

# MAPPING EUROPEAN UNION MEMBER STATES' RESPONSES TO CLIMATE-RELATED SECURITY RISKS

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## I. Introduction

Climate change exacerbates social, economic and political vulnerabilities, which can have adverse implications for peace and security. European Union (EU) member states first acknowledged climate change as an external security concern in the early 2000s.<sup>1</sup> Concrete initiatives to address climate-related security risks, however, are still in their early stages. Even countries that recognize the impact of climate change and conflict on development, peacebuilding and adaptation initiatives have difficulty operationalizing this awareness. In addition, many responses to climate-related security risks focus either on long-term prevention through climate mitigation or short-term reactive crisis response. Although both are important, they leave the risks already baked into the climate system in the short to medium term unaddressed.<sup>2</sup>

This research policy paper identifies the concrete initiatives that EU member states are pursuing to help to address climate-related security risks in the short to medium term and suggests practical next steps to further mainstream climate-related security concepts into their policies. It is important to learn from national level initiatives to generate insights into possible ways forward at the regional and international levels. The focus on EU member states complements studies on the climate security approaches of various members of the United Nations Security Council.<sup>3</sup> Moreover, action at the EU level is driven by actions and perceptions within member states and vice versa. Understanding progress on addressing climate-related security risks by EU member states thus helps to understand the opportunities for and barriers to action at the EU level.

The research has three objectives. First, to assess how different EU member states have responded to external climate-related security risks. Second, to

<sup>1</sup> Council of the European Union, *European Security Strategy: A Secure Europe in a Better World* (Council of the European Union: Brussels, 2003). For a comprehensive definition of climate-related security risks, see Remling, E. and Barnhoorn, A., *A Reassessment of the European Union's Response to Climate-Related Security Risks*, SIPRI Insights on Peace and Security 2 (SIPRI: Stockholm, 2021).

<sup>2</sup> Remling and Barnhoorn (note 1).

<sup>3</sup> Hardt, J. N. and Viehoff, A., *A Climate for Change in the UN Security Council? Member States' Approaches to the Climate-Security Nexus* (Institute for Peace Research and Security Policy at the University of Hamburg: Hamburg, 2020).

## SUMMARY

● This SIPRI Research Policy Paper identifies European Union (EU) member states' efforts to address climate-related security risks in the short to medium term and suggests entry points for further action. Even countries making visible attempts to mainstream the linkages between climate change and security are falling short of pursuing a comprehensive approach. Among the ongoing initiatives that might bear fruit in one to three years are appointing climate security advisers; climate proofing peacebuilding and conflict proofing climate action; investing in early warning and risk mapping; reassessing climate financing and development aid; and building up the operational resilience of the military. Strengthening such efforts would involve incorporating climate insecurity into foreign and security policy dialogues; increasing conflict-sensitive climate adaptation finance; sensitization to climate change and conflict; and improving the operationalization of early warning. EU member states must advance their climate security initiatives and close the gap between rhetoric and practice to remain credible.

*This paper is one of a two-part set that examines institutional responses to climate-related security risks: one paper focuses on state-level policies and initiatives and the other on strategies to advance EU action in this area.*



identify policies and initiatives with the potential to address climate-related security risks in the short to medium term. And third, to highlight additional entry points for states to address climate-related security risks in the short to medium term.

Nine qualitative case studies mapped EU member states' policies and initiatives in Belgium, France, Germany, Ireland, Italy, the Netherlands, Poland, Slovenia and Sweden to identify opportunities to advance their work on climate-related security risks. The cases were selected to achieve a diversity in terms of size, financial resources, time of EU accession, approach to European integration, identity, record in reducing carbon dioxide (CO<sub>2</sub>) emissions and public concern about climate change. The analysis relies on an extensive review of policy documents, 45 semi-structured interviews with experts, national and EU officials, and a workshop involving 34 policymakers, practitioners and experts at the 2022 Stockholm Forum on Peace and Development.<sup>4</sup>

The intention is not to rank countries' efforts to address climate-related security risks. Instead, the paper seeks to contribute to joint learning and the identification of future action. It aims to help member states reflect on their progress, stimulate lesson sharing between member states and facilitate coalition building to deepen their initiatives. It does not pretend to be exhaustive or to evaluate policy effectiveness. For these reasons, it may not capture every policy that mentions climate and security. Nor does it endorse any particular initiative as a solution to climate-related security risks. Rather, it is to our knowledge the first systematic attempt to map responses to climate-related security risks by EU member states.

Section II provides context by examining how climate change is treated in member states' security concepts and the drivers of action on climate-related security risks. Section III assesses national efforts to mainstream climate security into policies and programmes. Section IV identifies opportunities to fine-tune national efforts to tackle climate-related security risks. Section V discusses the future outlook.

## **II. Member states' security concepts and drivers of action: Similarities and differences**

EU member states endorse the notion of 'comprehensive security', which includes climate change and environmental degradation. Even countries that do not prioritize climate policy, and where climate change is weakly positioned in the political system, acknowledge the security risks that emerge from climate change.<sup>5</sup>

<sup>4</sup> For background on the project's analytical framework and methodological considerations, see appendix A; on diversity among the selected cases, see appendix B. An annex of select project case studies can be found at this paper's publication page on the SIPRI website: Bunse, S. et al., *Mapping European Union Member States' Responses to Climate-related Security Risks*, SIPRI Research Policy Paper (SIPRI: Stockholm, 2022). On strategies to advance EU-level action on climate-related security risks, see Bunse, S. et al., *Advancing European Union Action to Address Climate-related Security Risks*, SIPRI Research Policy Paper (SIPRI: Stockholm, 2022).

<sup>5</sup> See e.g. Government of Poland, *White Book on National Security of the Republic of Poland*, 15 Nov. 2013; Polish National Security Bureau, *National Security Strategy of the Republic of Poland*, 12 May 2020; and Organization for Security and Co-operation in Europe (OSCE), *Programme of the Polish OSCE Chairmanship, 2022*, Vienna, 14 Jan. 2022.



References to climate change are found throughout member states' national security strategies. What differs is the priority each state attaches to it. Potential security risks related to climate change feature much less prominently in Eastern European security strategies (e.g. Poland and Slovenia), which are predominantly concerned with hard security threats linked to Russia's invasions of Ukraine in 2014 and 2022.<sup>6</sup>

Hard security is also prioritized in countries with traditional military footprints, such as that of France in francophone Africa. The current converging European security and global climate crises risk elevating short-term military threats over longer-term climate-related security issues. Moreover, reflecting domestic sensitivities, some countries regard climate-related security risks, such as food insecurity or migration, as development (e.g. Italy) or human rights issues (e.g. Ireland) rather than security challenges.

There are several common drivers of increased action on climate-related security risks across the EU member states:

- Climate change litigation in Constitutional Courts (e.g. in Belgium, France, Germany, Ireland and the Netherlands).
- Increased awareness following domestic climate change-related severe weather events, such as floods or wildfires (e.g. in Belgium, Germany and the Netherlands, and France's overseas territories).
- Pressure from civil society movements, such as Fridays for Future (e.g. in Sweden, Germany, Belgium and the Netherlands). Although climate security remains a niche topic in France, French civil society is also becoming more involved. In the run-up to the 2022 French presidential election, protesters rallied in cities under the slogan 'Peace and climate, same fight'.<sup>7</sup>
- In some countries, concern over climate-related migration into the EU is among the reasons for addressing climate security (e.g. in Germany, Belgium and France).

The attention given and resources dedicated to climate security have in the recent past often been tied to states' terms on the United Nations Security Council (Italy in 2017, Sweden in 2017–18, the Netherlands in 2018, Belgium in 2018–19, Germany in 2019–20 and Ireland in 2021–22).<sup>8</sup> Some countries have created or are developing more permanent structures and capacities to advance initiatives to respond to climate security issues (e.g. in Germany and Sweden). Political momentum to elevate the response to climate-related security risks is currently high in Ireland (linked to its Security Council membership), Germany and Sweden (following changes of government or ministerial reshuffles).<sup>9</sup>

<sup>6</sup> See Government of Poland (note 5).

<sup>7</sup> Translated from the French: 'paix, climat, même combat'. AFP, « On en parle quand? » : des manifestations pour que le climat pèse dans la présidentielle' ['When do we talk about it?' Demonstrations to make the climate count in the presidential election], Sud Ouest, 12 Mar. 2022.

<sup>8</sup> As a permanent member of the UN Security Council, France supports initiatives to advance climate security on the Council's agenda, such as through the UN Group of Friends on Climate and Security. However, regional military partnerships, such as the FRANZ Agreement on Military Cooperation, the 5+5 Defence Initiative and the South Pacific defence ministers' meeting, seem to be given greater priority than climate security policy.

<sup>9</sup> Vogler, A. and Webeier, M., 'Climate security and Europe: What are the direct and indirect consequences of climate change', *Perspectives*, Friedrich-Ebert-Stiftung, June 2022. One senior official expected impetus on climate security in Slovenia to increase after the government changed in May 2022, and given Slovenia's candidacy for the Security Council. Stockholm Forum on Peace and Development workshop, 23 May 2022.



**Table 1.** Summary of political, resource-related and institutional barriers to reducing climate-related security risks (CRSRs)

		Belgium	France	Germany	Ireland	Italy	Netherlands	Poland	Slovenia	Sweden
POLITICAL PRIORITIES/ FOCUS	Government prioritizes security issues other than climate insecurity							✓	✓	
	Relative novelty of climate insecurity as a policy priority	✓	✓		✓		✓			
	Narrow thematic focus/implicit attention on CRSRs						✓ <sup>a</sup>		✓ <sup>b</sup>	
DEDICATED RESOURCES	Limited staff capacity on CRSRs	✓			✓	✓	✓			✓
	Limited financial resources dedicated to CRSRs	✓			✓		✓			✓
INSTITUTIONAL FACTORS	Lack of clear institutional home or accountability		✓	✓						✓
	Perception that climate mitigation and adaptation are sufficient to address CRSRs		✓	✓	✓					
	Challenge of integrating CRSR into ongoing work (simultaneous climate and security sensitizing)		✓		✓		✓			✓
	Lack of inter-ministerial coordination				✓					✓

<sup>a</sup> With a focus on water and food.

<sup>b</sup> With a focus on water.

Source: Authors' elaboration.

### III. National policies and initiatives on mainstreaming climate security

Efforts to mainstream the linkages between climate change and security across national policy domains (the ‘policy level’) differ between member states and in terms of the programmes implemented in the relevant policy domains (the ‘implementation level’). Mainstreaming climate and security linkages at the policy level means ensuring that they are considered consistently across all relevant policy domains, from foreign policy/diplomacy to security/defence, development, peace and conflict, disaster risk reduction/crisis management, and migration.<sup>10</sup> Mainstreaming this nexus

<sup>10</sup> Relevant policy domains for reducing climate-related security risks were defined based on previous research, see e.g. Dellmuth, L. M. et al., ‘Intergovernmental organizations and climate



into implementation means that climate-conflict sensitivity is addressed in all the initiatives and activities designed and implemented within these policy domains.

While some countries have begun to mainstream this link at both the policy and the programme implementation levels, member states are yet to take consistent action in all relevant policy areas. For some countries, the relative novelty of the topic as a policy priority continues to present challenges. Even countries with visible and proactive mainstreaming efforts in place commonly fall short of taking a comprehensive and systematic approach to integrating climate-related security risks into all of their programming and initiatives on the ground. Various senior officials highlighted the barriers to coordination on the cross-cutting issues of climate change and security, or that the lack of a clear institutional home leads to a lack of accountability: ‘too many people working on too little’, a lack of resources and issue competition.<sup>11</sup> Other barriers include the complexity of integrating and addressing several issues (e.g. climate change, peace and security, and development) at the same time and the need for greater expertise and knowledge on how best to address these risks in parallel in practice.<sup>12</sup> Interviewees discussed many different political, resource-related and institutional barriers reducing climate-related security risks. While the interviewees from smaller countries often highlighted resource constraints, institutional challenges stood out in France and Germany (see table 1).

Belgium, France, Germany, the Netherlands and Sweden in particular have supported research on the links between climate change and security, as well as pilot programmes in the field.<sup>13</sup> Ireland has also provided some support for research on climate-related security risks.<sup>14</sup> The results of such research are important building blocks of theories of change on this topic. These are currently absent but will be needed to underpin interventions that effectively stem climate-related security risks and make communities more secure through enhanced resilience to the impacts of climate change.<sup>15</sup>

security: Advancing the research agenda’, *WIREs Climate Change*, vol. 9, no. 1 (2018). Tackling climate-related security risks effectively will require coordinated policy integration, rather than a siloed policy approach. Beyond discussions on climate refugees, using migration policy to negate climate-related security risks did not emerge as a prominent entry point for future action during this research. However, some countries include human rights-based approaches to climate-related migration in their development policies. See e.g. German Corporation for International Cooperation (GIZ), Projektbeschreibung, Klimawandel und Migration [Short Project Description, Climate Change and Migration].

<sup>11</sup> Senior officials, Stockholm Forum on Peace and Development workshop, 23 May 2022.

<sup>12</sup> Interviews, Senior Swedish official, 16 Mar. 2022; Senior Swedish official, 22 Feb. 2022; Senior German official, 13 Oct. 2021; Senior expert, 5 Oct. 2021; and Senior Belgian official, 2 Dec. 2022; and Senior official, Stockholm Forum on Peace and Development workshop, 23 May 2022.

<sup>13</sup> Belgium has developed an inter-university consortium on climate and security (KLIMSEC). France has established the Observatory of Climate Change Impacts on Defence and Security led by the Directorate General for International Relations and Strategy (DGRIS) in the Ministry for the Armed Forces. Germany supports the think tank Adelphi and the Potsdam Climate Institute. The Netherlands supports the Planet Security Initiative. Sweden funds SIPRI research on climate change and related security risks.

<sup>14</sup> Irish Ministry for Foreign Affairs, Minister for Foreign Affairs and Minister for Defence, Simon Coveney, United Nations Security Council Open Debate on Addressing Climate Related Risks, Statement, 23 Feb. 2021; and Weathering Risk, ‘Analysis and foresight’, [n. d.].

<sup>15</sup> Senior official, Stockholm Forum on Peace and Development workshop, 23 May 2022. See also United Nations Development Programme (UNDP), *Climate Finance for Sustaining Peace: Making Climate Finance Work for Conflict-Affected and Fragile Contexts* (UNDP: New York, 2021).





### Policy-level mainstreaming efforts and priorities

Of all the nine countries mapped, Germany and Sweden appear most vocal and consistent in their efforts to mainstream the link between climate change and security into all the relevant policy domains by making the link explicit in their foreign policy documents, defence and security strategies, and peace and development objectives.<sup>16</sup> They have also sought to shape agendas on climate security in multilateral arenas.<sup>17</sup>

Belgium and the Netherlands have begun to integrate the link between climate change and security into their foreign, defence and development strategies but have been less vocal about it. The linkages between climate change and security are also sometimes addressed implicitly, for example as part of initiatives on water or migration. The Netherlands acknowledges climate change as a threat in its national security strategy, as well as its foreign and development cooperation policies.<sup>18</sup> Dutch Defence policies, however, focus primarily on the environmental impacts of military operations rather than reducing climate-related security risks.<sup>19</sup>

Explicit linkages between climate and security are less visible in French development and foreign policies.<sup>20</sup> Instead, the country mainly focuses on responding to climate-related security risks in the military sphere.<sup>21</sup> It spearheads military cooperation on climate-related security risks through the Climate Change and the Armed Forces Initiative, which was launched at the Paris Peace Forum in 2021. The initiative seeks to adapt its armed forces to ‘a new environment of increasing power struggles around resource issues, new conditions for interventions and new types of missions’.<sup>22</sup> The 2022 Climate and Defence Strategy of the Ministry for the Armed Forces reiterates the importance that France attaches to regular dialogue with EU ministerial partners on climate and defence to identify possible synergies.<sup>23</sup>

While recognition of climate security interactions is increasing and becoming a greater policy priority in Ireland, it has not yet been

<sup>16</sup> See e.g. Government of Germany, *White Paper on German Security and the future of the Bundeswehr*, 2016; Government of Germany, *Guidelines on Preventing Crises, Resolving Conflicts, Building Peace*, Sep. 2017; and Government of Germany, *Climate Diplomacy Report*, Dec. 2019. See also Government Offices of Sweden, Prime Minister’s Office, *National Security Strategy*, Jan. 2017; Swedish Ministry for Foreign Affairs, *Strategy for Capacity Development, Partnerships and Methods that Support the 2030 Agenda for Sustainable Development*, 2019; Swedish Ministry for Foreign Affairs, *Sweden’s Strategy for the Arctic Region*, 2020; and Swedish Ministry for Foreign Affairs, *Strategy for Sweden’s Regional Development Cooperation in sub-Saharan Africa, 2016–2021*.

<sup>17</sup> The initiatives on climate security in the Security Council or, in the case of Sweden, in the OSCE are prominent examples.

<sup>18</sup> Dutch Ministry of Justice and Security, *Nationale Veiligheid Strategie, 2019* [National security strategy, 2019]; Dutch Ministry of Justice and Security, *Investeren in Perspectief: Goed Voor de Wereld, Goed Voor Nederland* [Investing in perspective: Good for the world, good for the Netherlands], 18 Aug. 2018; and Dutch Ministry of Foreign Affairs, *Wereldwijd Voor Een Veilig Nederland: Geïntegreerde Buitenland En Veiligheidsstrategie, 2018–2022* [Worldwide for a secure Netherlands: Integrated foreign and security strategy, 2018–2022], 14 May 2018.

<sup>19</sup> Dutch Ministry of Defence, *Investeren in Onze Mensen, Slagkracht En Zichtbaarheid* [Investing in our people, capability and visibility], 2018.

<sup>20</sup> French Development Agency, ‘Vulnerabilities to crises and resilience, 2017–2021 strategy’, Apr. 2019.

<sup>21</sup> van Schaik, L. et al., *Ready for Take-off? Military Responses to Climate Change* (Clingendael Netherlands Institute of International Relations: The Hague, Mar. 2020).

<sup>22</sup> Paris Peace Forum, ‘Armed forces pledge to reduce their impact on the climate’, Press release, 12 Nov. 2021.

<sup>23</sup> French Ministry for the Armed Forces, *Climate and Defence Strategy, 2022*, Apr 2022.



systematically integrated into the country's foreign, development, security or defence policies. Nonetheless, Ireland has increased the political visibility of climate security in the UN Security Council, as did Italy in 2017, albeit without continuing this work proactively in national policies since then.<sup>24</sup>

Other countries can be seen as monitoring the climate security agenda without having actively integrated it into their own policies. Slovenia, for example, has taken no action to date to mainstream the link between climate change and security. Few documents mention the link, and the country tends to react to, rather than pursue, EU policy developments in this sphere. Similarly, there is some acknowledgement of the link between climate change and security in Poland, but it is almost invisible in policy terms. This is largely because climate policy more generally is not enthusiastically endorsed by the Polish government, which prioritizes security concerns linked to Russia. Poland's 2020 National Security Policy does not frame climate change as a security issue, beyond its potential effects on food security.<sup>25</sup>

### **Implementation-level mainstreaming efforts and tools for responding to climate-related security risks**

Efforts to address climate-related security risks can bear fruit in the short term (within one to three years), the medium term (between three and five years) or the long term (more than five years). Current prescriptions for addressing climate-related security risks tend to focus either on long-term prevention through climate mitigation or short-term, reactive crisis responses. Foreign ministries emphasize more ambitious emissions reductions and implementation of the Paris Agreement in their climate diplomacy. Defence ministries, in turn, seek to lessen the emissions footprint of military operations while preserving operational efficiency. While emissions reduction is an important long-term preventative policy, it leaves current climate-related security risks unaddressed.<sup>26</sup>

This section provides examples of proactive mainstreaming efforts at the implementation level. It identifies existing tools that could help to prevent or respond to climate-related security risks in the short to medium term: (a) dedicated climate security advisers; (b) programme auditing and design to climate-proof peacebuilding and conflict-proof climate action; (c) early warning and risk mapping; (d) reassessing climate financing and official development assistance (ODA) strategies in the foreign policy and development realms; and (e) operational resilience building in the defence realm. Each is examined in turn.

#### ***Climate security advisers***

Foreign policy and development agencies are increasingly employing dedicated climate security personnel. The Swedish International Development Cooperation Agency (SIDA), for example, has tasked experts with integrating conflict, climate change, environmental, gender equality, and rights and poverty perspectives into all of its work.

<sup>24</sup> The interviewees for this study did not have an explanation for why Italian momentum on climate-related security risks ceased after 2017/2018.

<sup>25</sup> Polish National Security Bureau (note 5).

<sup>26</sup> Remling and Barnhoorn (note 1).



In addition, some countries are financing dedicated climate security advisers in multilateral organizations. Through the UN Climate Security Mechanism, for example, Germany is funding a climate and security expert in the UN Assistance Mission in Somalia, and Ireland provides financial support for such an adviser to the UN Mission in South Sudan.<sup>27</sup> Sweden has also recently financed four new United Nations Development Programme positions to develop regional and country-specific analyses, strategies and programming on climate-related security risks.<sup>28</sup>

### *Programme auditing*

Sweden has audited its development programmes to identify openings for strengthening the link between the climate, the environment, security and peace.<sup>29</sup> SIDA, for example, has conducted a gap analysis to identify opportunities for more systematic integration of the links between the climate, the environment, peace and security into its development programming. This found ‘a lot of ongoing work on climate security’ early in the conflict cycle and the need for a balance between country-specific work and efforts to make climate security a priority globally.<sup>30</sup> Programmes paid less attention to the protection of civilians from environmental damage during war or to conflict resources, reconstruction and disaster risk reduction. The people interviewed for SIDA’s gap analysis indicated a sense of ‘paying lip service to the issue’ in that ‘it is not always followed through in programming’.<sup>31</sup> Similarly, an interviewee for this research noted, ‘We are putting a lot of policies in place when it comes to climate and security, but it is something a bit different to implement these policies and make sure you do something in practice’.<sup>32</sup>

Among the current proposals to strengthen the links between climate change and security in Sweden’s development work are building capacity for peacebuilding partners on climate change/environmental and security/peace interlinkages; broadening local environmental peacebuilding efforts; researching new policy initiatives to address current gaps; specifying concrete aims on climate security as part of a strategy on sustainable peace; increasing focus on conflict contexts; and coordinating with other donors to achieve greater impact.<sup>33</sup>

<sup>27</sup> The CSM is a joint initiative of the UN Department of Political and Peacebuilding Affairs (UN DPPA), the UN Development Programme (UNDP) and the UN Environment Programme (UNEP). It is financed by Sweden, Germany, Ireland, Norway and the United Kingdom, as well as the Netherlands and Belgium. See e.g. *UN Climate Security Mechanism Progress Report* (UN DPPA, UNDP and UNEP: New York, 2021); and UN Multi-Partner Trust Fund (MPTF) Office, *Partners Gateway, ‘Climate Security Mechanism: Overview’*, 2 Aug. 2021.

<sup>28</sup> Swedish Embassy in New York, ‘Sweden increases support to UN work on climate and security’, Press release, 31 Mar 2022.

<sup>29</sup> Swedish International Development Cooperation Agency (SIDA), *The Nexus between Environment, Climate, Peace and Security*, ECPS thematic desk study and portfolio review, SIDA Helpdesk on Human Security and Humanitarian Assistance, 26 Oct. 2021 (available on request). See also Cesar, E. et al., ‘Environment and climate change integration in SIDA’s development cooperation: An overview’, SIDA, 11 June 2019.

<sup>30</sup> SIDA (note 29).

<sup>31</sup> SIDA (note 29).

<sup>32</sup> Interview, Senior Swedish official, 31 Aug. 2021.

<sup>33</sup> SIDA (note 29).





### *Programme design*

Some countries' bilateral engagement seeks to jointly identify local solutions to climate-related security risks. Among the most promising short- to medium-term initiatives currently being pursued by Germany are a regional political dialogue programme on climate, environment and security in Central Asia and Afghanistan, responding to worsening water shortages, drought and desertification, and bilateral engagements in Somalia, Nigeria and northern Mali to find local solutions to climate-related conflict issues.<sup>34</sup> The former is accompanied by research designed to enable policymakers to apply 'international instruments on security-relevant environmental and climate policy ... more confidently and quickly' and to ensure that 'successful methods [are] adopted across borders and regionally'.<sup>35</sup> The political dialogue is complemented by media and communications work designed to enhance cooperation and trust between the participating countries.

These initiatives are encouraging because they explicitly recognize the link between climate change and security, are currently being undertaken and allow for short- to medium-term reduction of climate-related security risks in areas of conflict. In Mali, Chad and Niger, Germany is collaborating with the EU to finance the FREXUS Project, which involves local stakeholders in attempts to improve security and climate resilience through the 'peaceful management of natural resources'.<sup>36</sup>

Similarly, the Netherlands is working with local stakeholders to increase understanding of the links between climate change, water availability and security; for example, the Planetary Security Initiative in Iraq, the Food and Nutrition Security Resilience Programme (FNS-REPRO) in Sudan, Somalia and South Sudan, and the Water, Peace and Security Partnership helping local stakeholders identify water-related security risks in Mali, Iraq, Kenya and Ethiopia.<sup>37</sup> The latter comprises local community-level dialogues designed to enable conflict parties to discuss changes in the availability of and access to natural resources that are influenced by climate change.

More generally, the Sahel stands out as a common geographic focus for initiatives that specifically address climate-related security risks by the countries included in this study. Belgium, for example, has developed a five-year regional programme for the Sahel with an explicit focus on climate change, although implementation is yet to begin. Practitioners also highlighted the Horn of Africa, the Nile Basin, Central Africa, Central Asia and the Middle East and North Africa as geographic priorities for reducing climate-related security risks.<sup>38</sup> Food security, water scarcity and risks related to sea level rise are common issues that current initiatives seek to

<sup>34</sup> GIZ, *Green Central Asia: Regionale Zusammenarbeit bewältigt Klimafolgen* [Green Central Asia: Regional cooperation copes with climate impacts], Feb. 2021; and Government of Germany, *Guidelines on Preventing Crises, Resolving Conflicts, Building Peace* (note 16).

<sup>35</sup> GIZ (note 34), author's translation.

<sup>36</sup> Beerhalter, S., Ferrini, L. and Benavides, L., 'Frexus: Improving security and climate resilience in a fragile context through the water-energy-food security nexus', Factsheet, GIZ, Bonn, Mar. 2019.

<sup>37</sup> On the Planetary Security Initiative see e.g. 'Launch of the Basra Forum for Climate, Environment and Security', Planetary Security Initiative, 9 May 2022. On FNS-REPRO see e.g. 'FNS-REPRO: Building food system resilience in protracted crises', Wageningen University & Research, 1 Oct. 2019. On the Water, Peace and Security Partnership see e.g. Water, Peace and Security Partnership, 'Regional overview' [n. d.].

<sup>38</sup> Senior officials, Stockholm Forum on Peace and Development workshop, 23 May 2022.



address. International relations with, and the future of, fossil fuel dependent states, and the necessary transitions to greener energy sources are prominent areas of concern that could be the focus of future initiatives.

Nonetheless, there seems some tension between climate-proofing peacebuilding and conflict-proofing climate initiatives. One interviewee stressed practitioners' growing realization that the former is different from the latter, but both go hand in hand in seeking to address climate-related security risks.<sup>39</sup> In practice, however, project design currently seems to emphasize either climate or conflict sensitivity, but rarely both. One interviewee suggested that it is difficult to both 'climate proof' and 'conflict proof' ODA at the same time.<sup>40</sup>

### *Early warning and risk mapping*

EU member states have enshrined the concept of 'early warning, early action' in their policy approaches. France, for example, launched the 'Climate Risk and Early Warning System' (CREWS) at the 21st meeting of the Conference of the Parties to the UN Framework Convention on Climate Change in Paris in December 2015 to implement multi-risk warning systems in the least developed countries (LDCs) and small island developing states (SIDS).<sup>41</sup> Germany is also a member and contributor. France, together with Australia, has developed a risk mapping tool for the Indian and Southern oceans.<sup>42</sup> Similarly, the Dutch Water, Peace and Security Partnership has launched a Global Early Warning tool, which provides quarterly estimates of conflict risk in the coming 12 months. These help global stakeholders understand when and where water-related security risks might arise and require action.<sup>43</sup> The Netherlands and Germany have also founded an informal EU Early Warning Early Action Forum to facilitate twice-yearly exchanges between EU member states and the EU institutions on early identification of crises and crisis prevention, as well as joint analyses of at-risk countries.<sup>44</sup> However, while early warning tools identify hotspots, the development of localized responses and effective resilience building usually require additional and more detailed investigations.<sup>45</sup> As one interviewee noted, 'There is uncertainty over which tools to use to counter climate-related security risks; for instance, what to do if we know that a drought is developing in any particular country'.<sup>46</sup>

<sup>39</sup> Interview, Senior Swedish official, 29 Apr. 2022.

<sup>40</sup> Interview, Senior Irish official, 15 Oct. 2021.

<sup>41</sup> French Ministry for Europe and Foreign Affairs, 'CREWS: Climate Risk and Early Warning Systems', Updated Oct. 2021.

<sup>42</sup> Bergin, A. et al., *Environmental Security in the Eastern Indian Ocean, Antarctica and the Southern Ocean: A Risk Mapping Approach* (Australian National University and French Institute for International and Strategic Affairs (IRIS): Canberra and Paris, May 2019).

<sup>43</sup> Water, Peace and Security Partnership, 'Global tool'.

<sup>44</sup> Musiol, L., 'Better early than sorry: How the EU can use its early warning capacities to their full potential', Peacelab, 9 Oct 2019.

<sup>45</sup> Meijer, K. et al., 'Fit for purpose? Rapid development of water allocation models using global data: Application for the Upper Niger Basin', *Environmental Modelling & Software*, vol. 145 (Nov. 2021).

<sup>46</sup> Interviews, Senior Swedish official, 31 Aug. 2021; and Senior official, Stockholm Forum on Peace and Development workshop, 23 May 2022.



### *Climate finance and ODA strategies*

There is a growing awareness that the current focus on reducing emissions is in stark contrast to the need to invest in climate adaptation in fragile contexts. As one interviewee stressed, ‘Tackling climate-related security risks is a question of adaptation—it is too late for mitigation. So now it becomes an issue of funding adaptation and through funding adaptation preventing conflict’.<sup>47</sup> However, this presents two significant challenges. First, despite the growing amounts of available climate finance, a significant adaptation finance gap persists.<sup>48</sup> Second, research has found that ‘fragile and conflict-affected contexts suffer unequal access to climate finance and absorption is challenging’.<sup>49</sup> Moreover, the adaptation that does take place in fragile contexts does not necessarily address conflict drivers explicitly.<sup>50</sup> Both the quantity and the quality of climate finance deserve attention.<sup>51</sup>

Some countries are prepared to give a greater share of their ODA to fragile and conflict-affected contexts which are most exposed to climate-related security risks. For example, while explicit Irish initiatives on tackling climate-related security risks are limited, Ireland has enshrined a broad interest in humanitarian assistance, protracted and forgotten crises and assisting the most in need first in its national development cooperation policy.<sup>52</sup> It is the Organization for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) member that ‘allocates the largest share of its allocable bilateral ODA to fragile countries and contexts (55 per cent in 2018, against a DAC average of 35 per cent)’.<sup>53</sup> While the connections between the climate and security have not thus far been explicitly acknowledged by Irish Aid, its actions might help to build resilience into climate-related security risks.

Sweden also dedicates more of its ODA to fragile countries than to developing countries more generally.<sup>54</sup> Belgium sends a significant share of its ODA to fund work in fragile contexts.<sup>55</sup> Sweden stands out with its deliberate strategy of providing flexible core funding to partners that are addressing climate-security linkages. One interviewee emphasized that climate-related security risks are best addressed if partners can provide both ‘continuity and flexibility’ and if ‘climate security progress is tracked’ using more systematic reporting.<sup>56</sup>

<sup>47</sup> Interview, Senior German official, 16 Sep. 2021.

<sup>48</sup> United Nations Environment Programme (UNEP) et al., *Adaptation Gap Report, 2020* (UNEP: Nairobi, 2021).

<sup>49</sup> UNDP (note 15)

<sup>50</sup> Cao, Y. et al., *Exploring the Conflict Blind Spots in Climate Adaptation Finance* (Supporting Pastoralism and Agriculture in Recurrent and Protracted Crises, SPARC: Sep. 2021).

<sup>51</sup> Senior official, Stockholm Forum on Peace and Development workshop, 23 May 2022.

<sup>52</sup> Government of Ireland, *A Better World: Ireland's Policy for International Development* (Department of Foreign Affairs: Dublin, 2019).

<sup>53</sup> OECD iLibrary, *OECD Development Co-Operation Peer Reviews: Ireland, 2020* (OECD: Paris, 2020).

<sup>54</sup> OECD States of Fragility, Sweden: Overview of ODA to fragile contexts, 2020.

<sup>55</sup> For comparative data on individual countries' ODA to fragile states see corresponding entries for Belgium; France; Germany; Ireland; Italy; the Netherlands; Poland; Slovenia in OECD States of Fragility, Overview of ODA to fragile contexts, 2020; and Sweden (note 54).

<sup>56</sup> Interview, Senior Swedish official, 29 Apr. 2022.

### The gap between rhetoric and practice

Despite the progress made at both the policy and the implementation levels, there is a gap between rhetoric and practice in all the countries analysed. Germany, for example, has sought to reduce states' vulnerability to the negative effects of climate change in policy initiatives that span bilateral and multilateral climate diplomacy in foreign policy, crisis monitoring, training, security and defence restructuring, as well as through its development-related climate finance. However, while climate change and energy, food security, the environment and natural resources, together with peacebuilding, constitute core themes in German development cooperation, the climate and security link is not always explicit.<sup>57</sup> In addition, a lack of inter-ministerial coordination can be identified when it comes to climate-related security issues. For example, while the unit working on climate and security in the foreign ministry prioritizes Central Asia and the Sahel in its work, Germany's recent development reform foresees a shift away from Asia.<sup>58</sup> As one senior official noted 'at the practical level, Germany has a lot of room for improvement'.<sup>59</sup>

Belgium, in turn, made 'supporting efforts aiming to mitigate the effects of climate change on the safety of people, particularly in the most vulnerable populations' a thematic peacebuilding priority for 2021, but it is unclear how this has been translated into concrete action.<sup>60</sup>

France has focused on military activities, seeking to reduce the environmental footprint of its military infrastructure and equipment by setting specific goals and advancing military cooperation to adapt the armed forces to climate impacts.<sup>61</sup> France has also sought to foster military resilience in climate-sensitive environments such as the Sahel and the Indo-Pacific.<sup>62</sup> More recently, the French Ministry for the Armed Forces has placed greater emphasis on biodiversity protection.<sup>63</sup> However, apart from various concrete initiatives such CREWS, the Pacific Initiative for Adaptation and Biodiversity (KIWA), the Adapt'Action tool and the Great Green Wall Accelerator in the Sahel–Sahara strip, climate and security do not appear to have been mainstreamed outside of defence.<sup>64</sup>

<sup>57</sup> See German Federal Ministry for Economic Cooperation and Development, 'Reform Strategy "BMZ 2030" (as of June 2020)'.

<sup>58</sup> Interview, Senior German official, 13 Oct. 2021; and Aid Atlas, Detailed profiles, 'Germany to all recipients for climate change (total) during 2015–2019'.

<sup>59</sup> Senior official, Stockholm Forum on Peace and Development workshop, 23 May 2022.

<sup>60</sup> Belgian Federal Public Service Foreign Affairs, 'Peacebuilding grants', accessed 16 Nov. 2021.

<sup>61</sup> See e.g. French Ministry for the Armed Forces, *Stratégie Défense durable* [Sustainable Defence Strategy], 2016; and French Ministry for the Armed Forces, *Loi de programmation militaire 2019–2025* [Military programming law, 2019–2025], 13 July 2018. France also launched the Climate Change and the Armed Forces Initiative at the 2021 Paris Peace Forum, see Paris Peace Forum (note 22).

<sup>62</sup> Regional multilateral initiatives include the South Pacific Defence Ministers Meeting (SPDMM) and the FRANZ Agreement on military cooperation with Australia and New Zealand.

<sup>63</sup> In addition to its Strategy for Biodiversity Preservation, the French Ministry for the Armed Forces cooperates with the EU on three LIFE Programme initiatives on biodiversity on military land.

<sup>64</sup> Climate Risk & Early Warnings Systems (CREWS), *Annual Report 2021: Rising to the Challenge in Complex Crises* (CREWS: Geneva, 2022); KIWA Initiative, 'A Propos de L'Initiative KIWA' [About the KIWA initiative]; Adapt'Action, French Development Agency; and Great Green Wall, 'About the Great Green Wall Accelerator' [n. d.].



Ireland has called for climate change considerations to be made integral to UN peacekeeping efforts.<sup>65</sup> Domestically, however, climate-related security risks have not been systematically integrated into the operations of the Irish defence forces.<sup>66</sup> Similarly, Italy increased the visibility of the climate-security nexus during its 2017 term on the UN Security Council and its 2017 Group of Seven (G7) presidency, but there is little evidence to suggest that the link between climate change and security has been mainstreamed into domestic programmes or initiatives in relevant policy domains.

Finally, Slovenia and Poland do not currently seem to be pursuing efforts to mainstream the link between climate change and security into their foreign policy, development or defence programmes. However, given that Slovenia sees climate change first and foremost as a disrupter of water cycles, it has been active in water diplomacy and water security in international forums, notably the EU, the UN and the North Atlantic Treaty Organization (NATO). The 2021 Slovenian Presidency of the EU, for example, played a key role in the adoption of Council Conclusions on Water in the EU's External Action. One senior official anticipates climate-related security risks moving higher up the agenda of the centre-left Slovenian governing coalition elected in May 2022 and highlighted Slovenia's candidacy for Security Council membership in 2024–25.<sup>67</sup>

To date, no EU member state has fully mainstreamed climate-related security risks at both the policy and the implementation levels (see figure 1). Practitioners pointed out that moving from explicitly addressing climate-related security risks in certain designated activities to implementing a full range of activities is a huge step.<sup>68</sup>

#### **IV. Opportunities to enhance national initiatives to address climate-related security risks**

In light of the progress and gaps outlined above, it is possible to identify four opportunities to enhance or fine-tune national mainstreaming efforts.

##### **Incorporate climate insecurity into countries' foreign and security policy dialogues**

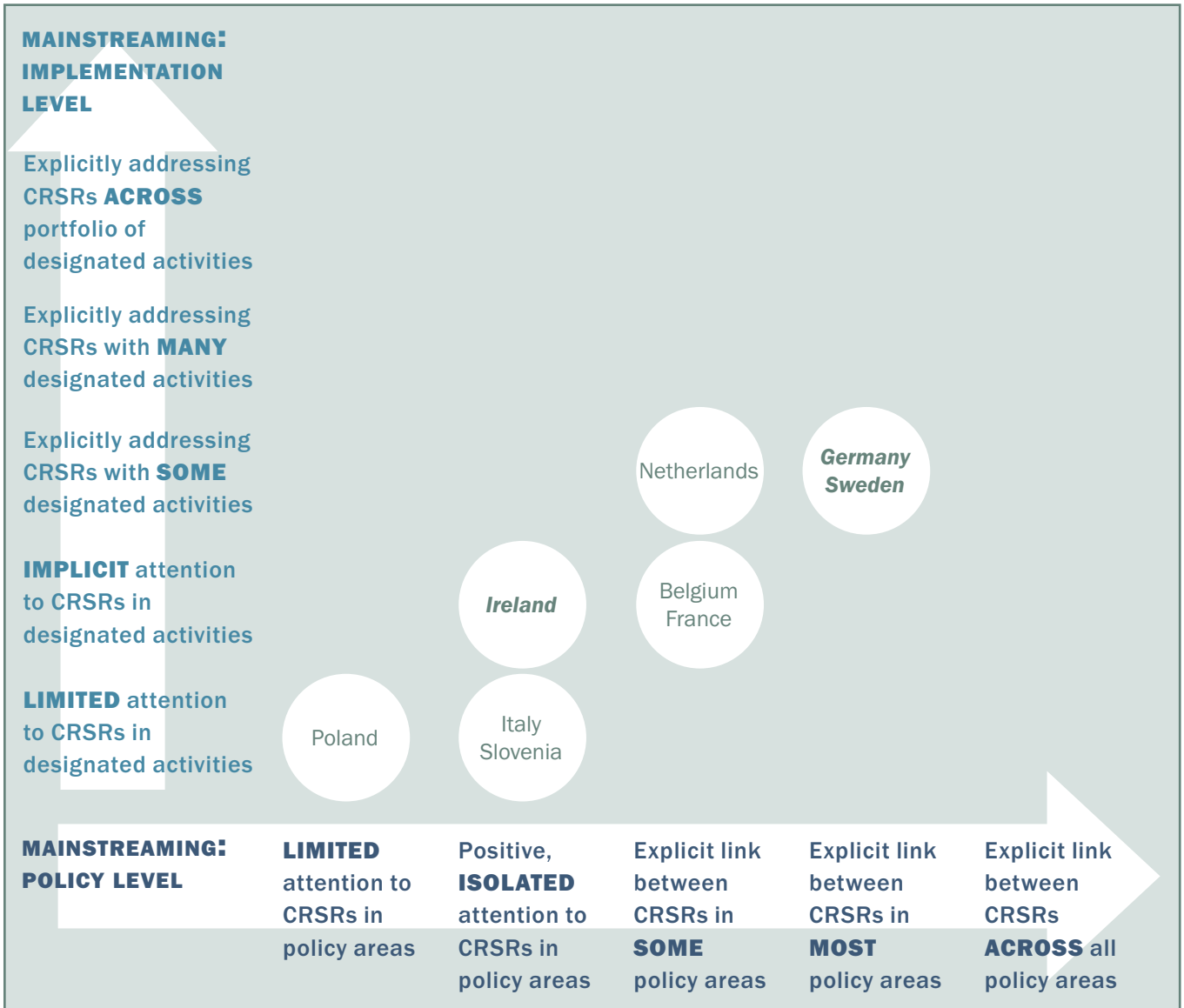
While the explicit focus on climate-related security risks is most visible in countries' development efforts—or in the case of France, its military operations—they are rarely an explicit bilateral foreign policy priority. Incorporating climate insecurity more consistently into bilateral foreign policy dialogues might therefore be an important move forward. The recent appointment of Sweden's first ambassador for climate and security, and Germany's nomination of a state secretary and special envoy for

<sup>65</sup> Permanent Representative of Ireland to the United Nations, Department of Foreign Affairs, Open Debate on the Maintenance of International Peace and Security, 'Climate and security', Concept Note, 23 Sep. 2021, New York.

<sup>66</sup> Interviews, Expert, 5 Oct. 2021; and Expert, 2 Nov. 2021.

<sup>67</sup> Senior official, Stockholm Forum on Peace and Development workshop, 23 May 2022.

<sup>68</sup> Senior officials, Stockholm Forum on Peace and Development workshop, 23 May 2022.



**Figure 1.** Efforts by European Union member states to mainstream climate-related security risks (CRSRs) at the policy and implementation levels

*Notes:* The countries in bold italic (i.e. Ireland, Germany and Sweden) show a high level of political commitment to addressing CRSRs.

*Source:* Authors' elaboration.

international climate action are notable steps in this direction.<sup>69</sup> However, to step out of existing policy silos and address the concern that ‘too many people are doing too little’, climate security may need an institutional home that is able to coordinate foreign policy, defence and development efforts in this area through clearly defined objectives, responsibilities and resources. In this context, Belgium has put in place a ‘3D approach’, whereby policymakers consistently seek to assemble views from defence, diplomacy

<sup>69</sup> Government Offices of Sweden, ‘Regeringen utser Sveriges första ambassadör för klimat och säkerhet’ [Government appoints Sweden’s first ambassador for climate and security], 2 June, 2022; and Schuetze, C. F., ‘Germany has a new climate envoy: An American Greenpeace activist’, *New York Times*, 9 Feb. 2022.





and development entities.<sup>70</sup> Nonetheless, questions remain regarding who is ultimately responsible for setting and delivering on concrete climate-related security objectives.

### **Enhancing climate resilience in conflict-affected countries through conflict-sensitive climate adaptation finance**

A history of fragility and conflict in poorly governed places is a major predictor of climate insecurity.<sup>71</sup> Initiatives in fragile and conflict-affected settings are risky undertakings. Unsurprisingly, contradictions emerge between countries' declared policy objectives on climate security and their willingness to commit resources to tackle climate-related security risks in areas of conflict.

German climate finance, for example, currently focuses on middle-income countries, and its new bilateral partnership model seeks to link development cooperation to good governance indicators, willingness to reform and private sector investment.<sup>72</sup> If a significant part of Germany's development cooperation with bilateral partners becomes conditional on good governance indicators, it is unlikely to contribute to addressing climate-related security risks in the places most likely to be affected by them. In addition, while Germany's foreign and defence ministries have relied on alliances and partnerships to strengthen international crisis management and resilience to environmental disasters, while also supporting climate risk-related insurance schemes, unless such financial tools and funds are specifically targeted at conflict-affected or fragile contexts, they will not be effective at reducing climate-related security risks.

Belgium has adopted a short-term rapid response aid mechanism (B-FAST), but its use is conditional on the absence of armed conflict in the country or region, which excludes at-risk states.<sup>73</sup> Improving the quantity and quality of the climate adaptation finance that flows to developing countries at the national level and in international forums, especially to LDCs and SIDS, and sensitizing such efforts to climate-related security risks would be important steps forward. Ireland, the Netherlands and Sweden (together with Denmark, the United Kingdom and Finland) formed a new informal Champions Group on Adaptation Finance at the 2021 meeting of the UN General Assembly.<sup>74</sup> This would be a suitable forum for discussing ways to systematically sensitize adaptation finance. Thus far, even in fragile and conflict-affected contexts, many adaptation interventions ignore maladaptation risks and their potential repercussions for conflict.<sup>75</sup> Hence,

<sup>70</sup> Interview, Senior Belgian official, 2 Dec. 2021.

<sup>71</sup> von Uexkull, N. and Buhaug, H., 'Security implications of climate change: A decade of scientific progress', *Journal of Peace Research*, vol. 58, no. 1 (Jan. 2021).

<sup>72</sup> Aid Atlas (note 58); and German Federal Ministry for Economic Cooperation and Development (note 57).

<sup>73</sup> Belgian Federal Public Service Foreign Affairs, 'Origins of Belgian First Aid and Support (B-FAST)', Updated 22 Mar. 2022.

<sup>74</sup> International Institute for Environment and Development, 'New Champions Group on adaptation finance launched amid call to accelerate adaptation finance', 22 Sep. 2021.

<sup>75</sup> Black, R. et al., *Environment of Peace: Security in a New Era of Risk* (Stockholm International Peace Research Institute: Stockholm, May 2022).

increasing adaptation efforts does not automatically translate into reducing climate-related security risks and might even make the situation worse.

### Simultaneous climate and conflict sensitizing

While climate impact assessments are common in the development projects of EU member states, they do not necessarily monitor potential conflict implications at the implementation stage. Efforts should be stepped up in this area to ensure both climate *and* conflict sensitizing. This would need to be connected to metrics that evaluate both climate and peace dividends. Several interviewees suggested that this might require increased knowledge among and training of staff.<sup>76</sup> Additional trained experts may also need to be deployed in the field.<sup>77</sup>

### Improving operationalization of early warning and monitoring

Although the ‘early warning, early action’ mantra is firmly embedded in states such as Germany and Belgium, the results of early warning tools could be more systematically integrated into foreign and security policy discussions.<sup>78</sup> This would require work across different policy and stakeholder silos.

## V. Critical juncture and avoiding politicization of climate security

Driven by domestic experiences, climate-related insecurity has evolved from a niche topic to an increasingly recognized concern. To remain credible, it is important that EU member states now take the next step. They must advance and coordinate their efforts to close the gaps between rhetoric and practice by building on current policies, initiatives and analytical work, and by starting to implement concrete projects in the field. These initial projects should start small, be rigorously monitored and evaluated—for favourable but also unintended and maladaptive outcomes—and then be gradually built on.<sup>79</sup> They could either feed into or be guided by a growing base of related EU security policy, such as the Concept for an Integrated Approach on Climate Change and Security.<sup>80</sup>

There is no guarantee that the current consensus among EU member states on stemming climate insecurity will not become more politicized as winners and losers in the transition to a more sustainable global economy

<sup>76</sup> Interviews, Senior Swedish official, 16 Mar. 2022; Senior German official, 13 Oct. 2021; and two Senior experts, 21 Nov. 2021.

<sup>77</sup> Senior official, Stockholm Forum on Peace and Development workshop, 23 May 2022.

<sup>78</sup> See e.g. German Federal Ministry for Economic Cooperation and Development (note 57); German Federal Government, *Krisen verhindern, Konflikte bewältigen, Frieden fördern: Bericht über die Umsetzung der Leitlinien der Bundesregierung* [Preventing Crisis, Resolving Conflicts, Promoting Peace: Report on the implementation of the Guidelines of the Federal Government], Berlin, Mar. 2021; and Climate Risk & Early Warnings Systems (CREWS), *Annual Report 2020: Progress on Early Warning in a Pandemic* (CREWS: Geneva, 2021).

<sup>79</sup> Senior officials, Stockholm Forum on Peace and Development workshop, 23 May 2022.

<sup>80</sup> Council of the European Union, Concept for an Integrated Approach on Climate Change and Security, Brussels, European External Action Service (2021)770, 5 Oct. 2021; and European External Action Service, *A Strategic Compass: For Security and Defence* (European Union: Brussels, Mar. 2022).



become apparent and geopolitical tensions increase.<sup>81</sup> As one interviewee put it: ‘There is not a big divergence of views because we are still in the early days of this topic. We are at the beginning of [a] labyrinth walking in the same direction, [but] people [may] take different roads later’.<sup>82</sup>

As the EU member states move from rhetoric to practice, and increase their efforts to implement specific tools to tackle climate-related security risks in the short to medium term, it is crucial that collaboration and consensus prevail despite the inevitable tensions that surround the unprecedented transition to greener economies.

<sup>81</sup> Informal conversation, Expert, 21 Mar. 2022.

<sup>82</sup> Interview, Senior Belgian official, 2 Dec. 2021.



## Appendix A. Analytical framework and methodological considerations

This research relies on qualitative case studies that compare member states' national approaches to climate-related security risks. It involves a diverse sub-set of nine member states: Belgium, France, Germany, Ireland, Italy, the Netherlands, Poland, Slovenia and Sweden.

The countries differ according to key parameters that might influence their policy approaches generally, and to climate security in particular. These are size, financial resources, identity, time of EU accession, approach to European integration, record in reducing carbon dioxide (CO<sub>2</sub>) emissions, and public concern about climate change (see appendix B).

Comparability between the nine cases was ensured by structuring each case around three questions: To what extent does this country recognize the link between climate change (or the environment) and security across its policies? What initiatives does this country rely on or plan to address climate-related security risks? Which policies does this country have in place that do not address climate-related security risks explicitly, but could be refined to do so?

Based on insights from the existing literature, the analytical framework for mapping responses to climate-related security risks spans foreign policy, security/defence, development, peace and conflict, disaster risk reduction/crisis management and migration.<sup>a</sup>

The analysis covers the period from 2017 (when the European Council decided on a long-term approach to global challenges, including climate-related pressures and shocks) to May 2022. It relies on a thorough review of both primary and secondary sources. A total of 45 semi-structured interviews were conducted with officials from relevant national ministries, their Permanent Representations in Brussels, the Council Secretariat, the European External Action Service and the European Commission, as well as external experts. In addition, a workshop was held with 34 policymakers, practitioners and experts at the Stockholm Forum on Peace and Development in May 2022.

Researching a cross-cutting issue with no clear institutional home, as is the case with climate security, can be cumbersome. In addition, limiting the analysis to certain policy areas means that there is a possibility that relevant documents or initiatives on responding to climate-related security risks in other policy areas (such as the environment or education) could be overlooked.

<sup>a</sup>Dellmuth, L. M. et al., 'Intergovernmental organizations and climate security: Advancing the research agenda', WIREs Climate Change, vol. 9, no. 1 (2018); and Sonnsjö, H. and Bremberg, N., *Climate Change in an EU Security Context: The Role of the European External Action Service*, Research Report (Stockholm University: Stockholm, 2016).



## Appendix B. Similarities and differences between selected European Union member states across various dimensions

The table below illustrates the similarities and differences across seven dimensions for the nine selected EU member states whose policies and initiatives on climate-related security risks were mapped for this study.

EU member state	Population (2020) <sup>a</sup>	GDP (euros per capita) <sup>b</sup>	CO <sub>2</sub> emissions reduction target <sup>c</sup>	Accession year	EU approach to integration <sup>d</sup>	EU geographic identity	Per cent of population that considers climate change the most serious problem facing the world (as of April 2021) <sup>e</sup>
Belgium	Medium	High	Underachiever	1958	Mainstream	Western	Medium
France	Large	High	Overachiever	1958	Mainstream	Western	Medium
Germany	Large	High	Underachiever	1958	Mainstream	Western	Medium
Ireland	Small	High	On track	1973	Mainstream	Western	High
Italy	Large	Medium	Overachiever	1958	Mainstream	Southern	Low
Netherlands	Medium	High	Underachiever	1958	Pragmatic	Western	High
Poland	Large	Low	Underachiever	2004	Reluctant	Central and Eastern	Low
Slovenia	Small	Medium	Overachiever	2004	Mainstream	Central and Eastern	Low
Sweden	Medium	High	Overachiever	1995	Pragmatic	Northern	High

CO<sub>2</sub> = carbon dioxide; EU = European Union, GDP = gross domestic product.

<sup>a</sup> Sorted by small, < 10 million; medium, 10–30 million; and large, > 30 million. Eurostat Data Browser, Population change, Demographic balance and crude rates at national level, accessed 22 Sep. 2021.

<sup>b</sup> Sorted by low, < 20,000; medium, 20–30,000; and high, > 30,000. Eurostat, Main GDP aggregates per capita in 2020, accessed 1 Sep. 2021.

<sup>c</sup> Emission compared to EU targets outside of Emissions Trading System; compared to 2005 levels Sorted by underachievement (not on track), on track and overachievement. European Commission, Commission Staff Working Document, Assessment of the Final National Energy and Climate Plan of Belgium, SWD(2020), 900 final, 14 Oct. 2020, <[https://ec.europa.eu/energy/sites/default/files/documents/staff\\_working\\_document\\_assessment\\_necp\\_belgium\\_en.pdf](https://ec.europa.eu/energy/sites/default/files/documents/staff_working_document_assessment_necp_belgium_en.pdf)>; European Commission, Commission Staff Working Document, Assessment of the Final National Energy and Climate Plan of France, SWD(2020), 909 final, 14 Oct. 2020; European Commission, Commission Staff Working Document, Assessment of the Final National Energy and Climate Plan of Germany, SWD(2020), 904 final, 14 Oct. 2020; European Commission, Commission Staff Working Document, Assessment of the Final National Energy and Climate Plan of Ireland, SWD(2020), 906 final, 14 Oct. 2020; European Commission, Commission Staff Working Document, Assessment of the Final National Energy and Climate Plan of Italy, SWD(2020), 911 final, 14 Oct. 2020; European Commission, Commission Staff Working Document, Assessment of Final National Energy and Climate Plan of the Netherlands, SWD(2020), 918 final, 14 Oct. 2020; European Commission, Commission Staff Working Document, Assessment of the Final National Energy and Climate Plan of Poland, SWD(2020), 920 final, 14 Oct. 2020; European Commission, Commission Staff Working Document, Assessment of the Final National Energy and Climate Plan of Slovenia, SWD(2020), 923 final, 14 Oct. 2020; and European Commission, Commission Staff Working Document, Assessment of the Final National Energy and Climate Plan of Sweden, SWD(2020), 926 final, 14 Oct. 2020.

<sup>d</sup> Sorted by mainstream, pragmatic and reluctant.

<sup>e</sup> Sorted by high, > than 30%; medium, 15–30%; and low, 0–14% Drieskens, E., 'Belgium and the European Union', *Oxford Research Encyclopedia of Politics* (Oxford University Press: Oxford, 2019); Lequesne, C. and Behal, A., 'France and the European Union', *Oxford Research Encyclopedia of Politics* (Oxford University Press: Oxford, 2019); Bulmer, S., 'Germany and the European Union', *Oxford Research Encyclopedia of Politics* (Oxford University Press: Oxford, 2019); Tonra, B., 'Ireland and the European Union', *Oxford Research Encyclopedia of Politics* (Oxford University Press: Oxford, 2017); Bindi, F., 'Italy and the European Union', *Oxford Research Encyclopedia of Politics* (Oxford University Press: Oxford, 2020); Segers, M., 'The Netherlands and European Integration', *Oxford Research Encyclopedia of Politics* (Oxford University Press: Oxford, 2019); Karolewski, I. P. and Wilga, M., 'Poland and the European Union', *Oxford Research Encyclopedia of Politics* (Oxford University Press: Oxford, 2018); Bojinović Fenko, A. and Svetličič, M., 'Slovenia and the European Union', *Oxford Research Encyclopedia of Politics* (Oxford University Press: Oxford, 2017); and Johansson, K. M., 'Sweden and the European Union', *Oxford Research Encyclopedia of Politics* (Oxford University Press: Oxford, 2017).

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SIPRI RESEARCH POLICY PAPER

# MAPPING EUROPEAN UNION MEMBER STATES' RESPONSES TO CLIMATE-RELATED SECURITY RISKS

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## CONTENTS

I. Introduction	1
II. Member states' security concepts and drivers of action: Similarities and differences	2
III. National policies and initiatives on mainstreaming climate security	4
Policy-level mainstreaming efforts and priorities	6
Implementation-level mainstreaming efforts and tools for responding to climate-related security risks	7
The gap between rhetoric and practice	12
IV. Opportunities to enhance national initiatives to address climate-related security risks	13
Incorporate climate insecurity into countries' foreign and security policy dialogues	13
Enhancing climate resilience in conflict-affected countries through conflict-sensitive climate adaptation finance	15
Simultaneous climate and conflict sensitizing	16
Improving operationalization of early warning and monitoring	16
V. Critical juncture and avoiding politicization of climate security	16
Figure 1. Efforts by European Union member states to mainstream climate-related security risks at the policy and implementation levels	14
Table 1. Summary of political, resource-related and institutional barriers to reducing climate-related security risks (CRSRs)	4
Appendix A. Analytical framework and methodological considerations	18
Appendix B. Similarities and differences between selected European Union member states across various dimensions	19