SECURITIZATION OF CLIMATE CHANGE:
ISSUES FOR GLOBAL AND NATIONAL SECURITY

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Acronyms

AOSIS	Alliance of Small Island States
BBNJ	Biodiversity beyond national jurisdiction
BIMSTEC	Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation
COVID-19	Corona Virus Disease 2019
G77	Group of 77 and China
HADR	Humanitarian assistance and disaster relief
IORA	Indian Ocean Rim Association
IPCC	Intergovernmental Panel on Climate Change
KAS	Konrad-Adenauer-Stiftung
MARPOL	Convention for Prevention of Marine Pollution
MEA	Ministry of External Affairs
MOEFCC	Ministry of Environment Forest and Climate Change
NAM	Non-Aligned Movement
NAPCC	National Action Plan on Climate Change
NDC	Nationally determined contributions
NDRF	National Disaster Response Force
NEO	Non-combatant evacuation operations
PSIDS	Pacific Small Island Developing States
R2P	Responsibility to protect
SAPCC	State Action Plan on Climate Change
TERI	The Energy and Resources Institute
UK	United Kingdom
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
UNSC	United Nations Security Council
USA	United States of America
WBGU	German Advisory Council on Global Change
WMO	World Meteorological Organization

Acronyms

Executive summary

The Energy and Resources Institute and the India Office of the Konrad-Adenauer-Stiftung aim to bring together a diverse set of perspectives on aspects of global security by involving experts through research and dialogue; the experts range from scientists to practitioners drawn from the domains of climate change, governance and security. The objective of this policy study is to discuss various aspects of 'securitization of climate change', which include non-traditional security, external security, internal security and political dynamics. The initiative aims to serve the constructivist function of informing the discussion on securitization of climate change in India and all over the world.

Realists in international literature consider non-traditional security issues such as anthropogenic climate change, pandemics and food security as second-order problems especially for the major security powers of the world. Responses to the COVID-19 pandemic illustrate how a non-traditional security issue is of traditional security concern. Security establishments are actively involved in activities such as rescue, control, prevention and even cure.

The United States Department of Defense, for instance, has army researchers who are working and collaborating to develop rapid COVID-19 testing technology and vaccines. India has also invoked the provisions of the Disaster Management Authority Act 2005 to treat COVID-19 as a national disaster and undertake measures, in coordination with state governments, for rescue, relief and rehabilitation.

The United Nations Security Council (UNSC) Resolution 1625 of 2005 has broadened the role of the UNSC by adding conflict prevention through addressing 'root causes' in its ambit. In the five UNSC open debates that have transpired so far, China and the Russian Federation have opposed while France and the United Kingdom have supported the UNSC dealing with climate change as a security threat. The United States of America has been ambiguous on this aspect. All participating members of the European Union and the Pacific Small Island Developing States, and a majority of the Alliance of Small Island States favour UNSC dealing with climate security concerns. A majority of the member states of the Group of 77 and the Non-Aligned Movement have opposed the legitimization of the UNSC in dealing with climate change.

Emerging narratives position climate change and security using three rationales. First, in terms of 'adaptation' as climate change and environmental changes pose significant risks for the traditional security structures themselves. Second as 'disaster response mechanism' where armed forces need to be well trained and equipped to ensure that humanitarian assistance, disaster relief and non-combatant evacuation operations are provided on a timely basis. Third, in terms of 'conflict mitigation' as non-traditional security challenges can lead to disasters and environmental degradation which in turn could lead to disasters hence requiring traditional security structures. The first two rationales are more widely accepted in countries while the third rationale (conflict mitigation) is still not supported with evidence.

Traditional security may not be an inclusive way of approaching climate change but then again, traditional external and internal security institutions cannot be discounted. Security structures at the national level may need to be deployed fully towards objectives of adaptation and disaster response. However, international goals, given the aspect of historical responsibilities for climate change, will not be served by securitisation but through equitable norms of international cooperation.

Key policy takeaways

- The nature of climate change challenges the dominant state-based understanding of 'security' in world politics. It is clear that current paradigms of global and national security policy have to evolve. Non-traditional security issues such as climate change and pandemics like COVID-19 have shown that security establishments can play an important role in terms of response. Enhanced information exchange between national defence establishments would also be necessary to address both traditional and non-traditional security challenges.

- There are three narratives for securitization of climate change. The first narrative is linked to improved adaptation of military infrastructure as climate and environmental changes pose significant risks for the traditional security structures themselves. The second positions security establishments for disaster response to ensure that humanitarian assistance, disaster relief and non-combatant evacuation operations are provided on a timely basis. The third narrative positions the need for conflict mitigation as environmental degradation and climate change can lead to conflicts hence requiring traditional security structures. The last narrative needs more research evidence before it can be accepted by policy makers.

- While designing a framework for climate change and security, caution should be exercised when trying to fit the novel challenge of climate change into the narrow framework of traditional security. The traditional frameworks for security is not an inclusive way of approaching climate change but then traditional security institutions cannot be discounted especially when it comes to humanitarian assistance, disaster relief and non-combatant evacuation operations.

- The United Nations Security Council (UNSC) Resolution 1625 of 2005 broadened the role of the Security Council functions by adding conflict prevention through addressing 'root causes' in its ambit. However, the limitations of the current institutional mechanisms and the capacity of the UNSC to deal with climate change can restrict the UNSC from playing the role in terms of functions required for climate change response.

- Analysis of the UNSC open debates on climate change shows similar groupings and alliances as is seen in the United Nations Framework Convention on Climate Change deliberations with the EU and small island states taking similar positions whereas the G77 countries take another. Among the permanent members, United Kingdom and France favour securitization of climate change while Russia and China have opposed and the United States of America has been ambiguous.

- India is not a permanent member of the UNSC and thus like many other non-member countries, it would have a limited say in the UNSC if climate change is securitized. Moreover, inclusion of climate related intra-state conflicts and responsibility to protect (R2P) may invite undesired UNSC intervention.

- Non-traditional security and environment is recognized in the Joint Doctrine of the Armed Forces of India, 2017. A clear defence strategy for climate change similar to the USA National Defence Authorization Act needs to be explored by India. Hot spot mapping could be initiated for the most climate vulnerable security infrastructure and installations. India also needs to examine geopolitical implications as a result of water scarcity; moreover, the opening of the Arctic sea lane due to glacial melts will have important geopolitical implications.

- Technology and innovation are crucial to address climate related impacts and there are clear priority areas that the Indian defence sector should look at in the near future. There is a need for adaptation of defence equipment and gear to withstand temporal and climatic changes.

1. Introduction

In recent times, with the end of the Cold War, non-traditional security issues such as global pandemics and climate change have been securitized. The response to the COVID-19 outbreak shows how security establishments around the world have been involved in activities such as rescue, control, prevention and even cure. The United States Department of Defense, for instance, has army researchers who are working and collaborating to develop rapid COVID-19 testing technology and vaccines. India has also invoked the provisions of the Disaster Management Authority Act 2005 to treat COVID-19 as a national disaster and undertake measures, in coordination with state governments, for rescue, relief and rehabilitation. It is worthwhile to note that the parent ministry of the National Disaster Management Authority and National Disaster Response Force in India is the Ministry of Home Affairs, which is a security establishment. The COVID-19 pandemic has also highlighted the need for strong global governance and coordinated efforts. Hence, non-traditional security issues, including climate change, can no longer be treated as a second-order world problem in global politics.

The Energy and Resources Institute and the India Office of the Konrad-Adenauer-Stiftung aim to bring together a diverse set of perspectives through research and dialogue on aspects of global security by involving experts, ranging from scientists to practitioners, drawn from the domains of climate change, governance and security.

The objective of this study is to discuss various aspects of 'securitization of climate change', which include non-traditional security, external security, internal security and political dynamics. The publcation aims to serve the constructivist function of informing the discussion on securitization of climate change in India and internationally.

2. Is climate change a security issue? Theory and emerging literature

In the security domain, the definition of conflicts has gone through an evolution with several layered transformations occurring within the conventional security landscape. Armed conflicts are defined as open, armed clashes between two or more centrally organised parties, with continuity between the clashes, in disputes about power, government and territory (Smith 2004). Most research such as that by Gurr (1970), Horowitz (1985), and Rapoport (1989) conducted before 1990 on the causes of armed conflict focused on international conflict. The recognition for internal conflicts came into the discourse after the Cold War; prior to that, internal conflicts were not provided the same significance. The conceptual definition was debated in the post-Cold War era with rise in civil wars and increasing incidences of terrorism. With the emergence of non-traditional security challenges as a cause of conflicts, this definition has further expanded. Although empirical evidence to ascertain the role of natural resources (energy, minerals and water resources) in causing conflict is clear and available, this has not been the case for climate change. Climate change is being considered not as a new threat but a factor with potential to alter the existing or established threats of security or as "threat multiplier or altering the

existing threat multipliers" (Brown & Mcleman 2009). The visibility of its impacts and its quantification has been one of the major aspects determining the traditional security linkages to climate change.

For realists, ecological threats such as anthropogenic climate change would be characterized as (at most) a second-order problem in the sense that there is very little evidence that climate change could threaten the Great Powers of the world (Lacy 2005). In a more interconnected world, it can be suggested that the global energy and resources economy not only holds a potential for energy insecurity but can also lead to more traditional forms of Great Power insecurity and concern specifically in the form of disruption in economic and capitalistic systems. In the global arena too, according to Sindico (2017), caucuses have varied motives and interests on the issue of traditional security and climate change. For developed countries like Germany, 'securitisation' of climate change was seen as a way to raise the stakes and elevate the climate change concern on the global front. Small island developing states pursued a much more active role of the Security Council, maintaining that climate change was already a security threat for them. However, most developing countries were not favourably inclined towards the involvement of the Security Council as they considered that climate change should be dealt with by more global institutions, such as the United Nations General Assembly and the international climate change legal regime under the United Nations Framework Convention on Climate Change.

According to Barnett (2000) and Dalby (2002), a fundamental critique of the idea of environmental security has been expressed through 'colonization of environmental problems' by security discourse. According to this line of thinking, the literature on environmental security suggests that the underdeveloped South poses a physical threat to the prosperous North through increased conflicts because of population, migration and resource scarcity. These conflicts in turn can only be solved by military means and by closing off borders by the North to the less developed South. This view of security is less committed to the security of people and more committed to the national interests of the industrialized world. It takes a very realist approach of Great Power politic status quo in favour of national interest of the North and underplays the widespread injustices that exist in the global appropriation and distribution of natural resources. The prevalent literature on climate change and security does not provide strategic directions or a basis as to why 'securitization' of climate change should be pursued in global discourse or as a national strategy. In this background, it is relevant to undertake a study that provides insights on the global and national relevance of 'securitization' of climate change.

The broad discussions on climate change and security focus on establishing evidential linkages between the two and whether the securitisation of climate change would have negative or positive impacts on global climate change discussions. The debates around their linkages highlight the fear of a 'securitized' climate change becoming a tool for countries to measure, evaluate and undertake actions that may pose serious concerns for their sovereign rights. The fundamental issue for discussion and debate on climate change and security linkage is attempting to fit the concept of security that is sovereign in nature into climate change which is a global phenomenon transcending borders. In addition, the theory of securitisation coined by Waever in 2006 is based on the concept of reframing an issue in a manner that it turns into an existential threat to a valued referent object. However, Vouri (2008) suggests that the securitisation theory has a democratic bias which is in opposition to the global political system. The fundamentals of an international political system require national governments to contextualise a global issue within their respective borders; whereas, climate change is a global phenomenon. This situation requires concerted efforts for adaptation and mitigation within each country. Many have rejected the idea of climate change and security as originating from the Global North who largely positions the Global

South as the source of climate change conflicts on the assumption that conflicts and migration related to climate change will predominantly originate in the Global South. This projects a stereotypical image of the Global South as being a vulnerable but dangerous actor who can weaken the stability and prosperity of the Global North (Boas 2014).

Advocates in favour of international cooperation posit that in the absence of a dynamic and globally coordinated climate policy, climate change will draw ever-deeper lines of division and conflict in international relations, triggering numerous conflicts between and within countries over the distribution of natural resources, including water and land, management of migration, or over compensation by the developed countries responsible for climate change to those countries most affected by its destructive effects. The German Advisory Council on Global Change (WBGU) has a strong word of caution for politically and economically overstretched states and societies, 'climate change could well trigger national and international distributional conflicts and intensify problems already hard to manage such as state failure, the erosion of social order, and rising violence' (WBGU 2008: 1). According to WBGU (2008), security impacts due to climate change will be difficult to mitigate through traditional military interventions. Instead, a coordinated and well-crafted global governance strategy with a preventive security policy as its core element would be needed to mitigate climate based security risks. In light of the aforementioned points, there is a need for dialogue between countries such as India who are seeking to play a more proactive role in climate policy and stakeholders from Germany who have positioned themselves as norm leaders in terms of influencing multilateral climate policy through the European Union.

Phillis et al (2018) developed an index for climate security, which they used to rank 187 countries based on composite scores. The index comprises seven broad dimensions of water security, food security, energy security, sea level rise impact on inhabited land, social stability, health, and economic resilience and is based on the IPCC (Intergovernmental Panel on Climate Change) approach of evaluating three related components of exposure, sensitivity and adaptive capacity. Ranked at the 100th position, India is placed in the bottom half of the list of ranked countries implying a comparatively high vulnerability. In terms of mass media coverage on dimensions of climate securitization in India (Figure 1), food security is the most covered aspect followed by energy security. Water security and national security are almost equivalent followed by a small coverage on the human security dimension.

Figure 1: Dimensions of climate securitization in mass media coverage in India
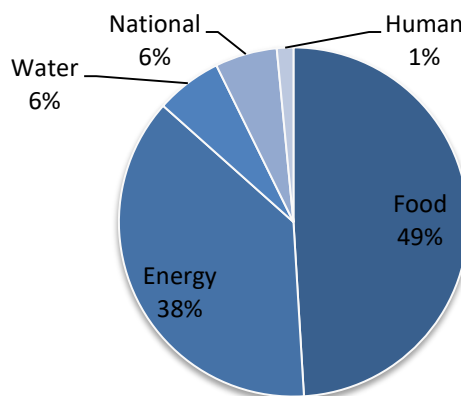
Source: Based on data in Schäfer et al (2015)

There is a need for a more systematic approach to distinguish between different causal and contextual factors relating to climate change and security implications in order to specify policy options (United Nations 2009: 7). As depicted in Figure 2, climate change is seen as a 'threat multiplier' and as a 'factor' that can create and exacerbate conditions of conflict and insecurity. To mitigate the impact of this threat multiplier, 'threat minimizers' in the form of policies with enabling conditions would be required. The potential linkages and interplay between climate change and security issues are also mediated by a number of contextual factors, which include governance, institutions, access to information, external resources and availability of alternatives.

Figure 2: Climate change and possible security threats
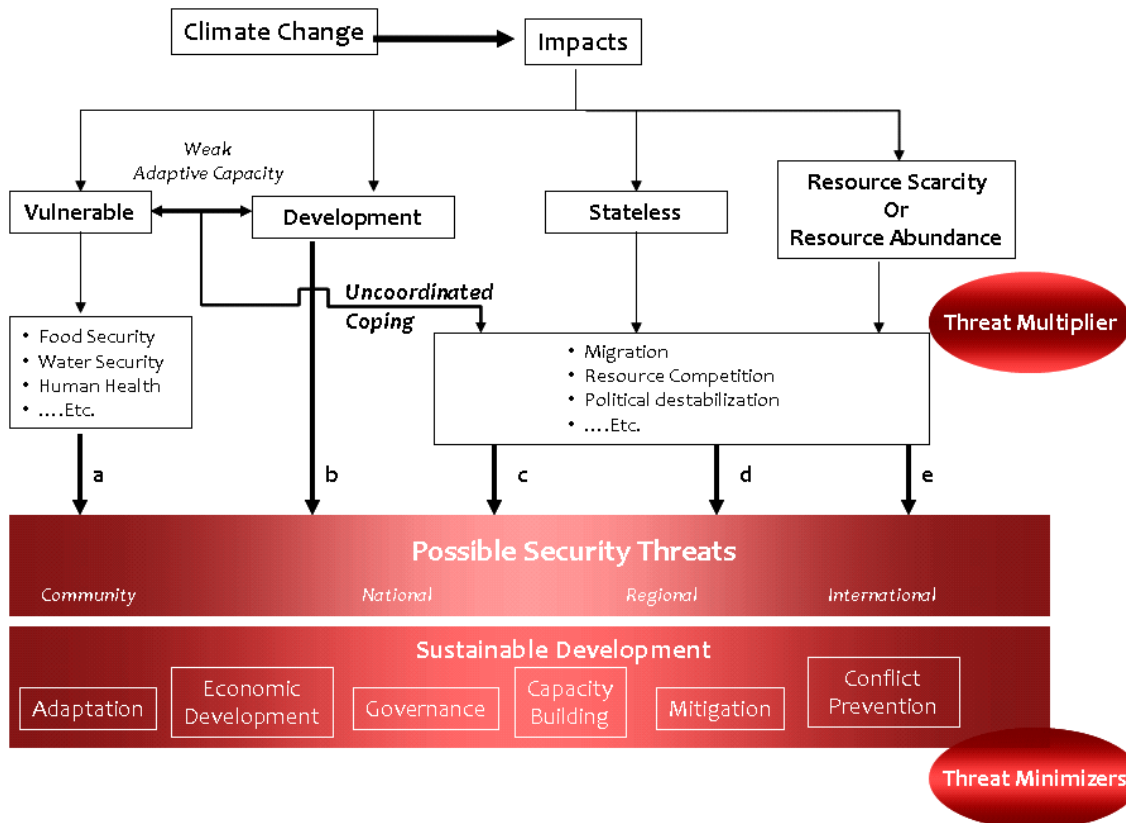
Source: United Nations (2009: 6)

3. Securitization of climate change: The narrative

Few would contest that climate change is the most studied and arguably most profound of global environmental problems. Security implications of climate change have been a part of the discourse even before the Convention on Climate Change was formalized. In June 1988, the World Meteorological Organization and the United Nations Environment Programme convened a conference, "The Changing atmosphere, implications for global security" (WMO 1988). The Paris Agreement on climate change does not discuss the peace and security issue directly but alludes to the concepts of human rights and climate justice. Linkages between climate change and climate action needs to be explored from all issue areas including security (Rashmi 2020). The issue of 'climate change and security' has been deliberated on in the United Nations General Assembly as well as in the United Nations Security Council (UNSC), which is indicative of this issue being a global concern. The first Security Council debate on the impact of climate change on peace and security was convened in 2007 by the United Kingdom of Great Britain and Northern Ireland. In 2011, under the presidency of Germany, the Security Council deliberated on the

'maintenance of international peace and security: the impact of climate change'. There have been five meetings related to climate change and security in UNSC in 2007, 2011, 2017, 2018, and 2019; these meetings were meant to encourage more informal discussions through soft power and climate diplomacy to push climate change higher on the Security Council and Great Power agenda as a 'threat multiplier'. Stemming from such discussions, the UN General Assembly adopted, in 2008, Resolution 63/281 on climate change and possible security implications, which mandated the Secretary General to submit a report on climate change and security; the report was published later in 2009 (United Nations 2009)[1]. The United Nations also investigated the implications of climate change for livelihoods, conflict and migration across the Sahel region. The resulting report "Livelihood Security: Climate Change, Migration and Conflict in the Sahel" identifies nineteen hotspots where climatic changes have been most severe over the past twenty years. The UN report concluded that climate change effects on resource availability have already led to migration and increased competition over scarce resources in some hotspots.

In 2011, the Executive Director of the United Nations Environment Programme was invited to address the Security Council. This thematic debate resulted in the Security Council Presidential Statement S/PRST/2011/15 on climate change. In the statement, the council requested the Secretary General to report on the possible security implications of climate change when such issues, as drivers of conflict, represent a challenge to the implementation of Council mandates or endanger the process of peace consolidation. In July 2018, the UNSC convened a session to discuss the nexus between climate change and global conflicts and to deepen understanding of climate-related security risks. The session marked the Council's first debate on climate change and security in seven years. The discussion at the Security Council encouraged the UN Secretary-General to include climate‑related risks in his reports to the Council with the objective of strengthening and harmonizing coordination between UN bodies and agencies charged with addressing climate change. The UNSC also agreed to convene regular discussions on climate change and security.

Narratives also position non-traditional security challenges and environmental crisis as leading to conflicts and disasters; hence, these challenges require traditional security structures. Moreover, climate change and environmental changes pose significant risks for the traditional security structures themselves. Border changes due to coastal erosion, sea level rise, glacial melts and disappearing islands may also affect one of the primary principles of the international political system—territorial integrity. A 2019 report by the Centre for Climate and Security urges the President of the United States to take into consideration the impacts of climate change (CCS 2019). The United States of America recognised the potential linkages between climate change and security in its 2014 Quadrennial Defense Review (DOD 2014). Taking it further, the United States National Defence Authorisation Act (Fiscal Year 2017–18) highlights various risks and eminent dangers posed to security installations and defence infrastructure of the USA government by climate change. The US Department of Defense's Strategic Environmental Research and Development Program commissioned a report on the effects of climate change on defence in 2019 which highlights the fact that in USA base on the Marshall Islands, an air force radar installation that is close to a billion dollars is projected to be underwater in another twenty years (Storlazzi et al.

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[1] In response to the request of Member States, through a General Assembly resolution, a comprehensive report was presented by the UN Secretary-General to the Assembly at its sixty-fourth session on the possible security implications of climate change based on the views of Member States and relevant regional and international organizations. A total of 35 Member States, 4 Member State groups and 17 regional and international organizations, including agencies and programmes of the United Nations contributed to the report (A/64/350) titled, 'Climate change and its possible security implications'.

2017). According to the same report, a three foot rise in sea levels is said to threaten the operations of 128 USA military sites with many going underwater. The report also highlights the impact of desertification, droughts and forest fires on defence operations. Rising water scarcity, desertification in many areas due to deforestation and forest fires disrupt daily operations of the defence forces. Storms and flash floods would also pose risks for defence forces. The report is significant as it is the first attempt to conduct baseline assessments to understand the impact of climate change on military installations and conversely, the impact of military infrastructure on the surrounding environment.

Apart from the UNSC's ventures, at the global level, climate change has transformed the political scenario with new agreements, new mechanisms and institutions emerging to address climate change and sustainable development challenges; however, all of this occurs within the perimeter of sovereign nations working together through a consensus based approach. Outcomes and processes such as the Rio Declaration, Kyoto Protocol, Paris Agreement, Montreal Protocol, Convention for Prevention of Marine Pollution (MARPOL), biodiversity beyond national jurisdiction (BBNJ) processes and institutions like the UNFCCC (United Nations Framework Convention on Climate Change) Secretariat, IPCC and the Arctic Council have emerged due to climate change and sustainable development concerns. With the new Arctic sea lane opening up due to glacial melts, the Northern Sea Route can reduce the distance between China and Europe by 50% compared to sailing via the Suez Canal (Rahman et al. 2014).

The retreat of the ice cap would open up major possibilities for ocean bed mining of oil and gas; this is a key source of environmental concern (Terry et al. 2009). The increasing economic activity in the Arctic has also raised the need to have stronger environmental and marine biodiversity mechanisms. The members of the Arctic Council include Canada, the Kingdom of Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden and the United States. The organisation is unique with other stakeholders such as the six organizations representing Arctic indigenous peoples holding the status of Permanent Participants. There are various other countries that hold an observer status in the council including France, Germany, the Italian Republic, Japan, The Netherlands, the People's Republic of China, Poland, the Republic of India, the Republic of Korea, Switzerland and the United Kingdom. The major focus areas of the council are marine pollution, biodiversity preservation, indigenous populations, emissions control and emergency response. Military engagement is not part of the council mandate; the council does not have a legal framework and works on a cooperation/consensus based approach. The relationship between Russia and the West are not good, especially with Russia exploring means to strengthen its hold in the Arctic (Euractiv 2020). Yet, the council has proven to be very effective in undertaking and implementing reduction of environmental pressures; this is true although the council does not convene to discuss geopolitical matters.

The focus of governments is to ensure that during national security crisis such as conventional wars, civil wars or conflicts and sporadic violence, there is a well-equipped force to maintain law and order and safeguard nations from border threats. However, the conventional norms are being altered due to the challenges posed by non-traditional security concerns requiring a broad set of measures that need to be deployed and adopted both by the traditional security apparatus and in other spheres of the society. Nations have been undertaking mitigation and adaptation efforts to combat climate change and the impacts of climate change on national security are also being widely acknowledged but as a threat multiplier rather than as a threat itself.

The process of securitization of climate change is not unquestioned but this does not mean that climate change in the long run does not give rise to national and international security concerns (Wadhwa

2020a). It is necessary to highlight the need to strengthen international cooperation in the context of managing conflicts, and to involve internal security and national defence establishments in strategies and policies that combat global warming and the impacts of climate change. There is also a need to reconfigure conventional wisdom on traditional security to address and transform internal processes, procedures and the overall setting of the traditional security structure of the combined defence forces, para military, internal policing systems and associated institutions. Even basics such as the accommodation infrastructure, design of uniforms and defence equipment needs to take into consideration the temperature changes, changes in precipitation and other unanticipated climatic conditions when strategizing for enhancing both. The pre-Cold War contextualisation of security and war based on ideological perspectives has become a multi-layered and multiparty concept requiring transformation that can adapt and conform to non-traditional security challenges.

4. Global discourse: Debates in the United Nations Security Council

The United Nations Security Council (UNSC) is the apex organization when it comes to maintaining international peace and security at the global level. UNSC has 15 members, 5 members hold permanent seats and have the power to veto its decision; the term 'veto' is nowhere used in the UN Charter but it is described in its Article 27. The permanent members are as follows: China, France, Russia, United Kingdom (UK) and the United States of America (USA). The ten non-permanent members are elected for a term of two years. The presidency of the Council, with one month tenure, rotates amongst its members. The UNSC derives its mandate of maintenance of international peace and security from Article 24 of the UN Charter. Moreover, the power to resolve a security issue is given to the Security Council under Article 39 of the UN Charter. Article 25 of the Charter makes the UNSC decision binding on all United Nations Member States. Therefore, a security threat is determined by the UNSC, which has limited membership. Moreover, there are five permanent members holding veto power. If the UNSC take a decision in order to maintain peace and security, that decision will be binding on all Member States. The definition of security is not mentioned in the Charter; it has always been interpreted in the traditional sense considering the context of the genesis of this organization. Thus, the scope of the security aspect dealt by the UNSC was conventional in nature.

Resolution 1625 (2005) was passed in the UNSC in 2005; this resolution broadened the scope of the UNSC mandate. It has brought the non-traditional aspects of security within the ambit of the UNSC in the form of 'root causes of armed conflict'. This resolution reaffirms 'the need to adopt a broad strategy of conflict prevention, which addresses the root causes of armed conflict and political and social crises in a comprehensive manner, including by promoting sustainable development, poverty eradication, national reconciliation, good governance, democracy, gender equality, the rule of law and respect for and protection of human rights', (United Nations 2005). Thus, the non-traditional security aspects are included in a limited manner; they can become part of the UNSC mandate only when they are the root cause of a conflict. This resolution has brought in conflict prevention as a role of the UNSC. It has not changed the meaning of security in the provisions of the UN Charter. When Article 39 is read along with this resolution, the signs of possible misuse of the power to determine security threats may be observed. Considering the present permanent five members and their share of the global carbon emissions, there is a clear-cut possibility of political adventurism in addressing climate change through the UNSC.

According to the *Working Methods Handbook* available on the official United Nations website, open debates in the Security Council are conducted in order to benefit from the contributions of the wider membership of the United Nations. Required time for preparation is given to UN Members; usually an

initiation letter and the concept note make the agenda and focus of the debate very clear to Member States. Whenever the Council finds it appropriate, it allows the adoption of the outcome document concerning the matter that arose in open debate (in the form of a Presidential statement). The first debate was conducted in 2007; it was initiated by the United Kingdom. Thereafter, the debates have been conducted in 2011, 2017, 2018 and 2019. These debates were initiated by Germany, Japan, Sweden, and the Dominican Republic. In these open debates, participating states deliberated upon whether climate change should be securitized or not. Another question that was commonly considered in all these debates was whether the UNSC should address the security concerns of climate change or not.

Figure 3 shows the number of statements from country groupings supporting the view that the UNSC should deal with climate change as a security issue. Among the permanent members of the UNSC, China and the Russian Federation have opposed while France and the United Kingdom have supported the UNSC dealing with climate change as a security threat. The United States of America has been ambiguous on this aspect. However, all countries have reached an agreement that climate change, when seen as a threat multiplier, can be a security issue. The European Union member states favour legitimizing the UNSC's role in addressing security concerns of climate change. All participating members of Pacific Small Island Developing States (PSIDS) agree that the UNSC dealing with climate security concerns can elevate the issue of climate change into a priority issue in global deliberations. A majority of the member states (59%) of the Group of 77 and China (G77), the Non-Aligned Movement (NAM) and China have opposed the legitimization of the UNSC in dealing with climate change. In the 2019 open debate, all participating PSIDS and AOSIS (Alliance of Small Island States) have agreed to allow the UNSC to address climate security concerns.

Figure 3: Percentage of statements supporting the view that UNSC should deal with climate change
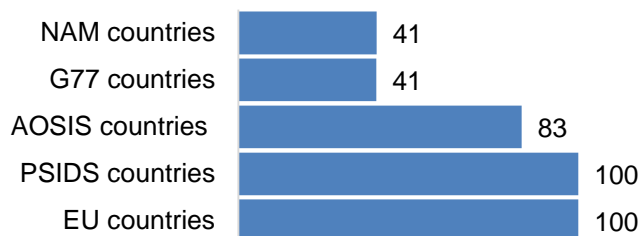
Source: Own analysis based on UNSC (2007a), UNSC (2007b), UNSC (2011), UNSC (2017), UNSC (2018), and UNSC (2019)

The idea of climate change as an issue for the deliberation in the UNSC has been staunchly rejected by Indian diplomats. India's former Permanent Representative to the United Nations (2016–2020), Syed Akbaruddin cautioned against the fallout of climate change being taken over by a 'structurally unrepresentative institution with an exclusionary approach' such as the UNSC as opposed to the inclusive process under the UNFCC (Akbaruddin 2019).

5. Security implications of climate change for India

The Indian policy orientation suggests that India is already placing climate change within the country's traditional security strategy. Though there is a belief amongst other countries that India does not include climate change in the security realm, judging by its actions, it has become clear that India has placed climate change very well in its security strategy in an inclusive and broad-based manner (Pradhan 2020a). India's traditional security framework recognizes the increasing challenges posed by non-traditional

aspects and the increasing effects of environment (See Box 1). Although it is necessary to understand that the traditional security structure needs to be transformed to address the non-traditional security challenges, specifically to tackle climate change, this change does not necessarily mean that the actual and traditional role of security to ensure sovereignty and state legitimacy diminishes. This transformation may require more state interventions to tackle the impending challenge of violence escalation due to scarcity of land and ocean based resources. The possibility of sporadic social conflicts increases in this context along with a need to provide humanitarian assistance. Both these emerging aspects necessitate that the traditional security structure is well prepared to meet these erratic and massive environmental impacts.

India's National Disaster Response Force (NDRF) is one of the institutions of the disaster management ecosystem that the Indian government has devised to be prepared for unseasonal events. The NDRF is housed in the Ministry of Home Affairs; this shows how disaster response has become a matter of internal security. Responses by the NDRF, the State Disaster Response Force of Odisha and other stakeholders led to the mobilization of 30,000 volunteers who went into action to evacuate more than a million people within the time window of 48 hours prior to cyclone Fani's landfall. This was the cooperative work of several stakeholders, which included the armed forces and the coastguard. Hence, it was an all-hands-on-deck approach. The 2019 floods due to unseasonal events resulted in the flooding of more than fifty per cent of India's landmass, which is unprecedented. Rajasthan, where ponds have not been filled for more than four decades, were flooded. For such events too, NDRF was called along with other state agencies. One of the themes of the 2020 Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) disaster management exercise that NDRF hosted in the coast of Odisha was the protection of heritage cites in the BIMSTEC region. This is an example of international cooperation where countries have agreed to cooperate for the protection of heritage cites in the face of disasters.

Box 1: Changing paradigm of security in India

The challenges posed by non-traditional security threats range from proxy war to ethnic conflicts, illegal financial flows, small arms transfers, drugs/human trafficking, climate change, environmental disasters, security of energy/resources etc. These challenges are exacerbated by several countries vying to acquire weapons of mass destruction and by the competition for natural resources. The effects of these challenges on regional stability and the geo-strategic environment are areas of immediate concern. Further, security of our diaspora, resources and establishments abroad, especially in the Middle East / North African regions, which are home to millions of Indians, remain central to our external security paradigm.

Environment has emerged as a critical area in the security paradigm. Changes in environment can result in extinction of certain states. Then again, soil erosion, forest cover depletion and loss of agricultural land are dominant factors for human migrations across national and international borders. Such events heighten security risks and lead to responses from states in the military dimension. Environmental security has always been dealt with by the state; ecosystem disruption, energy issues, population issues, food related problems, economic issues of unsustainable modes of production and civil strife are related to the environment. The fallout at times requires security responses from the state.

Source: Joint Doctrine of the Armed Forces, India (2017)

Non-traditional security issues have differential implications for people from the weaker socio-economic strata (Nanda 2020a). Climate impacts are becoming more visible in India in the northern areas where livelihood displacements have occurred due to glacial outbursts (Khawas 2020a). Resource scarcity may

lead to the formation of two kinds of hotspots: in-migration hotspot and out-migration hotspot (Singh 2020a). The right to compensation for disaster victims is still not represented in the mainstream policy discourse on climate change adaptation in India (Shekhar 2020). Moreover, any kind of pricing policy for climate change mitigation needs to be accompanied by revenue allocations due to distributive implications (Kelkar 2020). There is a need for inter-disciplinary approaches to help address knowledge gaps and inform policies concerning water sharing arrangements and other non-traditional security issues (Pawar2020).

The externalities that emerge from climate change impacts are what will effect and also require the support of traditional security structures. Traditional security structures refer to the major defence forces and paramilitary and allied services that serve the primary purpose of safeguarding sovereign territories and maintaining law and order. Traditional security forces of India are depicted in Figure 4.

Figure 4: Traditional security architecture in India

Ministry of Defence	External security	Paramilitary forces and internal security forces under the Ministry of Home Affairs
• The Department of Defence • The Department of Defence Production • The Department of Defence Research and Development	• Indian Army • Indian Navy • Indian Air force • Indian Coastguard	• National Disaster Response Force • Assam Rifles • Border Security Force • Central Industrial Security Force • Central Reserve Police Force • Indo Tibetan Border Police • National Security Guard • Sashastra Seema Bal • State Police Forces • Intelligence agencies

In the Indian context, securitization of climate change has been more from the point of view of non-traditional security implications leading to traditional threats; thus, climate change is seen as a threat multiplier. Security establishments in India would need to be geared for conflict prevention to ensure that India keeps control of its dams, irrigation infrastructure, hydro-electric power plants and the means to secure them. Pai (2008) calls for strengthening of security establishments to mitigate a proxy-war situation that may arise from a water-deficient Pakistan that could continue to fight in an attempt to secure a more advantageous territorial settlement. China is an upper riparian state and a source of origin for many Indian rivers. The Tibet–Qinghai plateau (sometimes referred to as the Third Pole) is the source of most of the major rivers in East, South-East, South and Central Asia including the Brahmaputra, some branches of the Indus, the Irawaddy, the Mekong, the Yellow and the Yangtse rivers. Cooperation is required between China and the downstream states. However, China is only prepared to share a certain amount of data. Its role in the Mekong River Commission is an example.

Internal security establishments would also have to be geared to accommodate refugees from neighbouring countries such as Bangladesh and Myanmar. Securitization of climate change policy provides room for excessive intervention by state authorities in various climate change related areas such as land acquisition for clean power projects and enclosure of forest and water bodies for the establishment of carbon sinks (Sahu 2019).

Ensuring climate resilience for defence forces needs to be of utmost priority. Adapting defence infrastructure for climate related events and environmental changes should become a priority for nations. Coastal establishments and high altitude infrastructure will significantly get affected by changing temperatures and unforeseen climatic events. Rising temperatures would also require improved cooling plans for soldiers, reconfiguring military equipment and weapons system. Construction of defence infrastructure should ensure climate resilience. However, as a part of the mitigation efforts, defence infrastructure needs to adopt clean energy solutions, waste management and energy efficiency measures. This in turn would enhance self-sufficiency and sustainability within defence establishments. India has been aligning its domestic policies to its NDCs (nationally determined contributions); similarly, defence forces also need to align themselves to climate goals to the extent possible.

Vulnerability associated with the ecologically sensitive Himalayan region, sea-level rise and water stress are the three areas that are linked to internal security concerns for India vis-à-vis climate change (Pillai 2020). Internal security should not be interpreted in a narrow sense of being only linked to maintaining law and order (Pradhan 2020a). At present there is no clarity regarding sharing of responsibility for climate related internal security concerns between the centre and states as some subjects are a part of the state list while other climate related subjects are in the union list (Chaturvedi 2020). India also does not have cumulative data on coastal communities and associated vulnerability to climate change (Chaturvedi 2020). Moreover, although India has layers of laws and institutions such as Green Tribunals and Pollution Control Boards, there is a paucity of human and financial resources. India also lacks an environmental jurisprudence (Madhavan 2020).

Additionally, the role of state governments and its police needs to be viewed more holistically for rapid action and response. The state police and intelligence services would be first responders to any disasters and hence, their capacity building should be a priority for India. 2019 brought a string of natural disasters in the country from floods, droughts to cyclones, all leading to loss of lives and aggravating the economic burden (Hindu Businessline 2020). Strengthening state level traditional security infrastructure would minimise impacts and lead to rapid response to unforeseen natural disasters and events. Enhancing civil defence programmes and increasing reservists in defence forces would lead to value addition. A large well trained civil defence corps would prove beneficial to address rapidly changing climatic events; holding regular exercises would prove effective in responding to natural disasters.

State police, para military forces and armed forces need to be well trained and equipped to ensure that humanitarian assistance and disaster relief (HADR) are provided on a timely basis. Additionally, non-combatant evacuation operations (NEO) or search and rescue operations would also become frequent with increasing stresses of environmental change. According to *Implications of Climate Change on Defence and Security in the South Pacific by 2030* (2019), the need for HADR operations has become a necessity to safeguard people from natural calamities. The report states, 'Delivery of humanitarian aid is often quite dependent on military forces, as military personnel are trained to provide logistics, assist in the transportation of humanitarian food, material and staff, and build or rebuild infrastructure as required. Military personnel are also capable of conducting these activities in difficult contexts such as in devastated and hard-to-reach areas, and under resource stresses'. In addition, the report also states that various international mechanisms are in place by which a distressed state or country can request assistance from other government forces to intervene during humanitarian interventions. For instance, the newly created Information Fusion Centre for the Indian Ocean Rim Association (IORA) is a critical pathway for communication and information sharing between countries. This fusion center enhances

maritime domain awareness and also provides a fast means to share information with IORA states. India hosts the fusion center for IORA. It has also recently signed the White Shipping Agreement to join the Trans Regional Maritime Network and exchange information on the movement of commercial traffic on the high sea (The Hindu, 2018). Such a network would provide improved access to information that can reduce illegal activities such as trafficking, illegal fishing and piracy among others. Access to such networks could also provide India with the opportunity to explore information exchange and enhance HADR and NEO responses.

Countries such as UK, France, Germany and Sweden among others have structured their HADR process. Indian armed forces have also been responding swiftly for HADR; it has provided HADR to Mozambique in the wake of Cyclone Idai and also shipped food, clothes, gifts and medicines for the country. Cyclone Fani is another instance where the need for armed forces was highlighted. The Australian government also turned to its own armed forces for HADR and NEO operations to tackle Australian bushfires.

6. Future areas of policy research

This study aims to provide a macro picture on the issue of climate change and security; however, a more comprehensive research agenda on this topic is required. There were many concrete suggestions that came from the Kumarakom Dialogue on Climate Change and Security organized by TERI and KAS (TERI-KAS 2020a, 2020b). These are discussed in this section.

Need for a centre for excellence on climate change and security

India is rich in experience but weak in theory; hence, more theorizing by Indian scholars is the need of the hour (Gautam 2020b). The concept of 'security' has been looked at from the western perspective and there is a need to look at the aspect of 'ethics' which Indian texts such as Arthashastra discuss (Gautam 2020a). Moreover, non-traditional security aspects should get as much weightage as the traditional security discourse if not more (Singh 2020c). Issues of food, water, mobility and livelihoods need to be explored further. Ultimately, the human security perspective will be the bottom-line on which other perspectives can be built (Pradhan 2020b). History needs to be revisited by considering nature as well as humans (Bhushan 2020a). It is clear that current paradigms of global and national security policy have to evolve. Non-traditional security issues such as climate change and pandemics like COVID-19 have shown that security establishments can play an important role in terms of response. There is a need to bring out securitisation of climate change and policy response from a comparative perspective (Sahu 2020b). Thus, comparative research on securitisation of climate change should be undertaken in terms of experience from countries such as Germany, China, United States of America, Japan and United Kingdom. Solutions to security implications of climate change can be found within the framework of international cooperation which demands greater exchange of data as well as cooperation for humanitarian assistance and disaster relief (Wadhwa 2020b). Given the serious implications of non-traditional security issues, there is a need for a centre of excellence on climate change and security. Such a centre must be inter-disciplinary in nature and should be able to perform the function of information collation, conducting new research and serving as a knowledge resource for informing policy.

Strengthen public diplomacy and strategic communications

The government of India must do more of public diplomacy and strategic communications regarding climate change (Gautam 2020b). Web pages of the Ministry of Environment, Forest and Climate Change (MOEFCC) and Ministry of External Affairs (MEA) must have the latest status and data rather than just speeches. Status reports should have been regularly produced regarding the National Action Plan on

Climate Change (NAPCC) and State Action Plan on Climate Change (SAPCC) so that our internal actions of mitigation and adaptation can be understood by the public at large and the state thus gets wider support from the public for its climate diplomacy. Climate change challenges cannot be resolved by law enforcing agencies alone. From the perspective of internal security, conflict prevention should be the major concern and that too through collaboration with all major stakeholders (Joseph 2020).

Strengthening climate change related research and engagement in Indian defence establishments

Climate change is not only a concern for a singular policy measure but a cross-sectoral issue including security (Rimmele 2020). It is a threat multiplier and greater international cooperation is required for climate change adaptation (Dasgupta 2020). Defence infrastructure has severe capacity constraints and is not well adapted when it comes to extreme weather situations (Shukla 2020). The impacts of weather conditions and landslides have implications for defence infrastructure related to mobility and communications, especially in high altitude areas (Mayilvaganan 2020). There is a great need for examining security issues for India regarding two landlocked countries in the Himalayan region, Nepal and Bhutan (Nayak 2020). The Arctic region will not only see increased involvement of the Chinese because of new maritime routes but the opening of the region will also lead to change in energy related geopolitics and economic dynamics (Gonsalves 2020). For improved risk management, climate intelligence should be an essential part of military intelligence (Pai 2020). Gradual degradation of natural resources creates a conflict-prone situation over a period of time (Patil 2020). There is a need for long-term changes in existing security doctrines that should be informed by knowledge for which research and development backed by budgetary allocations are required (Shukla 2020). Experiences from the field, particularly focussing on various geographical regions and river basins, should be examined and integrated to the national and global knowledge base on the topic (Khawas 2020b). Climate change challenges cannot be resolved by law enforcing agencies alone. Learning from the experience of other countries including the United States of America, it is essential that Indian security establishments undertake research and engage with other stakeholders for various non-traditional security issues such as climate change and pandemics.

Applicability of security related concepts needs to be examined

Singh (2020d) suggests that existing security related concepts like R2P (responsibility to protect) and collective security, and the existing international regime considering migrants and refugees need to be examined. The concept of R2P would at least theoretically be helpful if climate aspect is included in it, as the traditional political problems of the UNSC would remain here in this aspect as well. The concept of 'collective security' may also be revisited with reference to the problem of climate securitisation (Singh 2020d). There is need for a better examination of aspects linked to climate related migration, identification of migrants and fixing/sharing individual or collective responsibilities of the cause of migration.

7. Conclusion

Ethical dilemmas: The nature of climate change challenges the dominant state-based understanding of 'security' in world politics (Negi 2020). While framing climate change and security, caution should be exercised when trying to fit the novel challenge of climate change into the narrow framework of traditional security. The traditional approach to security may not be the healthiest way of approaching climate change; but then again, traditional institutions such as NDRF cannot be discounted. Given the

presence of security establishments on the ground in terms of infrastructure and personnel, security networks can help provide better access to information to explore information exchange and curb illegal environment-related activities like poaching as well as enhance HADR and NEO responses. Through what perspective of security, traditional or non-traditional, climate change should be seen is not the issue. The issue is recognizing the threats which climate change poses and see it differently (Pradhan 2020). Securitization of non-traditional security in general and climate change in particular could lead to exclusion in terms of mass participation as by restricting the act of speech, securitization does not allow civilians to express an opinion over a traditionally securitized issue. The decisions concerning a securitized issue are taken by selected elites in a unilateral manner. Securitization is for state convenience. By creating a sense of urgency, securitization demands unconditional obedience, and is convenient for states. Climate change, if seen as a threat multiplier, may spill the threat discourse to the issue of economic development, which may lead to the securitization of development policy (Sahu 2020a). There is also a need for taking and fixing responsibility from a moral standpoint (Guru 2020).

Role of UNSC: The United Nations Security Council Resolution 1625 of 2005 has broadened the role of the Security Council functions by adding conflict prevention through addressing 'root causes' in its ambit. However, the limitations of the current institutional mechanisms and the capacity of the UNSC to deal with climate change can restrict the UNSC from playing the role in terms of functions required for climate change response. India is not a permanent member of UNSC; hence, it would have a limited say if climate change is securitized. The UNSC dealing with climate change will lead to states (including India) being forced to abide by the UNSC resolutions while administering these aspects of climate change domestically. The power to securitize may lead to the UNSC taking a stand on issues related to climate refugees, inter-state water and resource conflicts leading India to become a victim of this power play. Climate change is less of a conventional security issue and more of a human security issue and the implications of taking this issue to the Security Council should be carefully deliberated (Singh 2020b). Inclusion of climate related intra-state conflicts and R2P may invite undesired UNSC intervention.

Research, technology and innovation: There is a need to encourage detailed and interdisciplinary research on various facets of climate change and security (Bhushan 2020b). Research needs to be strengthened in terms of understanding implications of climate change on traditional security and also in terms of theorizing in international relations. Such theorization needs to consider Indian texts. Enhanced information exchange between national defence establishments would also be necessary to address both traditional and non-traditional security challenges. Technology and innovation are crucial to address climate related impacts and there are clear priority areas that the Indian defence sector should look at in the near future. There is a need for adaptation of defence equipment and gear to withstand temporal and climatic changes. Standard issue equipment may not be able to absorb high heat or sudden sub-zero temperatures. For instance, Scuba suits for naval personnel may need to be reconfigured due to warming of oceans. Defence satellites and unmanned aerial vehicles could be utilised to enhance climate change related data collection.

Platform of climate change and security: India has several civilian institutions working on climate change impacts. It would be useful to create a civilian–military knowledge platform for enhancing collaborations between defence and civilian research institutions and promote knowledge exchange. Non-traditional security and environment is recognized in India's joint doctrine, a clear defence strategy for climate change similar to the USA National Defence Authorization Act (for Fiscal Year 2018) needs to be explored by India. Hot spot mapping could be initiated for the most climate vulnerable security infrastructure and

installations. Such an exercise would aid in the formulation of a long term strategy to tackle climate impacts and undertake preventive action.

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The Energy and Resources Institute and the India Office of the Konrad-Adenauer-Stiftung aim to bring together a diverse set of perspectives through research and dialogue involving experts, ranging from scientists to practitioners, drawn from the domains of climate change, governance and security. This study aims to discuss various aspects of 'securitization of climate change' such as non-traditional security, external security, internal security and political dynamics. The objective of this publication is to serve the constructivist function of informing discussions on securitization of climate change in India and internationally.

Keywords: global security, climate change, traditional security, non-traditional security