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Susanne Dröge

Addressing the Risks of Climate Change

What Role for the UN Security Council?

Stiftung Wissenschaft und Politik
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- The Small Island Development States (SIDS) and other developing countries affected by climate change are demanding more attention be given to climate-related losses and damages. The issue of "loss and damage" is being addressed in UNFCCC negotiations; however, the SIDS regard the Security Council as another key place for related debates.
- The Security Council can sound out climate policy interests to increase knowledge and improve the means of early warning. Moreover, its role can be to focus on the security aspects of climate risks and highlight important preventive approaches. These include, above all, development policy and the implementation of the Sustainable Development Goals (the UN 2030 Agenda).
- The demands on the Security Council are strongly linked to the international climate negotiations. Thus, Germany's commitment to climate policy has to be broad and long-term in times of dwindling multilateralism.
- Due to the Corona pandemic, short-term national and international policy agendas have readjusted to address the crisis situation, which has been detrimental to the climate policy agenda. A debate at the Security Council should nevertheless keep the focus on climate-related risks as such.

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Table of Contents

5 **Issues and Recommendations**

7 **Why Are There Climate Policy Demands on the Security Council?**

11 **Climate Change Impacts and the UN Security Council – What Has Happened to Date**
11 The mandate of the Security Council — subject to constant change
13 Security Council debates on climate change impacts

16 **Climate Change and Conflicts – State of Research**
16 Climate change as a threat to human security — report of the Secretary-General 2009
17 Links between climate impacts and violent conflicts
18 Forecasts and the "streetlight effect"

20 **Countries Particularly Vulnerable to Climate Risks – Global Overview**

23 **How Does the UNFCCC Address Climate Risks?**
23 Climate impacts and the UNFCCC
24 Climate financing and liability issues

27 **The Role of the UN Security Council in Addressing Climate Risks**
27 Increase the level of attention
29 Focus and inform
30 Another place to reconcile interests
30 Tipping points and solar radiation management

32 **The Way Forward: More Ado about Climate in the Security Council?**

34 **Abbreviations**

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Addressing the Risks of Climate Change: What Role for the UN Security Council?

The German government has announced it will make security policy implications from climate change once more a topic for the United Nations (UN) Security Council. The next meeting hosted by Germany is to take place in July 2020 while Germany holds a non-permanent seat on the body (2019/2020). The impacts from climate change have increased dramatically in recent years. Small island development states (SIDS) such as Nauru, the Marshall Islands, the Maldives, and Vanuatu claim that security policy and the UN Security Council should be dealing with climate impacts. In their opinion, the negotiations under the UN Framework Convention on Climate Change (UNFCCC) have so far paid too little attention to the "loss and damage" caused by climate change. The European countries Germany, the United Kingdom, the Netherlands, Belgium, Sweden, and France are supporting the SIDS in the attempt to continuously address the issue at the UN Security Council. However, expectations of an active role for the Council and its scope for action diverge widely. Also, there are other UN institutions that deal with climate impacts.

A closer look at the claims made by the SIDS also reveals contradictions. If the island states lose their territories due to rising sea levels, this is an existential threat, but not a risk to international security per se. Over the past 10 years, the Security Council has debated climate risks with increasing frequency. Resolutions on crisis situations in Africa have included references to the significance of climate change.

There is little supporting evidence so far about direct causalities between climate risks and violence which the Security Council could focus on. For the majority of experts in conflict research, climate change contributes only very indirectly to outbreaks of violence compared with other conflict risks. However, climate impacts can interact strongly with these risks and are therefore regarded as a threat multiplier. The potential of climate change as an indirect driver of conflict needs to be further explored in order to identify specific situations and examples for a causal relationship. So far, there has also been a lack of knowledge about why violent conflicts do *not* occur in particular regions hit by extreme climate-related events.

So what could be the role of the UN Security Council in dealing with climate change risks? In the short to medium term, the Council can generate more attention for international climate policy. In several resolutions, it has already pointed out the risks that climate change poses to human security. If the Security Council emphasises the preventive nature of efforts to protect the climate, this can generate pressure on the UNFCCC negotiators. Moreover, the Council can bring into focus more narrowly defined security-related climate impacts, such as a deterioration of the security situation in crisis areas. It can also highlight preventive approaches that are important for security policy, above all development aid and the implementation of the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs).

The calls for the Security Council to intercede in climate policy will become louder if the UNFCCC negotiations stall. In view of the withdrawal of the United States from this policy field, Germany's commitment is an essential building block in keeping those UN member states aboard that struggle to see a point in the implementation of the Paris Agreement (PA) — or those that are calling for more financial as well as other forms of support from the industrialised countries in the negotiations about loss and damage caused by climate change. Thus, the purpose of a Security Council debate is to exert more pressure on non-cooperative heads of state and government. Due to the Corona pandemic, short-term national and international policy agendas have readjusted, which has been detrimental to the climate policy agenda. However, the global pandemic crisis also offers some new entry points for better cooperation on multilateral issues by demonstrating that national interest alone does not deliver reliable solutions for short- or long-term global challenges.

In the upcoming debate at the Security Council, the German government can ensure that greater focus is placed on the specific links between climate risks and security threats, highlighting the role of scientific evidence and the need for better data. To this end, it can offer financial support for the Climate Security Mechanism, which provides additional personnel in the UN Secretary-General's Department of Political Affairs (DPPA). This support should be established on a permanent basis.

Furthermore, open debates in which all UN member states participate can be used as a forum to explore the particular interests in the global climate agenda. The United States, Russia, and China, as veto powers of the Security Council, have concerns about giving the Council an active role in climate policy and, in parallel, are slowing the implementation of the Paris Agreement. Therefore, the debates in New York help to confront these states with the climate policy concerns of the majority of UN members. Nevertheless, common interests exist on specific issues, also among these big players. The United States, for example, is open to expanding disaster risk management, and China has repeatedly stressed its support for climate policy cooperation within the United Nations. In this respect, it remains to be seen how the virus "blame game" by the US president will influence the overall attitude of the United States at the Council, and whether this will contribute to a repositioning of China in a more supportive direction regarding climate-related security risks.

Germany therefore has an important role to play in the current period of its non-permanent seat on the Security Council — not least because it also holds the Council Presidency of the European Union (EU) in the second half of 2020. Beyond 2020 the German government should maintain a permanent commitment with regard to the security policy implications of climate change.

In the long term, a successful approach to limit climate-related security risks depends on cooperation with partner countries both inside and outside the EU. It also depends on financial resources for UN institutions as a whole, and especially for those who provide the Security Council with information. Washington's departure from multilateralism, which could continue after the autumn elections, also leaves major gaps here, which need to be filled as far as possible. Unfortunately, the international climate negotiations fall short of expectations and, as a consequence, the vulnerable states will maintain their diplomatic pressure in New York. They will continue using their votes to demand climate policy support from those countries running for a non-permanent seat in elections to the Security Council — this demand will increase, since the number of developing countries vulnerable to climate change will continue to rise. Accordingly, a cooperative agenda needs to be developed with like-minded partners — an agenda that can be pursued in New York, under the UNFCCC climate negotiations, and in other climate policy forums (including the G20 and G7).

Why Are There Climate Policy Demands on the Security Council?

Since the early days of the UNFCCC regime, developing countries affected by climate change have been demanding that climate impacts be taken into account in international negotiations, just as much as protecting the climate through emission reductions. The SIDS, which include, for example, the Marshall Islands, Vanuatu, Nauru, Mauritius, and the Maldives, are campaigning to broaden the international security policy debate to include the risks of climate change.[1] As early as 1992, at the United Nations Conference on Sustainable Development (UNCSD) in Rio de Janeiro, they appealed to the international community to take seriously the existential threat that climate change poses to their territories and to act accordingly.[2] Many low-lying SIDS are threatened by permanent land loss due to sea level rise.[3] The livelihoods of many other developing countries are threatened by climate change, too, and the SIDS have not only been early pioneers but have also become the most prominent voice of these vulnerable countries. In particular, the SIDS demand that there should be a "place" in the UN system to deal with the existential threats posed by climate change impacts.[4] In their view, the Security Council is the appropriate body in this respect. Moreover, from 2009 they started suggesting that a Special Representative for Climate and Security be established with the UN Secretary-General.[5]

Since 1994 the climate regime has evolved under the UNFCCC. This regime is effective only if it is legally and institutionally equipped in such a way that the acting parties can counter climate change by means of cooperation, and eventually achieve the agreed goals. In order to make progress in this respect, the 196 parties[6] to the UNFCCC adopted the Paris Agreement in December 2015. It entered into force in 2016 and goes into effect in 2020. The agreement aims to keep the increase in the global mean temperature well below 2 degrees Celsius compared to pre-industrial levels and to make efforts to limit it to 1.5 degrees Celsius (Art. 2[1]a, PA). Also, it stipulates that its parties should regularly renew their nationally determined contributions (NDCs) to achieve the global temperature target and not fall behind previous efforts. In the second half of this century, greenhouse gas emission neutrality is to be achieved, that

1 They belong to the Alliance of Small Island States, which comprises 45 island states — including members of the Organisation for Economic Co-operation and Development (OECD).

2 UNFCCC, *Climate Change, Small Island Developing States* (Bonn, 2005), http://www.cpahq.org/cpahq/CPADocs/Climate%20Change%20SIDs.pdf (accessed 11 March 2019).

3 Meanwhile loss and damage is a topic that is included in the Paris Agreement (Article 8 PA). UNFCCC, *Paris Agreement*, 2015, https://unfccc.int/resource/docs/2015/cop21/eng/l09.pdf (accessed 21 January 2020).

4 Marlene Moses, "UN Mission: Statement by Ambassador Moses at ECOSOC Meeting 13 Nov 2018", *Nauru News* (online), http://nauru-news.com/un-mission-statement-ambassador-moses-ecosoc-meeting-13-nov-2018/ (accessed 7 February 2019).

5 In 2018, the SIDS suggested to implement a rapporteur to regularly collect evidence on national security threats caused by climate change. Pacific Islands Forum, *Forum Communiqué. Forty-Ninth Pacific Islands Forum* (Nauru: Pacific Islands Forum, 3 September 2018), 4, https://www.un.org/humansecurity/wp-content/uploads/2018/09/49th-Pacific-Islands-Forum-Communiqu%C3%A9.pdf (accessed 15 August 2019).

6 In 2019 the UNFCCC had 197 parties, including 196 countries. The EU is a separate contracting party. See United Nations, *List of Parties*, 2019, https://unfccc.int/process/parties-non-party-stakeholders/parties-convention-and-observer-states (accessed 30 November 2019).

Table 1

Elected members on the UN Security Council 2020/2021

Group of …		*2020*	*2021*
African countries	3 seats	Niger, Tunisia, South Africa*	Niger, Tunisia, N. N.
Asian countries	2 seats	Indonesia,* Vietnam	Vietnam, N. N.
Eastern European countries	1 seat	Estonia	Estonia
Latin American and Caribbean countries	2 seats	Dominican Republic,* Saint Vincent and the Grenadines	Saint Vincent and the Grenadines, N.N.
West European and other countries	2 seats	Belgium,* Germany*	N. N., N. N.

* Non-permanent seat ends in December 2020, new election from this group for 2021/2022 expected in June 2020.

Source: United Nations Security Council (UNSC), *Security Council Elections 2019. Research Report* (New York, 14 May 2019; no. 2). Idem, *Current Members United Nations Security Council* (2019).

is, a balance between greenhouse gas emissions and their uptake by sinks[7] (Article 4[1], PA).

The Paris Agreement is a universal agreement, meaning that, contrary to the Kyoto Protocol, all parties signed up to take efforts against climate change, instead of specifying only those who are known as historical polluters, such as the United States and European countries. The Paris Agreement has also broadened the scope from enabling climate protection to a more comprehensive governance approach. The scope of the agreement also includes adaptation to climate change, the financing of climate policy, and dealing with loss and damage from global warming.

Given this universal regime, the question arises why the SIDS and other vulnerable developing countries also turn to the Security Council to draw attention to their situation. Should the Security Council, which is composed of five permanent and ten rotating non-permanent member states (see Table 1), be addressing the risks of climate change — and how could it do so?

When considering the role that the UNFCCC on the one hand, and the UN Security Council on the other, should and could play in dealing with climate change risks, fundamental considerations about the design of multilateral regimes come into play, as do short-term political considerations. The climate regime's effectiveness is hampered by the fact that its core element, the NDCs, has very limited legal bindingness, and its implementation depends to a large extent on the political willingness to act as well as the actual ambitions of the parties. A further shortcoming became apparent in 2017. At that time, US President Donald Trump announced that he would withdraw from the Paris Agreement and roll back the US climate regulations of his predecessor, Barack Obama. The withdrawal will take effect on November 4, 2020, and the Paris Agreement does not provide for any sanctions or alternative approaches in such a case.

Dealing with climate policy issues in the Security Council — and in other international institutions — thus can help to improve the effectiveness of the climate regime by increasing the pressure for climate action. The first chapter of this research paper elaborates on how the members of the Security Council have been debating climate change risks so far.[8]

7 Sinks are, for example, forests or other natural systems that absorb greenhouse gases.

8 See chapter "Climate Change Impacts and the UN Security Council — What Has Happened to Date", pp. 10ff.

However, in order to shed more light on the role that the Council can play with respect to the increasing amount of risk posed by climate change, a closer look is needed at the security policy–relevant threats that exist or will potentially arise in the future. An increasing number of research projects on individual regions and states are looking into their exposure to potential or actual risks due to climate change impacts.[9] Risks that can exacerbate conflict situations include supply bottlenecks, humanitarian emergencies, and displacement. Specific links between climate impacts and conflicts exist, depending on the country or region and on the extent to which climate risks already exist. Extreme weather events such as droughts and repeated tropical storms as well as longer-term supply shortages (e.g. for fresh water or food) can contribute to violent outbreaks where tensions exist already, as can, more generally, reductions in socio-economic development potential, especially in Africa, Asia, and Latin America. Those countries that are particularly affected by climate change risks are listed in another chapter of this paper.[10]

The Paris Agreement does not sufficiently take account of the vulnerable countries' concerns.

The gradual loss of territory alone that affects low-lying island states does not necessarily have to come with, or give rise to, violent conflicts. Several factors contribute to the potential for violence, and they differ from case to case. Among the decisive factors are whether national governments can manage the problems, whether they belong to the group of fragile and vulnerable countries, their economic situation, their institutional settings to address the challenges, and their experience with natural disasters to date. The 2030 Agenda for Sustainable Development (2015) underlines the situation of the SIDS and highlights the role of the UN following the declaration "The Future We Want", which was adopted at the UNCSD ("Rio+20") in 2012. This declaration states that the developing island states should be given special support by the United Nations because their small size, remoteness, limited resources, and dependence on global environmental and economic developments lead to a high degree of vulnerability, especially when it comes to climate change impacts.[11] From a security policy perspective, however, many other countries are even more vulnerable to climate risks and related conflicts.

A subsequent chapter describes why the Paris Agreement's design and provisions do not sufficiently address the concerns of vulnerable countries.[12] The SIDS, together with other developing countries, were successful in achieving provisions on climate-related "loss and damage" under Article 8 of the PA. However, this step has not yet led to more concrete support or more effective climate protection at the global level. In 2013 already, a mechanism was established under the UNFCCC — the Warsaw International Mechanism (WIM) — building a setting in which stakeholders discuss definitions, risk management approaches to climate impacts, the need for more intensive cooperation between institutions and stakeholders as well as more support for the countries affected.[13] The WIM will be evaluated in 2020.

At the climate negotiations in Madrid in 2019 (Conference of the Parties — COP25), there were again more calls for financial support for countries affected by loss and damage. The United States and other countries with high historical emissions oppose this claim because of a potential attribution of liabilities for losses and damages from climate change. The prospects seem poor that the affected countries as well as others involved in the negotiations will bring more justice to the issue within the UNFCCC climate regime. At least it was possible to establish various expert groups in Madrid in 2019, and to bring together in the "Santiago Network" those players who are active in disaster prevention and technical cooperation — thus providing some more direct support to vulnerable countries.[14] In view of the sluggish

9 See chapter "Climate Change and Conflicts — State of Research", pp. 19ff.

10 See chapter "Countries Particularly Vulnerable to Climate Risks — Global Overview", pp. 25ff.

11 United Nations General Assembly (UNGA), *Resolution by the General Assembly on 27 July 2012. The Future We Want* (New York, NY, 11 September 2012), https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/66/288&Lang=E (accessed 22 November 2019).

12 See chapter "How Does the UNFCCC Address Climate Risks?", pp. 29ff.

13 UNFCCC, *Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts (WIM)*, https://unfccc.int/WIM (accessed 21 October 2019).

14 IISD Reporting Services, *Earth Negotiations Bulletin. Summary of the Chile/Madrid Climate Change Conference: 2–15 December 2019*, Earth Negotiations Bulletin, no. 775 (18 December

progress, the UN Security Council is, from the point of view of many vulnerable developing countries, a place to raise awareness about the risks of climate change as well as to generate more attention under the UNFCCC along the way. The UNFCCC climate regime and the Security Council have in common that they depend on cooperation with those national and international institutions that can contribute to the prevention of climate risks. Thus, the paper describes the overall global climate-related institutional settings.

Reducing climate-related risks is part of a preventive foreign, security, and development policy. Whether the Security Council can and should develop further in this respect is discussed in a separate chapter.[15] Finally, options for Germany's and the EU's engagement in 2020 and beyond are discussed.

2019), https://enb.iisd.org/download/pdf/enb12775e.pdf (accessed 2 March 2020).

15 See chapter "The Role of the UN Security Council in Addressing Climate Risks", pp. 36ff.

Climate Change Impacts and the UN Security Council — What Has Happened to Date

In 2009, the UNGA began to more broadly integrate climate change issues and impacts into the UN system.[16] In 2011, the Security Council commented on the role of the UN in preventive diplomacy, which should effectively help in avoiding conflicts. According to this comment, the task should be taken up by all UN institutions, not just the Security Council, and it should include early warnings, mediation, and peace missions. Conflict prevention strategies should comprehensively address the origins of conflicts and promote, among other things, sustainable development, the rule of law, human rights, and other fundamental UN principles. The UN Secretary-General is called upon to use all the resources at his disposal for this purpose.[17]

The mandate of the Security Council – subject to constant change

According to Article 24 of the United Nations Charter, the UN Security Council is responsible for maintaining international peace and security. Its decisions are binding for all members of the UN, even though only 15 of them sit on the Council, five of them as permanent members (P5 — China, France, United Kingdom, Russia, United States), which have veto power and can block certain decisions. The 10 remaining seats rotate every two years according to regional proportional representation, and countries are elected to the Council by the General Assembly (see Table 1, p. 8). Security Council decisions on procedural matters must be supported by at least nine of the fifteen members. Decisions on all other matters require the approval of at least nine members, including all permanent members (Article 27, Charter). Each member has one vote.[18]

When the Security Council was founded in October 1945, military tasks and a narrow concept of security were the key issues. However, the Council has had to evolve under ever-changing circumstances; its mandate has become more comprehensive, and the influence and scope of its tasks with respect to crisis regions and armed conflicts have changed repeatedly against the global political backdrop. Ultimately, the changing relations between the P5 determine whether the Security Council is capable of acting at all and whether military means are applied.

The Security Council has intervened in many conflicts since the 1960s with international peace missions ("Blue Helmets"). In the 1990s, after the end of the Cold War, the number and variety of tasks increased further. Attempts at returning to the original narrow mandate failed.[19]

16 See section "Climate change as a threat to human security — report of the Secretary-General 2009", pp. 20ff.

17 UN Security Council (UNSC), "Security Council Pledges Strengthened UN Effectiveness in Preventing Conflict, Including through Use of Early Warning, Preventive Deployment, Mediation" (online), 22 September 2011, https://www.un.org/press/en/2011/sc10392.doc.htm (accessed 11 April 2019).

18 *Charter of the United Nations and Statute of the International Court of Justice*, 1945, https://treaties.un.org/doc/publication/ctc/uncharter.pdf (accessed 8 April 2019).

19 Shirley V. Scott and Charlotte Ku, "The UN Security Council and Global Action on Climate Change", in *Climate Change and the UN Security Council*, ed. Shirley V. Scott and Charlotte Ku (Cheltenham, UK, and Northampton, MA, 2018), 1—24 (5).

Table 2

Debates on climate change and security in the UN Security Council

2020	
April 22nd	Security Council Arria-formula meeting on "Climate and security risks: The latest data" *Organised by:* Belgium, France, the Dominican Republic, Estonia, Germany, Niger, Saint Vincent and the Grenadines, Tunisia, the United Kingdom, Vietnam
2019	
January 25th	Open debate on "Maintenance of international peace and security. Addressing the impacts of climate-related disasters on international peace and security", S/PV.8451, pp. 2/83 *Host:* Dominican Republic
2018	
September 26th	First official meeting of the Group of Friends on Climate and Security on the margins of the UN General Assembly
August 1st	Official launch of the Group of Friends on Climate and Security by Germany and the Pacific state of Nauru
July 11th	Open debate on "Maintaining international peace and security: Understanding and addressing climate-related security risks", S/PV.8307, pp. 2/29 *Host:* Sweden
2017	
December 20th	Open debate on "Maintaining international peace and security. Addressing complex contemporary challenges to international peace and security", S/PV.8144, pp. 2/67 *Host:* Japan
December 14th	Security Council Arria-formula meeting on "Climate change: Preparing for the security implications of rising temperatures".
April 10th	Security Council Arria-formula meeting on "Security Implications of Climate Change: Sea Level Rise" *Organised by:* Ukraine
2015	
July 30th	Open debate on "Maintaining of international peace and security: Challenges for SIDS", S/PV.7499, pp. 2/87 *Host:* New Zealand
June 30th	Security Council Arria-formula meeting on "Climate change as a threat multiplier for global security" *Organised by:* Malaysia, Spain
2013	
February 15th	Security Council meeting in Arria format on "Security dimensions of climate change" *Organised by:* Pakistan, United Kingdom
2011	
July 20th	Open debate on "Maintaining international peace and security: The effects of climate change", S/PV.6587, p. 2 *Host:* Germany *Outcome:* Statement by the President, S/PRST/2011/15
2007	
April 10th	First open debate on "Peace and security policy implications of climate change", S/PV.5663, S/PV.5663 (Resumption 1) *Host:* United Kingdom *Outcome:* No agreement on whether the Security Council is the right body to address climate change issues

Sources: What's in Blue, https://www.whatsinblue.org/2020/04/arria-formula-meeting-on-climate-and-security-risks-the-latest-data.php; United Nations, Digital Library, https://digitallibrary.un.org/?ln=en; Federal Foreign Office, "United Nations: Germany Initiates Group of Friends on Climate and Security", 8 August 2018, https://www.auswaertiges-amt.de/en/aussenpolitik/themen/klima/climate-and-security-new-group-of-friends/2125682; Security Council Report, Arria-Formula Meetings, 1992—2019, https://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/working_methods_arria_formula-16.pdf.

Table 3

Resolutions and documents of the UN Security Council and General Assembly with references to the security implications of climate change

Resolutions of the Security Council

2017

March 31th	Resolution 2349 on the security situation in the Lake Chad Basin Region, S/RES/2349(2017)

2018

March 27th	Resolution 2408 on the security situation in Somalia — Reaffirmation of the statement on the security implications of climate change as set out in Resolution 2349 and the Presidential Statement of 30 January 2018, S/RES/2408(2018)
July 30th	Resolution 2431 on the situation in Somalia, S/RES/2431(2018)
July 13th	Resolution 2429 on the situation in Sudan, S/RES/2429(2018)
June 28th	Resolution 2423 on the situation in Mali, S/RES/2423(2018)

Presidential Statements with reference to climate

2018

January 30th	Presidential Statement on the activities of the UN Office for West Africa and the Sahel (UNOWAS) — Reaffirmation of the statement on security implications of climate change as set out in Resolution 2349, S/PRST/2018/3
August 10th	Presidential Statement on the Central Africa Region, S/PRST/2018/17
August 10th	Presidential Statement on Peacebuilding in West Africa, S/PRST/2018/16

Documents of the General Assembly

2009

June 3rd	Resolution 63/281 on climate change and its possible security implications, A/RES/63/281 — calling on UN bodies to consider climate change issues within their mandates, requests the Secretary-General to submit a comprehensive report.
September 11th	Report by the Secretary-General on climate change and its possible security implications, A/64/350

At the turn of the century, the fight against international terrorism became a top issue for the Council. Also, the economic and political reconstruction of states has become part of the scope of many missions mandated by the Security Council; in some cases, missions in crisis-ridden regions have lasted for more than a decade.[20]

The prospects of integrating the Security Council in the climate regime depend very much on the strengths and weaknesses of the body itself and less on the principles and foundations of the UN Charter. The body's effectiveness hinges on the actual global political situation and the willingness for cooperation. The political dynamics between the members, above all the P5, and their interests in Security Council interventions determine to a large extent whether — and in what form — the Security Council can deal with aspects of climate change.[21]

Security Council debates on climate change impacts

Since 2006, other states and non-state actors have been considering how to assess the security policy implications of climate change. Margaret Beckett, then-British Foreign Secretary, was the first to do so.[22] In 2007, ex-generals in the United States defined climate change as a matter of national security in a report by the Center for Naval Analysis.[23] In that year, the United Kingdom chaired an open debate in the UN Security Council for the first time that dealt with climate-related security-policy implications (see Table 2, p. 12). This was followed by the Secretary-General's report in 2009 and, under the German Presidency, a Security Council Presidential Statement on Climate Change in 2011. The statement declares that negative

20 Ibid.

21 For an up-to-date inventory of the tensions between the P5, see Richard Gowen, "Navigating the Storms at the UN Security Council", International Crisis Group, 5 February 2020, https://www.crisisgroup.org/global/navigating-storms-un-security-council (accessed 19 February 2020).

22 "Margaret Beckett — 2006 Speech in Berlin", 23 October 2006, http://www.ukpol.co.uk/margaret-beckett-2006-speech-in-berlin/ (accessed 20 January 2010).

23 *National Security and the Threat of Climate Change* (Alexandria, VA: Center for Naval Analyses, 2007), https://www.cna.org/CNA_files/pdf/National%20Security%20and%20the%20Threat%20of%20Climate%20Change.pdf (accessed 8 August 2019).

impacts of climate change could aggravate certain existing threats to international peace and security in the long term.[24] The baton for debates in the Security Council on climate risks has been passed on since 2011, and potential risks were also discussed in various formats in 2013, 2015, and 2017. The Netherlands and Sweden invested a lot of political capital in 2017 and 2018, and they held open debates on climate-related security risks; the Dominican Republic took up the thread in January 2019. Under Germany's Presidency of the Security Council, a further open debate is to be held in July 2020.[25] In the course of this repeated exchange on the issue, five Security Council resolutions have stressed that climate change is a relevant issue for countries in which military conflicts persist, or which pose a threat to international security due to terrorist groups. In 2018, three statements by the President of the Security Council included corresponding references.

A *resolution* is the Security Council's strongest instrument. It is binding under international law and has to be adopted by at least nine members. Each of the P5 must either agree or abstain; a negative vote by one of them acts as a veto. A *statement by the President* requires the consensus of all members; it is adopted in a public session.[26] A *note from the President* or a *letter from the President* is based on consensus in an informal consultation or on a "no objection procedure". A *press release of the President* is the result with the lowest profile and is adopted by consensus.[27]

Parallel to the efforts to pass the resolutions, Sweden initiated a small group of experts in 2017, which was then expanded by Germany in 2018. They help to provide specific information for the UN Security Council on climate security risks. In order to increase the capacity for informing the Security Council also on-site in New York, the Swedish government is funding three additional posts, which have been based at the Secretary-General's Department of Political Affairs since the end of 2018. These posts, known as the Climate and Security Mechanism, are staffed by the DPPA, the UN Environment Programme (UNEP), and the United Nations Development Programme (UNDP). Sweden will finance this mechanism for three years. A further post, also at the DPPA, was added by Belgium for one year.[28]

24 UNSC, "Statement by the President of the Security Council", S/PRST/2011/15 (20 July 2011), https://undocs.org/S/PRST/2011/15 (accessed 20 January 2020).

25 See also Scott and Ku, "The UN Security Council and Global Action on Climate Change" (see note 19). The Dutch Ministry of Foreign Affairs established the Planetary Security Initiative (PSI) (https://www.planetarysecurityinitiative.org) in 2015 as a platform for various governmental and civil society actors from climate and security networks. PSI participated in the networking conference of the German Federal Foreign Office in Berlin in June 2019.

26 2011 the Security Council, under German chairmanship, adopted a *Presidential Statement* on climate and security.

27 UNSC, *Major Types of Actions Taken by the Security Council* (New York, NY, compiled January 2018), https://www.un.org/securitycouncil/sites/www.un.org.securitycouncil/files/actions.pdf (accessed 5 August 2019).

28 Dan Smith, Malin Mobjörk, Florian Krampe, and Karolina Eklöw, *Climate Security. Making It Doable*, Clingendael Report (The Hague: Netherlands Institute of International Relations, February 2019, 2, https://www.sipri.org/sites/default/files/2019-02/climatesecurity_makingit_doable_latest.pdf.pagespeed.ce_.naqctbogs7.pdf (accessed 22 August 2019).

Box 1
Security concepts

Various concepts of security exist in debates about the role of the UN Security Council for climate-related security issues.[a] Based on the 1945 mandate of the body, the concept of international security focuses on military tasks. According to this concept, the Security Council should prevent or end armed conflicts between states. In the more than 70 years of the Council's existence, however, other security concepts have emerged. In particular since the 1980s, concepts — and with them the approaches to action — have changed. The range of challenges brought to the Council has grown; economic and ecological issues have been added to the list of concerns; and domestic triggers for security risks, such as migration and forced displacement, human rights violations and epidemics, have been identified as important security-related issues.[b]

In 1994, the "New Dimensions of Human Security" report of UNDP not only questioned whether the development of countries can be measured by key economic data alone; it also led to a further development of the concept of security. From this, a "third generation" of ideas on how security should be defined came about, framing the concept of human security.[c] It puts the individual, not only the state, at the centre of security policy, taking into account that, in specific constellations, the interest in state sovereignty should come second to the interest of protecting individuals.[d] In this respect, three responsibilities have been developed under the UN since its founding: 1. human rights protection, including fundamental rights — such as physical integrity — as well as legal and political interests; 2. protection against military threats (freedom from fear). Individuals and groups are to be protected in case of wars and other violent conflicts; 3. protection against non-military threats (freedom from want). Individuals and groups should be protected from emergencies caused by natural disasters, epidemics, and other crisis situations posing an existential threat.[e] This aspect, which was particularly emphasised by UNDP in 1994, also includes a claim to equal economic opportunity and security of supply.

While the normative debate on the approach continues, the concept of *human security* has become established in international politics.[f] The United Nations' definition of human security (Resolution 66/290, 2012), however, is very broad, namely as "the right of people to live in freedom and dignity, free from poverty and despair".[g] There is as yet no consensus among UN member states to further narrow down the concept.

The human security approach provides orientation; nevertheless, it repeatedly poses challenges to the UN Security Council. The most controversial issue is whether the Council should take preventive action. One line of argument is based on how international security is defined, namely as the absence of threats to states and the use of military force. This requires the stability of political, social, and military systems.[h] If this line of argument is continued, the Security Council should also take stabilising measures to guarantee international security and ensure human security. However, since the instruments that the Security Council can apply are primarily of a military nature, the discussion on a preventive role is politically charged. This has an impact on debates aimed at maintaining human security in general, and at dealing with climate risks in particular.

a Jörn Richert, "Der Stabilitätsbegriff als leitendes Konzept der Klima-Sicherheits-Debatte", in Klimawandel und Sicherheit. Herausforderungen, Reaktionen und Handlungsmöglichkeiten, ed. Steffen Angenendt, Susanne Dröge and Jörn Richert (Baden-Baden, 2011), 40—55 (44).

b Thomas Debiel and Sascha Werthes, "Menschliche Sicherheit: Fallstricke eines wirkungsmächtigen Konzepts", in Verunsicherte Gesellschaft — Überforderter Staat. Zum Wandel der Sicherheitskultur, ed. Christopher Daase, Stefan Engert and Julian Junk (Frankfurt, 2013), 319—36 (321).

c Ibid.

d From this the "Responsibility to Protect" emerged. This principle provides for a state to intervene in another state if the latter and the UN Security Council are unable to end an extreme humanitarian disaster. Charlotte Ku, "The UN Security Council's Role in Developing a Responsibility to Respond to the Climate Change Challenge", in Climate Change and the UN Security Council, ed. Shirley V. Scott and Charlotte Ku (Cheltenham, 2018), 162—85 (175).

e Christopher K. Penny, "Human Security", in The Oxford Handbook on the United Nations, ed. Thomas G. Weiss and Sam Daws (Oxford: Oxford University Press, 2018), 635—51.

f Ibid.; Achim Steiner, "25th Anniversary of the Human Security Concept", UNDP. Keynote Speech, posted 28 February 2019, https://www.undp.org/content/undp/en/home/news-centre/speeches/2019/25th-anniversary-of-the-human-security-concept.html (accessed 22 July 2019).

g UNGA, Resolution Adopted by the General Assembly on 10th December 2012, A/RES/66/290, 3. (a), (New York, NY, 25 October 2012).

h Gebhard Geiger, "Klimawandel — Ein Fall für internationale Sicherheitspolitik?" in Klimawandel und Sicherheit, ed. Angenendt et al. (see note a), 21—39 (25).

Climate Change and Conflicts — State of Research

The expectation that unchecked climate change could also affect international security was first addressed at the Toronto Conference on the Changing Atmosphere in 1988.[29] The same year, the UN General Assembly declared climate change to be a *"common concern of mankind"*.[30] The extent to which it could act as a threat multiplier was further explained in the UN Secretary-General's report in 2009. Subsequently, this issue has increasingly been the subject of scientific research.

Only a few studies show that climate change can directly trigger violent conflicts.[31] A large number of studies, however, find that links exist between climate change impacts and violent conflicts or how these could intensify in the future. Whereas a direct causality can bring the UN Security Council into the picture, this is more difficult for indirect effects.[32] Indirect causality, however, can lead to making a case for assigning a preventive role to the Security Council and for assigning responsibility to other UN institutions as well as to state and non-state actors at the national level.

Climate change as a threat to human security – report of the Secretary-General 2009

Two years after the first UN Security Council's open debate on climate change, then-Secretary-General Ban Ki-moon published a report in 2009 (see Table 3, p. 13) summarising the state of knowledge on climate change impacts. UN member states had made extensive submissions to contribute to this report,[33] which focuses on the interactions between human vulnerability and national security. The report also establishes a link to the international security threat posed by climate change. It identifies five channels in which global warming can affect human security:

- *Vulnerability:* Threats to food security and health and increased exposure to extreme weather events *(climate-impacts channel)*.
- *Development:* If climate change slows down or reverses development processes, the vulnerability of states will increase and their capacity to maintain stability will decrease *(peace and security channel)*.
- *Coping and security:* The responses of households and communities to climate-related threats — for example, through migration or competition for natural resources — can increase the risk of national conflicts and also have international repercussions *(environmental-security channel)*.
- *Statelessness:* When national territories disappear, this has implications for the rights, security, and sovereignty of the states concerned.

29 Peter Usher, "World Conference on the Changing Atmosphere. Implications for Global Security", *Environment: Science and Policy for Sustainable Development* 31, no. 1 (1989): 25ff. As early as 1979 the World Meteorological Organization, based on its early warning system for extreme weather events, had pointed out the risk potential of climate change. World Meteorological Organization, *WMO Briefing to UNSC* (New York, NY, 2019), https://ane4bf-datap1.s3-eu-west-1.amazonaws.com/wmocms/s3fs-public/ckeditor/files/WMO_Briefing_to_UNSC_Final_25_Jan_2019_1.pdf?HMs2EFR5zq5W5ZIp9L3V1YDHjgRJDw2J (accessed 20 January 2020).

30 UNGA, *Protection of Global Climate for Present and Future Generations of Mankind* (New York, NY, 6 December 1988), https://www.refworld.org/docid/3b00eff430.html (accessed 19 February 2020).

31 Katharine J. Mach et al., "Climate As a Risk Factor for Armed Conflict", *Nature* 571, no. 7764 (2019): 193—97.

32 See section "The mandate of the Security Council — subject to constant change", pp. 10ff.

33 UNGA, *Climate Change and Its Possible Security Implications. Report of the Secretary-General* (Follow-up to the outcome of the Millennium Summit), no. A/64/350 (New York, NY, 11 September 2009), https://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/sg%20report%202009.pdf (accessed 9 April 2019).

- *International conflict:* Climate change impacts on shared or not demarcated international resources can have consequences for international cooperation.[34]

The report also highlighted the measures that could reduce the threats. These include in particular adaptation to climate change, economic development, better governance, capacity-building, climate change mitigation, and conflict prevention. These *threat minimisers* are also part of the 2030 Agenda and the SDGs adopted in 2015[35] and served Secretaries-General Ban Ki-moon and António Guterres as the basis for their commitment to support the Paris Agreement negotiations and its subsequent implementation. The Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), published in 2014, also addresses climate change implications for human security.[36] The Secretary-General's 2009 report was a decisive push from the General Assembly to deliver knowledge and reasons for the future engagement of the UN Security Council.

Links between climate impacts and violent conflicts

The most comprehensive review of the literature on the connections between climate risks and conflicts was conducted by Sakaguchi et al. (2018). In their meta-study, they cluster the findings from 69 refereed publications into four categories[37]:

1. *Direct link:* Climate variables lead directly to forms of violence ("climate wars").
2. *Interactive path:* Climate variables influence economic factors, resources, or migration processes, and this affects the use of violence.
3. *Mediative path:* Climate variables are mediated by other conditions — for example, socio-economic or institutional structures — and this influences the exercising of violence.
4. *Interactive and mediative pathways combined:* (2) and (3) impact the use of violence as a consequence of climate change.

Statements about direct relationships (category 1) have so far been based mainly on theoretical assumptions. Examples are that the aggressive behaviour of individuals could change as a result of extreme weather conditions, and that climate phenomena — such as El Niño, the cyclical warming of the East Pacific Ocean off the coast of South America — could become decisive factors in conflict situations. According to the authors, there are only a small number of interstate conflicts that studies have investigated. They conclude that climate change contributes mainly indirectly to violent conflicts at the national and sub-national levels. Moreover, the effects are not one-dimensional.[38] Many studies analyse how climate change phenomena interact with other factors (categories 2, 3, and 4).

The majority of the analyses evaluated show that economic and resource-related variables that change due to climate change can lead to violence. In economies that are particularly dependent on fisheries, agriculture, or forestry, climate impacts can contribute to rivalries that encourage violence. If social tensions arise, the extent to which social institutions and state governance are able to absorb negative effects is important. The decisive factors are existing governance structures, social systems, and other institutional and financial resources for dealing with indirect climate impacts. Migration, for example, can be a trigger for violence, according to the evaluated literature. This is the case when state, regional, and social capacities are lacking to help receive and integrate refugees or to help deter them.[39]

34 Ibid.

35 United Nations, *Transforming Our World: The 2030 Agenda for Sustainable Development*, A/RES/70/1 (New York, NY, 2015), https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_70_1_E.pdf (accessed 23 August 2019).

36 W. Neil Adger and Juan M. Pulhin, "Human Security. Chapter 12", in *Fifth Assessment Report AR5. Working Group II*, ed. Intergovernmental Panel on Climate Change (IPCC) (2014), 758–91.

37 For this purpose, the authors evaluate publications that were peer reviewed, refer to the connection between climate change and violence, are based on primary data, and explain their case selection. Kendra Sakaguchi, Anil Varughese, and Graeme Auld, "Climate Wars? A Systematic Review of Empirical Analyses on the Links between Climate Change and Violent Conflict", *International Studies Review* 19, no. 4 (2017): 622–45 (623f.).

38 Ibid., 628.

39 Ibid., 632.

Climate impacts increase socio-economic and resource stress – both of which can exacerbate existing conflicts.

A special significance was assumed for the impact of economic factors regarding outbreaks of violence — 52 per cent of the literature examined by Sakaguchi et al. worked with this assumption.[40] This goes back to the fact that poverty is an established determinant of conflict, which is also emphasised in the security policy literature. On the one hand, economic factors act through different mechanisms. In the 1990s Thomas Homer-Dixon analysed the links between environmental pollution and conflicts. His finding was that resource scarcities can act as conflict drivers.[41] Other research on the impact of environmental degradation on conflicts describes the role of economic transformation as a driver — for example, in the transition from subsistence farming to a market economy. It is not disputed *whether* economic factors can have such effects, but how strong these effects are. This is because the political and economic conditions under which structural change takes place can absorb or intensify the environmental impacts on conflict situations. The abundance of resources can also promote outbreaks of violence, namely when actors want to secure access to the associated revenues.[42]

Direct conflicts over sources of income often become violent when ethnic and political conflicts exist beforehand. Schleussner et al. have evaluated data on countries with ethnic conflicts and have shown that climate-induced natural disasters can have a negative impact on existing conflicts. The study examined outbreaks of violence in ethnically divided states between 1980 and 2010; in more than 23 per cent of the cases, a robust relation to climate-induced stress was found, which was transmitted via various mechanisms.[43] In another study, Uexkull et al. found that droughts in very poor countries in Asia and Africa are highly likely to lead to violent conflicts among politically weak groups that are primarily dependent on agricultural income. In other cases, this does not occur, at least not in the short term. It can be established that droughts and violence interact in a reciprocal way, meaning that groups of populations become vulnerable to one phenomenon when hit by the other phenomenon.[44]

An expert survey[45] yields similar insights into conflict drivers and the uncertainties associated with them, as does the literature review by Sakaguchi et al. The experts highlight that the four strongest drivers are a low level of economic development, low level of state capacity, inequality, and a recent history of violent conflicts. In addition, the economic condition of a country has the strongest forecast value with regard to internal conflicts. However, this is connected to the uncertainty of whether this situation only leads to outbreaks of violence in conjunction with other mechanisms or whether it is a direct trigger. Climatic changes and climate change only rank 14th; they are classified as factors with the highest level of uncertainty.

Forecasts and the "streetlight effect"

Of particular interest to security policy decision-makers are forecasts and early warning indicators that could help to prepare for climate impacts. There are a number of special features here. For example, it is not clear how different conflict parties perceive the changes in their climatic environments and how they are affected by them. In the future, new mechanisms (such as information technology or access to weapons) may also play a role in increasing the risk of conflict.[46] Even greater uncertainties come into play for policy-makers with respect to unprecedented dimensions of climate impacts, in particular physical tipping

40 Ibid., 633.

41 Thomas F. Homer-Dixon, *Environment, Scarcity, and Violence* (Princeton, NJ: Princeton University Press, 2001).

42 An overview of environmental conflict research can be found in: German Advisory Council on Global Change (WBGU), *World in Transition: Climate Change As a Security Risk*, Flagship Report (Berlin, 2008), https://www.wbgu.de/en/publications/publication/welt-im-wandel-sicherheitsrisiko-klimawandel (accessed 4 May 2020).

43 Carl-Friedrich Schleussner, Jonathan F. Donges, Reik V. Donner, and Hans Joachim Schellnhuber, "Armed-Conflict Risks Enhanced by Climate-Related Disasters in Ethnically Fractionalized Countries", *Proceedings of the National Academy of Sciences of the United States of America* 113, no. 33 (2016): 9216—221.

44 Nina von Uexkull, Mihai Croicu, Hanne Fjelde, and Halvard Buhaug, "Civil Conflict Sensitivity to Growing-Season Drought", *Proceedings of the National Academy of Sciences of the United States of America* 113, no. 44 (2016): 12391—396.

45 Mach et al., "Climate As a Risk Factor for Armed Conflict" (see note 31), 196.

46 Ibid.

points such as the melting of the Arctic or the drying out of the Amazon rainforest — both coming with the irreversible acceleration of warming, coined the "Hothouse Earth" pathway.[47]

Conclusions from past conflict experiences do not offer direction, because the interrelationships between climate impacts and socio-economic developments depend on a multitude of factors — the global economic situation, changes in governmental options for action and ideology, as well as the international order and cooperation within the UN system.[48] Future research will most likely not focus on past conflicts alone as being the catalysts for outbreaks of violence. New approaches are needed that systematically search for predictive factors of conflict and do not limit themselves to the nation-state as a territorial entity.[49] Models that capture the local impacts of extreme weather events with high levels of accuracy[50] can provide important information on expected climate risks and be linked to existing socio-economic and political constellations. Many data sets from international organisations already capture these constellations and trends. However, research on climate-induced *future* conflicts is still in its infancy, as the availability, resolution, and quality of data for many world regions still need to be improved. The database on the use of force would also have to be expanded.[51]

Studies on the causal relationship between climate risks and violent conflicts also have further systematic gaps. The majority of case studies focus on a few hotspots, especially on the African continent; they look disproportionately into English-speaking and politically more open countries, such as Kenya and South Africa, or at African states where violent conflicts already exist ("streetlight effect"[52]).[53] A comparison by Adams et al. (2018) shows that most studies in climate conflict literature investigate Kenya, Sudan, Egypt, India, Nigeria, Syria, Israel/Palestine, Ethiopia, Iraq, and South Sudan.[54] However, it is other countries that have been ranked first to tenth in the Germanwatch Climate Risk Index over the last 20 years, namely Puerto Rico, Myanmar, Haiti, the Philippines, Pakistan, Vietnam, Bangladesh, Thailand, Nepal, and Dominica.[55]

In order to close knowledge gaps, information and data have yet to be collected for many countries, and access to them has to be established. Narrow methodological approaches also need to be reassessed.[56] Last but not least, the generation of new knowledge should also be guided by the question of why violent conflicts *do not* occur in certain states and regions, even though particularly high climate risks exist or are highly likely.

47 Will Steffen et al., "Trajectories of the Earth System in the Anthropocene", *Proceedings of the National Academy of Sciences* 2 (2018), doi: 10.1073/pnas.1810141115.

48 Mach et al., "Climate As a Risk Factor for Armed Conflict" (see note 31), 196.

49 Chris Perry, "Machine Learning and Conflict Prediction. A Use Case", *Stability: International Journal of Security & Development* 2, no. 3 (2013): 1—18 (4).

50 For further information see ISIMIP, "The Inter-Sectoral Impact Model Intercomparison Project", https://www.isimip.org/about/ (accessed 12 April 2019).

51 Perry, "Machine Learning and Conflict Prediction" (see note 49), 4, 15.

52 The effect describes a distorted approach in the search for solutions or scientific answers. The term is based on the image of searching for a lost key. The searcher is restricted to the best lit spot. See David H. Freedman, "Why Scientific Studies Are So Often Wrong: The Streetlight Effect", *Discover*, 10 December 2010, http://discovermagazine.com/2010/jul-aug/29-why-scientific-studies-often-wrong-streetlight-effect (accessed 20 January 2020).

53 Ken Conca, "Is There a Role for the UN Security Council on Climate Change?" *Environment: Science and Policy for Sustainable Development* 6, no. 1 (2019): 4—15.

54 Courtland Adams, Tobias Ide, Jon Barnett and Adrien Detges, "Sampling Bias in Climate-Conflict Research", *Nature Climate Change* 127, no. 8 (2018): 200—203.

55 David Eckstein, Vera Künzel, Laura Schäfer, and Maik Winges, *Global Climate Risk Index 2020* (Bonn, December 2019), https://germanwatch.org/en/17307 (accessed 4 May 2020).

56 Adams et al., "Sampling Bias in Climate-Conflict Research" (see note 54).

Countries Particularly Vulnerable to Climate Risks — Global Overview

In development policy analyses, extreme weather events and associated supply crises represent a high security risk for states and their populations. As the aim of such studies is to help manage short-term emergencies, the long-term conflict potential of the disasters is often neglected. The ranking of states that are particularly threatened by extreme weather changes each year. The 2017 Germanwatch Climate Risk Index lists Puerto Rico, Sri Lanka, Dominica, Nepal, Peru, Vietnam, Madagascar, Sierra Leone, Bangladesh, and Thailand as the top 10. The high-ranking countries in 2018 were Japan, the Philippines, Germany, Madagascar, India, Sri Lanka, Kenya, Rwanda, Canada, and Fiji.[57] For this index, extreme weather events such as droughts, tropical storms, tornadoes, floods, landslides, and forest fires are evaluated together with their socio-economic effects.[58]

The early warning systems of international humanitarian aid institutions identify states that are particularly exposed to existential emergencies following extreme weather events. Climate change increases the probability that the frequency and interaction of such events will increase.[59] As a glance at the data shows, populous and fragile states in Africa and Asia often have the highest risk constellation. Burundi, Equatorial Guinea, Guinea-Bissau, Laos, Mauritania, Niger, Syria, and Timor-Leste, for example, would not be able to cope with additional stress from climate risks. Among the small island states, Haiti also belongs to the category of fragile countries. It is repeatedly devastated by hurricanes, and the Haitian government has too little capacity for disaster relief and reconstruction.[60]

A 2018 study by the United States Agency for International Development (USAID) sheds light on the interactions between fragility and climate impacts from a global perspective. It provides a good overview of risk constellations that are important from a preventive and security policy perspective. Based on a set of indicators, the analysis shows in which regions state fragility[61] coincides with multiple climate risks

57 Eckstein et al., *Global Climate Risk Index 2020* (see note 55). Germany is listed due to the summer heat wave in 2019, which caused 1,200 deaths, as well as storms with high levels of damage.

58 Based on the "NatCatSERVICE" Munich Re database. See David Eckstein, Marie-Lena Hutfils, and Maik Winges, *Global Climate Risk Index 2019. Who Suffers Most From Extreme Weather Events? Weather-related Loss Events in 2017 and 1998 to 2017* (Bonn, December 2018), 5, https://germanwatch.org/sites/germanwatch.org/files/Global%20Climate%20Risk%20Index%202019_2.pdf (accessed 25 January 2019).

59 An overview of the impacts and risks that come with global warming can be found in IPCC, *Global Warming of 1.5°C. An IPCC Special Report on the Impacts of Global Warming of 1.5°C above Pre-industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty* (Summary for Policymakers, (2018), 11, https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf (accessed 20 January 2020).

60 Around 800,000 Haitians (8 per cent of the population) are particularly hard hit by recurring hurricanes. The country has the lowest per capita income in Latin America and is not politically stable. In 2010, it was hit by earthquakes and epidemics, and in 2016 by a severe hurricane. Katey Hearth, "2019 Hurricane Season Adds to Haiti's Drought, Food Shortage Woes", *Mission Network News* (online), 16 August 2019, https://www.mnnonline.org/news/2019-hurricane-season-adds-to-haitis-drought-food-shortage-woes/ (accessed 16 August 2019).

61 USAID defines fragility in the study along the lines of the effectiveness and legitimacy of a state in four core areas:

Table 4

Highly fragile states with large populations or with territory in very high exposure areas

More than 1 million people in very high exposure areas (in millions, rounded)		*More than 10 per cent of population in very high exposure areas*		*5 per cent or more of the territory in very high exposure areas*	
India	44.1	Cambodia	20%	Sierra Leone	18%
Egypt	13.7	Mauritania	18%	Cambodia	11%
Burma	8.0	Egypt	16%	Guinea-Bissau	9%
Nigeria	4.5	Burma	15%	Burma	5%
Cambodia	3.1	Sierra Leone	11%		
Iraq	2.3	Libya	11%		
Pakistan	1.7				
Iran	1.1				
Colombia	1.0				

Note: "Highly fragile states" are defined here as those that were classified in the "highest" and "high" fragility categories in 2014; this includes only countries with populations over 500,000. "Very high exposure" areas are four standard deviations or more above the global mean exposure. The sources used are from 2016.

Source: Moran et al., *The Intersection of Global Fragility and Climate Risks* (see note 61), Table 5, p. 13.

and where a large number of people are — or a high proportion of the population is — affected by this constellation. Interacting extreme weather events include cyclones, floods, forest fires, heavy rainfall, chronic droughts, and storms and sea-level rise on low-lying coasts. Data on repeated incidents of this type have been used and also provide indications of which regions are at high risk of future damages.[62]

Table 4 shows fragile regions and countries in which the population is very strongly affected by various extreme weather events in terms of both total numbers and proportions (first column). These include — in absolute terms — parts of India, Egypt, Burma, and other countries. In Sierra Leone, Cambodia, Egypt, and other countries, a high proportion of the total population is affected (second column).

Table 5 lists countries and territories with a small total population in which a very high proportion of the population could be affected by multiple climate impacts. Suriname, Guyana, the Maldives, the Marshall Islands, and Kiribati of the SIDS group are on this list. The Netherlands also falls into this category, as do the United Arab Emirates and Bahrain and the Cocos Islands, which belong to Australia.

The USAID study shows that the vulnerability of the countries or the parts of the population affected by climate change can be established. What cannot be predicted, however, is the ultimate impact of the risk constellations, that is, whether existing conflicts will intensify or new ones will emerge. This requires an in-depth examination of other factors, including economic, ethnic-cultural, and institutional constellations.[63]

political indicators (including governance, participation), security (including the share of military expenditure in gross national product), economic, and social (including supply situations). See Ashley Moran, Joshua W. Busby, Clionadh Raleigh, Todd G. Smith, Roudabeh Kishi, Nisha Krishnan, and Charles Wight, *The Intersection of Global Fragility and Climate Risks* (Washington, D.C.: USAID, 2018), 9, https://pdf.usaid.gov/pdf_docs/PA00TBFH.pdf?mc_cid=9a663aa12f&mc_eid=01f8691c16 (accessed 1 October 2018).

62 Ibid.

63 See section "Links between climate impacts and violent conflicts", pp. 21ff.

Table 5

Top 15 countries or territories with largest share of population in very high exposure areas (in per cent)

Cayman Islands	88	Bahrain	44
Suriname	71	Marshall Islands	41
Cocos Islands (Australia)	70	Kiribati	41
Guyana	69	Vietnam	41
United Arab Emirates	47	Caribbean/Pacific Islands of the United States	40
Maldives	45	Bangladesh	33
Netherlands	45	Northern Mariana Islands (USA)	32
Turks and Caicos Islands (United Kingdom)	44		

Source: Moran et al., *The Intersection of Global Fragility and Climate Risks* (see note 61), Table 8, p. 31.

How Does the UNFCCC Address Climate Risks?

We have seen that climate impacts primarily affect the security situation of fragile states. However, it is the island states — most of which do not belong to the group of fragile states — that are committed to making the UN Security Council pay more attention to climate-related risks. What is behind this commitment? In order to answer this question, we need to take a closer look at the history of international climate negotiations and how the UN climate regime addresses the consequences of climate change.

Climate impacts and the UNFCCC

According to Article 2, the ultimate objective of the UNFCCC is to achieve the stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.[64] In the Paris Agreement of 2015, this level was determined as a limit for the rise in the global mean temperature, which has to be kept well below 2 degrees Celsius, and efforts should be made to limit it to 1.5 degrees Celsius. Global warming has accelerated in recent years; this has become particularly clear with the recent heatwaves, but also from the increase in other extreme weather events and the melting of the Arctic ice. The preventive approach of the UNFCCC from the 1990s to stop further climate change and associated risks has failed. Many states have anticipated this and insisted on negotiating also about the necessary adaptation to climate change.[65] In parallel, addressing climate impacts has gradually become more broadly established within the UN system (see Box 2, p. 25). But it was not until 2010, at COP16 in Cancún, Mexico, that a separate negotiating track on loss and damage was launched. Until then, the question of whether climate change would lead to irreversible impacts was considered an issue for the negotiation track on adaptation measures. Since Cancún, the definition of such losses and damages has been the key topic of discussion.[66] In 2013, the Warsaw International Mechanism was created as a separate forum for loss and damage. The Paris Agreement includes both adaptation to climate change and the management of losses and damages. Although this step was overdue, it could not be taken for granted; given that climate protection has been the centre of negotiations for many years, putting an emphasis on preventing the adaptation to — as well as losses and damages from — climate change.

In light of the fact that global warming amounts already to around 1 degree Celsius compared to pre-industrial levels,[67] the SIDS and other vulnerable developing countries urged in the Paris Agreement negotiations that efforts be made to limit this increase not only to "well below" 2 degrees but to 1.5 degrees Celsius (Article 2[a], PA).[68] Even with average global warming of 1.5 degrees Celsius, sea level rise will lead to shrinking territories by the end of the century, and the quality of the soil — mainly due to salinisation — will decline; at 2 degrees, even more serious consequences are to be expected.[69]

64 United Nations, *United Nations Framework Convention on Climate Change* (New York, NY, 1992), available at https://unfccc.int/resource/docs/convkp/conveng.pdf (accessed 4 May 2020).

65 Ibid., 21.

66 Sönke Kreft, Koko Warner, Sven Harmeling, and Erin Roberts, "Framing the Loss and Damage Debate: A Thought Starter by the Loss and Damage in Vulnerable Countries Initiative", in *Climate Change: International Law and Global Governance*, vol. 2: *Policy, Diplomacy and Governance in a Changing Environment*, ed. Oliver C. Ruppel, Christian Roschmann and Katharina Ruppel-Schlichting (Baden-Baden, 2013), 827—42, doi: 10.5771/9783845242774_827.

67 IPCC, *Global Warming of 1.5°C* (see note 59).

68 UNFCCC, *Paris Agreement* (see note 3).

69 IPCC, *Global Warming of 1.5°C* (see note 59) 7, B.2.

The parties to the Paris Agreement were able to enshrine the concern of the SIDS and other vulnerable countries in Article 8 PA, which also met with US approval. The United States and oil-rich countries such as Saudi Arabia are very critical of the debate on loss and damage because they fear being held liable for their past and future contributions to climate change. Their consent in Paris was possible because the focus of Article 8 is not on liability issues, but on further processes and the exchange of information. Article 8 does not provide a definition of what is meant by loss and damage. Instead, it focuses on the following: It is recognised that the prevention of loss and damage from climate change and sustainable development are important for risk minimisation (Article 8.1); the WIM is to be further negotiated by the parties (Article 8.2); the understanding of loss and damage, action, and mutual support is to be expanded (Article 8.3). Article 8.4 lists various areas for further cooperation where knowledge, measures, and support could be improved, for example early warning systems, risk management, and slow onset events (such as sea-level rise) and extreme weather, as well as losses that cannot be quantified economically.

Climate financing and liability issues

The call for financial and technical assistance to deal with climate impacts gained traction at the 2007 Bali negotiations (COP13), where the G77 developing countries insisted on this point. The Bali Action Plan then established adaptation — along with climate protection, technical assistance, and financial aid — as one of four pillars for a future climate regime to be negotiated as the successor to the Kyoto Protocol. At COP15 in Copenhagen in 2009, a total volume of $100 billion was introduced into the debate as a number; this sum was regarded as necessary from 2020 onwards to support the developing countries with their climate policies, in particular adaptation. The amount was confirmed as a target in the Paris Agreement when the new regime was established, and it is to be further increased in the negotiations until 2025,[70] with funds coming from private and state sources. The Green Climate Fund (GCF) had already been established in 2010 to distribute public climate finance and use it as a lever for private investor participation. Its funds are earmarked both for climate protection and adaptation measures — such as the construction of dikes and new agricultural cultivation methods. Vulnerable countries are, however, demanding that this fund also provide money for countries affected by loss and damage from climate change. Besides the GCF, various funds with relatively small volumes, such as the Adaptation Fund, also continue to exist. However, so far, loss and damage has not yet constituted a separate category in climate finance. At the 2019 negotiations, the vulnerable developing countries again proposed to set up a new facility under the WIM, which would receive additional funds. A new group of experts is to address these issues.[71]

As the Bali Action Plan made clear, the SIDS, the Least Developed Countries, and other African states are considered particularly vulnerable countries. However, for reasons of political sensitivity, the G77 has not pursued the idea of establishing a list under the UNFCCC which uses criteria that determine need, and thus would list the particular countries to be supported — despite mounting pressure to do so given loss and damage.[72] It is both legally and technically difficult to connect climate risks and their impacts to specific polluters and their contributions to climate change *(attribution)*, not to mention the political sensitivities involved. For such an attribution, a legal claim for financial compensation has to be negotiated and anchored in international law as part of an agreement. Moreover, methods are needed to measure and predict loss and damage. For many countries, the loss of identity and culture is also an issue — impacts that cannot be measured and quantified.[73]

The only consensus achieved early on is that the responsibility for historical emissions — that is, those greenhouse gases that have already accumulated in the atmosphere — lies with the industrialised countries. This was already recognised in the Kyoto Protocol. The Paris Agreement also assigns responsibility to other countries — it calls on the emerging economies

70 UNFCCC, *Paris Agreement* (see note 3), Decisions, no. 54.

71 Jocelyn Timperley, "Cop25: What Was Achieved and Where to Next?", *Climate Home News*, 16 December 2019, https://www.climatechangenews.com/2019/12/16/cop25-achieved-next/ (accessed 14 January 2020).

72 Mizan Khan, Stacy-ann Robinson, Romain Weikmans, David Ciplet, and J. Timmons Roberts, "Twenty-five Years of Adaptation Finance through a Climate Justice Lens", *Climatic Change* 17, no. 8 (2019): 17, chap. 3.3.

73 A new group of experts has also been set up (at COP25) to deal with issues relating to losses that cannot be measured economically. See Timperley, "Cop25" (see note 71).

to contribute to climate protection and to finance the climate policy of poor countries. Nevertheless, the industrialised countries are supposed to continue to make greater efforts to protect the climate than the developing countries and provide funds to support them.

China is now the largest emitter of greenhouse gases and, together with other emerging economies, contributes significantly to global emissions. As part of the G77, vulnerable poor countries for the first time openly opposed Beijing's request to continue being counted among the developing countries in 2012 — developing countries do not have to contribute to climate protection in a binding way. Indeed, China later seemed to move away from this position. In the phase from 2014 to 2016, that is, shortly before and after the adoption of the Paris Agreement, the Chinese government conceded to set an emissions target and contribute to the GCF together with the United States, albeit on a voluntary basis. Washington's withdrawal from the Paris Agreement, however, has once again intensified the contention over financial aid for developing countries in climate negotiations. Contrary to its own announcement, China has not paid into the GCF, and the gap of $2 billion left by the withdrawal of the United States has not yet been closed by other OECD members. As a consequence, public climate financing has not been provided as promised.

With this backdrop, it comes across as a very delicate attempt to hold countries that are donors of official development aid accountable for losses and damages as well. This seems even more ambitious in light of the global situation in 2020 and the immense financial burdens looming from the COVID-19 pandemic. The United States has always spoken out against any liability obligations. They feared above all legally enforceable compensation claims for climate damages. Although China, contrary to the US government, is facing up to the challenge of climate protection, it wants to remain part of the group of developing countries for economic and geopolitical reasons. India is aligning itself with the two major powers, and other emerging economies are behaving in a similar way. Also because of this situation, many vulnerable countries hope that a debate in the Security Council on climate impacts and related risks can put more pressure on the United States, China, and Russia — which are among the world's largest emitters of CO_2 — and slow down implementation of the Paris Agreement. The Security Council deliberations thus expand the international climate impact debate with a security policy component, in combination with the question of what a preventive policy addressing climate risks might look like.

Box 2
The UN system and climate policy issues

More than 40 institutions in the United Nations system address climate issues directly and indirectly. Figure 1 (p. 26) illustrates which of them are involved at each level of the UN system and how they are linked to the main UN organs. The UN system has six such main organs; four of them currently have a link to international climate policy.[a]

The UNFCCC is primarily responsible for international climate policy and bringing together the various strands of climate activities at the international level. It is one of the *secretariats* of the United Nations. Under the umbrella of the UN General Assembly, *funds and programmes* are involved in the implementation of climate policy goals — such as UNEP, UNDP, the Human Settlements Programme (UN-HABITAT), and the World Food Programme. The Economic and Social Council (ECOSOC) is home to the *specialized agencies*, such as the International Civil Aviation Organisation, which is working on rules for reducing emissions from aviation; the World Bank Group, which manages various climate funds and sets up its own programmes; and the World Meteorological Organization (WMO), which is in charge of the global assessment reports of the IPCC. The IPCC and other non-UN organisations provide scientific fundamentals and related information.

The Security Council is supported directly through its subsidiary bodies and through the Secretariats, including the Department of Political and Peacebuilding Affairs of the Secretary-General (DPPA), the UN Office for Disaster Risk Reduction, and the Office for the Coordination of Humanitarian Affairs. In 2018, the DPPA took up the task of providing information on climate risks.

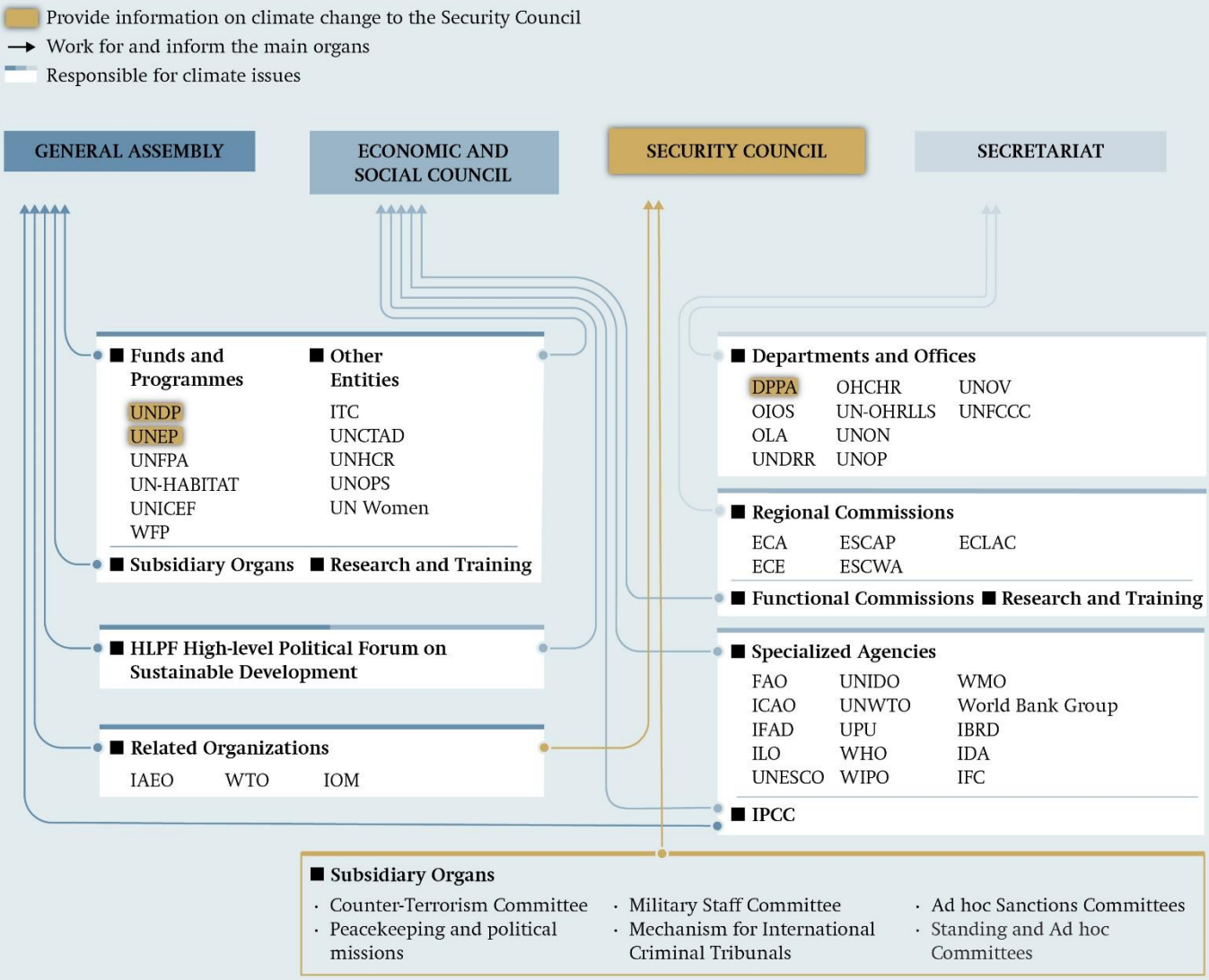
The subsidiary bodies regularly formed by the Security Council include committees, peacekeeping operations, political missions, criminal tribunals, and commissions. They address climate-related issues once the Security Council has decided to include them in its decisions, for example in the fight against terrorism, peacekeeping operations, or other mandates.

a The International Court of Justice is not listed, nor is the Trusteeship Council. The full chart of the UN system can be found here: https://www.un.org/en/pdfs/un_system_chart.pdf.

Figure 1

UN institutions responsible for climate policy issues

Main organs of the United Nations and assigned subsidiary bodies, programmes, commissions and other institutions that implement climate policy projects



Abbreviations

DPPA *Department of Political and Peacebuilding Affairs of the UN Secretary-General*
ECA *Economic Commission for Africa*
ECE *Economic Commission for Europe*
ECLAC *Economic Commission for Latin America and the Caribbean*
ESCAP *Economic and Social Commission for Asia and the Pacific*
ESCWA *Economic and Social Commission for Western Asia*
FAO *Food and Agriculture Organization of the United Nations*
HLPF *High-level Political Forum on Sustainable Development*
IAEA *Intern. Atomic Energy Agency*
IBRD *International Bank for Reconstruction and Development*
ICAO *Intern. Civil Aviation Organ.*
IDA *Intern. Development Association*
IFAD *International Fund for Agricultural Development*
IFC *Intern. Finance Corporation*
ILO *Intern. Labour Organization*
IOM *Intern. Organiz. for Migration*
IPCC *Intergovernmental Panel on Climate Change*
ITC *Intern. Trade Centre (UN/WTO)*
OHCHR *Office of the High Commissioner for Human Rights*
OIOS *Office of Internal Oversight Services*
OLA *Office of Legal Affairs*
UNCTAD *UN Conference on Trade and Development*
UNDP *UN Development Programme*
UNDRR *UN Office for Disaster Risk Reduction*
UNEP *UN Environment Programme*
UNESCO *UN Educational, Scientific and Cultural Organization*
UNFCCC *UN Framework Convention on Climate Change*
UNFPA *UN Population Fund*
UN-HABITAT *UN Human Settlements Programme*
UNHCR *UN High Commissioner for Refugees*
UNICEF *UN Children's Fund*
UNIDO *UN Industrial Development Organization*
UN-OHRLLS *UN Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and the Small Island Developing States*
UNON *UN Office at Nairobi*
UNOP *UN Office for Partnerships*
UNOPS *UN Office for Project Services*
UNOV *UN Office at Vienna*
UN Women *UN Entity for Gender Equality and the Empowerment of Women*
UNWTO *World Tourism Organization*
UPU *Universal Postal Union*
WFP *World Food Programme*
WHO *World Health Organization*
WIPO *World Intellectual Property Organization*
WMO *World Meteorological Organization*
WTO *World Trade Organization*

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The Role of the UN Security Council in Addressing Climate Risks

The UN Security Council can assume several functions to contribute towards the further development of the international climate regime. Members have at their disposal the legal and technical means as well as the working methods to provide information and prepare the meetings and decisions of the Security Council. In theory, the range of possible decisions of the body ranges from a complete refusal to deal with climate change to the adoption of preventive climate policy measures.[74] Resolutions are the strongest instrument available to the UN under international law. Before resorting to them, however, the Security Council could argue in favour of pooling risk assessments and strengthening preventive UN policies. For all options, the caveat applies that a consensus is required in the first place.

Firstly, by debating climate risks, the Security Council can generate more *attention* for the mounting pressures to act on climate change in the short term. Secondly, the security aspects of climate change impacts can be given greater *focus* than is the case with the UNFCCC or other UN institutions where there is no primary security policy emphasis. In this respect, risk assessments and evaluations in the Security Council can complement those in the UNFCCC and other UN institutions. In the longer term, the quality of climate change impact assessments can also be improved if the relevant information from various UN agencies is brought together at the Security Council. Thirdly, the Council is an additional *venue* for sounding out the interests of individual states in international climate policy cooperation. Alliances can be built and intensified in order to achieve results that will feed into the international climate policy agenda.

With respect to each of these functions, it is crucial that the Security Council deals with climate risks continuously. This continuity hinges on the commitment of individual members of the Council. Not least in view of the potential security risks that unchecked global warming could bring about, some US-based think tanks are calling for the Security Council to prepare for such scenarios.

Increase the level of attention

Every debate held at the UN Security Council on climate change helps small island states, other vulnerable countries, and their partners from emerging and industrialised countries to raise awareness about climate-related risks. In recent years, this special concern has been supported primarily by Germany, the United Kingdom, the Netherlands, Sweden, and France. In the open debates, however, members of the Council regularly question whether the Security Council has any legitimate role in climate policy.

Legitimacy is decisive if Security Council decisions are to have an impact on other UN member states.[75] It is about whether the parties to the UNFCCC, which are also UN member states, consider it legitimate for the Security Council to be dealing with climate change impacts, to tackle these impacts by including measures in resolutions, and thus to motivate the members of the Security Council to act, both to pre-

74 Scott and Ku, "The UN Security Council and Global Action on Climate Change" (see note 19), 20f.

75 Martin Binder and Monika Heupel, "Contested Legitimacy. The UN Security Council and Climate Change", in *Climate Change and the UN Security Council*, ed. Scott and Ku (see note 19), 186–208.

vent climate risks and deal with them. After all, the body's decisions are ultimately implemented — and provided with resources — by national governments.[76] Another limitation to the legitimacy of the Security Council is the uneven distribution of power among its members due to the P5's veto right. Many countries see this as a critical issue, also in the context of climate debates.

Since the Trump administration took office, the P5 have been even more deeply divided on climate policy.

India, for example, reiterated in 2019 that it is questionable to shift climate lawmaking from the UNFCCC to "a structurally unrepresentative institution with an exclusionary approach decided in secretive deliberations".[77] India and other developing countries are therefore opposed to giving the Security Council a role in addressing climate change issues. They fear military responses under the guise of securing stability. Bolivia and Egypt, for example, have been particularly critical in this respect.[78]

Since the Trump administration took office, the P5 have been even more divided on climate policy than before. The US administration generally refuses to take climate policy measures and no longer participates in international climate cooperation, be it under the UN, the G7, the G20, or the Arctic Council.[79] The withdrawal of the United States from the Paris Agreement will become legally effective on 4 November 2020. In the Security Council debate of January 2019, the US representative to the United Nations, Jonathan Cohen, avoided using the word "climate". Nevertheless, he stressed the risks that natural disasters could pose to security policy. He added that members of the Security Council and UN agencies should step up their efforts to ensure that relevant information is made available and best practices in post-disaster management are shared.[80] It is difficult to assess what role the United States will play if there is another push for addressing climate risks via the Security Council. It is possible that Washington will abstain, but also that it will vote against new decisions. Russia has for years been opposed to the "securitisation" of climate change by framing it as a security policy issue. In Moscow's view, it is excessive and counterproductive to deal with this issue in the UN Security Council.[81] China, on the other hand, recently emphasised that climate change must be tackled through international cooperation, that UN agencies are responsible for this, that sustainable development is peacebuilding, and that the industrialised countries should lead the fight against climate change.[82]

The repositioning of the United States towards the climate regime has, however, contributed to the fact that the Netherlands and Sweden gave greater attention to the issue in the Security Council in 2017/2018. This commitment has shown that it is possible to continuously draw attention to climate risks and security-related policy issues in Security Council debates. However, it is unlikely that this experience will have an impact on the agendas of the United States, China, and Russia under the UNFCCC and upcoming negotiations. Their positions in the Security Council are either purely security-related — this applies in particular to Russia — or, as in the case of China, are also driven by economic priorities. Since there are only 10 other members on the Security Council in addition to the P5, and not more than 190 as in the General Assembly or ECOSOC, the lever of the "large number" to influence these three states in the Security Council is also missing. The P5 do not have to solicit the support of other states for their positions or — like Germany — face an election for a

76 Ibid., 202.

77 United Nations, "Massive Displacement, Greater Competition for Scarce Resources Cited As Major Risks in Security Council Debate on Climate-Related Threats", Press Release, 25 January 2019, https://www.un.org/press/en/2019/sc13677.doc.htm (accessed 4 May 2020).

78 Binder and Heupel, "Contested Legitimacy" (see note 75), 198—202; United Nations, "Massive Displacement" (see note 77).

79 "Arctic Council Fails to Agree on Declaration As US Holds Out on Climate Change", *Yle News*, 7 May 2019, https://yle.fi/uutiset/osasto/news/arctic_council_fails_to_agree_on_declaration_as_us_holds_out_on_climate_change/10770803 (accessed 4 May 2020).

80 United States Mission to the United Nations, "Remarks at a UN Security Council Open Debate on the Impacts of Climate Related Disasters on International Peace and Security", New York, NY, 25 January 2019, https://usun.usmission.gov/remarks-at-a-un-security-council-open-debate-on-the-impacts-of-climate-related-disasters-on-international-peace-and-security/ (accessed 29 January 2019).

81 UNSC, *Security Council Meeting Record S/PV.8451* (New York, NY: United Nations, 25 January 2019), https://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s_pv_8451.pdf (accessed 4 May 2020).

82 Ibid.

seat as a non-permanent member. Moreover, even Security Council members that are open to the climate debate are sceptical about the claim that the Security Council can influence the climate regime.[83]

However, the "attention strategy" is gaining traction from the fact that more countries are stressing that their national security situations are also threatened by climate change impacts. Sudan, for example, repeatedly refers to the outbreaks of violence in Darfur in 2003, where droughts had intensified the conflicts between groups competing for agriculture resources. Indonesia called on the Security Council to expand the capacities of military operations for "climate peace missions". Indonesia also called for a clearer definition of when to talk about the security dimensions of climate change impacts and when not.[84]

Focus and inform

The UN Security Council could systematically evaluate the concrete climate-related security policy risks and prepare a more in-depth risk analysis. This way, the knowledge base on which its open debates and recommendations for action to the Security Council are based could be expanded.[85] The Security Council itself draws on analyses that are tailored to its purposes. This task lies with the DPPA, which reports to the Secretary General.[86] The DPPA would be responsible, for example, if the Council wanted to examine the causalities between climate change impacts and a particular security situation, or examine requests establishing early warning systems that directly inform the Security Council. The additional posts at DPPA, UNEP, and UNDP, which were funded by the Swedish government in 2018, are intended to enable security risks to be addressed and risk assessments to be made. Belgium has contributed one additional post for one year.[87] It is also intended that the analyses should be incorporated into the reports submitted to the Secretary-General.[88] Also at the operational level of UN missions, preventive approaches and management strategies for climate-related risks are to be improved. In order to deliver on this plan, the head of DPPA calls on UN member states and other stakeholders to evaluate practical examples and share this information.[89]

The Security Council can certainly become more relevant for the global climate regime if it focuses on risk assessment and prevention. In this way, the Council would go beyond the means it has at its disposable and which define its role as a player sanctioning others (e.g. with trade sanctions aimed at terrorist groups) — let alone that a sanctioning role with respect to climate action is not regarded as legitimate by UN members in the first place.

Although the Council has increasingly adopted documents that mention climate change, security risks have not been addressed in more detail due to a lack of evidence on direct impacts. In resolutions and other documents, climate change is generally identified in resolutions and other documents as a factor ("mainstreaming") as a factor that can amplify existing crises. Lake Chad Resolution 2349, adopted in 2017, is the first to state that there is a need for risk assessment and risk management strategies due to climate change.[90] The Darfur Resolution 2429 (2018) goes one step further by recognising "the adverse effects of climate change, ecological changes and natural disasters, among other factors, on the situa-

83 Shirley V. Scott, "The Attitude of the P5 towards a Climate Change Role for the Council", in *Climate Change and the UN Security Council*, ed. Scott and Ku (see note 19), 209—28 (212f.).

84 United Nations, "Massive Displacement" (see note 77).

85 See section "Forecasts and the 'streetlight effect'", pp. 24ff.

86 See Figure 1, p. 35.

87 Together with the UN, the German government has launched a pilot project at the Horn of Africa to investigate the security risks of climate change. In Mogadishu, Somalia, it is financing the post of a UN expert on environment and security. See Auswärtiges Amt, *Report of the Federal Foreign Office on Climate Foreign Policy* (in German) (Berlin, December 2019), https://www.auswaertiges-amt.de/blob/2295884/ce7a2b35b139dcfec5e74facb68916e6/200124-klimabericht-dl-data.pdf (accessed 18 February 2020).

88 The Under Secretary-General Rosemary DiCarlo presented four areas of focus of the DPPA work at an Arria-formula meeting on 22 April 2020: more capacity for integrated risk analysis; integrating a climate lens into mediation efforts and preventive diplomacy; strengthening resilience to cope with climate-related security risks via peacebuilding programmes; working with and learning from partners, https://dppa.un.org/en/climate-change-multiplying-factors-lead-to-insecurity-millions-rosemary-dicarlo-tells-arria-formula (accessed 4 May 2020)

89 See section "Forecasts and the 'streetlight effect'", pp. 24ff.

90 UNSC, *Resolution 2349 (2017). Adopted by the Security Council at its 7911th Meeting, on 31 March 2017* (New York, NY, 2017), https://digitallibrary.un.org/record/863830 (accessed 7 February 2019).

tion in Darfur". The UN and the Sudanese government are being called upon to take these implications into account in their aid programmes for the region.[91]

The mentioning of actual risks in resolutions opens up the possibility of using UN missions in crisis areas to contain climate risks. If mandates are extended in this direction, more stringent steps are also conceivable. If the Security Council were to identify links between climate-related risks and terrorist activities, for example — as has happened in organised crime cases, despite controversial evidence[92] — sanctions against individual actors would be conceivable, at least theoretically. However, this would always be subject to the proviso of "do no harm", that is, potential negative effects on the population due to some measure would need to be considered. However, any extension of the Security Council's capacity to act is unlikely as long as the direct nexus between climate risks and threats to human security that fall under the mandate of the Council cannot be identified.

Another place to reconcile interests

So far, the intention of the SIDS to use the Security Council as their venue for the debate on climate change has been met with a very mixed response. By continuing the debates in recent years, individual non-permanent members have managed to keep climate change and the demand for improving related information for the Security Council on the agenda. However, there is no guarantee that the debate will continue and that the Security Council will play an active role. This very much depends on whether the alternating non-permanent members (besides France and the United Kingdom) have the will and resources to do so. The importance of this factor was demonstrated by the commitments of the Swedish and Dutch governments in 2017 and 2018. They worked hand in hand to make the Security Council members agree to the Lake Chad and Somalia resolutions. With the Planetary Security Initiative, policy-makers were able for the first time to exchange views with non-state actors from the relevant policy areas. Then the Dominican Republic was able to address the issue in 2019 with the support of Germany, as its own resources for this diplomatic effort were not sufficient.

In order to maintain the UN Security Council as a venue for these debates, further diplomatic efforts are needed that must also be pursued by the supporting countries over the longer term. This includes handing over the issue to subsequent non-permanent members as well as providing financial and human resources to the UN, but also engagement in all other climate policy forums, which include the UNFCCC, the G7, the G20, and bilateral summits.

Tipping points and solar radiation management

Some experts have raised the question of whether the Security Council, for precautionary reasons, cannot help but deal with the risks of climate change.[93] After all, if the average global temperature continues to rise unabated, the related risks could have massive impacts on international security. The most dangerous impacts could stem from the so-called tipping points of the Earth system[94] and the domino effects they trigger. Examples are the effects on water supplies when glaciers disappear, the slow-down of the Gulf Stream when the Arctic ice melts, and the decline in permafrost, which destroys infrastructure and triggers methane gas outbreaks. Recent research shows that tipping points can become much more likely already at global temperature increases of between 1 and 2 degrees Celsius, instead of more than 5 degrees Celsius, as models have predicted previously.[95] The consequences for the Earth system would be massive, and the socio-economic implications would have high relevance for security policy, as supply shortages,

91 UNSC, *Resolution 2429 (2018). Adopted by the Security Council at its 8311th Meeting, on 13 July 2018* (New York, NY, 2018), http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s_res_2429.pdf (accessed 7 February 2019).

92 Judith Vorrath, *Organized Crime on the UN Security Council Agenda. Action against Human Trafficking Reveals Opportunities and Challenges*, SWP Comment 38/2018 (Berlin: Stiftung Wissenschaft und Politik, October 2018), https://www.swp-berlin.org/en/publication/organized-crime-on-the-un-security-council-agenda/ (accessed 10 March 2020).

93 Scott and Ku, "The UN Security Council and Global Action on Climate Change" (see note 19), 16.

94 See section "Forecasts and the 'streetlight effect'", pp. 24ff.

95 Steffen et al., "Trajectories of the Earth System in the Anthropocene" (see note 47); Timothy M. Lenton, Johan Rockström, Owen Gaffney, Stefan Rahmstorf, Katherine Richardson, Will Steffen, and Hans Joachim Schellnhuber, "Climate Tipping Points — Too Risky to Bet Against", *Nature* 575, no. 7784 (2019): 592—95.

natural disasters, and migration would be expected.[96] The Security Council would have a reactive rather than a preventive role in the event of such a crisis situation. For this reason, US think tanks assert a *responsibility to prepare* for national security policy — a concept that has also been introduced into the debates of the Security Council.[97] The fact that it has found little resonance is primarily due to the US government's position on climate policy.

Solar radiation management through intervention in the stratosphere could become a topic for the Security Council.

However, a repositioning of Washington cannot be ruled out, even in the short term when it comes to preventing extreme weather events in the United States. To this end, the Trump administration could consider solar radiation management as a matter of national interest. Solar radiation management involves targeted interventions in the Earth's radiation system to reduce global warming.[98] The technological options are subject to intense and controversial debate. However, the knowledge is still lacking as to whether the desired effects would materialise and could be controlled. In 2020/2021, in a first test, a project team at Harvard University intends to introduce aerosols into the stratosphere that reflect sunlight.[99] If solar radiation management were applied on a broad scale by some countries or private actors, this would likely put pressure on those countries that do not want to participate in that effort or are clearly opposed to it. Once an intervention in the stratosphere is undertaken, the impacts cannot be limited to individual territories and could thus affect other countries negatively. Given the conflict potential that can already be anticipated today, the issue could be brought to the Security Council at some point. The Council could, in theory, intervene to prevent third parties from using the technology or decide that its members should refrain from doing so. However, this is unlikely in our example here, since the United States is a member of the P5 and would have to agree to such a decision.[100]

96 Steffen et al., "Trajectories of the Earth System in the Anthropocene" (see note 47), 5.

97 A *Responsibility to Prepare. Strengthening National and Homeland Security in the Face of a Changing Climate* (Roadmap and Recommendations for the U.S. Government) (Washington, D.C.: The Center for Climate and Security/Elliot School of International Affairs — George Washington University, 26 February 2018).

98 Weather modifications already took place in the United States in the 1940s for military reasons. In China, repeated attempts were made to trigger precipitation over drought-affected areas. See Susanne Dröge, "Geoengineering Looming: Climate Control the American or Chinese Way", in *Expect the Unexpected. Ten Situations to Keep an Eye On*, ed. Barbara Lippert and Volker Perthes, SWP Research Paper 1/2012 (Berlin: Stiftung Wissenschaft und Politik, January 2012), 15—18, https://www.swp-berlin.org/fileadmin/contents/products/research_papers/2012_RP01_lpt_prt.pdf#page=15 (accessed 10 March 2020).

99 Oliver Geden and Susanne Dröge, *The Anticipatory Governance of Solar Radiation Management,* Council on Foreign Relations, Council of Councils Working Paper Series, July 2019, https://www.cfr.org/report/anticipatory-governance-solar-radiation-management (accessed 4 May 2020).

100 Harvard Project on Climate Agreements, *Governance of the Deployment of Solar Geoengineering* (Cambridge, MA: Harvard Kennedy School, November 2019), 34, https://www.belfercenter.org/sites/default/files/files/publication/harvard_project_sg_governance-briefs_volume_feb_2019.pdf (accessed 20 February 2020).

The Way Forward: More Ado about Climate in the Security Council?

During its temporary period on the Security Council in 2019/2020, the German government intends to strengthen the credibility of the UN climate regime and the processes for implementing the Paris Agreement as a whole. An open debate at the Security Council is thus an important part of this agenda. During the campaign for a seat on the Council in 2018, the German government had already promised to the SIDS that it would hold an open debate and — as far as possible — promote a Security Council decision on climate-related risks.

Since this announcement, international climate cooperation has further declined, and with the COVID-19 crisis, the role of the Security Council as a key multilateral institution has diminished further. Not only has the crisis added to a situation in which a lack of climate leadership by the two major powers — the United States and China — prevails. On top if this, both started a blame-game about the origins of the pandemic. The United States put even more pressure on the UN system via another withdrawal of finance, this time for the World Health Organization. This will also have an effect on the legitimacy of the Council and its role in dealing with climate issues.

The German government intends to highlight the causal links between climate change and conflicts with more evidence and to pronounce the importance of early warning systems for security policy. The pandemic and its fallouts could be integrated into this setting, as they bring about long-term risks that relate to environmental destruction and climate change, too. However, if the political goal of the debate is to vigorously promote cooperation in international climate policy, and thus promote the implementation of the Paris Agreement, adding the pandemic can be a risky undertaking, given the tensions that have increased between countries struggling with it. In the fourth year after the Trump administration took office, there is no doubt that support for the core concerns of the multilateral process — above all through national climate ambition — is not on the US agenda. The Security Council debate scheduled for July 2020 should therefore explicitly draw renewed attention to the risks of inaction and avoid offering another platform for a US-China showdown on their performance in dealing with the COVID-19 virus.

In 2020, the German government is also in a position to support the EU as the actor that, under new Commission President Ursula von der Leyen, has formulated a “Green Deal”. This also includes raising the European climate protection target, stimulating green investment, and buffering the social impacts resulting from economic transition.[101] Germany will hold the EU Council Presidency in the second half of the year, which will enable it to combine the internal progress on climate policy within the EU with an economic and financial recovery agenda for the aftermath of COVID-19. Because COP26 — scheduled for November in Glasgow — had to be postponed until 2021, the EU also will need German and UK expertise to bring forward the implementation of the Paris Agreement through UN negotiations. A proactive EU agenda would serve the international purpose of providing a reliable and long-term commitment to tackling climate change.

Moreover, the UNFCCC negotiations must avoid calling into question the loss and damage agenda agreed in Madrid 2019. With the help of the expert groups that have been set up, more evidence on the concerns of vulnerable states should be generated,

101 European Commission, *The European Green Deal. 2019,* https://ec.europa.eu/info/sites/info/files/european-green-deal-communication_en.pdf (accessed 4 May 2020).

for example by providing better information on possible negative climate impacts and the potential to address them. Much depends on financial commitments and their uptake in the climate regime. Also, the UN would be a place to promote the idea that any international recovery or aid programmes for addressing the pandemic could be scrutinised for their long-term climate adaptation relevance. In this context, it can be expected that countries will raise the preventive role of development cooperation and disaster prevention in the Security Council debate in July 2020.

The chances that another Security Council debate on climate and security will also produce new documents and decisions depend above all on the political situation in the United States (where presidential elections will be held in November 2020) and on the attitude of China and Russia towards any concrete proposal. Security Council decisions — in particular new resolution on the risks of climate change — have to be carefully prepared and tested for a common denominator. It is important to achieve an abstention — instead of a no vote — from the three powers mentioned. After all, there are signs that the United States is prepared to talk about how to deal with the consequences of natural disasters. The search for common concerns could help to ensure that the divide between the major polluters (China, the United States, and Russia alone were responsible for 56.5 per cent of global CO_2 emissions in 2017)[102] and the developing countries suffering from climate change does not deepen even further.

If climate protection continues to make only slow progress, demands for compensation are likely to become even louder.

The German government therefore has to act as mediator. In times of weakened multilateralism, it can use its status as a reliable partner in the G7 and G20 to this end — especially because cooperation in climate policy with the United States (current G7 Presidency) and Saudi Arabia (G20 Presidency) can hardly be expected. But other major economic powers, such as China, Brazil, India, and Australia, must be kept on board. Preventive approaches to reduce climate change risks can also be promoted with the help of German and European development policy. In security policy forums such as the Munich Security Conference and in bilateral meetings, the links between climate change and security policy risks can be further discussed and explained, thus promoting preventive approaches as part of short- and long-term agendas.[103] Preparing for the Security Council debate with the help of the so-called Group of Friends on Climate and Security, which Germany and the Pacific island state Nauru set up in 2018, has also served this purpose,[104] as did the Arria meetings[105] (see Table 2, p. 12).

Neither German and nor European climate diplomacy, however, is well-equipped to enable lasting progress in handling security policy-relevant climate issues at the Security Council. The COVID-19 pandemic adds another stress test to this constellation. When considering how to scale-up Germany's role for a successful international climate agenda, also during times when Germany does not have a seat on the Security Council, one of the major issues for supporting partner countries is the consistency of national climate policy. From a climate diplomacy perspective, the SIDS and other vulnerable poor countries experience the UN processes as being closely intertwined. The less progress Germany and the EU make in im-

102 Iman Ghosh, "All of the World's Carbon Emissions in One Giant Chart. Data Based on the Global Carbon Project", *Visual Capitalist*, 31 May 2019, https://www.visualcapitalist.com/all-the-worlds-carbon-emissions-in-one-chart/ (accessed 22 August 2019).

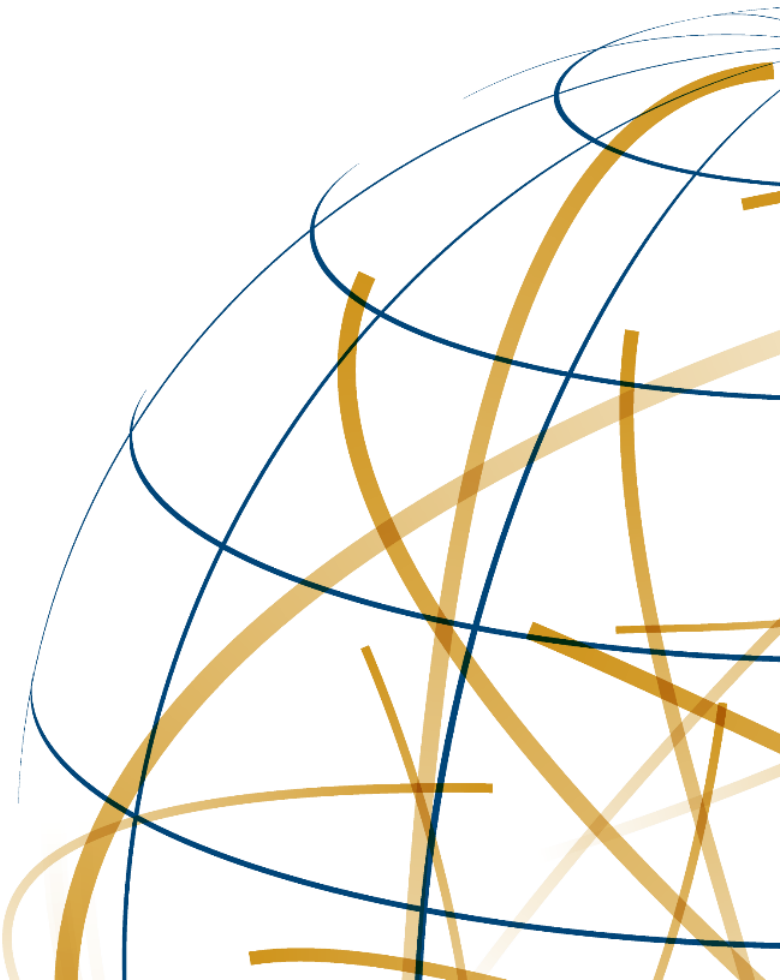
103 In the G7, the German government initiated and promoted the report "A New Climate for Peace", which was presented by the group's foreign ministers in 2015. See Lukas Rüttinger et al., *A New Climate for Peace. Taking Action on Climate and Fragility Risks* (adelphi, International Alert, Woodrow Wilson International Center for Scholars, and European Union Institute for Security Studies, 2015), https://www.newclimateforpeace.org/#report-top (accessed 3 August 2018).

104 "United Nations: Germany Initiates Group of Friends on Climate and Security" (Berlin: Federal Foreign Office, 8 August 2018), https://www.auswaertiges-amt.de/en/aussenpolitik/themen/klima/climate-and-security-new-group-of-friends/2125682 (accessed 4 May 2020).

105 Arria-Formula meetings are not formal Security Council meetings. They are convened at the initiative of one or more Security Council members and are intended to hear the views of individuals, organisations, and institutions on matters that fall within the Security Council's competence. See Security Council Report, *Arria Formula Meetings. UN Security Council Working Methods* (New York, NY, 17 October 2019), https://www.securitycouncilreport.org/un-security-council-working-methods/arria-formula-meetings.php (accessed 20 January 2020).

plementing the Paris Agreement, the more developing countries and civil society actors will demand that they be compensated for losses and damages, and that the Security Council increase its commitment to address climate change impacts. Germany's commitment to international climate policy, therefore, has to be accompanied by credible and long-term climate ambitions and actions. Strengthening the long-term EU agenda (Green Deal, greenhouse gas neutrality by 2050) is an important part of this.

In the General Assembly, the German government may well be in a position to mobilise a large number of countries that are increasingly affected by climate-related loss and damage — but this alone will not be enough to convince the three major veto powers: the United States, Russia, and China. Germany cannot walk the talk exclusively in 2020; it has to develop a longer-term agenda together with other partner countries inside and outside the EU. Together, they could further promote a cultural shift at the UN Security Council that makes it a place for exchange on climate risks and security policy implications. Specifically, for each period of non-permanent membership, governments should be encouraged to continue the climate security debate. For this reason, the German government should also secure the resources that help to provide the necessary information for this body in the longer term. The UN agencies and their units should be supported in such a way that they can provide the Security Council with forecasts and early warnings on the direct impacts of climate change and, where relevant, in the context of actual conflict constellations. Such an agenda would become particularly urgent if the current US administration were to remain in office for another four years — in which case it could be expected that other major economic powers would follow in neglecting national and international climate policy.

Abbreviations

COP	Conference of the Parties
DPPA	Department of Political and Peacebuilding Affairs of the Secretary-General
ECOSOC	United Nations Economic and Social Council
EU	European Union
G7	Group of Seven
G20	Group of the 20 most important industrial and emerging countries
G77	Group of 77
GCF	Green Climate Fund
IISD	International Institute for Sustainable Development
IPCC	Intergovernmental Panel on Climate Change
NDC	Nationally Determined Contribution
OECD	Organisation for Economic Co-operation and Development
P5	Permanent Five (China, France, United Kingdom, Russia, United States)
PA	Paris Agreement
PSI	Planetary Security Initiative
SDG	Sustainable Development Goal
SIDS	Small Island Developing States
UN	United Nations
UNCSD	United Nations Conference on Sustainable Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNGA	United Nations General Assembly
UNSC	United Nations Security Council
USAID	United States Agency for International Development
WBGU	German Advisory Council on Global Change / Wissenschaftlicher Beirat der Bundesregierung Globale Umweltveränderungen
WIM	Warsaw International Mechanism on Loss and Damage Associated with Climate Change Impacts
WMO	World Meteorological Organization