Climate Security and Security Sector Governance in East Asia

Thematic SSG Brief

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ASIA-PACIFIC

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Additional resources

The workshop programme and links to recordings of the public webinar are available at https://www.asiapacificssg.com/post/public-webinar-climate-change-and-security-sector-governance-in-east-asia.

Acknowledgements

Executive Summary

In East Asia, there is a growing awareness of the threat that climate change poses to the security of states and societies in the region. The direct impact of natural disasters, the implications of climate change on water, health and food security, as well as the ramifications for pre-existing inter-state rivalries are all extremely pertinent risks in East Asia. Climate security is increasingly being adopted as a framework through which we can understand such impacts of climate change on security and the mitigation and adaptation measures that these impacts necessitate. Despite the growing adoption of the concept of climate security by actors such as NATO, the EU and states in the Global North, the nexus between climate change and security has received less attention in the Global South. This brief highlights growing climate change-related risks in East Asia and the importance of conceptualizing climate change as a security challenge. In doing so, the concept of security sector governance and reform (SSG/R) is introduced as a relevant framework through which to implement an understanding of climate security. Furthermore, this brief underlines the important role militaries should play in responding to climate change-related risks in an effective and accountable manner. Lastly, it proposes a set of recommendations for implementing an SSG-informed approach to climate security. This includes raising awareness of the role of the security sector in responding and adapting to climate change in East Asia, fostering inter-governmental cooperation, for example at regional security forums, developing whole-of-government approaches towards climate change that promote inter-agency cooperation, and having ministries of defence develop dedicated and comprehensive climate change strategies.

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Introduction

Climate change is increasingly recognized as a major human and national security challenge to areas that are exposed to its impacts or have underlying social or political fragilities. It has a wide range of effects across the security spectrum including triggering costly and destructive disasters, causing displacement and migration, pressuring livelihoods with significant economic loss, worsening urban challenges, driving social and political grievances and instability, deteriorating conflict dynamics, and inundating small island states.

Despite these links between climate change and security, the concept of climate security remains a relatively new and contested one in political and academic spaces. As recently as December 2021, a UN Security Council resolution on climate security failed to pass due to opposition from some member states.[1] The increasing adoption of climate security terminology has also been received cautiously by some civil society actors, who fear a prioritization of the needs and methodologies of traditional security over those of human security, especially for vulnerable populations.[2] Moreover, discussions regarding climate security have been most prominent in North America and Europe since the policy issue came to the fore in the mid-2000s, with only limited recent attention in East Asia and other regions (although Small Island Developing States have been vocal about the existential threats they face from climate change). Nonetheless, there are signs of adaptation in these dynamics. The aforementioned Security Council resolution was co-sponsored by Japan and South Korea, and Japan established a Climate Security Task Force within its Ministry of Defense in 2021.

This Thematic Security Sector Governance (SSG) Brief, taking the debate surrounding the securitization of climate change into account, will first establish the need for a climate security agenda in East Asia. It will show that global, regional and specific local impacts of climate change generate a need for security sector actors to help mitigate, as well as adapt themselves to, the effects of climate change. The brief particularly discusses the role militaries should play in responding to climate change-related risks in an effective and accountable manner and shed light on the various initiatives they have undertaken to adapt to emerging threats related to climate change. Security sector governance and reform (SSG/R) will then be introduced as a relevant framework that can push for the necessary measures to implement a climate security agenda in East Asian security sectors while at the same time guarding against over-securitization through an emphasis on principles such as accountability, transparency and inclusion. Finally, concrete measures that can be taken by East Asian actors will be identified, drawing upon experiences elsewhere.

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1   International Crisis Group, 'How UN Member States Divided Over Climate Security', December 22, 2021, https://www.crisisgroup.org/how-un-member-states-divided-over-climate-security.

2   Asif Muztaba Hassan, 'Is Securitization of Climate Change a Boon or Bane?' *The Diplomat*, July 27, 2021, https://thediplomat.com/2021/07/is-securitization-of-climate-change-a-boon-or-bane/.

Conceptualization of Climate Change as a Security Challenge

The security dimensions of climate-related risks are increasingly recognized across many sectors, including in the negotiations to limit global warming. At the 26th meeting of the UN Climate Change Conference of Parties (COP26) held in Glasgow in November 2021, the leaders of Small Island Developing States (SIDS) highlighted how climate change is an existential threat to the survival of their states and the livelihoods of their people. Damage and displacement caused by rising sea levels, and the need to support adaptation to these changes, are concerns that many SIDS have voiced over the years and that have shaped the negotiating blocs within the UN Framework Convention on Climate Change (UNFCCC).

Other security institutions are incorporating climate dimensions into their work and engaging with international climate negotiations. At COP26, NATO Secretary-General Jens Stoltenberg described climate change as a 'crisis multiplier', noting that NATO is developing a workstream on climate security as detailed in its Climate Change and Security Action Plan in 2021, and acknowledged the need to reduce military greenhouse gas (GHG) emissions.[3] The Intergovernmental Panel on Climate Change (IPCC) has also contributed to this momentum through its 2021 Sixth Assessment Report, noting the many ways that climate change will impact human security.

This momentum is further demonstrated by recent initiatives on climate security that have emerged at regional and state levels. The European Union has integrated climate change across policy areas, including in its foreign and security policies. The European Defence Forces' 2020 Climate Change and Defence Roadmap, which builds on the European Green Deal of 2019, demonstrates the EU's awareness of the climate-security nexus. Progress has been made in the United States following President Joe Biden's Executive Order 'Tackling the Climate Crisis at Home and Abroad',[4] which established climate change as 'an essential element of US foreign policy and national security'.[5]

While action on climate security has risen and fallen on policy agendas over the past 15 years, debate on the climate-security nexus in academic circles go back decades. Seminal texts dating to the end of the Cold War include work by Thomas F. Homer-Dixon[6] and Jon Barnett,[7] who respectively argue for and against the theory that environmental change, resource scarcity and climate change can aggravate armed conflict. This debate reflects a tension between the awareness of the security threats that climate change can induce or aggravate, and a wariness of securitization of environmental change. More recently,

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3   Michael Birnbaum, 'Climate change is highlighted as a security issue as NATO leader visits COP26', *The Washington Post,* 2 November 2021, https://www.washingtonpost.com/climate-environment/2021/11/02/nato-global-warming-cop26-glasgow-/.

4   The White House, 'Executive Order 14008 of January 27, 2021: Tackling the Climate Crisis at Home and Abroad', *Federal Register* 89, no. 19 (2021): 7619-7633.

5   The White House, 'FACT SHEET: President Biden Takes Executive Actions to Tackle the Climate Crisis at Home and Abroad, Create Jobs, and Restore Scientific Integrity Across Federal Government', January 27, 2021, https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/27/fact-sheet-president-biden-takes-executive-actions-to-tackle-the-climate-crisis-at-home-and-abroad-create-jobs-and-restore-scientific-integrity-across-federal-government/.

6   Thomas F. Homer-Dixon, 'Environmental Scarcities and Violent Conflict: Evidence from Cases', *International Security* 19, no. 1 (1994): 5-40.

7   Jon Barnett, 'Destabilizing the Environment-Conflict Thesis', *Review of International Studies* 26, no. 2 (2000): 271-288.

Brazilian scholar Adriana Erthal Abdenur highlighted the decidedly mixed response to the international climate security agenda in the Global South, where some states express reservations about the implications of the agenda for sovereignty, interventionism, militarized solutions and diversion of resources from development.[8]

This tension is also reflected in East Asian academic circles to a limited extent. Analysis of Chinese academia demonstrates that there is a diversity of views on the climate security agenda. Chinese scholars focusing on international negotiations have argued that this agenda justifies Western interventionism, while in contrast scholarship that looks at the domestic impact of climate change focuses on the threat it poses to 'environmental stability, human security and food/water security.'[9] Elsewhere in East Asia, however, this debate as well as academic discourse on climate security in general is less prominent.[10]

Pathways of How Climate Impacts Become Security Risks in East Asia

Setting aside the debate surrounding the securitization of climate change, there has been increasing awareness of the transnational risks that accompany it, many of which are relevant to East Asia. Maria-Gabriela Manea identifies four broad pathways towards climate security risk: direct impact of natural hazards, population displacement, amplification of conflict dynamics, and increase in criminality, terrorism and radicalization.[11] Not all of these pathways are directly relevant to East Asia, but even indirect threats beyond the region relating to forced migration, climate change-related conflict and radicalization can have long-term ramifications for the region.

In terms of direct threats, natural hazards are a significant concern for East Asian governments. Both the long-term impacts of rising sea levels and the short-term destructiveness of tropical storms are causes for concern in East Asian states due to the concentration of their populations and economic infrastructure along the coastline. Awareness about how significantly climate change will increase the frequency and severity of natural disasters has mounted in recent years. Disaster response is one of the primary ways in which climate change will impact militaries in the region. This was indicated in Japan's 2021 Defense White Paper, which mentioned 'disasters that have become larger and more severe in recent years due to climate change', and also took the step of establishing a Ministry of Defense Climate Change Task Force.[12] Similarly, Taiwan's 2021 National Defense Report refers to climate change-related natural disasters which cause '[t]orrential rains, floods, landfalls, and landslides' as one of three non-

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8   Adriana Erthal Abdenur, 'Climate and security: UN agenda-setting and the "Global South"', *Third World Quarterly* 42, no. 9 (2021): 2074-2085, at pp. 2079-2080.

9   Jonna Nyman & Jinghan Zeng, 'Securitization in Chinese climate and energy politics', *WIREs Climate Change* 7, no. 2 (2016): 301-313, at p. 307.

10   Yasuko Kameyama & Keishi Ono, 'The development of climate security discourse in Japan', *Sustainability Science* 16 (2020): 271-281, at p. 271.

11   Maria-Gabriela Manea, 'The Security Sector and Climate Change', *Geneva Global Policy Briefs*, no. 2 (2021), https://www.dcaf.ch/sites/default/files/imce/PRD/UniversityOfGeneva-GGPB_N2-2021-M-G_Manea.pdf, at pp. 3-4.

12   Ministry of Defense, Japan, 'Defense of Japan 2021', https://www.mod.go.jp/en/publ/w_paper/wp2021/DOJ2021_EN_Full.pdf, at p. 10.

conventional security threats that Taiwan is concerned with.[13] Military installations and equipment located on the coast are directly threatened by rising sea levels and tropical storms. Critical infrastructure such as nuclear power plants are also threatened by these natural hazards, presenting a dangerous security threat as well as jeopardizing energy security. These hazards also have an impact on military missions. For example, tropical storms make it easier for submarines to avoid detection, as surface ships and aircraft involved in anti-submarine operations are inhibited by poor weather conditions in a way that submarines are not.

Tropical storms and associated flooding in particular have led to an increased need for armed forces to take part in humanitarian assistance and disaster relief (HA/DR) operations across East Asia. However, the increase in requests for HA/DR operations in Japan, which is partly linked to the desire of lawmakers to bolster their reputations in their constituencies by requesting military support, has led to a phenomenon of 'HA/DR fatigue' and a fear of over-engagement in such operations overseas.

Human security concerns relating to water, health and food are similarly affected by climate change. In Taiwan, climate change-related drought is a prominent concern, especially due to the importance of water supplies for the island's crucial semiconductor industry. The melting of the cryosphere on the Qinghai-Tibet Plateau has significant implications for the shared water resources of China and neighbouring South Asian countries. In the build-up to COP26, the World Health Organization's Director-General stated that the pandemic has 'shone a light on the intimate and delicate links between humans, animals and our environment',[14] and the organization also took the opportunity afforded by COP26 to publish a Special Report on Climate Change and Health. The health implications of climate change, which include an increased risk of heatstroke and dehydration in addition to tropical infectious diseases, will have an impact on troops and therefore military effectiveness, demonstrating one example of the close link between human security and more traditional security considerations.

Climate change will have a significant impact on agriculture, aquaculture and food security in the region. The rice yield of the Mekong Delta region, an important exporter of food to East Asia, will be threatened by rising sea levels. Fishing catches are projected to decline due to climate-related changes to ocean temperature and acidity, along with pollution and overfishing. This issue of food security is closely related to other climate change-induced risks, with the northward shift of fishing grounds around Japan resulting in incursions by Chinese and North Korean fishing fleets into Japan's Exclusive Economic Zone. It is therefore clear that while so-called 'resource wars' are not a likely phenomenon in East Asia, climate change pressures nonetheless have the potential to increase friction between states in an already tense regional environment in which the

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13   Ministry of National Defense, Republic of China, 'ROC National Defense Report 2021', https://www.ustaiwandefense.com/tdnswp/wp-content/uploads/2021/11/Taiwan-National-Defense-Report-2021.pdf, at p. 48.

14   World Health Organization, 'WHO's 10 calls for climate action to assure sustained recovery from COVID-19,' *World Health Organization*, October 11, 2021, https://www.who.int/news/item/11-10-2021-who-s-10-calls-for-climate-action-to-assure-sustained-recovery-from-covid-19.

boundaries between fishing fleets and maritime militias are often blurred.[15]

Inter-state relations in East Asia also have the potential to be aggravated by competition over the Northern Sea Route as global warming makes the route increasingly viable. The militarization of the Arctic is explicitly mentioned as a climate change-related security threat by Japan's 2021 Defense White Paper,[16] and Chinese and Russian military activities in the Arctic are noted with concern throughout the document.[17] China, Japan and South Korea all have indicated an interest in utilizing the route for commercial activity, and a subsequent increase in maritime traffic in Northeast Asia has the potential to create further security risks.

Why SSG is an Important Lens for Understanding Climate Security

Given the tension between the need for the security sector to adapt and respond to climate change on the one hand, and concerns about the militarization of the climate on the other, SSG/R has the potential to strike a 'middle ground' by emphasizing both effectiveness and accountability in the security sector's approach to climate security.[18]

SSG/R draws attention to important aspects of responding to climate security such as the need to build trust between security providers responding to climate threats and the communities in which they operate.[19] The emphasis on oversight also allows for a consideration of the role of parliaments in formulating legislation that delineates the roles and responsibilities of other security sector institutions when it comes to climate security.[20] Finally, SSG/R highlights the importance of civil society in maximizing the accountability of the security sector, for example through activism or investigative journalism.[21] Broadly speaking, SSG/R favours a good governance-based definition of climate security that goes beyond policy and institutional initiatives and instead aims at a multi-stakeholder, multi-level and cross-sectoral response to climate change's impact on security.

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15   China's maritime militia, the People's Armed Forces Maritime Militia, is an armed fishing fleet made up of non-uniformed personnel that is often active in disputed waters. For details see Brad Lendon, 'Beijing has a navy it doesn't even admit exists, experts say. And it's swarming parts of the South China Sea', *CNN*, April 13, 2021, https://edition.cnn.com/2021/04/12/china/china-maritime-militia-explainer-intl-hnk-ml-dst/index.html.

16   Ministry of Defense, Japan, note 12 above, at p. 22.

17   Ibid. at pp. 80, 125, 192-193.

18   Manea, note 11 above, at pp. 6-7.

19   DCAF — Geneva Centre for Security Sector Governance, 'Security Sector Governance', SSR Backgrounder Series, 2015, https://www.dcaf.ch/sites/default/files/publications/documents/DCAF_BG_1_Security%20Sector%20Governance.11.15.pdf, at p. 3.

20   DCAF — Geneva Centre for Security Sector Governance, 'Parliaments', note 19 above, at pp. 3-4.

21   DCAF — Geneva Centre for Security Sector Governance, 'Civil Society', SSR Backgrounder Series, 2019, https://www.dcaf.ch/sites/default/files/publications/documents/DCAF_BG_17_Civil%20Society_0.pdf, at pp. 4-7.

Key Concepts[22]

- **Good Security Sector Governance (SSG)** describes how the principles of good governance apply to public security provision, management and oversight. The principles of good SSG are accountability, transparency, the rule of law, participation, responsiveness, effectiveness and efficiency. Establishing good SSG is the goal of SSR.

- **Security Sector Reform (SSR)** is the political and technical process of improving state and human security by making security provision, management and oversight more effective and more accountable within a framework of democratic civilian control, the rule of law and respect for human rights. SSR may focus on only one part of public security provision or the way the entire system functions, as long as the goal is always to improve both effectiveness and accountability.

- **The security sector** is not just security providers: it includes all the institutions and personnel responsible for security management and oversight at both national and local levels.

For more information on these core definitions, please refer to the DCAF's SSR Backgrounders on 'Security Sector Governance', 'Security Sector Reform' and 'The Security Sector'.

- DCAF — Geneva Centre for Security Sector Governance, 'Security Sector Governance', SSR Backgrounder Series, 2015, https://www.dcaf.ch/sites/default/files/publications/documents/DCAF_BG_1_Security_Sector_Governance_EN.pdf.
- DCAF — Geneva Centre for Security Sector Governance, 'Security Sector Reform', SSR Backgrounder Series, 2015, www.dcaf.ch/sites/default/files/publications/documents/DCAF_BG_2_Security%20Sector%20Reform_1.pdf.
- DCAF — Geneva Centre for Security Sector Governance, 'The Security Sector', SSR Backgrounder Series, 2015, https://www.dcaf.ch/sites/default/files/publications/documents/DCAF_BG_3_The%20Security%20Sector.pdf

The SSG/R framework is therefore closely tied to a conception of climate security in particular, as well as of security more broadly including human security alongside more traditional approaches. This complements the broader conceptualizations of security that have begun to emerge in East Asia, a region that has until recently been largely preoccupied with traditional security issues. Climate risks have played an important role in arguments made by Chinese scholars for the adoption of a broader conceptualization of national security and an emphasis on non-traditional considerations such as food and water security, health, and climate migration.[23] President Xi Jinping's articulation of a holistic approach to national security in 2014 was an important development in this broadening. Human security has long been an important framework for the Japanese Ministry of Foreign Affairs, although the link between human security and climate change in the ministry's activities has yet to be developed.[24]

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22 The definition of these key concepts is taken from DCAF's SSG Backgrounder series. For details see DCAF — Geneva Centre for Security Sector Governance, 'Parliaments', SSR Backgrounder Series, 2015, https://www.dcaf.ch/sites/default/files/publications/documents/DCAF_BG_8_Parliaments.pdf, at p. 3.

23 Nyman & Zeng, note 9 above, at pp. 307-308.

24 Kameyama & Ono, note 10 above, at p. 276.

An SSG/R-informed approach to climate security is also in line with the recent push towards recognizing climate change as a national security concern that has taken place in several countries and international organizations. US President Biden's aforementioned Executive Order 'Tackling the Climate Crisis at Home and Abroad' has been the basis of important changes that institutionalize climate security through the adoption of a whole-of-government approach to the problem.[25] All departments and agencies, including government institutions such as the Department of Defense and the Office of the Director of National Intelligence, have been tasked with integrating climate into their activities. Climate security is also to be integrated into the country's overarching National Defense Strategy. Similarly, the EU's 2020 Climate Change and Defence Roadmap forms an important part of the Common Security and Defence Policy as well as the conflict prevention and crisis management activities of the European Union overseas. In East Asia, the most significant government initiative on climate security is the Japanese Ministry of Defense's Climate Change Task Force that was established in May 2021.

Overall, an SSG/R approach to climate security is consistent with these existing efforts to integrate climate into security policies. Moreover, its emphasis on accountability, transparency, oversight, and the inclusion of a broad range of local, national and international actors means that SSG/R is able to guard against over-militarization while also pushing for governance changes that will help mitigate and adapt to climate change.

The Important Role of Security Institutions

There are two main ways in which the security sector relates to climate change. The first relates to security institutions as a dependent variable of climate change, affected by its various impacts ranging from the exacerbation of conflict to the direct impact of natural hazards on military operations. The second involves the security institutions as an independent variable, whereby the military in particular contributes to climate change, chiefly through fossil fuel emissions. It is widely recognized that the armed forces are often the single largest GHG emitter among government agencies, although standardized practices for accurate military emissions reporting are still being developed.

These two different facets of the security sector's relationship with climate change demand different roles and responsibilities. The first, whereby the security sector is a dependent variable, demands adaptation measures to prepare for the ever-growing impacts of climate change. This can involve reducing the vulnerability of coastal facilities in the Asia-Pacific region to climate change-related natural hazards. The United States' assessments of its military installations' exposure to climate hazards[26] and France's Observatory of Climate Change Impacts on Defense and Security[27] represent important efforts to create a knowledge base to raise awareness and inform efforts to adapt to

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25   The White House, 'Executive Order 14008 of January 27, 2021: Tackling the Climate Crisis at Home and Abroad', note 4 above.

26   US Department of Defence, 'DOD Installation Exposure to Climate Change at Home and Abroad', April 19, 2021, https://media.defense.gov/2021/Apr/20/2002624613/-1/-1/1/DOD-INSTALLATION-EXPOSURE-TO-CLIMATE-CHANGE-AT-HOME-AND-ABROAD.PDF.

27   Ministère des Armées, 'Observatoire géopolitique des enjeux des changements climatiques en termes de sécurité et de défense', https://www.defense.gouv.fr/dgris/etudes-externalisees/observatoire-geopolitique-enjeux-changements-climatiques-termes-securite-defense.

climate change, both by assessing installation vulnerability and by highlighting the ways in which climate change poses a threat to security sector activities.

The second aspect of the relationship, whereby the security sector is an intervening variable, creates a responsibility to help mitigate the impact of climate change by 'greening defence'. The United Kingdom's effort to bring the armed forces in line with the goal of net-zero emissions by 2050, including carbon neutrality for the air force, is one the most developed examples of such a mitigation effort. Greening defence is similarly an objective of France' Defence Energy Strategy[28] and Canada's Defence Energy and Environment Strategy, while the Pentagon is planning to invest in technologies that can help reduce its reliance on fossil fuels and improve energy efficiency.[29] The defence energy transition, which amongst other activities develops methodologies to assess NATO emissions and studies the feasibility of green technologies, is one focus of NATO's climate security workstream.[30]

In terms of understanding climate change's impacts on military operations, New Zealand in particular has a well-developed strategy on climate security that involves collaborating with academics and listening to regional actors. Uniquely, the strategy also incorporates indigenous Maori concepts on the guardianship of nature and national treasures.[31] This example demonstrates how an SSG/R-based approach to climate security can be actualized through consultation with a wide range of stakeholders who hold different forms of knowledge to address the array of climate-related human and national security challenges in a locally grounded way.

It is therefore clear that there is a trend of SSR in armed forces and government ministries around the world aimed at mitigating and adapting to the effects of climate change. An SSG/R-informed approach to climate security includes such measures, but goes beyond them as well by advocating for a deeper interaction between states and their societies in the national context and broader cooperation between nations in the international context. The transnational challenges that climate change poses demand an ambitious effort to improve SSG/R in this area at multiple levels of governance.

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28   Ministère des Armées, 'Nouvelle stratégie énergétique de défense : consommer moins, mieux et sûr', October 8, 2020, https://www.achats.defense.gouv.fr/actualites/Nouvelle-strategie-energetique-de-defense-consommer-moins-mieux-et-sur#:~:text=Le%2025%20septembre%202020%2C%20Florence%20Parly%2C%20la%20ministre,op%C3%A9rationnel.%20publi%C3%A9e%20le%2024%2F09%2F2020%20-%20Source%20de%20l%27article.

29   Jack Detsch, 'Pentagon Looks to Brits to Face Climate "Danger Zone"', *Foreign Policy*, June 1, 2021, https://foreignpolicy.com/2021/06/01/pentagon-biden-climate-change-uk/.

30   NATO, 'NATO Climate Change and Security Action Plan', June 14, 2021, https://www.nato.int/cps/en/natohq/official_texts_185174.htm?selectedLocale=en.

31   Ministry of Defence, New Zealand, 'Responding to the Climate Crisis', November 2019, https://www.defence.govt.nz/assets/publication/file/dcf3ee802b/Responding-to-the-Climate-Crisis.pdf, at p. 6.

Conclusion and Recommendations

In conclusion, it is possible to derive a number of recommendations for East Asian states on how to integrate an understanding of climate change-related insecurity into the security sector from ongoing efforts by other states as well as discussions among experts in the field. These recommendations can be applied to policymaking at multiple levels, including both international and local. It is important that the implementation of these measures keep the principles of the SSG/R framework in mind, ensuring that a wide range of actors are included and consulted in decision-making processes aimed at adapting the security sector's policies and planning to climate change.

The first of these recommendations is to mainstream climate security in regional security forums. Existing security forums in the Asia-Pacific, such as the ASEAN Defence Ministers' Meeting Plus[32], provide good foundations for intra-regional cooperation, but the issue of climate security has thus far not featured prominently on the agenda. Climate security could be introduced to security forums such as the Heads of Asian Coast Guard Agencies Meeting or the Western Pacific Naval Symposium, as has already been done within the South Pacific Defence Minister's Meeting through a joint study on the defence impacts of climate change in the South Pacific in 2017-2019[33]. Examples from the EU and NATO could also serve as sources of inspiration in this effort. For instance, NATO's Climate Change and Security Action Plan included the aim of increasing awareness within the alliance about climate security through an annual Climate Change and Security Impact Assessment.

There is also a need to provide avenues for international and regional cooperation which promotes inclusiveness, as demonstrated by the participation of major powers such as the US, China, India and Japan in the Pacific Environmental Security Forum initiated by the US Indo-Pacific Command in 2011. The joint roadmap on Defence and Climate[34] initiated by France at the Paris Peace Forum in November 2021, adopted by 26 countries including Japan and South Korea, which emphasizes measures to be taken to better anticipate, mitigate, adapt and cooperate on the international stage, provides another example of the benefits of international cooperation for moving forward.

The aforementioned roadmap adopted at the Paris Peace Forum includes a number of proposals for fostering intergovernmental cooperation on climate and defence such as the establishment of international partnerships in the field of strategic research and the creation of a North-South dialogue forum and network on 'energy-climate-defense actions'. This forum would feature cooperation with the International Energy Agency and the International Renewable Energy Agency and would involve an exchange of best practices in the domain of energy sustainability, energy transition and climate resilience.

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32   Besides the ten countries of ASEAN, the ASEAN Defence Ministers' Meeting Plus (ADMM-Plus) includes three major countries of East Asia – Japan, South Korea and China – as well as other countries including Australia, the US and India. The ADMM-Plus provides an official framework of the Defence Minister's Meeting in the Asia-Pacific. For details see, ADMM, 'About the ASEAN Defence Ministers,' February 6, 2017, https://admm.asean.org/index.php/about-admm/about-admm-plus.html.

33   François Gemenne, Bastien Alex & Alice Baillat, 'Implications of Climate Change on Defence and Security in the South Pacific by 2030', Observatory on Defence and Climate, May 2019.

34   Ministère des Armées, 'Joint Statement on Climate Change and the Armed Forces, Paris Peace Forum', October 6, 2021, https://parispeaceforum.org/wp-content/uploads/2021/11/French-Ministry-for-the-Armed-Forces-Joint-Ministerial-Statement-on-Climate-Change-and-the-Armed-Forces.pdf.

The second recommendation concerns policy on the governmental level, namely to develop climate security risk assessments and strategies and to foster the inter-agency cooperation necessary to implement them, ensuring that diplomatic, development and military actors can complement each other's efforts. The recent efforts by the Biden Administration represent one of the largest ongoing efforts to achieve this kind of cooperation. As a basis for action, national security or intelligence risk assessments can outline the scale and dynamics of the challenge. The US's first National Intelligence Estimate on Climate Change in 2021 is an example. From that, senior leadership can build the institutional infrastructure to foster inter-agency cooperation and address interconnected human and national security challenges in a climate-changed future. In line with this trend toward inter-agency cooperation, the Paris Peace Forum's roadmap advises states to align their policies and practices across diplomacy, development and defence, in particular to facilitate a 'holistic response to challenges in fragile and conflict-affected contexts.'[35]

A third recommendation is for ministries of defence in East Asia to adopt dedicated and comprehensive strategies on climate change that include adaptation and mitigation measures. There is an international trend towards adopting such strategies, with the United States adopting a national strategy in September 2021 and the EU strategic compass stating that 'by the end of 2023, in view of fully implementing the Climate Change and Defence Roadmap, Member states will develop national strategies to prepare the armed forces for climate change.'[36]

To achieve their missions in a climate-changed future, militaries will need to adapt their installations, equipment, training, strategies and more while reducing their carbon footprints. Ensuring that defence can play its role alongside other actors in minimising the harmful impacts of climate change on the security environment requires convincing national security establishments of the seriousness of this non-traditional threat. These means could include an emphasis on the operational benefits of adaptation measures, such as stealth and energy. In the Asia-Pacific region, the need to build resilience to natural disasters, including disasters unrelated to climate change such as earthquakes, could be a driver of adaptation measures such as the adoption of stealthier technologies and fewer dependencies on insecure energy sources.

The common thread throughout these recommendations is the need to raise awareness of the issue. Climate adaptation and mitigation require the collection and dissemination of information on the threat posed by climate change as a precondition for action. With this in mind, the need to break down silos between states and governmental departments and within government agencies is particularly important.

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35   Ibid. at p. 3.
36   European Union, 'A Strategic Compass for Security and Defence', March 2022, https://www.eeas.europa.eu/sites/default/files/documents/strategic_compass_en3_web.pdf.

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