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Responding to Climate-Related Security Risks: Reviewing Regional Organizations in Asia and Africa

Florian Krampe[1] · Malin Mobjörk[1]

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Abstract

Purpose of Review This paper presents new insight on the approaches and ability to respond to climate-related security risks in four regional intergovernmental organizations (IGOs) in Asia and Africa—ASEAN (South East Asia), SAARC (South Asia), ECOWAS (West Africa), and IGAD (East Africa).

Recent Findings IGOs are becoming increasingly important in responding to climate-related security risks, given the transnational character of these risks. Previous research has primarily focused on Western-based IGOs, whereas more attention is needed on IGOs in fragile and developing regions to increase our understanding of the emerging challenges and to take adequate measurements to mitigate climate-related security risks.

Summary We show that the regional security context and vulnerability to climate change affects the framing of climate-related security risks, and that the risks identified often relate to livelihood conditions and development, rather than state security. Measurements are taken, but the key challenge remains the implementation of these policies.

Keywords Climate-related security risks · Intergovernmental organizations · Climate change · Security

Introduction

The transnational character of climate-related security risks implies that responding to these risks goes beyond the capacity of national governments. Droughts, water shortage, flooding, extreme weather events, and sea-level rise often affect several countries in a specific region at the same time. This transnational character involves not only geophysical connectedness through shared water basin areas and coastlines, but also transnational flows of goods, finance and humans [1, 2]. As such, climate change creates both new challenges for and the increasing relevance of regional organizations [3••]. Indeed, regional as well as global intergovernmental organizations (IGOs) are getting more involved in the work to mitigate and adapt to climate-related security risks [3••, 4, 5, 6•, 7•]—including various bodies in the United Nations (UN), such as UN Environment Program (UNEP), UN Development Program (UNDP), United Nations High Commissioner for Refugees (UNHCR), and the UN Security Council (UNSC) [8, 9••, 10••, 11].

We define climate-related security risks using a comprehensive security approach that includes human, community, state, and international security [5, 12]. Such a comprehensive security approach is needed because climate-related security risks are multifaceted, i.e. involving different consequences, such as drought, flooding, and sea-level rise, and can simultaneously undermine the security of different reference objects, i.e., human, community, state, international system, environment, and ecology [13–15]. Moreover, climate-related security risks span different policy areas, such as foreign policy, defense, development, economy, and environment [3••, 5, 16]. This multifaceted and multidimensional character of climate-related security risks calls for the scrutinization of the framing of security, i.e., analyses of how organizations are responding to climate-related security risks should also investigate how these risks are understood in the organization, because this is likely to explain different policy outcomes.

In this paper, we contribute with new insight into how four regional IGOs in Asia and Africa are developing their approaches and ability to deal with climate-related security risks. The IGOs have been selected because of their significance as

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✉ Florian Krampe
florian.krampe@sipri.org

[1] Stockholm International Peace Research Institute, Signalistgatan 9, SE-169 70 Solna, Sweden

regional actors in some of the world's most fragile and climate-vulnerable regions. We focus specifically on the Association of Southeast Asian Nations (ASEAN), the South Asian Association for Regional Cooperation (SAARC), the Economic Community of West African States (ECOWAS), and the Intergovernmental Authority on Development (IGAD) (East Africa). The study highlights that three policy areas are particularly pertinent within the selected organizations: food security, human security (livelihoods and conflict), and extreme weather events and weather-related disasters.

In order to contribute to the emerging research on the responses of IGOs to climate-related security risks, this paper uses three lines of inquiry: (1) when climate-related security risks emerged within each organization; (2) how climate-related security risks are framed, i.e., how these risks are conceptualized and what policy areas are in focus; and (3) what action and measures are taken in order to respond to these risks. We structure the paper in four parts. First, we outline the emerging research on the responses of IGOs to climate-related security risks and refine our analytical framework. Second, we outline the methodological approach, before, third, providing a comparison of the four examined IGOs. Lastly, we summarize and discuss the findings from the comparison and elaborate on implications for future research.

Previous Research and Analytical Framework

Some concerns have been around for several decades on the adverse effects of climate change, yet the broader academic debate on climate-related security risks emerged in the early 2000s [5, 17]. Already early on, this debate involved a broad understanding of "security" that spanned the divide between human and state security. Nevertheless, the debate has to a large extent been shaped by traditional security concerns and more specifically the potential linkages between climate change and violent conflicts [18–21]. The debate has since expanded to include a more comprehensive understanding of security, which acknowledges that climate change simultaneously challenges different dimensions of security that span from human security to state security and international security [5, 12]. This development also includes a reconfiguration of security as a human-centered concept, which includes an academic debate on environmental and ecological security [15, 22].

The multidimensional and multifaceted character of climate-related security risks means that the responses of IGOs need to cover—and ideally integrate—diverse, interlinked policy areas [23–25]. One of the first comprehensive reviews of the literature on the responses of IGOs to climate-related security risks highlights that it is not possible to identify one coherent research field [3••]. Instead, the research emerges from different scientific fields—political science, international relation, environmental governance—that all tend to analyze different types of IGOs [3••]. Nevertheless, a few common characteristics can be distinguished. First, previous research has primarily focused on two analytically distinct security notions, namely state security and human security. Although they are interlinked, few scholars study the implications of climate change on both security dimensions [6•, 14, 26]. Second, previous research into these two security notions has focused on different policy arenas. For instance, research on state security commonly investigates security, peace and conflict, as well as diplomacy, focusing on IGOs such as the European Union (EU), the North Atlantic Treaty Organization (NATO), and the UN Security Council [4, 7•, 9, 10, 27•]. Instead, research on human security tends to focus on broader societal issues such as development, migration, and disaster risk reduction and primarily includes studies of UN organizations such as UNHCR, United Nations International Strategy for Disaster Reduction (UNISDR), UNDP, and UNEP [28–30]. Third, previous research has predominately focused on one policy area and organization at a time, even though the mandate of many IGOs is much broader.

Reviewing the current state of the literature, it is evident that single case study approaches dominate this nascent research on climate security governance. In fact, there are few, if any, comparative studies comparing different IGOs. Therefore, in this paper, we attempt to address this gap. We provide a comparative case study that (a) examines four regional IGOs, spanning different policy areas within these organizations, and (b) identifies commonalities in how these four IGOs have developed their policy discourses and implemented responses.

In our analysis, we apply a comprehensive understanding of climate-related security risks. This approach acknowledges the multifaceted character of climate-related security risks and, moreover, enables us to explore both different understandings of climate-related security risks and how IGOs conceive interlinkages between various security approaches and policy areas [5]. Being analytically able to span these different areas, such as conflict, diplomacy, development, or disaster risks is increasingly relevant. When organizations develop their approaches and take action in one area, this not only has implications for other policy areas within that institution, but also for other organizations. Analyzing the connectedness of different policy arenas is key to reducing the risks of maladaptation or broader boomerang effects [31, 32].

Research Design

In this paper, we study the framing and action taken by four regional IGOs regarding their responses to climate-related

security risks. To do so, we explore three lines of inquiry: first, we explore when climate-related security risks entered the IGOs' mandates. Second, we ask how climate change is framed as a security challenge within the selected regional IGOs. We thereby aim to discern the discourse surrounding climate-related security risks in each organization and if a focus on specific risks and/or policy areas predominates. Hence, we are sensitive to the fact that different framing may exist within different segments of a single organization, as it reflects the multifaceted character of climate-related security risks. Third, we ask what specific action is being taken by these IGOs.

The scope of this analysis covers four regional IGOs—ASEAN, SAARC, IGAD, and ECOWAS—and they were selected on the basis of four selection criteria. The chosen IGOs should (1) be clearly defined in their geographic stretch; (2) be similar in their purpose, i.e., having a broad mandate focusing on facilitating regional cooperation with a focus on economy, development, and peace; (3) face similar governance challenges, as they are situated in fragile and conflict-affected regions; and (4) be vulnerable to climate change but face different regional climatic conditions and scenarios. These criteria then allow for exploratory, cross-case comparisons that can generate hypotheses about how regional IGOs are framing climate-related security risks, which risks matter the most and what action is being promoted [cf. [33, 34].

The IGOs were analyzed through a review of relevant policy documents published by them. These policy documents are not the outcome of individual preferences or beliefs but are a common formulation of policies to govern climate-related security risks [35], see also [36]. The findings from that initial assessment were qualified by 14 semi-structured interviews with strategically selected officials from the IGOs, as well as regional experts that work closely on/with these organizations. Interviewing strategically selected elite actors is common practice [37, 38]. In this case, it provided insights into interpretations of the IGOs' framing of climate-related security risks that would otherwise be unattainable. To warrant against potential biases, we systematically qualified document and interview data. Interviews were conducted under the Chatham House Rule, allowing us to use received information without disclosing the identity or affiliation of the interviewee, enabling them to speak more freely. Identity or affiliation remains undisclosed, as agreed with the interviewees.

The subsequent analysis is structured along two lines: (a) discourse, i.e., how the IGOs frame and represent climate-related security risks in official policy documents, and (b) action and implementation, i.e., how the IGOs translate their framing of climate-related security risks into policies and measurements (for main findings, see Table 1). A more elaborate and descriptive presentation of the policy frameworks and action is presented in Krampe et al. [39].

Four Regional Intergovernmental Organizations

The four IGOs studied cover about 40% of the world's population, accumulating a population of about three billion people. ASEAN was established in August 1967 with the aim to accelerate economic growth, social progress, and cultural development, as well as to promote regional peace and stability. ASEAN's ten member states are Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Viet Nam. SAARC was established on 8 December 1985 in Dhaka, Bangladesh, and its eight members are Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. ECOWAS was established in 1975 with the goal of promoting the economic integration of its 15 member states: Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo. IGAD was established in 1996 with the aim to bolster economic integration and facilitate cooperation in achieving food security and environmental protection, through the promotion of peace and security and humanitarian affairs. IGAD's eight member states are Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan, and Uganda.

The main mandate of all four regional IGOs is to facilitate regional cooperation. However, climate-related security risks have been identified as a growing concern for each of them. Climate-related security risks have found their way into policy frameworks and influence the organizations' activities. In fact, discussions on climate-related security risks have been visible within SAARC and IGAD since the late 1980s. In the case of IGAD, climate impacts in the form of droughts are part of the very reason why it was established in the first place. Other organizations, such as ASEAN, have only identified climate-related security risks later on, yet see them as a direct challenge to their mandate to promote prosperity and stability in the South East Asian region. Here, we provide a brief summary of the IGOs' discourses and action on climate-related security risks.

Association of Southeast Asian Nations

ASEAN increasingly recognizes climate change as a risk to prosperity and stability in the region. Climate change is considered as challenging ASEAN's mandate to accelerate economic growth, social progress, and cultural development, as well as to promote regional peace and stability. The topic became of increased concern after 2007. The "ASEAN Declaration on Environmental Sustainability 2007" asserted to take the threats posed by climate change seriously and commit to elaborating its climate change strategy. Subsequently, ASEAN has repeatedly emphasized the need for climate action. Most notably, the 2009 "Singapore

statement" recognized the vulnerability of South East Asia to climate change and stressed both its implications for livelihoods and that climate change is limiting ASEAN's development options for the future. The organization set out a vision for a community resilient to climate change and supporting national and global efforts to combat climate change. Given its direct implications for ASEAN's mandate, interviewed ASEAN staff considers the 2009 "Singapore statement" as a key moment in ASEAN's discourse on climate-related security risks for the institution.

ASEAN's action on climate-related security risks also became more pronounced in 2009. For example, it developed the *Multi-Sectoral Framework on Climate Change and Food Security* during a meeting of the ASEAN Ministers on Agriculture and Forestry (AMAF). The framework is set in the economic pillar (AEC) and has its own coordination structure. Moreover, it announced plans to imitate the ASEAN Climate Change Initiative (ACCI) to address climate change and mitigate its impacts. As such, ACCI is included in the *Blueprint of the ASEAN Socio-Cultural Community* and is institutionally located in the ASEAN Socio-Cultural Community (ASCC). In addition, the ASEAN Working Group on Climate Change (AWGCC) was tasked with monitoring the implementation of climate change measures set out in the ASCC Blueprint. ACCI has so far realized several projects, notably relating to resilient cities and risks and impacts of extreme events.

While ASEAN is less donor-dependent than other IGOs, external funding still affects the shape of ASEAN's discourse. Since 2013, the organization intensified its promotion of climate-resilient agriculture with support from, among others, German GIZ. These efforts originate to a large degree from work initiated after the 2008 and 2011 global food crises and include risk responses and mechanisms to control the rice price. However, according to Asian Development Bank experts, implementation stalled and the rice reserve does not state a required level. Moreover, experts from the Asian Development Bank are concerned that questions about the physical distribution remain unresolved. Another key policy area in ASEAN's work on climate-related security risks is disaster management. This area has experienced substantial implementation efforts since 2009 and the establishment of the *ASEAN Disaster Management and Emergency Relief Fund*. Several initiatives relating to disaster response are implemented in partnership with external donors, notably Australia, Japan, and the EU, showing again the external influence on ASEAN's action on climate-related security risks. According to one interviewee, the ASCC pillar is currently conducting a study of coastal vulnerability to assess the risks of coastal cities. ASEAN staff members emphasize the need for further comprehensive risk assessments, which are currently lacking. One key challenge to fostering stronger implementation, according to interviewees, is the weak coordination across ASEAN's four pillars. Also, the strongest pillar—the ASEAN Political-Security Community—does not deal with climate change, indicating that climate-related security risks are perceived differently within ASEAN.

In conclusion, within ASEAN, climate-related security risks are predominately framed using a human security approach, specifically stressing developmental and livelihood challenges. Accordingly, ASEAN has set out a vision for community resilience to climate change and it supports national and global efforts to combat climate change. This is visible within ASEAN's action, where strengthening resilience is a key approach, most prominently to climate-resilient agriculture, disaster management, and resilient (coastal) cities. That said, ASEAN remains dependent on external donors, notably Australia, Japan, and EU, and is lacking a comprehensive assessment of climate-related security risks.

South Asian Association for Regional Cooperation

In the 1987 *SAARC Kathmandu Declaration*, SAARC heads of state expressed "their deep concern" about the regional challenges related to environmental degradation and climate change. They recognized that these changes were "severely undermining the development process and prospects of the member countries" and "decided to intensify regional cooperation with a view to strengthening their disaster management capabilities." In order to do so, SAARC decided to commission a study on the *Protection and Preservation of the Environment and the Causes and Consequences of Natural Disasters*, which was finalized in 1991. The Technical Committee on Environment, established in 1992, was subsequently tasked with identifying measures for immediate action and deciding modalities for the implementation. Since then, the mandate of the Committee was expanded to specifically include forestry. Currently, it therefore focuses on three areas: environment, forestry, and natural disaster matters. SAARC has continuously expressed concern for environmental issues, including climate change in several declarations. However, it took until 2005—in the aftermath of the 2004 Tsunami—for SAARC members to agree on concrete actions to improve their disaster management capacity. A key element in those efforts was the *Comprehensive Framework on Disaster Management* (2006–2015), which included the setting up of the *SAARC Disaster Management Centre* (*SDMC*) in October 2006 to advice on policy and facilitate capacity building. These measures were taken in the aftermath of the Tsunami—a non-climate event—but, nonetheless, are significant for the management of climate-related disasters.

Climate-related security risks, especially with regard to livelihoods, were emphasized in the 2007 *Declaration of the Fourteenth SAARC Summit.* Heads of state expressed "deep concern over global climate change and the consequent rise in

sea level and its impact on the lives and livelihoods in the region." Consequently, they called for cooperation on climate action, including early warning and knowledge sharing for "pursuing a climate resilient development in South Asia." This resulted in the 3-year *SAARC Action Plan on Climate Change* in 2008, which identified seven thematic areas of cooperation, among which were adaptation, mitigation, and management of the impacts and risks of climate change-related security. Two years later, in 2010, SAARC established an *Expert Group on Climate Change* (IGEG.CC) to ensure policy direction and guidance for regional cooperation.

In general, SAARC declarations emphasize the role of the United Nations Framework Convention on Climate Change (UNFCCC) and the *National Adaptation Programmes of Action* (NAPAs) as a focal point for climate action. However, despite numerous declarations on climate change and its security risks, many policies are not operational, and others are yet to be ratified. This is mainly due to regional politics inhibiting SAARC's functionality. Following the 2016 Uri attacks in Kashmir, no SAARC summit has been held. Acknowledging the unreconciled dispute between India and Pakistan, informants and regional experts interviewed seriously question the future of SAARC. Nevertheless, despite these tensions and limits to SAARC's functionality, cooperation does occur on a bilateral level and through alternative regional configurations. Smaller South Asian states, in particular, such as Bangladesh, Bhutan, Nepal, the Maldives, and Sri Lanka, have increased their collaboration regarding climate-related security risks—on the state level, but also quite substantially through non-governmental pathways. One of these initiatives is the Asian Disaster Preparedness Center (ADPC), which brings the National Disaster Management Organizations of South Asian states together to facilitate the implementation of disaster and climate risk management.

In summary, SAARC has historically emphasized the link between climate change and human security. Natural disasters and sea-level rise are mentioned as having detrimental impacts on lives and livelihoods in the region, and a climate-resilient development is considered key to responding to the challenges. The major problem, however, is implementation. Cooperation on developing the region's disaster and climate-related security risk management is crucial in order for SAARC to respond effectively. Yet, despite good initiatives, most efforts are limited to the bilateral level, mainly because of the tensions between India and Pakistan.

Economic Community of West African States

Although the interviews with ECOWAS officials revealed strong awareness of the relevance of climate-related security risks, this link is not made explicit in the organization's policy frameworks and discourse. Rather than acknowledging climate-related security risks, policy frameworks in ECOWAS specifically recognize environmental security as an area of concern, especially with regard to natural resources. The Protocol Relating to the *Mechanism for Conflict Prevention, Management, Resolution, Peacekeeping and Security* (1999) explicitly states that humanitarian, natural, and environmental crises can undermine the region's security. Also, ECOWAS links its 2008 Environmental Policy directly to peace and prosperity, stating that "the environmental policy proposes the vision of a peaceful, dignified and prosperous ECOWAS region whose various and productive natural resources are preserved and managed on sustainable basis for the development and equilibrium of the sub-region." Building on its experience with natural resource-based conflicts [40, 41], ECOWAS also emphasizes that armed conflict in the sub-region has negative impacts on sustainable land management. As such, the language in the Environmental Policy has strong similarities to ECOWAS' Conflict Prevention Framework, which concludes that good natural resource governance is one of its benchmarks to "strengthen human security and incorporate conflict prevention activities (operational and structural) as well as aspects of peace-building" (pp. 11, 16).

Aside from its focus on natural resources, ECOWAS has concentrated specifically on food insecurity in the region. The issue is especially salient with increased violence between herders and farmers. The crisis has deepened over the years, due to progressive desertification that has pushed herders further southward and due to the proliferation of small arms and light weapons. As such, several frameworks have been developed with regard to agricultural development and investment plans, which is indicative that the issue is currently the most prevalent concern for ECOWAS. This is confirmed by interviews with staff and regional experts. ECOWAS has conducted a study on transhumance conflicts in the region, i.e., conflicts between herders and farmers or between different groups of herders. The complexity and multi-causality of the transhumance conflict influenced the study's conclusions, which emphasized the role of ongoing insurgencies and the access to small arms, rather than environmental degradation and climate change. To that end, ECOWAS has focused on the control of small arms and light weapons, in order to reduce the easy access of arms by herders and other societal groups. However, some interviewees are concerned that, aside from rhetoric, there is no real commitment to addressing the transhumance conflicts. Some observers see the control of small arms as an important part of addressing the transhumance violence, while other experts question whether this would stop it, because it does not resolve the conflict issue. Despite the fact that climate-related change plays a vital role in the conflict analysis of transhumance conflicts in East Africa [42], it is notably absent in the framing of the transhumance conflicts in West Africa.

In summary, ECOWAS and its staff are unquestionably aware of the security risks stemming from climate change. Food security, environmental degradation, and transhumance conflicts are three key areas recognized. However, ECOWAS suffers from a capability constraint that is coupled with the prevalence of the member states' principle of national sovereignty over domestic affairs and a lack of collective action. Among other things, this is visible in ECOWAS' relations to its regional hegemon, Nigeria, and ECOWAS' attempts to act on regional transnational crises, such as the one around Lake Chad.

Intergovernmental Authority on Development

Notably, IGAD's mission is to increase cooperation among its member states in order to achieve food security and environmental protection, peace and security, and economic cooperation and integration in the region. However, despite the close connection between drought and climate change, IGAD did not explicitly have a strategy on climate-related security risks until 2015.

IGAD first approved a *Food Security Strategy* in 1990 and adopted a *Five-Year Program* in 1992. Following a severe drought in the region and the ineffectiveness of IGAD's drought response, the 2011 Nairobi Summit led to the adoption of the *IGAD Drought Disaster Resilience and Sustainability Initiative* (IDDRSI). The IDDRSI promotes innovative sustainable development strategies, policies, and programs at member state and regional levels, aimed at building resilience to future climatic and economic shocks. In addition, IGAD's frameworks include the 2012 *Regional Migration Policy Framework* (IGAD-RMPF) to support internally displaced persons (IDPs) from disasters, including environmental disasters as well as conflicts.

In 2016—following the Paris Agreement—the *IGAD Regional Climate Change Security Strategy 2016–2030* (IRCCS) was adopted. The IRCCS provided the first comprehensive policy framework for the organization, which was later complemented with the *IGAD Strategy and Implementation Plan 2016–2020.* The Implementation Plan has peace and security in its core and specifically emphasizes climate and food security. Action on climate-related security risks centers around two affiliated institutions, the *Conflict Early Warning and Response Mechanism* (CEWARN) and the *IGAD Climate Prediction and Application Centre* (ICPAC). Both are functioning institutions and are key for sharing information, for instance, about herders' movements. Nevertheless, despite some success, its scope remains limited. Staff members note that internal affairs issues are kept out because of concerns over national sovereignty. Moreover, observers note a lack of resources and the porosity of the borders.

Overall, IGAD clearly acknowledges climate-related security risks, most notably related to drought and transhumance conflicts. However, the organization suffers from capacity gaps that prevent it from efficiently implementing functioning policy on these issues. There is some indication that both the Paris Agreement and the increase in herder–farmer violence are providing momentum, but the influx of small arms, and especially the exploitation of migration patterns for arms smuggling, makes collaboration and trust between regional actors more difficult—though perhaps more necessary than ever.

Framing and Action on Climate-Related Security Risks

Comparing the four IGOs, it is evident that the regional security context and the region's vulnerability to climate change affect each IGO's framing of climate-related security risks. ASEAN and SAARC both have a strong emphasis on disaster management, which stems from the region's exposure to primarily rapid-onset, natural disasters. Food security—caused by environmental degradation, drought, or rapid-onset disasters—is a major concern across all four organizations. ECOWAS' focus on environmental issues and natural resources appears to stem from its experience with the role that natural resources play in conflicts. While there is an awareness of climate change among ECOWAS officials, its policy frameworks focus on the short-term implications of natural resources and less on the long-term impacts of climate change. There is a notable difference when comparing ECOWAS and IGAD in their framing and action around transhumance conflicts, even though this major security concern is the same in both organizations (see summary of findings in Table 1).

The framing of climate-related security risks in these four regional IGOs centers around human security concerns. As such, the framing differs substantially compared to the often-mentioned "threat multiplier" framing, which is common among organizations such as the EU, the OSCE, and NATO [3••, 4, 6•, 27]. ASEAN's mandate encompasses the promotion of peace and stability, and although climate change is not mentioned in relation to the core mandate, it is explicitly mentioned as undermining livelihood conditions and limiting development options. All four IGOs in this study acknowledge a broad, human security-based understanding of climate-related security risks, typically with the member population as the referent object. The risks relate especially to livelihood conditions and development, but in ECOWAS and IGAD, herder–farmer conflicts also play an important role. It is worth noting that this focus on human development and human security concerns is congruent with regional understandings of peace and security, which differ from more state security-focused understandings in the West [43]. The differences between Western-based IGOs and these four IGOs in terms of how security is conceived and how climate-related security risks are conceptualized call for deeper analysis of the connection

Table 1 Matrix comparing Framing and Action of studied IGOs

	Framing	Action
ASEAN	Climate change is seen as a risk to prosperity and stability in the region. The impacts climate change has on livelihood conditions and development options are in focus. ASEAN has set out a vision for community resilience to climate change and supports national and global efforts to combat climate change.	Strengthening resilience is a key approach in ASEAN's vision to manage climate impacts. ASEAN has focused its efforts on developing frameworks for climate-resilient agriculture, disaster management, and resilient (coastal) cities. Action is taken in partnership with external donors, notably Australia, Japan, and EU. A comprehensive assessment of climate-related security risks is lacking.
SAARC	Climate change, and environmental degradation, is seen as undermining the development process and prospects for SAARC's member countries. Specifically, natural disasters and sea-level rise are mentioned as having detrimental impacts on lives and livelihoods in the region. Climate-resilient development is considered key to responding to the challenges.	Cooperation on developing the region's disaster and climate risk management is a key part of SAARC's responses. A disaster management center was established in 2006 and an expert group on climate change to ensure policy direction and guidance in 2010. The role of the UNFCCC and NAPAs is emphasized. Currently, most efforts are bilateral.
ECOWAS	Limited framing of climate-related security risks. Instead, natural resource exploitation is explicitly identified as a key risk that can undermine the region's security. ECOWAS has closely linked its language on environmental security risks to its conflict prevention framework. Herder–farmer conflict dominates the discourse.	ECOWAS has implemented agricultural policies to address the transhumance conflicts. Further, it has taken measures to regulate small arms in order to contain transhumance violence.
IGAD	Security risks posed by climate change risks are closely connected to IGAD's core mission. Food security, in particular, dominates the discourse, but more recently also herder–farmer conflicts.	Cooperation among member states is part of IGAD's mission. Most cooperation occurs in the relation to the Conflict Early Warning and Response Mechanism (CEWARN) and the IGAD Climate Prediction and Application Centre (ICPAC).

between framing and action. They also call for examining the implications of donor dependency in cases where the donors have different understandings of the risks compared to the organizations that are supposed to mitigate them.

The findings of this study reveal a growing awareness of climate-related security risks among regional IGOs. A key challenge for these organizations remains the implementation of their policy frameworks in regional adaptation processes. The main problems relate to issues of national sovereignty and organizational structural inhibitors. First, like so often in the context of IGOs, issues of national sovereignty remain a major inhibitor of successful action. This is further amplified in regions where high levels of distrust exist among states, as the case of South Asia illustrates. This speaks to the rationale of why IGOs are considered increasingly important actors in an interconnected world [3••]. Second, the division of climate security issues across several departments and organizational silos inhibits coordinated—and even integrated—responses [5, 23, 25]. Often, the political and security pillars, which are the most powerful pillars in terms of influence and financial resources, do not deal with climate-related security issues. A likely explanation for this is the non-traditional character of climate-related security risks, compared to conventional ways of conceptualizing security. This involves both an unfamiliarity of how to conceptualize and assess climate-related security risks and a questioning of the relevance of the so-called hard security actors. It remains unclear whether, in their current condition, the framing of these organizations on climate-related security risks will affect their and member states' action on these issues. Again, the sovereignty of states complicates the maneuverability of these organizations.

There is little doubt that the transnational character of climate-related security risks creates both new challenges for and the increasing relevance of regional IGOs [3••, 4, 39]. It is therefore essential to more systematically study and analyze how local, national, and regional institutions are developing their ability to deal with climate risks.

Compliance of ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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