the impacts of the climate crisis could intensify economic challenges and environmental degradation, thereby undermining prosperity, stability, and security across its member states – and called on its members to act accordingly.[18] The climate–security nexus is also increasingly addressed within the UNSC. Since its first debate on climate change in 2007, the Council's engagement with the issue has intensified, especially since 2018. A key development was the establishment of the Group of Friends on Climate and Security in 2018, initiated by Germany and Nauru, which has contributed to keeping the issue high on the Council's agenda. Climate-related security risks have also been incorporated into several UNSC resolutions, including those on the Lake Chad Basin, Somalia, Mali, and Darfur. These resolutions recognise that climate change and environmental degradation can exacerbate regional instability through factors such as water scarcity, drought, desertification, land degradation, and food insecurity[19] – all of which are very much linked to human security.

Beyond the Security Council, the broader United Nations system has developed institutional mechanisms to address the nexus. Notably, the Climate Security Mechanism, a joint initiative of the Department of Political and Peacebuilding Affairs (DPPA), the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), and the Department of Peace Operations (DPO), aims to strengthen the understanding of and response to the interlinkages between climate change, peace, and security.

In addition to traditional security institutions, the climate–security nexus has increasingly been integrated into global climate governance processes. Within the framework of the United Nations Framework Convention on Climate Change (UNFCCC), the interlinkages between climate change, conflict, and human security have gained visibility in recent years, particularly as they affect fragile and conflict-affected countries with extremely limited access to climate finance, which places a double burden on them. Recent Conferences of the Parties (COPs) have included dedicated discussions or days dedicated to peace and security. The COP28 declaration on Climate, Relief, Recovery, and Peace[20] anchored the climate–security nexus and underscored the need to enhance climate action and finance for countries that are both highly vulnerable to climate change and affected by fragility or conflict. Similarly, the Baku Call on Climate Action for Peace, Relief, and Recovery and the established at COP29 aims to strengthen cooperation across peacebuilding, humanitarian, and climate policy communities, and to promote peace-sensitive climate action.[21] The Common Principles for Effective Climate Finance and Action for Relief, Recovery, and Peace provide a concrete vehicle to address the challenge. COP30 in Belem, Brazil, did not, however, include a dedicated day for peace & security.

[16] NATO, 2022, Strategic concept (accessed 30.04.2026).

[17] NATO, 2022, Strategic concept (accessed 30.04.2026).

[18] OSCE, 2021, Decision No 3/21 (accessed 30.04.2026).

[19] See United Nations Security Council, 2017, S/Res/2349 (accessed 05.05.2026).

[20] See COP28, 2023, COP28 Declaration on Climate Relief and Recovery and Peace (accessed 05.05.2026).

[21] See COP29, 2024, COP29 Presidency launches baku call on climate action for peace, relief and recovery (accessed 05.05.2026).

3 Climate change impacts on different security dimensions

Having acknowledged that the integration of the climate–security nexus has already begun in different policy arenas, this chapter aims to better enable a nuanced understanding of the nature of the security threats that are related to or induced by climate change. The literature offers different analytical categories of security that help to define and identify the underlying understanding and framing of security threats and thus provide hints towards related responses. McDonald (2018)[22] identifies four dominant discourses in the climate–security debate: national security, international security, human security, and ecological security. To analyse the climate security framing used in the policy documents, this categorisation will serve as a basis and as a structure for the analysis.

Within the national security framing, climate change is understood as a threat to state sovereignty, territorial integrity, and economic stability, a perspective commonly reflected in national security institutions. Protecting national security has been defined by political actors as the most important responsibility of any government.[23] The international security dimension is often used as an orientation within the United Nations and other international organisations. It portrays climate change as a risk to regional and global stability. The human security framing shifts the focus to individuals and communities, conceptualising climate change as a threat to human rights, livelihoods, and well-being; this perspective is often adopted by development actors, UN agencies and the IPCC. But the concept has also gained relevance within more traditional security contexts, such as NATO.[24] The least prominent framing, ecological security, centres on ecosystem resilience and views climate change as undermining the capacity of ecosystems to continue to function despite disturbances or changes.

The following typology provides the analytical foundation for the examination of the documents and speeches in this paper.

Table 1: Codes used and identified in the coding process based on the four security dimensions

SECURITY DIMENSION	REFERENT	SUBDIMENSIONS IDENTIFIED IN THE CODING PROCESS
INTERNATIONAL SECURITY	International society	International order, geopolitical/geostrategic competitions, peace and conflict, regional security
ECOLOGICAL SECURITY	Ecosystems	Planetary health, ecosystem degradation, biodiversity loss
HUMAN SECURITY	Communities, people	Human rights, health, livelihoods/lives, migration, water security, food security, displacement
NATIONAL SECURITY	Nation state	Sovereignty/statehood, military security, economic security, energy security, territorial security, fragility (terrorism, inner state tensions, instability, competition over resources)

[22] McDonald, 2018, Climate Change and Security towards ecological security (accessed 09.02.2026).

[23] The United Kingdom, 2010, A Strong Britain in an Age of Uncertainty: The National Security Strategy (accessed 04.05.2026); Germany, 2023, Wehrhaft. Resilient. Nachhaltig. Integrierte Sicherheit für Deutschland - Nationale Sicherheitsstrategie (accessed 05.04.2026).

[24] NATO, 2022, Human Security (accessed 30.04.2026).

The different dimensions of security are, of course, not independent of one another and often overlap or reinforce each other. Ecological security, for instance, can become a prerequisite for human security, as seen in areas such as food security. Likewise, national security ultimately includes human security, since protecting the population is its core function.

Within the analysis, national security emerges as the most frequently referenced dimension, followed by human and international security, while ecological security receives comparatively little attention. Given that the analysis is based on national security strategies and on country statements in the UNSC, this emphasis on national security is to be expected, as these formats inherently prioritise state-centric perspectives on climate-related risks. The following chapter will analyse which dimensions of security are understood to be threatened by climate change.

3.1 National security

The analysis showed that climate change is most frequently framed as a threat to national security, with documents referring to national security in general, and to specific subdimensions – including economic, territorial, and military security. For example, Kenya, Vanuatu, and the Philippines describe climate change as an existential or the single greatest threat to their security.[25] Germany similarly identifies climate change as a direct security risk for Germany and its national interests.[26]

Economy, infrastructure, and energy

Economic security was one of the most frequently mentioned national security dimensions. This is highlighted by the German National Security strategy, which states 'the climate crisis is threatening our livelihoods and the very foundation of our economies.'[27] The analysed documents highlight the fact that climate impacts – especially extreme weather events – are already generating severe economic losses and damages, threatening the economic development and economic stability of states. This is illustrated by the EU's 2025 Strategic Foresight, which estimates weather- and climate-related losses in the EU at EUR 738 billion between 1980 and 2023, with a sharp increase in recent years.[28] The Philippines reports average annual losses equivalent to about 1% of GDP,[29] while Vanuatu highlights that Cyclone Pam (2015) alone caused damage exceeding 60% of GDP and wiped out decades of development gains.[30] Germany estimates EUR 145 billion in losses from extreme weather between 2000 and 2021.[31] Germany's Climate Foreign Policy Strategy emphasises that extreme weather events, together with declining government revenues and high reconstruction costs, can significantly weaken public finances and increase public debt.[32] This, in turn, reduces states' capacity to invest in resilience and preparedness for future climate impacts. Similar destabilising fiscal effects are

[25] Kenya, 2024, The annual report on the state of national security (accessed 30.04.2026); Vanuatu, 2022, National Security Strategy 2022 Review (accessed 30.04.2026); The Philippines, 2021, Statement UNSC 09.12.2021 (accessed 30.04.2026).

[26] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026); Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

[27] Germany, 2023, Wehrhaft. Resilient. Nachhaltig. Integrierte Sicherheit für Deutschland - Nationale Sicherheitsstrategie (accessed 30.04.2026).

[28] EU, 2025, 2025 Strategic Foresight Report (accessed 30.04.2026).

[29] The Philippines, 2018, National Security Strategy (accessed 30.04.2026).

[30] Pacific SIDS, 2021, Statement delivered on behalf of Pacific SIDS at the UN Security Council Open VTC on 'Climate and Security' (accessed 05.04.2026.

[31] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[32] Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

highlighted by Norway and Kenya.[33] Beyond these direct costs, economic development is also affected by indirect climate impacts, including supply chain disruptions and declining labour productivity.[34] Overall, climate change is portrayed as posing a broad risk to sustainable development.[35]

Infrastructure security is closely linked to economic security. Critical infrastructure – telecommunications, energy systems, transport, water systems, and health facilities – is increasingly exposed to climate impacts. This is underlined by the German National Interdisciplinary Climate Risk Assessment (Nationale Interdisziplinäre Klimarisiko Einschätzung, NIKE), which projects a sixfold rise in climate-related damage to critical infrastructure in Europe by mid-century.[36] NATO provides examples such as wildfires disrupting telecom networks, heat reducing mobile network performance, heavy rain blocking GEO satellite signals, and sea-level rise and erosion threatening coastal and subsea infrastructure such as cable landing stations.[37] But also public and private infrastructure such as roads, bridges, railways, and health facilities might be damaged due to climate impacts.[38] Damage to shared infrastructure, including water systems governed by international agreements, may also heighten conflict risks between affected groups, according to the German NIKE.[39]

Energy security is similarly affected by climate impacts. Extreme heat, drought, and fires disrupt energy production and transmission – for example by limiting cooling water for nuclear plants or damaging grids. Logistics can be disrupted due to extreme weather such as droughts and low water levels in rivers. Disruptions such as limited cooling water for nuclear plants can increase dependence on imports or fossil fuels.[40,41] At the same time, the energy transition itself has geopolitical implications, reshaping trade patterns and creating vulnerabilities for fossil-fuel exporters.[42] Germany's strategy on defence and climate change also stresses the need to ensure military mobility under changing energy conditions.[43] The UK also highlighted, in a speech in the UNSC, that there is a relationship between energy resources and the risk of conflict, which climate change will complicate further.[44]

Territory and sovereignty

Climate change threatens two of the core pillars of national security: territory and statehood. This concern is repeatedly reflected in the analysed documents, where states and organisations stress risks to territorial integrity, sovereignty, and the very foundations of statehood. Beyond intensifying extreme events, climate change is projected to render large areas increasingly inhospitable.[45] Germany's NIKE, for example, warns that under current warming trajectories (around 2.7°C), up to one

[33] Norway, 2022, Statement UNSC 09.03.2022 (accessed 04.05.2026); Kenya, 2024, The annual report on the state of national security (accessed 30.04.2026).

[34] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[35] Germany, 2023, Statement UNSC 13.06.2023(accessed 06.05.2026); The Philippines, 2023, National Security Policy (accessed 06.05.2026).

[36] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[37] Germany, 2024, Strategy on Defence and Climate Change (accessed 30.04.2026); NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[38] Kenya, 2024, The annual report on the state of national security (accessed 30.04.2026).

[39] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[40] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[41] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[42] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[43] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026); Germany, 2024, Strategy on Defence and Climate Change (accessed 30.04.2026).

[44] The United Kingdom, 2007, Letter to the UNSC 05.04.2007 (accessed 06.05.2026).

[45] EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026).

third of the global population could be living in regions where liveable conditions may become extremely difficult to sustain.[46] At the same time, sea-level rise presents an existential threat to some Small Island Developing States, where the loss of land directly endangers their physical existence.[47] The Philippines and Vanuatu highlight the fact that as territory diminishes, not only land but also maritime zones, rights, and entitlements are affected[48] – issues that remain insufficiently addressed under current international law.[49]

However, the implications of climate change go beyond physical territory to the legal and political concept of statehood itself. A state is traditionally defined by territory, population, and effective authority;[50] if one of these elements is fundamentally undermined, statehood is at risk. This linkage is explicitly recognised in the analysed material of Vanuatu and the Pacific Island Forum. The Philippines, for instance, frames sea-level rise as a threat to its sovereignty and territorial integrity,[51] while the Pacific Islands Forum highlights climate change as a direct challenge to the continued statehood of several Pacific nations.[52]

Fragility, stability, domestic tension, and terrorism

Many documents describe climate change as a driver of fragility and instability. NATO emphasises that climate change can exacerbate state fragility, while Germany is even more explicit, warning that climate impacts have the potential to destabilise states, contribute to state failure, and indirectly affect Germany and Europe.[53]

Climate change is portrayed e.g. by the African Union as a multiplier of internal tensions.[54] Social tensions may rise or be aggravated over access to resources, livelihoods, and services, particularly in contexts of displacement or territory loss, an issue also noted by Vanuatu and the Philippines.[55] Germany's Strategy on Defence and Climate Change stresses that climate impacts can intensify existing conflicts, increase social unrest, and contribute to migration flows.[56] These dynamics are further exacerbated in countries where government services are already inadequate,[57] potentially generating additional humanitarian needs, which the EU climate and defence roadmap argues may increase the demand for military and civilian missions.[58] This shows, for instance, how intertwined national and human security can be. Interestingly, nations of the Global South such as Vanuatu and the Philippines focus more on their own country in this regard, while e.g. Germany (with exceptions) instead looks outwards. Germany's NIKE further links climate impacts and climate policy measures such as carbon pricing to rising costs of living, which may deepen inequalities if the burdens are

[46] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[47] Norway, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026); Norway, 2019, Statement UNSC 25.01.2019 (accessed 07.05.2026); Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

[48] Fiji for PSIDS, 2021, Statement UNSC 23.02.2021 (accessed 06.05.2026).

[49] The Philippines, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026).

[50] De la Cuba, P., 2011, The statehood of 'collapsed' states in Public International Law (accessed 05.05.2026).

[51] The Philippines, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026).

[52] Pacific Islands Forum, 2022, 2050 Strategy for the Blue Pacific Continent (accessed 02.02.2026).

[53] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[54] AU, 2015, African Peace and Security Architecture Roadmap 2016-2020 (accessed 06.05.2026).

[55] The Philippines, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026); Vanuatu, 2022, National Security Strategy 2022 Review (accessed 06.05.2026).

[56] Germany, 2024, Strategy on Defence and Climate Change (accessed 30.04.2026).

[57] Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

[58] EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026).

unfairly distributed. This, in turn, can fuel populism, extremism, and disinformation, as well as harm social cohesion. Climate-induced price increases and supply-chain disruptions are also seen as drivers of domestic tension, weakening social cohesion and societal resilience.[59]

Instability at the state level is another recurring theme.[60] While general climate impacts are most frequently mentioned, the NATO Climate Security Impact Assessment explicitly refers to tipping points in this context. Generally, inequality is often identified as a key factor for instability. Germany's NIKE warns that tensions arising from unequally distributed burdens could weaken cohesion within the EU and even affect its long-term viability.[61] The German CFP strategy similarly stresses that climate change exacerbates existing inequalities, fuels conflict, and destabilises states, making it one of the central risks of the 21st century.[62] It is repeatedly noted that fragile states are particularly exposed: the UK points out that half of the 48 countries most vulnerable to climate change are also characterised by fragility.[63] Vanuatu states that in climate-vulnerable contexts, climate change 'hastens conflict' where tensions already exist and 'intensifies' ongoing conflicts.[64] The German Federal Intelligence Service (BND) considers climate change – through destabilisation and migration – one of the five major threats facing Germany.[65] NATO adds that indirect effects such as climate-induced instability are likely to reshape the strategic environment in the medium to long term.[66]

In more severe scenarios, fragility and internal tensions may enable the emergence or strengthening of terrorist and armed groups. The EU Climate and Defence Roadmap warns that areas rendered inhospitable by climate impacts may fall outside effective state control, creating safe havens for hostile actors. Norway[67] similarly argues that climate change can intensify drivers of terrorism, including displacement, weakened governance, and political and social instability, thereby facilitating radicalisation and recruitment. Somalia and the Lake Chad region are cited as examples.[68] The Philippines also warns that climate disasters can weaken states in ways that may be exploited by terrorist groups.[69]

Military

Climate impacts – including increased temperatures, heatwaves, and sea-level rise, as well as indirect effects such as instability and large-scale population movements – are already being integrated into NATO's long-term military planning, as they are expected to alter the strategic environment in the medium to long term.[70] NATO also describes climate-induced effects on the operations of armed forces as well as the vulnerability of infrastructure, assets, and bases as a key challenge.[71] The

[59] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[60] E.g. Germany, 2023, Statement UNSC 13.06.2023 (accessed 07.05.2026); Norway, 2022, Statement UNSC 12.10.2022 (accessed 07.05.2026); Norway, 2021, Statement UNSC 09.12.2021 (accessed 07.05.2026); NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); EU, 2022, A strategic compass for security and defence (accessed 06.05.2026); Germany, 2024, Strategy on Defence and Climate Change (accessed 30.04.2026).

[61] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[62] Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

[63] The United Kingdom, 2021, Letter to the UNSC 17.02.2021 (accessed 05.05.2026); EU, 2022, A strategic compass for security and defence (accessed 06.05.2026).

[64] Fiji for PSIDS, 2021, Statement UNSC 23.02.2021 (accessed 06.05.2026).

[65] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[66] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[67] Norway, 2021, Statement UNSC 09.12.2021 (accessed 07.05.2026).

[68] Norway, 2021, Statement UNSC 23.02.2021 (accessed 07.05.2026).

[69] The Philippines, 2021, Statement UNSC 09.12.2021 (accessed 07.05.2026).

[70] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[71] NATO, 2022, Strategic concept (accessed 30.04.2026).

climate foreign policy strategy of Germany emphasises that not only foreign policy needs to adapt to climate change, but also security and defence policies. NATO further argues that climate change exacerbates strategic competition, for example over resources and global commons, thereby increasing risks of instability and conflict. It also notes that adversaries could exploit climate-related stresses, including through disinformation related to climate and the energy transition. NATO planning already considers how climate impacts may influence the domestic stability, foreign policies, and security decisions of competitors.[72] Strategically, the EU and Germany highlight that growing humanitarian needs linked to climate impacts will likely increase demand for military and civilian crisis-management missions.[73] NATO cited as well the increased frequency with which militaries are involved in disaster relief.[74] The prospect of an ice-free Arctic is repeatedly identified as having major implications for European and NATO security and defence planning.[75]

Military security is also linked to mitigation: emission reductions and renewables are presented as a priority that can provide operational advantages, such as reduced logistical requirements and lower dependence on vulnerable supply lines.[76] At the same time, climate impacts directly affect military capabilities, infrastructure, personnel, and equipment.[77] Germany's Strategy on Defence and Climate Change states that climate change will influence all Bundeswehr missions and operations. The analysed documents provide concrete examples of this: Extreme heat and precipitation can impair sensor systems, while the spread of infectious diseases due to climate impacts raises health risks during deployment. Extreme heat can push equipment and personnel beyond operational limits. Rising ocean temperatures affect underwater acoustics, with implications for submarine operations, and sea-level rise threatens naval sensors and radar systems. Wildfires reduce vegetation cover, affecting visibility and tactical conditions, while low river levels restrict inland navigation and military supply chains. These developments complicate military operations and carry geopolitical implications.[78] Germany's NIKE therefore concludes that climate resilience will be a determining factor for the future operational capacity and endurance of the armed forces, particularly as infrastructure and equipment planned today must remain functional until the 2040s. The German strategy on defence and climate change further emphasises that climate change already affects the entire spectrum of military responsibilities.[79]

The NATO Climate Security Impact Assessment also uses climate scenarios, warning that 4°C warming would have dramatic consequences. Another recurring concern is that more frequent extreme weather events may overwhelm civilian protection systems, increasing reliance on the military for

[72] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[73] EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[74] NATO, 2022, Strategic concept (accessed 30.04.2026).

[75] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[76] EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026); Germany, 2024, Strategy on Defence and Climate Change (accessed 30.04.2026); NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[77] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026); EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026); Germany, 2024, Strategy on Defence and Climate Change (accessed 30.04.2026).

[78] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026); EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026); Germany, 2024, Strategy on Defence and Climate Change (accessed 30.04.2026).

[79] Germany, 2024, Strategy on Defence and Climate Change (accessed 30.04.2026).

disaster response. This could, in turn, reduce availability for traditional defence tasks, underscoring the need for new rapid-response structures to address long-term climate impacts.[80]

3.2 International security

Across the analysed documents, climate change is consistently framed as a major driver of international security risks. Actors such as the EU and Germany emphasise that climate change will shape the future security landscape by multiplying existing threats to stability, increasing geopolitical competition, and potentially undermining the rules-based international order.[81] Similar framings appear in documents of the Philippines, Vanuatu, and Norway, all of which stress the transnational and borderless nature of climate impacts. Climate change is repeatedly described as a 'threat multiplier' that exacerbates instability and heightens the risk of conflict.[82]

Several documents, particularly from NATO and Germany, also highlight the implications of climate change for major powers, such as China or the USA, whose ability to project power and provide international public goods is central to maintaining global stability.[83] At the same time, the analysis underscores strong regional variation in climate vulnerability and impacts. While Europe features prominently, reflecting the origin of many analysed documents, frequent references are also made to the Middle East, North Africa, the Horn of Africa, the Sahel, and Pacific Island states as regions where climate-related security risks are especially pronounced.

Geopolitics, geostrategic competition, and the international order

Climate change is expected to intensively affect the international order via its geopolitical and geostrategic implications. Across the analysed documents, climate change is portrayed as reshaping geopolitics, influencing state behaviour, and altering patterns of international stability, including the emergence of new strategic arenas and shifts in power.[84] In this context, slow-onset processes – particularly sea-level rise – are frequently identified as long-term drivers of geopolitical change.

Several documents emphasise the growing strategic relevance of regions that are becoming more accessible due to climate change. For instance, Germany's NIKE highlights rising geopolitical tensions, particularly involving Russia, linked to the increasing accessibility of an ice-free Arctic. Melting sea ice opens new shipping routes and access to natural resources, intensifying competition and

[80] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026); Germany, 2024, Strategy on Defence and Climate Change (accessed 30.04.2026).

[81] EU, 2022, A strategic compass for security and defence (accessed 06.05.2026); EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[82] Norway, 2022, Statement UNSC 09.03.2022 (accessed 07.05.2026); The Philippines, 2021, Statement UNSC 09.12.2021 (accessed 07.05.2026); Fiji for PSIDS, 2021, Statement UNSC 23.02.2021 (accessed 06.05.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026); Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026); EU, 2022, A strategic compass for security and defence (accessed 06.05.2026).

[83] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[84] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026); EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026); Norway, 2025, National Security Strategy (accessed 06.05.2026); Germany, 2024, Strategy on Defence and Climate Change (accessed 30.04.2026.

strategic interests.[85] Similarly, Norway's national security strategy underscores the heightened geopolitical importance of the Arctic region.[86]

Another major area of geopolitical transformation concerns the global energy transition. The shift away from fossil fuels is expected to reconfigure international trade relations and strategic dependencies. According to Germany's NIKE and CFP Strategy, increasing competition over critical raw materials required for renewable technologies may create new dependencies and alter global power dynamics. While the transition offers opportunities for diversification and cooperation, it also poses risks for fossil fuel–exporting countries, some of which have historically leveraged energy dependencies to pursue geopolitical objectives. As their strategic relevance declines, this may generate new forms of instability or strategic repositioning.[87]

Beyond these structural changes, climate change is also framed as a challenge to the legitimacy and effectiveness of the rules-based international order. NIKE argues that failure to achieve the goals of the Paris Agreement could erode trust in international cooperation and in the feasibility of a global transition to climate neutrality. As climate impacts intensify, declining confidence in multilateral solutions may lead to increased fragmentation, greater global instability, and reduced influence for actors such as Germany and its partners. Such developments could benefit actors seeking to weaken multilateral institutions, thereby making coordinated and effective international climate action even more difficult to achieve.[88]

International and national effects of climate change on peace and conflict

Almost all analysed documents describe the relationship between climate change and peace and conflict as complex and indirect, with climate change as a threat or risk multiplier rather than a deterministic variable.[89] NATO, the EU, Norway, the UK, Germany, the Philippines, and Kenya[90] all stress that climate change is rarely the sole or direct cause of armed conflict, but functions as a 'threat multiplier' or 'catalyst' that interacts with existing political, social, economic, and governance vulnerabilities. Climate impacts such as environmental degradation, extreme weather, ecosystem loss, and resource stress increase exposure and vulnerability, particularly in fragile contexts, thereby

[85] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026); Norway, 2025, National Security Strategy (accessed 06.05.2026); EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026); Germany, 2024, Strategy on Defence and Climate Change (accessed 30.04.2026).

[86] Norway, 2025, National Security Strategy (accessed 06.05.2026).

[87] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026); Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

[88] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[89] E.g. NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); EU, 2022, A strategic compass for security and defence (accessed 06.05.2026); EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026); Norway, 2019, Statement UNSC 25.01.2019 (accessed 07.05.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026); The United Kingdom, 2021, Letter to the UNSC 17.02.2021 (accessed 05.05.2026); The Philippines, 2023, National Security Policy (accessed 06.05.2026).

[90] E.g. NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); Kenya, 2021, Statement UNSC 23.09.2021 (accessed 06.05.2026); The Philippines, 2023, National Security Policy (accessed 06.05.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026); The United Kingdom, 2021, Letter to the UNSC 17.02.2021 (accessed 05.05.2026).

raising the likelihood of instability, violence, and conflict. Several actors explicitly note that as climate impacts intensify, these conflict linkages are expected to grow.[91]

Several documents warn that climate change exacerbates fragility and instability, particularly in already vulnerable regions. NATO[92] identifies the Middle East, North Africa, and especially the Sahel as climate-conflict hotspots due to harsh climate conditions, reliance on subsistence agriculture, and limited adaptive capacity. Similarly, the EU emphasises that climate change, environmental degradation, and natural disasters are proven drivers of instability and conflict and will shape the security environment in the coming decades.[93] The African Union's APSA Roadmap[94] also recognises climate change as a threat to peace and security in Africa that requires continental coordination.

A widely emphasised factor linking climate change to conflict is resource scarcity. Rising temperatures, shifting precipitation, and more frequent extreme weather events exacerbate water scarcity, reduce agricultural productivity, and affect fish stocks, intensifying competition over essential resources within and between states.[95] NATO directly links this to growing strategic competition, arguing that resource scarcity and the scramble for the global commons will drive instability, competition, and conflict, with implications for regional resilience, NATO operations,[96] and vulnerable populations. Norway[97] likewise notes that in regions such as the Sahel, climate change degrades ecosystems and livelihoods, and competition over scarce resources fuels conflict. Several documents explicitly connect environmental degradation and erratic climate patterns to resource-based violence. Kenya's Defence White Paper links scarcity of water and pasture to escalating internal conflicts,[98] while NIKE describes the climate crisis as already aggravating conflicts over increasingly scarce resources, destabilising states and contributing to displacement, including effects felt in Europe.[99] Natural resources more broadly are also framed as conflict-relevant. Norway[100] notes that renewable resources and extractive industries, including minerals for the green transition, can finance conflicting parties, and that resources are often targeted or become collateral damage. Energy is a specific dimension: the UK[101] points out that climate change complicates existing links between energy and conflict, as shifts in supply patterns – driven by decarbonisation or physical impacts – create security dilemmas between climate, energy, and stability objectives.

Another major linkage is displacement and migration. Climate impacts such as sea-level rise, droughts, and extreme weather events force people to move, which can strain host communities,

[91] E.g. Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026); Kenya, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026); Germany, 2024, Strategy on Defence and Climate Change (accessed 30.04.2026).

[92] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[93] EU, 2022, A strategic compass for security and defence (accessed 06.05.2026); EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026).

[94] AU, 2015, African Peace and Security Architecture Roadmap 2016-2020 (accessed 06.05.2026).

[95] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026); The United Kingdom, 2007, Letter to the UNSC 05.04.2007 (accessed 06.05.2026); Kenya, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026); The Philippines, 2023, National Security Policy (accessed 06.05.2026); NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); Norway, 2021, Statement UNSC 23.02.2021 (accessed 07.05.2026).

[96] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[97] Norway, 2021, Statement UNSC 23.02.2021 (accessed 07.05.2026).

[98] Kenya, 2017, Defence White Paper (accessed 06.05.2026).

[99] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[100] Norway, 2024, Statement UNSC 08.07.2024 (accessed 07.05.2026).

[101] The United Kingdom, 2007, Letter to the UNSC 05.04.2007 (accessed 06.05.2026).

increase pressure on services and livelihoods, and contribute to social tensions.[102] In fragile contexts, these pressures may increase the risk of violence and conflict, especially where governance structures are weak.[103]

Many documents also stress feedback loops between conflict and climate vulnerability. Conflict reduces resilience and adaptive capacity, while climate impacts further undermine livelihoods and governance, creating vicious cycles of fragility and instability that may lead to failing states or crises.[104] Germany explicitly describes climate change as a catalyst that may exacerbate existing conflicts, increase social unrest, and contribute to migration flows.[105] Finally, several actors warn that climate change may contribute to interstate tensions, including potential disputes over resources and territory. Changes in resource availability, especially water, land, and fisheries, may increase cross-border tensions.[106] In addition, sea-level rise and melting ice may alter coastlines and maritime zones, raising legal and political questions over borders and territorial rights.[107]

3.3 Human security

Human security is frequently identified in the analysed documents as being endangered by climate change, both explicitly and implicitly. It is directly referenced in the Philippines' National Security Policy, which describes climate change as one of the most significant human security concerns of our time, the PSIDS statement to the UN Security Council, which warns that rising sea levels threaten the human security of low-lying island states and coastal areas,[108] and in Germany's Climate Foreign Policy Strategy, which states that climate change threatens human security while also jeopardising national and international security. Indirect references appear in the PIF's Boe Declaration and Vanuatu's National Security Strategy, which frame climate change as the single greatest threat to the livelihoods, security, and well-being of Pacific peoples. Also, NATO underlines the cross-cutting importance of integrating climate change as well as human security across all core tasks.[109] By contrast, human rights are only mentioned sporadically, for example in Germany's climate foreign policy strategy, and are not elaborated further.

Health

Health represents one of the most prominent pathways through which climate change is framed as undermining human security. The analysed documents link extreme weather events, rising

[102] The United Kingdom, 2021, Letter to the UNSC 17.02.2021 (accessed 05.05.2026); Germany, 2024, Strategy on Defence and Climate Change (accessed 30.04.2026); The Philippines, 2023, National Security Policy (accessed 06.05.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[103] The United Kingdom, 2021, Letter to the UNSC 17.02.2021 (accessed 05.05.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[104] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026); The United Kingdom, 2021, Letter to the UNSC 17.02.2021 (accessed 05.05.2026); NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[105] Germany, 2024, Strategy on Defence and Climate Change (accessed 30.04.2026); Germany, 2020, Statement UNSC 24.07.2020 (accessed 07.05.2026).

[106] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026); The United Kingdom, 2007, Letter to the UNSC 05.04.2007 (accessed 06.05.2026).

[107] The United Kingdom, 2007, Letter to the UNSC 05.04.2007 (accessed 06.05.2026); The Philippines, 2023, National Security Policy (accessed 06.05.2026).

[108] Fiji for PSIDS, 2021, Statement UNSC 23.02.2021 (accessed 06.05.2026).

[109] NATO, 2022, Strategic concept (accessed 30.04.2026).

temperatures, and broader environmental changes to increased mortality, disease burdens, and pressure on health systems.[110] The NATO Climate Security Impact Assessment reports over 61,000 heatwave-related deaths in Europe (with an estimated 56% more heat related deaths in women) and highlights growing demands for emergency interventions and hospitalisations. NIKE notes that heatwaves already account for most extreme weather-related deaths in the European Economic Area and projects rising heat-related mortality, particularly among Europe's ageing population, which is more vulnerable to heat stress. This is also reported by the EU 2025 Strategic Foresight which highlights mounting pressures on elderly care systems as climate-related health risks grow. NIKE also anticipates regional differences, with increased heat-related deaths in southern Europe and declining cold-related mortality in northern regions – should the AMOC not collapse. The Philippines links climate change to higher incidences of cardio-respiratory disease due to increased ground-level ozone and highlights mental health impacts associated with climate-related disasters.[111]

Infectious and vector-borne diseases constitute another key concern. The NATO Climate Security Impact Assessment and Kenya's annual report on the state of the nation show how climate variability and extreme rainfall events can increase the spread of vector-borne diseases. NIKE noted that rising temperatures allow disease vectors such as mosquitoes and ticks to expand into new regions, extend their active seasons, and reproduce more efficiently. Diseases such as malaria, dengue, Zika, and West Nile virus are therefore expected to appear in areas where they were previously absent, including parts of Europe. In addition, biodiversity loss and ecosystem disruption are associated with increased risks of zoonotic disease transmission as human–animal interactions intensify. NATO further emphasises direct impacts on military personnel, including heat stress, respiratory problems, higher exposure to food-, water-, and vector-borne diseases, and mental health strains linked to frequent disaster response.[112]

Livelihood/lives/socio-economic impact

Across all analysed actors, climate change is framed as threatening lives, livelihoods, and socio-economic stability, though descriptions often remain general.[113] NATO points to threats to the lives and livelihoods of people within NATO member countries.[114] The PIF's Boe Declaration calls climate change the single greatest threat to Pacific livelihoods, while Kenya and Norway[115] highlight its negative impacts on livelihoods and economies globally. Concrete examples illustrate these dynamics. Kenya's annual report on the state of the nation describes how the long rains of March–May 2024 led to severe flooding, hundreds of deaths, large-scale displacement, and major losses of agricultural land and livestock, directly undermining household livelihoods. The Philippines stresses that a large share of its population lives in hazard-prone areas and frames disaster preparedness, resilience, and the well-being of its citizens as central components of national security.[116] Vanuatu further links climate change to threats not only to livelihoods but also to culture and traditional ways of

[110] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[111] The Philippines, 2023, National Security Policy (accessed 06.05.2026).

[112] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[113] E.g. NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); Norway speech 7, PIF, 2018, Boe Declaration (accessed 05.05.2026); Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026); Vanuatu, 2022, National Security Strategy 2022 Review (accessed 06.05.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026); The United Kingdom, 2021, Letter to the UNSC 17.02.2021 (accessed 05.05.2026).

[114] NATO, 2022, Strategic concept (accessed 30.04.2026).

[115] Kenya, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026); Norway, 2019, Statement UNSC 25.01.2019 (accessed 07.05.2026).

[116] The Philippines, 2023, National Security Policy (accessed 06.05.2026).

life.[117] NATO also lists the disruption of society,[118] which can be identified as a part of societal or political security and hence human security, as a consequence of climate change. Multiple documents[119] emphasise the thousands of lives lost annually due to climate-related disasters, underscoring the direct human toll.

Migration and displacement

As extreme weather events intensify and slow-onset processes such as sea-level rise and land degradation progress, the destruction of natural resources and livelihoods is expected to drive population movements.[120] NIKE projects that under a 2.7°C warming scenario, large portions of the global population could live in regions where life becomes difficult to sustain, increasing migration pressures, primarily at the national and regional levels. The UK warns that sea-level rise, water scarcity, and declining agricultural capacity could render parts of the world uninhabitable, potentially displacing up to 200 million people by mid-century. While noting that migration alone does not cause conflict, it emphasises that demographic shifts may exacerbate instability in already stressed regions,[121] and NATO adds the potential strain on the capacity of receiving communities to provide essential services.[122] Norway links increased displacement to growing needs for civilian protection.[123] The German National Security Strategy even states that more people are fleeing the impacts of the climate crisis than armed conflict.[124]

Country-specific examples reinforce these trends. Kenya reports internal displacement following drought, flooding, and landslides.[125] Vanuatu describes displacement and forced migration as present realities in the Pacific and anticipates mass community relocations due to sea-level rise.[126] Germany's Climate Foreign Policy Strategy cites southern Iraq, where climate-related livelihood losses in agriculture and fisheries drive rural–urban migration and local tensions. The NATO assessment and the EU Climate and Defence Roadmap view large-scale population movements as reshaping the strategic environment, with implications for Europe. NIKE, referencing the German intelligence service, lists climate change and migration among the major security risks for Germany and links resource scarcity and food insecurity to potential migration towards Europe, including increased asylum applications. Germany's climate foreign policy strategy emphasises the need to support resilience and 'sustainable management' of human mobility to enable affected populations to remain in or return to their home regions. How this would be done, if some regions become uninhabitable, remains unanswered.

[117] Fiji for PSIDS, 2021, Statement UNSC 23.02.2021 (accessed 06.05.2026).

[118] NATO, 2022, Strategic concept (accessed 30.04.2026).

[119] Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026); The Philippines, 2023, National Security Policy (accessed 06.05.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 05.05.2026).

[120] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026); EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026).

[121] The United Kingdom, 2007, Letter to the UNSC 05.04.2007 (accessed 06.05.2026).

[122] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[123] Norway, 2021, Statement UNSC 09.12.2021 (accessed 07.05.2026).

[124] Germany, 2023, Wehrhaft. Resilient. Nachhaltig. Integrierte Sicherheit für Deutschland - Nationale Sicherheitsstrategie (accessed 30.04.2026).

[125] Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026).

[126] Fiji for PSIDS, 2021, Statement UNSC 23.02.2021 (accessed 06.05.2026).

While not explicitly discussing it in the context of climate change, the NATO strategic concept mentions the fact that migration is often instrumentalised by authoritarian actors, which could also be a relevant consideration in the context of security policy.[127]

Food and water security

Food insecurity is repeatedly associated with droughts, heatwaves, erosion, and salinisation that damage crops and reduce arable land.[128] The Philippines explicitly frames food security as the basis of human security.[129] Norway cites 279 million people affected by climate-driven food insecurity in 2020,[130] while Kenya reports regional food and water shortages due to drought, affecting more than 50 million people.[131] NIKE estimates agricultural losses due to drought in Europe under a 2°C warming scenario at approx. EUR 12.2 billion and stresses that additional extreme weather events and slow-onset processes such as loss of biodiversity will lead to agricultural losses and increase crop vulnerability to pests. It also projects a rising global demand for food alongside potential production declines, increasing risks of severe food insecurity – with some analyses estimating that by 2050 food production will decrease between 6% and 14%, leading to an additional 556 million to 1.36 billion people experiencing severe food insecurity.[132] But it not only harvests themselves that directly impact food security. Climate effects and extreme weather events can also affect critical food infrastructure such as storage or transport, further threatening food supplies.[133]

Climate impacts further disrupt food distribution and global markets. NATO[134] highlights global ripple effects when major food producers are adversely affected by a changing climate (e.g. China, which feeds approx. 20% of the world's population). Regional effects were evident in 2022, when major food producing countries in Europe, such as Germany, Spain, and France, suffered from prolonged drought and heatwaves, which led to a decrease in cereal production of 9% compared to 2021. NIKE warns of simultaneous failures in major agricultural regions, shifting climate zones, and growing water scarcity in key production areas (projected to start in 2040), making it harder to offset local shortages through trade. NIKE notes that shifting climate zones may render some higher-latitude and polar regions more suitable for agriculture. Nevertheless, these potential regional gains are outweighed by broader global losses, with overall crop yields projected to decline under continued warming. This trend is already observable: average yields of major staple crops such as wheat, soy, and maize showed slight climate-related decreases between 1981 and 2010.

Kenya's Defence White Paper underscores that food and water insecurity can intensify internal conflicts. Germany's NIKE makes a similar argument, emphasising that climate change is exacerbating food insecurity in ways that may fuel both conflict and migration. The UK illustrates this dynamic with the example of Darfur, where climate impacts – including prolonged periods of heavy rainfall – have disrupted farming conditions and heightened tensions among agricultural communities.[135]

---

[127] NATO, 2022, Strategic concept (accessed 30.04.2026).

[128] E.g. NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); Norway, 2021, Statement UNSC 09.12.2021 (accessed 07.05.2026); Norway, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026); Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026); Fiji for PSIDS, 2021, Statement UNSC 23.02.2021 (accessed 06.05.2026); The United Kingdom, 2007, Letter to the UNSC 05.04.2007 (accessed 06.05.2026).

[129] The Philippines, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026) .

[130] Norway, 2021, Statement UNSC 23.02.2021 (accessed 07.05.2026).

[131] Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026).

[132] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[133] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[134] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[135] The United Kingdom, 2010, A Strong Britain in an Age of Uncertainty: The National Security Strategy (accessed 06.05.2026).

NIKE further stresses that in many fragile states more than half of the population depends directly on agriculture – up to 80% in some African countries. Climate-related declines in agricultural productivity therefore heighten socioeconomic and political pressures, increasing the risk of instability and conflict. Fisheries are also affected: warming oceans shift fish stocks, reduce catches, and may contribute to maritime tensions and piracy.[136]

Water security is closely intertwined with food security and its dynamics, as climate impacts deplete water resources.[137] Kenya and the Horn of Africa faced severe water shortages after failed rains,[138] and the Philippines identifies desertification due to water insecurity and urban water scarcity as a major water security concern.[139] For Europe, NIKE noted that the Mediterranean region will face some water shortages, as it is warming 20% faster than the global average and already suffers from water scarcity. Both NIKE and the UK warn that declining freshwater availability combined with rising demand increases the risk of intra- and interstate tensions.[140]

3.4 Ecological security

Ecological security places ecosystems – their functioning, resilience, and integrity – at the centre of security considerations.[141] Within this framing, planetary health and biodiversity are understood as integral components of security, rather than merely as enabling conditions for human well-being. Across the analysed documents and speeches, however, ecological security emerged as the least frequently employed framing. Most actors continued to rely primarily on established concepts such as international, national, or human security, while explicit references to ecological or environmental security remained comparatively rare. Where ecological security was invoked, it generally took the form of broad and unspecific references to environmental degradation, climate change impacts, and biodiversity loss. Notably, the explicit use of ecological or environmental security framings was largely limited to actors from the Global South, including the Philippines, Kenya, and the PIF. The PIF's Boe Declaration, for example, explicitly prioritises environmental security as a core regional concern.[142] Similarly, Kenya's Annual Report on the State of the Nation frames environmental security as central to addressing food insecurity and mitigating climate impacts, while simultaneously identifying climate change as a threat to environmental security itself.[143] The Philippines' National Security Strategy likewise emphasises the need to promote ecological security alongside human security.[144] This pattern suggests that some Global South actors may conceptualise environmental protection not merely as instrumental to human well-being, but as a security concern in its own right, reflecting a more holistic understanding of the interdependence between ecosystems and security. By contrast, actors from the Global North tend to integrate environmental concerns into existing security frameworks rather than adopting ecological security as a distinct concept. Notable exceptions are Germany and the UK; Germany acknowledges that security in the 21st century also

[136] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[137] E.g. NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026); Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026).

[138] Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026).

[139] The Philippines, 2023, National Security Policy (accessed 06.05.2026).

[140] The United Kingdom, 2007, Letter to the UNSC 05.04.2007 (accessed 06.05.2026).

[141] See McDonald, M., 2018, Climate Change and Security towards ecological security (accessed 11.05.2026).

[142] PIF, 2018, Boe Declaration (accessed 05.05.2026).

[143] Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026).

[144] The Philippines, 2023, National Security Policy (accessed 06.05.2026).

entails 'protecting the natural resources on which all life depends,' thereby hinting at a broader understanding of security that incorporates ecological dimensions.[145]

The analysis did not include the UK National Security Strategy on global biodiversity loss and ecosystem collapse, as it is not a comprehensive national security strategy, nor a climate strategy. It is worth highlighting, however, as it differs notably from the other analysed documents and speeches. The United Kingdom explicitly recognises global ecosystem degradation as a direct threat to its national security and prosperity. It underscores that such degradation is likely to drive geopolitical instability, economic insecurity, conflict, migration, and intensified competition over natural resources among states. In this assessment, nature is framed as a foundational component of national security. Biodiversity loss and ecosystem decline are identified as critical risk multipliers, particularly in relation to food and water security, the spread of infectious diseases and pandemics, and the increasing frequency and severity of natural disasters. Importantly, the document stresses that these impacts are not merely hypothetical but are already being observed. The United Kingdom further highlights the growing risk that resource scarcity may contribute to conflict and military escalation, as states and non-state actors compete over diminishing natural resources.[146]

Biodiversity loss

Across the documents, biodiversity loss is frequently framed as closely interconnected with climate change, with both dynamics described as mutually reinforcing. NATO, for example, highlights that climate change and biodiversity loss jointly undermine food security and environmental stability.[147] Several actors go even further by identifying biodiversity loss as a driver of insecurity and conflict.[148] NIKE[149] links biodiversity loss to concrete and systemic risks, including failures in agriculture and forestry, as well as an increased likelihood of zoonotic diseases. This reflects a more operationalised understanding of ecological risks, connecting environmental change to socio-economic and health-related vulnerabilities.

In contrast to these risk-oriented framings, some actors adopt a more solution-oriented perspective. The Philippines emphasises the importance of 'advancing the value of biodiversity and oceans as sources of nature-based solutions to the climate crisis,' while Vanuatu[150] highlights the protection of nature and animal life as a key component of its foreign policy. These perspectives position biodiversity not only as something under threat, but also as a resource for resilience and adaptation.[151]

Ecosystem degradation

A second recurring theme in relation to ecological security is the degradation of ecosystems due to climate change. Across the analysed documents, ecosystem degradation is consistently framed as part of a broader nexus linking climate change, biodiversity loss, and security risks. NATO identifies the degradation of terrestrial and marine ecosystems as a strategic risk, emphasising the interconnected nature of climate change, biodiversity loss, and environmental decline. [152] Similarly, Norway

[145] Germany, 2023, Wehrhaft. Resilient. Nachhaltig. Integrierte Sicherheit für Deutschland - Nationale Sicherheitsstrategie (accessed 30.04.2026).

[146] The United Kingdom, 2023, Global biodiversity loss, ecosystem collapse and national security (accessed 11.05.2026).

[147] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[148] The Philippines, 2021, Statement UNSC 09.12.2021 (accessed 07.05.2026).

[149] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[150] Vanuatu, 2024, National Foreign Policy (accessed 04.05.2026).

[151] The Philippines, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026).

[152] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

notes that ecosystem degradation increasingly affects global and regional peace and security. This is particularly evident in regions such as the Sahel, where environmental stress intensifies competition over scarce resources and contributes to conflict dynamics.[153]

Other actors emphasise the societal consequences of ecosystem degradation. Kenya's Annual Report on the State of the Nation underscores the risks to human health, economic stability, and wildlife, while Germany focuses more strongly on threats to livelihoods.[154] The European Union's Strategic Compass likewise identifies climate change as a key driver of ecosystem degradation, linking environmental change to broader security challenges.[155] Several actors explicitly connect ecosystem degradation to national security concerns. The Philippines' National Security Policy stresses the need to prevent environmental degradation to reduce negative impacts on societal well-being, framing ecosystem protection as an integral component of national security. Germany's NIKE further highlights the potentially disruptive and systemic consequences of climate tipping points, pointing to risks for the biosphere as a whole.[156]

4 Threats to security

Extreme weather events emerge as the most frequently identified threat across the different security dimensions. This is closely followed by general references to climate change, while slow-onset processes are mentioned less frequently, and climate tipping points are addressed only rarely.

4.1 Extreme weather events

National security

Across the analysed documents, extreme weather events are framed as direct stressors on multiple dimensions of national security, including military capabilities, economic stability, sovereignty and statehood, infrastructure, energy systems, territorial integrity, and state fragility. Rather than as isolated hazards, they are presented as interconnected risks that can undermine state capacity, disrupt critical systems, and strain governance structures.

Heatwaves are primarily associated with impacts on military effectiveness, infrastructure, and energy security. Rising temperatures place increasing strain on personnel and equipment, with extreme heat forcing the restriction or suspension of training and operations and reducing overall readiness.[157] Heat also affects broader economic productivity and quality of life.[158] At the same time, heatwaves disrupt energy systems and infrastructure: reduced cooling water has already constrained nuclear power production, while hydropower declines during prolonged heat and

[153] Norway, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026); Norway, 2021, Statement UNSC 23.02.2021 (accessed 07.05.2026).

[154] Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026).

[155] Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026).

[156] The Philippines, 2023, National Security Policy (accessed 06.05.2026), Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[157] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[158] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

drought.[159] Transport infrastructure is similarly affected, as heat and associated fires damage railways, roads, and air traffic systems.[160]

Wildfires are described as complex risks affecting military, economic, and infrastructure security. Armed forces are often deployed to support civilian response, while fires directly threaten military facilities, equipment, and personnel.[161] They also alter operational environments by reducing vegetation cover, thereby affecting concealment, mobility, and engagement conditions. Economically, wildfires cause significant damage to infrastructure, including power grids, telecommunications, and transport systems, disrupting essential services and emergency response.[162] Their scale is reflected in record burned areas in Europe and substantial long-term economic losses in countries such as Germany. At the EU level, in 2025 alone more than one million hectares burned, a record amount. In Germany, extreme weather including wildfires contributed to EUR 145 billion in damages from 2000 to 2021.[163]

Drought is strongly linked to economic security, food systems, and supply chains. Prolonged drought and irregular rainfall restrict inland navigation due to low river levels, affecting economically and militarily relevant supply chains, fuel provision, and industrial production. Agriculture, tourism, and rural livelihoods suffer, particularly in southern Europe, potentially driving migration and internal EU tensions.[164] Droughts, alongside floods, are described as severely affecting communities, economies, and ecosystems, particularly in Africa.[165]

Tropical cyclones are framed as major threats to the economic and territorial security of vulnerable states. In the Philippines, tropical cyclones caused around USD 11.2 billion in GDP losses over a decade.[166] In Vanuatu, Cyclone Pam's impact exceeded 60% of GDP, and single cyclones can wipe out up to 30% of GDP and decades of development gains.[167] Storms destroy infrastructure, housing, and livelihoods, undermining state capacity and recovery prospects. In the military domain, extreme winds and changing maritime conditions affect naval operations and capabilities. Intense precipitation and flooding directly affect military operations and technologies.

Heavy rain impairs radar performance and satellite signals, reducing situational awareness. Extreme wet conditions hinder mobility, logistics, and sensor functions across land, sea, and air domains.[168]

Flooding and flood risks cause widespread infrastructure destruction and humanitarian impacts. In Kenya, enhanced rains in 2024 led to 315 deaths, over 58,000 households displaced, and major damage to roads, bridges, railways, schools, and health facilities, with recovery costs exceeding KSh 42 billion.[169] Floods are also described elsewhere as strongly impacting communities, economies, and

[159] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[160] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[161] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[162] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[163] EU, 2025, Strategic Foresight Report (accessed 06.05.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[164] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[165] Norway, 2022, Statement UNSC 12.10.2022 (accessed 07.05.2026).

[166] The Philippines, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026).

[167] Vanuatu, 2022, National Security Strategy 2022 Review (accessed 06.05.2026); Fiji for PSIDS, 2021, Statement UNSC 23.02.2021 (accessed 07.05.2026).

[168] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[169] Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026).

ecosystems.[170] Flood risks threaten military installations in low-lying or permafrost regions, undermining structural integrity. Armed forces are increasingly tasked with rescue, evacuation, and logistics during major floods.[171] Landslides, often triggered by heavy rain, lead to loss of life, displacement, and habitat destruction, contributing to local instability. In Kenya, a 2024 landslide caused 61 deaths and significant property damage.[172] Such events combine environmental degradation, human insecurity, and pressure on state response capacities. Storm surges threaten coastal military infrastructure, including ports, dry docks, and bases. This necessitates changes in coastal navigation, training patterns, and infrastructure planning, affecting long-term military posture.[173]

International security

The documents analysed frame extreme weather events not only as a national problem but as an international security issue. Here, especially *drought* is named as a threat, described as both a regional and international security risk. The NATO Climate Security Impact Assessment highlights regional droughts that affect interconnected markets and supply systems, with implications beyond the directly affected states. NIKE highlights regions such as the Horn of Africa and Mediterranean countries (Spain, Italy, France), showing how climate stress in one area can generate broader European and global repercussions. Economic spillovers are explicitly mentioned: drought-related production shocks contribute to exploding grain prices, amplifying global food insecurity and instability.[174] This links environmental stress to global economic security. Drought is also connected to conflict and political instability across borders. Norway notes that there is strong evidence that climate impacts, including drought, can drive conflict, especially in already fragile regions.[175] A proven correlation between drought and high-intensity conflict has been observed in some regions, while governments often struggle to manage the social consequences of large-scale disasters.[176]

At a systemic level, drought can contribute to state fragility, displacement, and migration, which in turn affect regional and international stability. It is associated with famine, loss of livelihoods, and human mobility, creating conditions that can be exploited by state and non-state actors. NIKE further notes that when drought hits regions already affected by conflict, simultaneous armed conflict and disruption of migration patterns can occur, with knock-on effects on asylum dynamics in other regions.[177]

Human security

Across the analysed documents, extreme weather events are consistently framed as direct and multidimensional threats to human security, affecting food and water security, health, livelihoods, and human mobility. Rather than as isolated hazards, droughts, floods, heatwaves, storms, and changing precipitation patterns are portrayed as systemic stressors that undermine the conditions necessary for human well-being and survival and often exacerbate existing vulnerabilities and humanitarian crises.

---

[170] Norway, 2022, Statement UNSC 12.10.2022 (accessed 07.05.2026).

[171] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[172] Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026).

[173] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[174] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[175] Norway, 2022, Statement UNSC 12.10.2022 (accessed 07.05.2026).

[176] The United Kingdom, 2007, Letter to the UNSC 05.04.2007 (accessed 06.05.2026).

[177] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

Drought is most prominently linked to threats to food and water security and livelihoods. Across documents, it is repeatedly associated with declining agricultural productivity, food insecurity, and, in severe cases, famine.[178] The EU describes 'mega-droughts' as drivers of both water and food insecurity, while Norway notes that changing rainfall patterns are already disrupting food production.[179] National-level assessments reinforce these findings. Kenya's Annual Report describes recurrent droughts drying up rivers and lakes, accelerating desertification, reducing arable land, and undermining agriculture and ecosystems, thereby threatening food security and biodiversity. It also highlights severe food and water shortages affecting more than 50 million people in the region.[180] Economic impacts are also emphasised: NIKE estimates increasing losses in agricultural production due to drought, alongside long-term declines in crop yields caused by water scarcity and shifting rainfall patterns.[181] Beyond food systems, drought undermines livelihoods and contributes to broader humanitarian risks. It is associated with loss of income, poverty, and increased vulnerability. Both NATO and Kenya emphasise that drought-related loss of livelihoods, combined with food and water scarcity, can contribute to humanitarian crises and heightened insecurity.[182]

Flooding is presented as a major threat to human security, particularly through its impacts on livelihoods, infrastructure, and health. NATO reports that catastrophic floods have devastated large areas, causing severe economic damage and disrupting people's lives and livelihoods.[183] Kenya similarly describes increasing frequency and intensity of floods, resulting in loss of life, displacement, and widespread destruction of infrastructure and agriculture. The 2024 floods in Kenya caused hundreds of deaths, displaced tens of thousands of households, and destroyed farmland, livestock, and critical infrastructure.[184] Flooding also directly affects food security. Norway notes that changing rainfall patterns, including excessive rainfall, disrupt agricultural production.[185] At the same time, the destruction of agricultural land and supply chains further undermines food availability. Health impacts are also significant. Flooding is linked to worsening humanitarian conditions and the spread of disease, including vector-borne illnesses, as described by Kenya.[186] These cascading effects – combining displacement, infrastructure damage, and health risks – illustrate how flooding can generate complex and prolonged human security challenges.

Heatwaves are primarily associated with threats to human health and, increasingly, livelihoods. NIKE notes that heat-related mortality is already rising, with heatwaves responsible for the majority of deaths linked to extreme weather in Europe.[187] In 2022 alone, over 61,000 deaths were attributed to extreme heat.[188] Vulnerable populations, particularly the elderly, are disproportionately affected.[189] More broadly, climate-related stressors – including heatwaves – are described as placing growing pressure on human health and health systems. NATO points to increasing incidences of

[178] NATO, 2021, NATO Climate Change and Security Action Plan (accessed 01.05.2026); EU, 2025, Strategic Foresight Report (accessed 06.05.2026); Norway, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026).

[179] EU, 2025, Strategic Foresight Report (accessed 06.05.2026); Norway, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026).

[180] Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026).

[181] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[182] NATO, 2021, NATO Climate Change and Security Action Plan (accessed 01.05.2026); Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026).

[183] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[184] Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026).

[185] Norway, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026).

[186] Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026).

[187] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[188] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[189] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

heat stress and other climate-related health risks, while also emphasising wider impacts on disease patterns and health system resilience.[190] In addition to direct health effects, heatwaves can undermine livelihoods by affecting labour productivity, economic activity, and the natural resource base on which many communities depend. The German Climate Foreign Policy Strategy warns that more frequent and severe heatwaves threaten human rights, human health, and the environmental foundations of livelihoods.[191]

Heavy rainfall and changing precipitation patterns are described as increasingly destabilising food production systems. NATO warns that more frequent extreme weather events and shifting rainfall patterns reduce crop yields and increase the risk of simultaneous harvest failures across major food-producing regions.[192] Norway similarly emphasises that irregular and extreme rainfall disrupts agricultural production. NIKE further underlines that changing rainfall patterns – including both drought and intense, localised rainfall – are likely to reduce average crop yields, as heavy rainfall events are often poorly suited to agricultural needs.[193] Together, these developments pose significant risks to food security, particularly when multiple regions are affected simultaneously.

Storms and tropical cyclones are portrayed as acute threats to human life, livelihoods, and food security. The Philippines' National Security Policy describes climate change and extreme weather as cascading threats affecting a large share of the population, particularly those living in hazard-prone areas. The country experiences frequent tropical cyclones, resulting in significant loss of life and widespread destruction of homes, infrastructure, and economic assets. The case of Super Typhoon Haiyan illustrates the scale of these impacts, with devastating consequences for lives, livelihoods, and economic stability.[194] A statement by the Philippines in the UNSC further emphasises the effects of storms on agriculture, food security, and ecosystems, highlighting their role in undermining long-term development and resilience.[195]

Wildfires are increasingly recognised as a human security risk, particularly through their impacts on health and livelihoods. NATO highlights the direct health consequences of wildfire smoke, including respiratory problems, as well as broader impacts from associated air pollution. In addition, wildfires – which often occur alongside other extreme events such as heatwaves – have devastated large areas, affecting livelihoods and causing significant economic damage.[196]

Ecological security

Extreme weather events are described as directly degrading ecologic systems, reducing biodiversity, and undermining the environmental foundations of human and political stability. Ecosystem degradation, biodiversity loss, and climate impacts are portrayed as mutually reinforcing processes with systemic consequences.[197] Drought emerges as a central threat to ecological security. It leads to soil erosion, desertification, and marine environmental degradation, weakening ecosystems' capacity to sustain livelihoods and maintain ecological balance.[198] In regions such as Africa, recurrent

[190] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[191] Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

[192] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[193] Norway, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[194] The Philippines, 2023, National Security Policy (accessed 06.05.2026).

[195] The Philippines, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026).

[196] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[197] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[198] NATO, 2021, NATO Climate Change and Security Action Plan (accessed 01.05.2026).

water stress and droughts are described as hitting ecosystems particularly hard, alongside communities and economies.[199] The drying up of rivers, lakes, and other bodies of water disrupts entire ecological systems that depend on these resources. Prolonged drought accelerates desertification, especially in already vulnerable areas, resulting in the loss of arable land, vegetation, and wildlife habitats.[200] As climate zones shift, many species are stressed beyond their physiological tolerance limits, leading to shrinking biodiversity and increased vulnerability of plants to pests, with cascading consequences for agriculture and forestry systems.[201] Specific fragile ecosystems are also highlighted, such as the unique marsh ecosystems of southern Iraq, which are threatened by drought and extreme weather.[202] Such degradation reduces ecological resilience and increases the risk of famine, livelihood loss, and displacement, disproportionately affecting vulnerable populations and potentially feeding into broader instability.[203] Floods are similarly framed as destabilising ecological systems. Increased flooding leads not only to loss of life and infrastructure damage but also to the destruction of habitats and ecosystem disruption.[204] Norway also notes that floods, alongside droughts, are strongly impacting ecosystems.[205] Rapid changes in precipitation patterns can alter hydrological systems, soil stability, and vegetation cover, further weakening ecosystem resilience.[206] Landslides triggered by heavy rainfall destroy natural habitats and contribute to biodiversity loss.[207]

4.2 Slow-onset processes

National security

Across the analysed documents, sea-level rise emerged as the predominant slow-onset threat to national security, while temperature rise, coastal erosion, and melting ice were mentioned less frequently. Sea-level rise was most commonly framed as an existential threat to small island states, with multiple documents emphasising the risk it poses to their very existence.[208] Vanuatu, in particular, stressed that rising sea levels raise unresolved questions of statehood, maritime zones, sovereign rights, and legal entitlements, and called on the international community to address these challenges. The German CFPS also mentioned the effects on coastal zones and noted that sea-level rise negatively affects access to resources and endangers cultural heritage.[209] The UK further raised the possibility of disputes over borders, land, and maritime zones as coastlines shift, arguing that such disputes may require resolution through international politics or international law.[210] Both the Philippines and the UK additionally warned that territorial loss due to sea-level rise is likely to lead to displacement, which in turn could intensify competition over

[199] Norway, 2022, Statement UNSC 12.10.2022 (accessed 07.05.2026).

[200] Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026).

[201] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[202] Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

[203] NATO, 2021, NATO Climate Change and Security Action Plan (accessed 01.05.2026).

[204] Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026).

[205] Norway, 2022, Statement UNSC 12.10.2022 (accessed 07.05.2026).

[206] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[207] Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026).

[208] Norway, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026); Vanuatu for PIF, 2023, Statement UNSC 17.02.2023 (accessed 07.05.2026); Fiji for PSIDS, 2021, Statement UNSC 23.02.2021 (accessed 11.05.2026); Germany, 2021, Gemeinsam für die Menschen: Weißbuch Multilateralismus der Bundesregierung (accessed 06.05.2026).

[209] Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

[210] The United Kingdom, 2007, Letter to the UNSC 05.04.2007 (accessed 06.05.2026).

resources, livelihoods, and public services. [211] The Philippines' National Security Policy framed sea-level rise as a comprehensive threat to national security, affecting 'the nation's sovereignty and territorial integrity, the people's well-being, core values and way of life, and the State and its institutions.'[212]

Temperature rise was also identified as a significant threat to national security, particularly in relation to military and economic security. NATO's Climate Security Impact Assessment provided a detailed overview of how rising temperatures undermine military capabilities across domains. In the Arctic, warming temperatures alter the operational and strategic environment, while in already hot regions, extreme heat severely constrains operational effectiveness. For example, NATO noted that tanks can become operationally ineffective within one to two hours at external temperatures between 35°C and 44°C, and that increased cooling requirements can significantly reduce combat capabilities. Naval forces are similarly affected by rising air and ocean temperatures. Warming seas increase cooling demands for ship propulsion systems, alter underwater acoustics, and – together with ocean acidification – complicate submarine operations and anti-submarine warfare. Rising temperatures also affect air forces, as reduced air density diminishes aircraft performance and operational range.

Beyond military considerations, several documents highlighted the economic losses and damages associated with rising temperatures. NATO's Climate Security Impact Assessment, the EU's Climate and Defence Roadmap, and Kenya's Annual Report on the State of the Nation all pointed to temperature-driven economic impacts. Germany's NIKE further warned that such economic losses could contribute to instability, particularly in Southern Europe. NIKE additionally noted that territorial security may be threatened by rising temperatures, as some regions could become effectively uninhabitable due to extreme heat and wet-bulb temperature events, potentially leading to displacement and territorial stress. Other slow-onset processes were mentioned less frequently but were still framed as relevant to national security. Melting ice in the Arctic was highlighted by NIKE as increasing the region's strategic relevance, opening new maritime routes and creating new security and defence challenges for states and alliances. Ocean acidification was identified by NATO's Climate Security Impact Assessment as a risk to maritime infrastructure and naval capabilities. Erosion and desertification were also noted as threats to strategic security, particularly in the context of resource scarcity and regional instability.[213]

Human security

Within the human security framing, slow-onset climate impacts were primarily discussed in relation to their effects on livelihoods, displacement, food security, health, and access to essential resources such as water. Sea-level rise (SLR) was consistently framed as a direct threat to human well-being,[214] livelihoods,[215] and ways of life[216] around the world. Norway[217] highlighted the risk

[211] The United Kingdom, 2007, Letter to the UNSC 05.04.2007 (accessed 06.05.2026); The Philippines, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026).

[212] The Philippines, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026).

[213] NATO, 2021, NATO Climate Change and Security Action Plan (accessed 01.05.2026).

[214] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); The Philippines, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026); Vanuatu for PIF, 2023, Statement UNSC 17.02.2023 (accessed 07.05.2026).

[215] Norway, 2021, Statement UNSC 23.02.2021 (accessed 07.05.2026); The Philippines, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026); Vanuatu for PIF, 2023, Statement UNSC 17.02.2023 (accessed 07.05.2026); Fiji for PSIDS, 2021, Statement UNSC 23.02.2021 (accessed 11.05.2026); Germany, 2024, Strategy on Defence and Climate Change (accessed 30.04.2026).

[216] The Philippines, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026).

[217] Norway, 2021, Statement UNSC 23.02.2021 (accessed 07.05.2026).

SLR poses to the livelihood of fishers, whose income depends on stable fish populations, while Germany warned that declining fish catches could increase the risk of conflict.[218] Vanuatu[219] described SLR as the defining challenge endangering the livelihoods and well-being of its people. Displacement emerged as a recurring human security concern linked to SLR. The EU and the Philippines noted that rising sea levels are likely to lead to displacement,[220] while Vanuatu warned of mass relocations of entire communities. The UK emphasised that SLR could contribute to an increase in humanitarian disasters.[221] The Philippines further raised the issue of forced migration resulting from SLR, calling on the International Law Commission to address this growing governance and legal challenge.[222] Food security was another central theme in discussions of SLR. Several actors highlighted the negative impacts on food systems, including threats to crops, declining agricultural capacity, and reduced freshwater availability.[223] The UK emphasised that these pressures could intensify migratory flows, further compounding human insecurity.[224]

Rising temperatures were the slow-onset process most frequently linked to human security after SLR. Across the analysed documents, temperature increase was repeatedly associated with risks to public health and life,[225] as well as economic impacts[226] and growing pressures on water and food security.[227] NIKE highlighted the increase in wet-bulb temperature events in this context, warning that such conditions could render regions uninhabitable and thereby drive migration.[228] Other slow-onset processes were mentioned less frequently but were still linked with human security concerns. *Erosion* was primarily discussed in relation to food insecurity, with references to the risk of famine and the destruction of livelihoods.[229] *Desertification* was framed as a driver of water insecurity, while salinisation was linked to declining food production and increased threats to livelihoods.[230]

[218] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[219] Vanuatu for PIF, 2023, Statement UNSC 17.02.2023 (accessed 07.05.2026).

[220] EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026); The Philippines, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026).

[221] The United Kingdom, 2023, Statement UNSC 14.02.2023 (accessed 06.05.2026); Fiji for PSIDS, 2021, Statement UNSC 23.02.2021 (accessed 11.05.2026).

[222] The Philippines, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026).

[223] EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026); The Philippines, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026); Fiji for PSIDS, 2021, Statement UNSC 23.02.2021 (accessed 11.05.2026).

[224] The United Kingdom, 2023, Statement UNSC 14.02.2023 (accessed 06.05.2026).

[225] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[226] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026).

[227] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[228] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[229] NATO, 2021, NATO Climate Change and Security Action Plan (accessed 01.05.2026); Fiji for PSIDS, 2021, Statement UNSC 23.02.2021 (accessed 11.05.2026).

[230] The Philippines, 2018, National Security Strategy (accessed 11.05.2026); Fiji for PSIDS, 2021, Statement UNSC 23.02.2021 (accessed 11.05.2026).

International security

Across the analysed documents, *SLR* emerged as the predominant slow-onset threat to international security alongside temperature rise. The UK[231] emphasised that substantial parts of the world are at risk of becoming uninhabitable due to rising sea levels, potentially triggering migratory pressures that could increase the potential for instability and conflict – particularly in contexts of resource scarcity and already sensitive border regions. NATO[232] similarly emphasised the regional impacts of SLR, e.g. for the Indo-Pacific, especially island nations. The UK and the EU highlighted the far-reaching geopolitical implications of SLR, for example, that SLR is likely to alter the world's landmass, raising concerns for island states and coastlines, while the emergence of new shipping routes could have geopolitical consequences, including potential disputes over maritime zones, rights, and legal entitlements.[233] The EU described SLR as a driver of geopolitical change and as a challenge to global maritime security.[234] Temperature rise was mentioned in terms of geopolitical, social, and resource-related security risks. NATO referred again to the melting of the ice in the Arctic and its security impact,[235] while Germany warned that rising temperatures within Europe could generate tensions due to unevenly distributed burdens, potentially weakening cohesion, functionality, and political stability within the EU. Wet-bulb events were also mentioned in the context of international security, as this could lead to certain areas becoming temporarily or permanently uninhabitable.

Additionally, rising temperatures were linked to resource competition. Germany noted that warming seas affect fish populations, potentially increasing tensions and conflict over access to fish-rich maritime regions. Higher temperatures were also associated with water scarcity, raising the risk of conflict over water resources at both regional and transboundary levels.[236] Desertification was highlighted by NATO[237] as a process that can contribute to increased instability and geostrategic competition.

Ecological security

Within the ecological security framing, sea-level rise and temperature rise were mentioned most frequently. SLR was consistently framed as a major threat to biodiversity and ecosystems.[238] However, the analysed documents remained rather vague on details. Temperature rise was framed as an equally significant threat to ecological security by Kenya and Germany,[239] with Germany emphasising its 'potentially disastrous effects on the biosphere' and Kenya highlighting the irreversibility of biodiversity loss, framing temperature rise as a fundamental risk to planetary health and ecosystem stability. Other slow-onset processes received only limited attention, although erosion was mentioned in relation to degradation of the marine environment.[240]

---

[231] The United Kingdom, 2007, Letter to the UNSC 05.04.2007 (accessed 06.05.2026).

[232] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[233] The United Kingdom, 2007, Letter to the UNSC 05.04.2007 (accessed 06.05.2026).

[234] EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026).

[235] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[236] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[237] NATO, 2021, NATO Climate Change and Security Action Plan (accessed 01.05.2026).

[238] Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026); The Philippines, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026); EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026); Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

[239] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026); Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026).

[240] NATO, 2021, NATO Climate Change and Security Action Plan (accessed 01.05.2026).

4.3 Tipping points

Despite their significance in climate science (the die-back of warm-water coral reefs has already 'tipped'[241]), tipping points remain underrepresented in policy debates and are not usually addressed in international climate governance, nor is any preventative governance, like political early warning, in place.[242] This gap is reflected in the analysed documents, where tipping points constitute the least frequently mentioned climate-related threat. Notably, they are framed as a security issue almost exclusively by Global North actors – namely Germany, the European Union, NATO, and Norway – while no such framing appears in documents from Global South actors. As a result, the discussion often focuses on tipping points located in the Global North, with limited attention to globally relevant systems such as coral reefs or the Amazon rainforest.

Although not part of the analysed documents, the potential collapse of the Atlantic Meridional Overturning Circulation (AMOC) was cited as a clear matter of national security by Icelandic Climate minister Jóhann Páll Jóhannsson, who called it 'a direct threat to our national resilience and security,' thus marking 'the first time a specific climate-related phenomenon has been formally brought before the Icelandic National Security Council as a potential existential threat.'[243]

Where tipping points are addressed, references remain largely general. NATO's Climate Security Impact Assessment describes them as potential drivers of rapid instability and displacement in already vulnerable regions. Germany's NIKE emphasises that the triggering of tipping points could irreversibly alter the Earth's ecosystem, with 'disastrous effects on the biosphere and thus on humanity,' particularly beyond 2°C of warming. Germany further links tipping points to geopolitical risks, warning that the threat of irreversible change could incentivise unilateral geoengineering measures, thereby increasing the potential for international conflict.[244] As a response, Germany highlights the need to remain within the 1.5°C limit, including in statements in the UNSC.[245]

Across the documents, tipping points are framed mainly as threats to international and national security, while human security receives comparatively little attention. In the national security context, they are linked to risks for military infrastructure, operations, and strategic planning, as well as to broader instability in climate-affected regions. This is particularly evident in discussions of Arctic ice melt, which is associated with new shipping routes, resource competition, and shifting geostrategic dynamics. In the context of international security, tipping points are described as destabilising forces that can disrupt trade routes, intensify geopolitical competition, and contribute to cross-border climate impacts. By contrast, references to human security remain broad, generally highlighting risks to livelihoods, displacement, and migration.

Among specific tipping points, the potential collapse of the AMOC is most frequently mentioned, particularly by NATO, the EU, and Germany. It is described as a trigger for abrupt and irreversible climate shifts, with NATO highlighting risks of increased instability and displacement. Germany's NIKE describes more concrete impacts, such as extreme winter cold and stronger winter storms in Europe, while NATO emphasises challenges for naval operations and maritime security.[246]

---

[241] Lenton, T. et al., 2025, The Global Tipping Points Report 2025 (accessed 01.05.2026).

[242] Künzel, V. et al., 2022, An early warning system for tipping points in the climate system (accessed 01.05.2026).

[243] Withers, A. and Jacobsen, S., 2025, Iceland deems possible Atlantic Current collapse a security risk (accessed 01.05.2026).

[244] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[245] Germany, 2023, Statement UNSC 13.06.2023 (accessed 07.05.2026).

[246] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); EU, 2025, Strategic Foresight Report (accessed 06.05.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

Ice-sheet melt – especially of the Greenland Ice Sheet – is another recurring focus in documents by Germany and NATO. It is primarily linked to sea-level rise and its consequences for millions of people, but also to strategic and military implications in the Arctic, including new trade routes and increased competition over resources. Permafrost thaw is similarly addressed by NATO and Germany. NATO highlights its implications for instability and geostrategic competition, particularly in Russia, as well as risks to military infrastructure in permafrost regions.[247] Germany, by contrast, emphasises global human security impacts through feedback loops and environmental degradation.[248] Other tipping points, such as coral reef dieback and Amazon rainforest degradation, are mentioned only marginally. The EU[249] notes that coral reef collapse may already be imminent at current warming levels, while Germany[250] highlights risks to the livelihoods of the millions dependent on these ecosystems. The Amazon is referenced only once, again primarily in relation to its implications for human livelihoods.[251]

Overall, references to tipping points remain strikingly vague across the analysed documents. While they are acknowledged as severe and potentially catastrophic risks, there is little detailed discussion of their concrete consequences or of strategies for prevention and response. Notably, international cooperation – despite the inherently transboundary nature of tipping points – is largely absent from this discussion. Tipping points also play only a minor role in UNSC debates and appear mainly in strategic documents rather than high-level political discourse. This indicates a persistent gap between scientific understanding and policy integration: tipping points are recognised rhetorically as major risks, but are not yet treated as actionable priorities within international security governance.

[247] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026); NATO, 2021, NATO Climate Change and Security Action Plan (accessed 01.05.2026).

[248] Germany, 2024, Strategy on Defence and Climate Change (accessed 30.04.2026).

[249] EU, 2025, Strategic Foresight Report (accessed 06.05.2026).

[250] Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

[251] Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

5 Solutions

The different documents and speeches provided an array of solutions for the different affected securities, ranging from policy measures to further focus on connections between climate and security, to classic climate change solutions such as mitigation, climate finance, and adaptation and international cooperation and multilateralism.

Climate Action

The most frequently referenced responses to climate-related security risks are climate policies, with resilience and specifically adaptation out most prominently. When talking about resilience, the documents remain rather vague and generally emphasise only the importance of resilience against climate risks.[252] However, with regards to adaptation, the documents provide more details. Many documents emphasise adaptation in security-relevant sectors, including adaptation of the military to climate impacts,[253] holistic investments in adaptation and peacebuilding to support climate-resilient livelihoods,[254] and the use of adaptation as a proactive peacebuilding tool.[255] Sectoral measures include the promotion of climate-resilient agriculture to safeguard food security[256] and the protection of critical infrastructure from extreme weather events.[257] Countries and organisations repeatedly call for strengthened adaptation efforts,[258] while also stressing that adaptation alone is no longer sufficient.[259] The UK similarly underlines that adaptation and resilience are central to conflict prevention, particularly when designed to address climate-related conflict drivers.[260]

Loss and damage (L&D) measures and related instruments are repeatedly highlighted, with the German Climate Foreign Policy Strategy stressing in particular the need to support small island states.[261] The documents also refer to concrete L&D measures, including insurance schemes and regional risk pools, anticipatory action, early warning systems, disaster risk reduction, relocation, and risk assessment and analysis.[262] NATO aims to increase capacities to prepare for climate change impacts.[263] The OECD points to early warning systems as a means to use synergies between impact mitigation, adaptation, and preparation.[264] Interestingly, the OECD also encourages its member states to consider short-term as well as long-term impacts.

[252] E.g. EU, 2022, A strategic compass for security and defence (accessed 06.05.2026).

[253] NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 30.04.2026).

[254] Norway, 2022, Statement UNSC 09.03.2022 (accessed 07.05.2026).

[255] Norway, 2022, Statement UNSC 09.03.2022 (accessed 07.05.2026); Kenya, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026).

[256] Norway, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026).

[257] Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026).

[258] E.g. Vanuatu, 2022, National Security Strategy 2022 Review (accessed 06.05.2026).

[259]Fiji for PSIDS, 2021, Statement UNSC 23.02.2021 (accessed 06.05.2026).

[260] The United Kingdom, 2021, Letter to the UNSC 17.02.2021 (accessed 05.05.2026).

[261] Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

[262] The Philippines, 2023, National Security Policy (accessed 06.05.2026); The United Kingdom, 2023, Statement UNSC 13.06.2023 (accessed 07.05.2026); Germany, 2024, Statement UNSC 13.02.2023 (accessed 07.05.2026); AU, 2015, African Peace and Security Architecture Roadmap 2016-2020 (accessed 06.05.2026); Pacific Islands Forum, 2022, 2050 Strategy for the Blue Pacific Continent (accessed 02.02.2026); Norway, 2022, Statement UNSC 09.03.2022 (accessed 07.05.2026).

[263] NATO, 2022, Strategic concept (accessed 30.04.2026).

[264] OSCE, 2021, Decision No 3/21 (accessed 06.05.2026).

The community-led relocation of the village Cogea in Fiji

As climate change intensifies, many communities must relocate, often risking new tensions if processes are poorly designed. The relocation of Cogea village in Fiji shows how conflict-sensitive approaches can strengthen resilience and social cohesion. After Cyclone Yasa destroyed the village in 2020, about 160 residents from 30 households lived in temporary shelters awaiting government support. Instead of imposing external solutions, the project—led by the Fiji Council of Social Services (FCOSS) with support from Bread for the World—placed the community at the center. All households took part in consultations, needs assessments, and planning workshops, building trust and reducing conflict over land and resources. Signed consent processes ensured transparency and ownership. A key conflict-sensitive element was the integration of gender-responsive principles: women, youth, elders, and people with disabilities engaged in dedicated dialogues, and women were encouraged to take leadership roles. Safeguards against sexual exploitation and harassment helped create a safe relocation process.

The project also contributes to minimum standards for conflict-sensitive relocation in the Pacific, including community consensus, culturally grounded approaches like 'Sautu' (holistic wellbeing), accountability, and participatory monitoring. Lessons learned are being translated into guidelines to inform future climate-related relocations.

The Cogea relocation shows that when communities lead, relocation can become a pathway to dignity, empowerment, and lasting peace.

Mitigation is widely described as essential and as the most effective means of limiting climate impacts, including avoiding tipping points, though most references remain rather general.[265] The UK warns that without mitigation, 'we will accelerate climate change, which itself presents risk to the very security we are trying to build.'[266] Germany and Norway emphasise the importance of staying within the 1.5°C limit and fully implementing the Paris Agreement.[267] For the EU, the green transition is framed as an opportunity to enhance independence and economic growth, while also contributing to pandemic prevention and food security.[268] The German CFPS further links mitigation to conflict prevention.[269] NATO and the EU also stress the need to reduce emissions in the military and defence sector.[270] NATO additionally refers to improvement of energy efficiency, investment in the transition to clean energy sources, and leveraging green technologies.[271] Regarding specific mitigation pathways, renewable energy plays a central role. Norway argues that the renewable energy transition is likely to reduce the number of energy-related conflicts.[272] At the same time, Norway cautions that minerals required for the green transition can finance and enable conflict actors.[273]

[265] E.g. Fiji for PIF, 2022, Statement UNSC 29.11.2022 (accessed 07.05.2026); Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026); Germany, 2023, Statement UNSC 13.06.2023 (accessed 07.05.2026).

[266] The United Kingdom, 2007, Letter to the UNSC 05.04.2007 (accessed 06.05.2026).

[267] Norway, 2021, Statement UNSC 23.02.2021 (accessed 07.05.2026); Germany, 2023, Statement UNSC 13.06.2023 (accessed 07.05.2026).

[268] EU, 2025, Strategic Foresight Report (accessed 06.05.2026).

[269] Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

[270] NATO, 2021, NATO Climate Change and Security Action Plan (accessed 01.05.2026); EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026).

[271] NATO, 2022, Strategic concept (accessed 30.04.2026).

[272] Norway, 2019, Statement UNSC 25.01.2019 (accessed 07.05.2026).

[273] Norway, 2024, Statement UNSC 08.07.2024 (accessed 07.05.2026).

Similarly, the EU notes that the green transition may generate social, economic, and political effects that could exacerbate conflict-prone situations.[274]

Climate finance is repeatedly presented as a prerequisite for effective climate action. Vanuatu stresses the need for scaled-up, effective, and sustainable climate finance.[275] The Philippines argues that climate-vulnerable countries should receive financial support from those most responsible for the climate crisis, enabling them to allocate more domestic resources to addressing traditional conflict drivers.[276] Norway adds that fragile and conflict-affected countries face particular barriers in accessing climate finance and underlines that major funds such as the Green Climate Fund (GCF), the Global Environment Facility (GEF), and the Adaptation Fund (AF) can address conflict drivers and contribute to sustaining peace and stability.[277] Germany also emphasises that climate finance on 'a massive scale is required globally to fund efforts to accomplish an ecological transformation and make the necessary adaptations to the climate crisis.'[278]

Cooperation and multilateralism

Multilateralism is consistently framed as essential for addressing climate-related security risks, which are widely understood as transnational and beyond the capacity of individual states. Norway stresses that climate risks cross borders and that peacebuilders should use regional mechanisms and support local actors.[279] Similarly, EU and German strategies argue that mitigating climate-related risks is more effective through global cooperation, linking climate action to new partnerships that integrate energy, economic, and security objectives.[280] The OECD encourages states to exchange information and best practices, including on relevant technologies and innovation.[281] For vulnerable states, multilateralism is framed not only as a necessity but also as a matter of solidarity and fairness. The Philippines and Vanuatu emphasise inclusive cooperation and collective responsibility, portraying climate change as a severe security threat that requires global solutions and solidarity with the most vulnerable, particularly in light of challenges related to statehood and maritime rights. [282] At the same time, interdependence and spillover risks reinforce the need for cooperation: Germany notes that insufficient adaptation abroad can create indirect security risks through supply chain disruptions and instability,[283] while the UK links climate action to the maintenance of a stable international order based on cooperation and international law.[284]

[274] EU, 2022, A strategic compass for security and defence (accessed 06.05.2026).

[275] Fiji for PSIDS, 2021, Statement UNSC 23.02.2021 (accessed 06.05.2026).

[276] The Philippines, 2021, Statement UNSC 09.12.2021 (accessed 07.05.2026).

[277] Norway, 2022, Statement UNSC 09.03.2022 (accessed 07.05.2026).

[278] Germany, 2023, Wehrhaft. Resilient. Nachhaltig. Integrierte Sicherheit für Deutschland - Nationale Sicherheitsstrategie (accessed 30.04.2026).

[279] Norway, 2022, Statement UNSC 09.03.2022 (accessed 07.05.2026); Norway, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026).

[280] EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026); EU, 2025, Strategic Foresight Report (accessed 06.05.2026); Germany, 2024, Strategy on Defence and Climate Change (accessed 30.04.2026).

[281] OSCE, 2021, Decision No 3/21 (accessed 06.05.2026).

[282] The Philippines, 2021, Statement UNSC 09.12.2021 (accessed 07.05.2026); The Philippines, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026); Fiji for PSIDS, 2021, Statement UNSC 23.02.2021 (accessed 06.05.2026); Vanuatu for PIF, 2023, Statement UNSC 17.02.2023 (accessed 07.05.2026).

[283] Germany, 2024, National Interdisciplinary Climate Risk Assessment Germany (accessed 30.04.2026).

[284] The United Kingdom, 2023, Integrated Review Refresh 2023: Responding to a more contested and volatile world (accessed 06.05.2026).

International law

International law is framed as a key instrument for addressing the security implications of climate change, particularly regarding SLR, statehood, and maritime rights. It can help to protect sovereignty and jurisdiction over maritime zones despite SLR,[285] managing the loss of territory and displacement[286] and clarifying states' obligations to protect present and future generations from climate harm.[287] However, laws addressing these issues often still lack legal clarification.

International organisations

Across the analysed documents, climate-related security risks are consistently framed as inherently transnational and therefore beyond the capacity of individual states, requiring coordinated multilateral governance. The United Nations system is repeatedly identified as a central platform for addressing the climate–security nexus, while several actors emphasise the need to adapt its structures to better reflect complex, cross-sectoral risks.[288] Climate change is thus framed not only as an environmental or development issue but as one that cuts across peace, security, humanitarian, and governance agendas.

Within this architecture, the UNSC is assigned a particularly prominent – though contested – role in the climate and security nexus by the analysed documents due to its mandate to maintain international peace and security.[289] Several actors, including Norway and Germany, call for a more systematic integration of climate-related security risks into Council mandates, for instance through climate-sensitive peacebuilding and peacekeeping, improved risk analysis, and the deployment of climate and security advisors.[290] Several countries call for a special representative on climate and security to improve coordination across the UN system[291] and for regular reports on the matter by the UNSG to the UNSC.[292] Proposals also include strengthening institutional coordination through mechanisms such as the Climate Security Mechanism and enhancing the role of the Group of Friends of Climate and Security.[293] Kenya further argues that peace operations should include environmental protection and the capacity to respond to climate-related disasters.[294]

---

[285] Pacific Islands Forum, 2022, 2050 Strategy for the Blue Pacific Continent (accessed 02.02.2026).

[286] The Philippines, 2021, Statement UNSC 09.12.2021 (accessed 07.05.2026).

[287] Vanuatu, 2022, National Security Strategy 2022 Review (accessed 06.05.2026).

[288] The United Kingdom, 2021, Letter to the UNSC 17.02.2021 (accessed 05.05.2026); Fiji for PSIDS, 2021, Statement UNSC 23.02.2021 (accessed 06.05.2026).

[289] Norway, 2021, Statement UNSC 13.12.2021(accessed 07.05.2026); Norway, 2021, Statement UNSC 09.12.2021 (accessed 07.05.2026); Norway, 2021, Statement UNSC 23.02.2021 (accessed 07.05.2026); Germany, 2024, Statement UNSC 13.02.2023 (accessed 07.05.2026); Kenya, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026); Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

[290] Norway, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026); Germany, 2023, Statement UNSC 13.06.2023 (accessed 07.05.2026); Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

[291] Norway, 2021, Statement UNSC 23.02.2021 (accessed 07.05.2026); Fiji for PSIDS, 2021, Statement UNSC 23.02.2021 (accessed 06.05.2026); Germany, 2023, Statement UNSC 13.06.2023 (accessed 07.05.2026); Norway, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026); Germany, 2023, Statement UNSC 13.06.2023 (accessed 07.05.2026); Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

[292] Norway, 2021, Statement UNSC 23.02.2021 (accessed 07.05.2026).

[293] Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026); Norway, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026).

[294] Kenya, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026).

At the same time, the documents highlight clear institutional limitations. Norway stresses that while climate change can generate hard security challenges, it does not lend itself to traditional security solutions.[295] Similarly, the Philippines cautions against duplicating mandates, arguing that the Council should avoid encroaching on issues already addressed under the UNFCCC.[296] In this context, the UNFCCC is consistently framed as the primary forum for addressing climate change, with Norway describing it as the 'first line of defence' and emphasising the centrality of the Paris Agreement.[297] The Philippines and the UK likewise highlight its universal membership compared to the more limited composition of the Security Council.[298] Germany reflects a more differentiated position, arguing that while the UNFCCC remains essential, it should be complemented by more flexible forums and instruments.[299] Besides the UNFCCC and the UNSC a variety of other international organisations are also mentioned, which reflects the cross-cutting nature of climate change.[300] Overall, the documents reveal a dual framing of the UN system: as indispensable for managing climate-related security risks, yet in need of adaptation and a clearer division of responsibilities.

Connecting climate and security

Across the analysed documents, linking climate and security is framed as a strategy for conflict prevention, resilience-building, and the stabilisation of fragile contexts. Rather than addressing climate change, conflict, development, and humanitarian crises in isolation, the nexus is presented as a governance approach that enables more coherent and preventive responses to interconnected risks. In this sense, climate policy becomes an integral component of security policy, as reflected in Germany's National Security Strategy, which emphasises that climate, environmental, food, and resource policy are also security policy.[301]

At a strategic level, this positions climate action – particularly adaptation – as a tool for supporting peace and stability. Germany's climate foreign policy highlights how addressing climate risks can contribute directly to conflict prevention, while climate cooperation is framed as a means of alliance-building and reinforcing a rules-based international order.

The climate–security nexus is also closely linked to the Humanitarian–Development–Peace (HDP) nexus. Germany stresses the importance of integrating adaptation into crisis prevention, anticipatory humanitarian action, and development cooperation, for example through improved risk forecasting and vulnerability analysis. Measures such as adaptive social protection are highlighted as

[295] Norway, 2020, Statement UNSC 22.04.2020 (accessed 07.05.2026).

[296] The Philippines, 2021, Statement UNSC 09.12.2021 (accessed 07.05.2026).

[297] Norway, 2022, Statement UNSC 09.03.2022 (accessed 07.05.2026); Norway, 2019, Statement UNSC 25.01.2019 (accessed 07.05.2026).

[298] The Philippines, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026); The Philippines, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026); The United Kingdom, 2021, Letter to the UNSC 17.02.2021 (accessed 05.05.2026).

[299] Germany, 2023, Wehrhaft. Resilient. Nachhaltig. Integrierte Sicherheit für Deutschland - Nationale Sicherheitsstrategie (accessed 30.04.2026).

[300] Other United Nations organisations that were named as being important to the discussion around climate change as a security threat are the United Nations General Assembly, the United Nations Secretary General, the United Nations Convention on the Law of the Sea, the United Nations Environment Programme, the Human Rights Council, the International Labour Organisation, the World Health Organisation, the International Court of Justice, the International Law Commission, the Climate and Security Mechanism of the UNSC, the European Union, the Pacific Island Forum, the Association of South-East-Asian Nations (ASEAN), NATO, the OSCE, and the African Union, as well as the Sendai Framework for Disaster Risk Reduction.

[301] Germany, 2023, Wehrhaft. Resilient. Nachhaltig. Integrierte Sicherheit für Deutschland - Nationale Sicherheitsstrategie (accessed 30.04.2026).

reducing exposure to climate shocks while addressing underlying drivers of instability.[302] Similarly, the UK points to National Adaptation Plans in countries such as the Central African Republic, Kenya, Niger, South Sudan, and Sudan,[303] where sustainable water and land management are explicitly linked to both adaptation and conflict prevention.[304] A key dimension of this approach is the use of adaptation as a peacebuilding tool. Norway emphasises that adaptation can strengthen coping capacities, foster cooperation, and build trust by framing climate change as a shared external challenge. This aligns with the concept of environmental peacebuilding, where cooperation over natural resources can support social cohesion and open space for broader peace processes.[305]

Institutionally, the climate–security nexus is presented as a way to enhance the effectiveness of peace and security governance. Integrating climate–security considerations across organisations such as the UN, EU, OSCE, and NATO, alongside mechanisms like the UN Climate Security Mechanism, is seen as essential for improving coordination.[306] Practical measures include training peace mission personnel and adapting national security strategies.[307] At the same time, the nexus is framed as a preventive alternative to militarised responses: Norway stresses that climate-related security risks require crisis prevention, mediation, and peacebuilding rather than military solutions alone.[308] Integrating climate and conflict risk into humanitarian and development programming, including early warning systems and frameworks such as the Sendai Framework, is therefore presented as forward-looking risk management.[309] This framing is particularly pronounced in fragile and conflict-affected contexts, where climate vulnerability and instability reinforce one another. Addressing conflict can strengthen adaptive capacity, while conflict-sensitive climate action can tackle root causes of crises.[310] Overall, the climate–security nexus functions as a governance innovation that integrates policy fields, strengthens prevention, and helps manage systemic risk in a climate-affected world.

Governance, strategic planning, and national plans

Across the documents, the strengthening of governance, planning systems, and institutional foresight is framed as a solution to climate-related security risks. Rather than treating climate impacts as ad hoc crises, states and organisations should aim to embed climate considerations structurally into security, defence, development, and peacebuilding frameworks.

A central element of this approach is the integration of climate risks into national security and defence planning. NATO has developed a Climate Change and Security Strategy, impact assessments, and environmental standards, while encouraging its allies to reflect climate risks in their national

[302] Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

[303] Meijer K, Remling E., 2023, Enhancing the Conflict Sensitivity of National Adaptation Plans (accessed 10.02.2026).

[304] The United Kingdom, 2007, Letter to the UNSC 05.04.2007 (accessed 06.05.2026).

[305] Norway, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026); Norway, 2022, Statement UNSC 09.03.2022 (accessed 07.05.2026); Norway, 2022, Statement UNSC 12.10.2022 (accessed 07.05.2026).

[306] Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

[307] Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

[308] Norway, 2021, Statement UNSC 13.12.2021(accessed 07.05.2026); Norway, 2022, Statement UNSC 12.10.2022 (accessed 07.05.2026).

[309] The United Kingdom, 2023, Statement UNSC 13.06.2023 (accessed 07.05.2026); The United Kingdom, 2021, Letter to the UNSC 17.02.2021 (accessed 05.05.2026).

[310] The United Kingdom, 2021, Letter to the UNSC 17.02.2021 (accessed 05.05.2026); The United Kingdom, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026).

security strategies.[311] Germany's National Security Strategy includes a dedicated focus on climate, biodiversity, and ecosystem crises, and its defence strategy systematically incorporates climate impacts into capability development, infrastructure planning, and foresight processes. Climate conditions are considered in evaluating future missions, operational readiness, and defence-relevant infrastructure.[312] Other states follow similar paths. Kenya has adopted national climate and adaptation plans,[313] while the Philippines links national resilience and disaster preparedness directly to security planning.[314] At the EU level, the Climate Change and Defence Roadmap and the Strategic Compass foresee Member States developing national approaches to prepare armed forces for climate impacts.[315] The OECD underscores the importance of state parties incorporating climate considerations into relevant national or domestic strategies, plans, documents, and processes to mitigate climate impacts and enhance resilience.[316] The UK notes that many national adaptation plans already treat sustainable land and water management as investments in both adaptation and conflict prevention.[317] Together, these efforts show that climate mainstreaming in security strategies functions as long-term risk management, not only as environmental policy.

In terms of relevant actors, the OECD encourages a multi-stakeholder approach through actively engaging 'the private sector, academia, civil society and all other relevant stakeholders, including women's and youth organizations.'[318]

Mainstreaming across policy fields and institutions

Beyond national plans, climate is being integrated horizontally across institutions. The EU calls for climate and environmental considerations to be embedded in defence research, procurement, infrastructure, training, and operations.[319] Germany promotes whole-government approaches to systematically include climate adaptation at all decision-making levels and align climate foreign policy with crisis prevention and human security goals.[320] Norway similarly calls for systematic inclusion of climate factors in political analysis, early warning, and field engagement, ensuring both climate-sensitive peacebuilding and conflict-sensitive climate action. Within the UN context, integrating climate risks into peacekeeping, special political missions, and peace diplomacy is presented as improving preparedness, civilian protection, and mission effectiveness.[321] Climate-informed conflict analysis, climate-sensitive mandates, and early warning systems translate governance reform into

[311] NATO, 2021, NATO Climate Change and Security Action Plan (accessed 01.05.2026); NATO, 2024, NATO Climate Change and Security Impact Assessment (accessed 12.06.2025).

[312] Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026); Germany, 2024, Strategy on Defence and Climate Change (accessed 30.04.2026).

[313] Kenya, 2024, The annual report on the state of national security (accessed 04.05.2026).

[314] The Philippines, 2023, National Security Policy (accessed 06.05.2026).

[315] EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026); EU, 2022, A strategic compass for security and defence (accessed 06.05.2026).

[316] OSCE, 2021, Decision No 3/21 (accessed 06.05.2026).

[317] The United Kingdom, 2021, Letter to the UNSC 17.02.2021 (accessed 05.05.2026).

[318] OSCE, 2021, Decision No 3/21 (accessed 06.05.2026), p. 3.

[319] EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026).

[320] Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

[321] Norway, 2022, Statement UNSC 09.03.2022 (accessed 07.05.2026); Norway, 2021, Statement UNSC 13.12.2021(accessed 07.05.2026); Norway, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026); Norway, 2021, Statement UNSC 23.02.2021 (accessed 07.05.2026).

operational tools.[322] The Philippines extends this logic to counter-terrorism, arguing that climate-related vulnerabilities must be addressed to prevent exploitation by non-state armed actors.[323]

Inclusive governance

Norway emphasises bottom-up approaches that engage civil society, women, and youth, linking the climate–security agenda to the Women, Peace, and Security framework and human rights. Gender-transformative and participatory approaches are seen as strengthening societal resilience.[324] The PIF 2050 Strategy further stresses the protection of cultural heritage, traditional knowledge, and the rights of Pacific peoples in climate and mobility governance.[325] Inclusion thus becomes part of resilience-building.

Knowledge, innovation, and technology governance

Another governance solution lies in managing knowledge and innovation. Several states emphasise environmentally friendly, resource-efficient, and resilient technologies for both civilian and military use.[326] The EU and Germany promote green technologies, sustainable digitalisation, and energy-efficient systems in defence sectors.[327] Kenya highlights the value of long-standing local practices and technologies.[328]

At the same time, emerging technologies such as solar geoengineering raise governance challenges. The EU notes the lack of global regulation for solar radiation modification, while Germany adopts a precautionary stance, supporting international oversight under the Convention on Biological Diversity and continued assessment of scientific, ethical, and political risks.[329] Here, governance is about anticipating technological risks before they become security threats.

Research and foresight

Improving the evidence base is presented as another pillar of preventive governance. NATO, the EU, Germany, and Norway emphasise research on climate–security impacts, defence infrastructure resilience, and future operational environments.[330] Early warning, strategic foresight, and scenario analysis are central tools.[331] Germany's Weathering Risk initiative and the Berlin Climate and

[322] Germany, 2023, Statement UNSC 13.06.2023 (accessed 07.05.2026); The United Kingdom, 2021, Letter to the UNSC 17.02.2021 (accessed 05.05.2026).

[323] The Philippines, 2021, Statement UNSC 09.12.2021 (accessed 07.05.2026).

[324] Norway, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026); Germany, 2023, Wehrhaft. Resilient. Nachhaltig. Integrierte Sicherheit für Deutschland - Nationale Sicherheitsstrategie (accessed 30.04.2026).

[325] Pacific Islands Forum, 2022, 2050 Strategy for the Blue Pacific Continent (accessed 02.02.2026).

[326] The Philippines, 2023, National Security Policy (accessed 06.05.2026); EU, 2022, A strategic compass for security and defence (accessed 06.05.2026); Germany, 2024, Strategy on Defence and Climate Change (accessed 30.04.2026).

[327] EU, 2022, A strategic compass for security and defence (accessed 06.05.2026); Germany, 2024, Strategy on Defence and Climate Change (accessed 06.05.2026).

[328] Kenya, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026).

[329] EU, 2025, Strategic Foresight Report (accessed 06.05.2026); Germany, 2023, Strategy on Climate Foreign Policy (accessed 30.04.2026).

[330] NATO, 2021, NATO Climate Change and Security Action Plan (accessed 01.05.2026); EU, 2020, Climate Change and Defence Roadmap (accessed 06.05.2026); Germany, 2024, Strategy on Defence and Climate Change (accessed 30.04.2026); Norway, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026).

[331] Norway, 2024, Statement UNSC 13.02.2024 (accessed 07.05.2026); Germany, 2023, Statement UNSC 13.06.2023 (accessed 07.05.2026).

Security Conference illustrate efforts to build internationally networked, interdisciplinary research communities.[332] Inclusive and regionally grounded research is also stressed. Kenya calls for stronger involvement of Global South experts, while the PIF highlights participatory science, traditional knowledge, and regional research capacity.[333] The AU APSA Roadmap points to the need to link climate and conflict early warning systems.[334]

6 Recommendations

To address the shortcomings identified in the study, we recommend that governments, international and regional organisations, and security actors take the following six steps:

1. Mainstream climate change into (long-term) national security governance and institutions and enhance the understanding of security. National governments should mainstream climate change into national and international security strategies, planning, and institutions (such as national security councils), as a systemic risk that requires more than ad hoc treatment. Governments and international organisations, as well as security actors such as the UN, EU, and NATO, should embed climate considerations across security strategies, planning processes, and crisis prevention frameworks, moving beyond ad hoc and short-term approaches. This mainstreaming needs to include the integration of slow-onset processes (incl. biodiversity loss and ecosystem degradation) and tipping points into security analysis and planning. Approaches should move beyond traditional state-centric and stability-oriented understanding and should follow the concept of integrated security towards, and hence also include aspects of, human, ecological, and international security.

2. Integrate biodiversity into security analysis and planning in order to tackle disruptive/systemic challenges. Climate change, biodiversity loss, and ecosystem degradation should be understood as deeply interconnected challenges that can jointly undermine resilience, economic stability, food and water security, and livelihoods. Security governance should therefore adopt a more integrated understanding, including ecological security aspects, through ecosystem-based approaches that recognise the importance of biodiversity and healthy ecosystems for stability, adaptation, and long-term human security.

3. Climate risk management, including adaptation measures, should be understood and treated as a core instrument of preventive (human) security policy. Although human security is widely acknowledged, it remains insufficiently operationalised and should be elevated as a core security priority. Climate risk management should be strengthened as a core instrument of preventive (human) security policy in order to reduce vulnerabilities and hence address the structural drivers of climate-related insecurity. At the same time, climate policies and security responses should be designed in a conflict-sensitive and socially inclusive manner. Adequate climate finance is essential for comprehensively implementing such preventive approaches, particularly in highly vulnerable and fragile contexts where climate impacts and insecurity often overlap.

4. Shift from reactive to anticipatory climate and security governance to better prepare for extreme weather events, slow-onset processes, and tipping points. National governments, regional organisations, and UN agencies should ensure that climate-security governance moves beyond reactive crisis management towards more anticipatory, transformative, and preventive

[332] Germany, 2021, Gemeinsam für die Menschen: Weißbuch Multilateralismus der Bundesregierung (accessed 06.05.2026).

[333] Pacific Islands Forum, 2022, 2050 Strategy for the Blue Pacific Continent (accessed 02.02.2026); Kenya, 2021, Statement UNSC 23.09.2021 (accessed 07.05.2026).

[334] AU, 2015, African Peace and Security Architecture Roadmap 2016-2020 (accessed 06.05.2026).

approaches. Governments and international organisations should systematically integrate climate scenarios, early warning systems, and forward-looking risk assessments into security planning in order to better prepare for extreme weather events as well as to address slow-onset processes, tipping points, and resulting cascading risks. Preparedness for climate-related extreme weather events should be strengthened at the national, regional, and international level, including through enhanced civil protection capacities and international and regional cooperation. Slow-onset processes such as sea-level rise, desertification, and ecosystem degradation remain underrepresented in the analysed documents despite their potentially profound implications for livelihoods, territorial integrity, human security, and state stability. Tipping points should be recognised as a distinct category of systemic security risk and embedded into long-term strategic planning, risk modelling, and diplomatic agendas, as well as specific governance structures like a political early warning system.[335] Strengthening science–policy linkages and embedding long-term climate(-security) risks into strategic planning can improve resilience and reduce the likelihood of future instability and crisis escalation. Additionally, transformative approaches such as reducing dependency on fossil fuel or adapting to changing environments, rather than traditional reconstruction, need to be applied.

5. Strengthen international and regional cooperation and increase climate finance to lower conflict risks. Because climate change acts as a systemic risk multiplier across regions, shaping geopolitics and challenging international security, security concerns cannot be addressed through a purely national lens or with only traditional military means. Rather, stronger international and regional cooperation, including mutual trust, is essential to manage interconnected and transboundary risks, enhance global stability, ensure human security, and support countries that are particularly vulnerable to the compounding impacts of climate change, fragility, and conflict. International organisations should further strengthen cross-sectoral cooperation among climate, development, humanitarian, and peacebuilding actors while maintaining clear institutional roles and responsibilities. Adequate and predictable climate finance is a key prerequisite for measures to address climate insecurity and adhere to the 'polluter pays' principle. Increased support for mitigation, adaptation, and addressing loss and damage – particularly in vulnerable and fragile or conflict affected states – is essential to reduce climate-related insecurity and prevent spillover effects across regions. Global North governments should increase financial support – also in their own self-interest – to help prevent instability, reduce humanitarian pressures, and strengthen long-term societal resilience.

6. Closing legal gaps related to climate impacts. Existing international governance and legal frameworks remain insufficient to address emerging challenges linked to climate change, including climate-induced migration and displacement, sea-level rise, and the potential loss of territory and statehood. Closing these gaps is essential to maintaining international stability, protecting affected populations, and reducing future sources of conflict and insecurity. Governments and international organisations should therefore strengthen legal and policy frameworks addressing climate mobility, displacement, and cross-border impacts, while improving international coordination and responsibility-sharing. The International Court of Justice (ICJ) Advisory Opinion[336] gives important advice on state obligations in the context of climate change and advises on critical issues such as potential loss of statehood. With the adoption of a resolution[337] welcoming the advisory opinion by the UN General Assembly, states are now called upon to comply with the identified obligations – which are also extremely relevant in the context of security policy.

[335] See Künzel et al., 2022, An early warning system for tipping points in the climate system (accessed 26.05.2026).

[336] ICJ 2025, Obligations of states in respect to climate change, Advisory Opinion 23.07.2025 (accessed 29.05.2026).

[337] UNGA, 2026, Resolution A/80/L.65 (accessed 29.05.2026).

7 References

Auswärtiges Amt, 2023, Wehrhaft. Resilient. Nachhaltig. Integrierte Sicherheit für Deutschland - Nationale Sicherheitsstrategie, https://www.nationalesicherheitsstrategie.de/Sicherheitsstrategie-DE.pdf (accessed 30.01.2026).

Auswärtiges Amt, 2021, Gemeinsam für die Menschen: Weißbuch Multilateralismus der Bundesregierung, https://www.auswaertiges-amt.de/resource/blob/2590372/3978f55a3848e13200509b4a254fe126/weissbuch-multilateralismus-data.pdf (accessed 30.01.2026).

Auswärtiges Amt, 2023, Strategy on Climate Foreign Policy, https://www.auswaertiges-amt.de/resource/blob/2633116/a4e03e8283b9479559ef2dc3b741624a/kap-strategie-en-data.pdf (accessed 30.01.2026).

NIKE – Metis Institute for Strategy and Foresight et al., 2024, National Interdisciplinary Climate Risk Assessment Germany, https://metis.unibw.de/en/NICE/ (accessed 30.01.2026).

African Union Commission, 2015, African Peace and Security Architecture Roadmap 2016–2020, https://au.int/en/documents/20200331/africa-peace-and-security-architecture-apsa-roadmap-2016-2020 (accessed 30.01.2026).

Bundesministerium der Verteidigung, 2024, Strategy on Defence and Climate Change, https://www.bmvg.de/resource/blob/5759520/5308c4904ff6fc0780061b6e424fc27e/strategy-on-defence-and-climate-change-data.pdf (accessed 30.01.2026).

Government of the Philippines, 2018, National Security Strategy: Security and Development for Transformational Change and Well-being of the Filipino People, https://www.surrey.ac.uk/sites/default/files/2024-09/2018_Philippines.pdf (accessed 30.01.2026).

Government of the Philippines, 2023, National Security Policy 2023–2028, https://www.surrey.ac.uk/sites/default/files/2024-09/2023_Philippines.pdf (accessed 30.01.2026).

Konsortium Nationale Interdisziplinäre Klimarisiko-Einschätzung, 2025, Nationale Interdisziplinäre Klimarisiko Einschätzung, https://metis.unibw.de/de/nike/ (accessed 30.01.2026).

European Union, 2022, A strategic compass for security and defence, https://www.eeas.europa.eu/eeas/strategic-compass-security-and-defence-1_en (accessed 30.01.2026).

European Union, 2016, Shared Vision, Common Action: A Stronger Europe – A Global Strategy for the European Union's Foreign And Security Policy, https://www.eeas.europa.eu/sites/default/files/eugs_review_web_0.pdf (accessed 30.01.2026).

European Commission, 2025, Communication from the Commission to the European Parliament and the Council, 2025 Strategic Foresight Report, https://commission.europa.eu/strategy-and-policy/strategic-foresight/2025-strategic-foresight-report_en (accessed 30.01.2026).

Council of the European Union, 2020, Climate Change and Defense Roadmap, https://data.consilium.europa.eu/doc/document/ST-12741-2020-INIT/en/pdf (accessed 30.01.2026).

Republic of Kenya, 2024, The annual report on the state of national security for the period 1 September 2023 to 31 August 2024, https://parliament.go.ke/sites/default/files/2025-11/2025%20Report%20on%20State%20of%20National%20Security_0.pdf (accessed 30.01.2026).

Republic of Kenya Ministry of Defence, 2017, Defence White Paper, https://www.mod.go.ke/wp-content/uploads/2020/08/DP-white-paper.pdf (accessed 30.01.2026).

HM Government United Kingdom, 2010, A Strong Britain in an Age of Uncertainty: The National Security Strategy, https://assets.publishing.service.gov.uk/media/5a74cb2de5274a3cb286738d/national-security-strategy.pdf (accessed 02.02.2026).

HM Government United Kingdom, 2023, Integrated Review Refresh 2023: Responding to a more contested and volatile world, https://www.gov.uk/government/publications/integrated-review-refresh-2023-responding-to-a-more-contested-and-volatile-world (accessed 02.02.2026).

HM Government United Kingdom, 2026, Global biodiversity loss, ecosystem collapse and national security, https://www.gov.uk/government/publications/nature-security-assessment-on-global-biodiversity-loss-ecosystem-collapse-and-national-security (accessed 28.04.2026).

Office of the Prime Minister of Norway, 2025, National Security Strategy, https://www.regjeringen.no/en/documents/national-security-strategy/id3099304/ (accessed 02.02.2026).

Pacific Islands Forum, 2022, 2050 Strategy for the Blue Pacific Continent, https://forumsec.org/2050 (accessed 02.02.2026).

Pacific Islands Forum, 2021, Declaration on Preserving Maritime Zones in the Face of Climate Change–related Sea Level Rise, https://forumsec.org/sites/default/files/2024-05/2021%20Declaration-on-Preserving-Maritime-Zones.pdf (accessed 02.02.2026).

Pacific Islands Forum, 2018, Boe Declaration, https://forumsec.org/publications/boe-declaration-regional-security (accessed 02.02.2026).

Organization for Security and Cooperation in Europe, 2021, Decision No 3/21 Strengthening Cooperation to address the challenges caused by climate change, https://www.osce.org/chairmanship/507050 (accessed 28.04.2026).

North Atlantic Treaty Organization, 2022, Strategic concept, https://www.nato.int/en/about-us/official-texts-and-resources/strategic-concepts/nato-2022-strategic-concept (accessed 28.04.2026).

North Atlantic Treaty Organization, 2024, NATO Climate Change and Security Impact Assessment, https://www.nato.int/content/dam/nato/legacy-wcm/media_pdf/2024/7/pdf/240709-Climate-Security-Impact.pdf (accessed 28.04.2026).

North Atlantic Treaty Organization, 2021, NATO Climate Change and Security Action Plan, https://www.nato.int/en/about-us/official-texts-and-resources/official-texts/2021/06/14/nato-climate-change-and-security-action-plan (accessed 28.04.2026).

Republic of Vanuatu, 2022, National Security Strategy 2022 Review, https://pacificsecurity.net/resource/vanuatu-national-security-strategy-review-2022/ (accessed 28.04.2026).

Republic of Vanuatu, 2024, National Foreign Policy, https://mfaicet.gov.vu/images/documents/VANUATU_NATIONAL_FOREIGN_POLICY.pdf (accessed 28.04.2026).

Speeches

Norway Speech 2: Norway in the UN, 2022, Statement by Deputy Permanent Representative Ambassador Odd-Inge Kvalheim in the Security Council 'Arria Formula' meeting on Climate Finance for Sustaining Peace and Security, 9 March 2022, https://www.norway.no/en/missions/un/statements/security-council/2022/sc-arria-meeting-on-climate-and-security/ (accessed 03.02.2026).

Norway Speech 3: Norway in the UN, 2021, Explanation of Vote by Permanent Representative Ambassador Mona Juul on the occasion of the vote on the draft UN Security Council resolution on

Climate and Security, 13 December 2021, https://www.norway.no/en/missions/un/statements/security-council/2021/sc-climate-and-security3/ (accessed 03.02.2026).

Norway Speech 4: Norway in the UN, 2021, Statement by Permanent Representative Ambassador Mona Juul in the UN Security Council meeting on Security in the Context of Terrorism and Climate Change, 9 December 2021, https://www.norway.no/en/missions/un/statements/security-council/2021/sc-climate-change-and-terrorism/ (accessed 03.02.2026).

Norway Speech 6: Norway in the UN, 2021, Joint statement by the Nordic Countries submitted to the open debate on the 'Maintenance of international peace and security: Climate and Security,' 23 September 2021, https://www.norway.no/en/missions/un/statements/security-council/2021/sc-climate-and-security--joint-nordic-statement/ (accessed 03.02.2026).

Norway Speech 7: Norway in the UN, 2021, Statement by Prime Minister Erna Solberg at the UN Security Council debate on 'Maintenance of international peace and security: Climate and security,' 23 February 2021, https://www.norway.no/en/missions/un/statements/security-council/2021/sc-climate-and-security/ (accessed 03.02.2026).

Norway Speech 8: Norway in the UN, 2020, Statement by Ambassador Mona Juul on behalf of Denmark, Finland, Iceland, Sweden and Norway at the UNSC Arria meeting on Climate and Security risks: the latest data, 22 April 2020, https://www.norway.no/en/missions/un/statements/security-council/2020/unsc-arria-arria-on-climate-and-security-risks/ (accessed 03.02.2026).

Norway Speech 9: Norway in the UN, 2019, Statement by Deputy Foreign Minister Jens Frølich Holte in Open debate on Impacts of climate-related disasters on international peace and security, 25 January 2019, https://www.norway.no/en/missions/un/statements/security-council/2019/sc-impacts-of-climate-related-disasters/ (accessed 03.02.2026).

Norway Speech 10: Norway in the UN, 2024, Statement delivered by State Secretary Bjørg Sandkjær in the Security Council on behalf of the Nordic and Baltic states (NB8) in the open debate on The Impact of Climate Change and Food Security, https://www.norway.no/en/missions/un/statements/security-council/sc-2024/sc-the-impact-of-climate-change-and-food-insecurity/ (accessed 03.02.2026).

Norway Speech 11: Norway in the UN, 2022, Statement by Permanent Representative Ambassador Mona Juul in the Security Council Arria formula meeting on Climate, Peace and Security: Opportunities for the UN Peace and Security Architecture, 29 November 2022, https://www.norway.no/en/missions/un/statements/security-council/2022/sc-climate-peace-and-security-arria-meeting/ (accessed 03.02.2026).

Norway Speech 12: Norway in the UN, 2022, Statement by Norwegian Minister of Foreign Affairs Anniken Huitfeldt in the Security Council meeting on climate and security in Africa, 12 October 2022, https://www.norway.no/en/missions/un/statements/security-council/2022/sc-climate--security-in-africa/ (accessed 03.02.2026).

Norway Speech 13: Norway in the UN, 2024, Statement held on the 8 July 2024 in an SC Arria-formula meeting by Denmark's Permanent Representative Ambassador Christina Markus Lassen, on behalf of the Nordic Countries including Norway, https://www.norway.no/en/missions/un/statements/security-council/sc-2024/sc-joint-statement-on-climate-peace-and-security/ (accessed 03.02.2026).

Kenya Speech 2: Republic of Kenya, 2021, Statement as delivered by Amb. Raychelle Omamo, SC, EGH, Cabinet Secretary for foreign affairs of Kenya during the United Nations Security Council open debate on maintenance of international peace and security: climate and security, 23 September 2021 at 8:00 am, https://www.un.int/kenya/sites/www.un.int/files/Kenya/as_delivered_-

_kenya_statement-_open_debate_on_climate_and_security_-_21st_sept.pdf (accessed 03.02.2026).

Philippines Speech 4: Permanent Mission of the Republic of the Philippines to the United Nations in New York, 2024, United Nations Security Council High Level Open Debate 'The impact of climate change and food insecurity on the maintenance of international peace and security,' Tuesday, 13 February 2024, https://www.un.int/philippines/statements_speeches/united-nations-security-council-high-level-open-debate-%E2%80%9C-impact-climate-change (accessed 03.02.2026)

Philippines Speech 5: Permanent Mission of the Republic of the Philippines to the United Nations in New York, 2023, Threats to International Peace and Security: 'Sea-Level Rise – Implications for International Peace and Security,' Tuesday 14 February 2023, https://www.un.int/philippines/statements_speeches/threats-international-peace-and-security-%E2%80%9Csea-level-rise-implications (accessed 03.02.2026).

Philippines Speech 6: Permanent Mission of the Republic of the Philippines to the United Nations in New York, 2021, UN Security Council High Level Debate on the Maintenance of International Peace and Security: Security in the context of terrorism and climate change, Thursday 9 December 2021, https://www.un.int/philippines/statements_speeches/un-security-council-high-level-debate-maintenance-international-peace-and (accessed 03.02.2026).

Vanuatu PIF 4: Pacific Island Forum, 2023, Pacific Islands Forum Remarks at the United Nations Security Council Open Debate Threats to International Peace and Security: Sea-Level Rise – Implications for International Peace and Security, https://forumsec.org/publications/remarks-threats-international-peace-and-security-sea-level-rise-implications (accessed 03.02.2026).

PSIDS 2: Pacific SIDS, 2021, Statement delivered on behalf of Pacific SIDS at the UN Security Council Open VTC on 'Climate and Security,' https://www.un.int/fiji/statements_speeches/statement-delivered-behalf-pacific-sids-un-security-council-open-vtc-%E2%80%98climate (accessed 03.02.2026).

Vanuatu PIF 2: Pacific Island Forum, 2021, Pacific Islands Forum Statement for the United Nations Security Council Arria-Formula Meeting on 'Sea-Level Rise and Implications for International Peace and Security,' https://www.un.int/fiji/statements_speeches/pacific-islands-forum-statement-united-nations-security-council-arria-formula (accessed 03.02.2026).

Vanuatu PIF 3: Pacific Island Forum, 2022, Pacific Islands Forum Statement - United Nations Security Council High-Level Arria-Formula Meeting on Climate Finance for Sustaining Peace and Security, https://www.un.int/fiji/statements_speeches/pacific-islands-forum-chair-statement-united-nations-security-council-arria (accessed 03.02.2026).

Germany Speech 3: Auswärtiges Amt, 2020, Speech by Federal Foreign Minister Heiko Maas on climate change and security at the UN Security Council (video conference), https://www.auswaertiges-amt.de/en/newsroom/news/maas-unsc-climate-security-2370754 (accessed 03.02.2026).

Germany Speech 2: Permanent Mission of the Federal Republic of Germany to the United Nations, 2023, Statement of the Group of Friends on Climate and Security in the UN Security Council Open Debate on Climate Change, Peace and Security, 13 June 2023, https://new-york-un.diplo.de/un-en/2601564-2601564 (accessed 03.02.2026).

Germany Speech 1: Permanent Mission of the Federal Republic of Germany to the United Nations, 2024, Statement of Germany, UN Security Council Open Debate on 'The Impact of Climate Change and Food Insecurity on the Maintenance of International Peace and Security,' 13 February 2024, https://new-york-un.diplo.de/un-en/2643768-2643768 (accessed 03.02.2026).

UK Speech 1: Foreign, Commonwealth & Development Office, 2023, Speech Steps to prevent the worst consequences of climate change impacting future peace and security: UK Statement at the UN Security Council, Statement by Ambassador Barbara Woodward at the Security Council open debate on sea-level rise, https://www.gov.uk/government/speeches/steps-to-prevent-the-worst-consequences-of-climate-change-impacting-future-peace-and-security-uk-statement-at-the-un-security-council (accessed 03.02.2026).

UK Speech 2: Foreign, Commonwealth & Development Office, 2024, The UK recognises that climate change impacts on peace and stability across Central Africa: UK Statement at the UN Security Council, https://www.gov.uk/government/speeches/the-uk-recognises-that-climate-change-impacts-on-peace-and-stability-across-central-africa-uk-statement-at-the-un-security-council (accessed 03.02.2026).

UK Speech 3: Foreign, Commonwealth & Development Office, 2024, Climate change, environmental degradation and biodiversity loss are exacerbating conflict: UK Statement at the UN Security Council, https://www.gov.uk/government/speeches/climate-change-environmental-degradation-and-biodiversity-loss-are-exacerbating-conflict-uk-statement-at-the-un-security-council (accessed 03.02.2026).

UK Speech 4: Foreign, Commonwealth & Development Office, 2023, We must integrate climate reduction efforts into our early warning responses: UK statement at the Security Council, https://www.gov.uk/government/speeches/we-must-integrate-climate-reduction-efforts-into-our-early-warning-responses-uk-statement-at-the-security-council (accessed 04.02.2026).

UK concept note UNSC: United Nations Security Council, 2021. Letter dated 17 February 2021 from the Permanent Representative of the United Kingdom of Great Britain and Northern Ireland to the United Nations addressed to the Secretary-General, https://docs.un.org/en/S/2021/155 (accessed 04.02.2026).

UK concept note UNSC 2: United Nations Security Council, 2007, Letter dated 5 April 2007 from the Permanent Representative of the United Kingdom of Great Britain and Northern Ireland to the United Nations addressed to the President of the Security Council, https://main.un.org/securitycouncil/sites/default/files/en/sc/repertoire/2004-2007/Chapter%208/Thematic/04-07_8_Climate%20change.pdf (accessed 05.03.2026).

Literature

Baysal, B. and Karakaş, U., 2017, Climate Change and Security: different perceptions, different approaches, https://www.ir-journal.com/storage/media/3430/01HBS8924EQGTGVZ4KNMRA15Z1.pdf (accessed 11.05. 2026).

Brzoska, M., 2009, The Securitization of climate change and the power of conceptions of security, https://www.inlibra.com/de/document/view/pdf/uuid/ab328755-1379-3518-a508-8d760a067daa (accessed 05.04.2026).

Brzoska, M., 2012, Climate Change as a Driver of Security Policy, https://link.springer.com/book/10.1007/978-3-642-28626-1 (accessed 05.04.2026).

Bundesregierung, 2026, Rede von Bundeskanzler Merz anlässlich des Petersberger Klimadialogs High-Level Segment am 22. April 2026 in Berlin, https://www.bundesregierung.de/breg-de/aktuelles/rede-von-bundeskanzler-merz-anlaesslich-des-petersberger-klimadialogs-high-level-segment-am-22-april-2026-in-berlin-2422732 (accessed 11.05.2026).

Caudle, S., 2009, National Security Strategies: Security from What, for Whom, and by What Means, doi.org/10.2202/1547-7355.1526 (accessed 05.04.2026).

COP28 UAE, 2023, COP28 Declaration on Climate, Relief, Recovery and Peace, https://www.cop28.com/en/cop28-declaration-on-climate-relief-recovery-and-peace (accessed 12.02.2026).

COP29, 2024, COP29 Presidency Launches Baku Call on Climate Action for Peace, Relief, and Recovery, https://cop29.az/en/media-hub/news/cop29-presidency-launches-baku-call-on-climate-action-for-peace-relief-and-recovery (accessed 12.02.206).

Dörfler, T. and Janusch, H., 2025, Die Nationale Sicherheitsstrategie Deutschlands, ihre Entstehung und Funktionen, https://www.inlibra.com/de/document/view/pdf/uuid/ea9a2953-b7e0-3db5-9e86-4c7d0c334c12 (accessed 05.04.2026).

ICJ 2025, Obligations of states in respect to climate change, Advisory Opinion 23.07.2025, https://www.icj-cij.org/sites/default/files/case-related/187/187-20250723-adv-01-00-en.pdf (accessed 29.05.2026).
International Court of Justice (ICJ) 2025, Obligations of states in respect to climate change, Advisory Opinion 23.07.2025 (accessed 29.05.2026).

Künzel, V. et al., 2022, An early warning system for tipping points in the climate system, https://www.germanwatch.org/sites/default/files/germanwatch_tipping_points_factsheet_0.pdf (accessed 01.05.2026).

Lenton, T. et al., 2025, The Global Tipping Point Report, https://global-tipping-points.org/ (accessed12.02.2026).

McDonald, M., 2013, Discourses of climate security, https://www.sciencedirect.com/science/article/abs/pii/S0962629813000188 (accessed 11.05.2026).

McDonald, M., 2018, Climate Change and Security towards ecological security, https://www.cambridge.org/core/journals/international-theory/article/abs/climate-change-and-security-towards-ecological-security/228798050D9F11036FB72D9F2C84F70D (accessed 09.02.2026).

Meijer K, and Remling E., 2023, Enhancing the Conflict Sensitivity of National Adaptation Plans, https://www.sipri.org/sites/default/files/2023-05/the_stockholm_hub_no_1_enhancing_naps_2.pdf (accessed 10.02.2026).

New Zealand Foreign Affairs and Trade Office, 2025, International Security, www.mfat.govt.nz/en/peace-rights-and-security/international-security (accessed 09.02.2026).

North Atlantic Treaty Organization, 2022, Strategic concept, https://www.nato.int/en/about-us/official-texts-and-resources/strategic-concepts/nato-2022-strategic-concept (accessed: 30.04.2026).

Okpara, U.T., and Yunus, S., 2025, The nexus of climate and conflict in the Lake Chad Region: what we know, don't know and need to know (accessed 15.05.2026).

Organisation for Security and Co-Operation in Europe, 2021, Decision No 3/21, https://www.osce.org/chairmanship/507050 (accessed 30.04.2026).

Potsdam Institute for Climate Impact Research, 2025, Tipping Elements - big risks in the Earth System, https://www.pik-potsdam.de/en/output/infodesk/tipping-elements/tipping-elements (accessed 12.02.2026).

Schultheiss, L., 2023, Tipping Points and their impact on human security, https://www.germanwatch.org/en/blog/tipping-points-and-their-impact-human-security (accessed 12.02.2026).

UNFCCC, 2017, Action Area 5 questionnaire: Summary of information received from 28 non-Annex I Parties, https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/aa5_summary_parties.pdf (accessed 12.02.2026).

United Nations General Assembly (UNGA), 2026, Resolution A/80/L.65 (accessed 29.05.2026).

United Nations Security Council, 2017, S/Res/2349, https://www.globalr2p.org/wp-content/uploads/2017/03/UNSC-2349-LCB.pdf (accessed 05.05.2026).

United Nations, 2025, Secretary-General Calls 1.5°C Limit 'Red Line for Humanity', Urges Leaders at Climate Summit to Speed Fossil Fuel Phase-Out, Reach Global Net Zero by 2050, https://press.un.org/en/2025/sgsm22899.doc.htm (accessed 11.05.2026).

Vogler, A. and Hardt, J. N., 2025, Eine klimafeste Strategie? Sicherheitsimplikationen des Klimawandels in der Nationalen Sicherheitsstrategie, https://doi.org/10.5771/9783748951094-181 (accessed 05.04.2026).

Vogler, A., 2023, Barking up the tree wrongly? How national security strategies frame climate and other environmental change as security issues, https://www.sciencedirect.com/science/article/pii/S0962629823000719?via%3Dihub (accessed 05.04.2026).

Whitehouse USA, 2022: National Security Strategy, https://bidenwhitehouse.archives.gov/wp-content/uploads/2022/10/Biden-Harris-Administrations-National-Security-Strategy-10.2022.pdf (accessed 02.03.2026).

Whitehouse USA, 2025, National Security Strategy of the United States of America, https://www.whitehouse.gov/wp-content/uploads/2025/12/2025-National-Security-Strategy.pdf (accessed 02.03.2026).

Wik, T. M. and Neal, A. W., 2025, The Prioritisation of Climate Security: A Content Analysis of National Security Agendas, https://journals.sagepub.com/doi/10.1177/27538796241257554 (accessed: 05.04.2026).

Withers, A. and Jacobsen, S., 2025, Iceland deems possible Atlantic Current collapse a security risk, www.reuters.com/sustainability/cop/iceland-sees-security-risk-existential-threat-atlantic-ocean-currents-possible-2025-11-12/ (accessed 01.05.2026).

Germanwatch

Following the motto of *Observing. Analysing. Acting.* Germanwatch has been actively promoting global equity and livelihood preservation since 1991. We focus on the politics and economics of the Global North and their worldwide consequences. The situation of marginalised people in the Global South is the starting point for our work. Together with our members and supporters, and with other actors in civil society, we strive to serve as a strong lobbying force for sustainable development. We aim at our goals by advocating for prevention of dangerous climate change and its negative impacts, for guaranteeing food security, and for corporate compliance with human rights standards.

Germanwatch is funded by membership fees, donations, programme funding from Stiftung Zukunftsfaehigkeit (Foundation for Sustainability), and grants from public and private donors.

You can also help us to achieve our goals by becoming a member or by making a donation via the following account:

Bank für Sozialwirtschaft AG
BIC/Swift: BFSWDE33XXX
IBAN: DE95 3702 0500 0003 2123 23

Germanwatch – Bonn Office
Kaiserstr. 201
D-53113 Bonn, Germany
Phone: +49 (0)228 / 60492-0
Fax: +49 (0)228 / 60492-19

Germanwatch – Berlin Office
Stresemannstr. 72
D-10963 Berlin, Germany
Phone: +49 (0)30 / 5771328-0
Fax: +49 (0)30 / 5771328-11

E-mail: info@germanwatch.org

www.germanwatch.org

GERMANWATCH

Observing. Analysing. Acting.
For Global Equity and the Preservation of Livelihoods.