Climate change-related security risks pose grave challenges to peace and stability in South Asia. The recently released IPCC report projects rapid and intensified effects of climate change in the region, which have serious implications for security. From potential regional conflicts over river water sharing to damaging impacts on military strategy, climate change could affect human and regional security in many ways. As India would also be affected by these changing dynamics, it is imperative for it to rethink on its existing perspectives on climate security that are unhelpfully hinged on the United Nations Security Council (UNSC) debates. India has been persistently critical of discussing security implications of climate change in the UNSC. Instead, it needs to integrate these security concerns into its foreign policy and diplomacy towards the region’s countries, both bilaterally and through regional organizations. Multilaterally, India could use its growing stature in the international climate order to incorporate its longstanding views on climate action, particularly concerning climate justice, within the climate security agenda.

Climate security challenges in South Asia

In August 2021 the Intergovernmental Panel on Climate Change (IPCC) released yet another report that can be read as wake-up call to the world. It pointed to South Asia, and India in particular, as one of the most climate-vulnerable regions in the world (see box 1). From rising land surface temperatures and sea surface temperatures to unpredictable monsoonal patterns, and from rising sea levels to glacial recession, the effects are multifarious. These effects manifest in various forms—by affecting water, food, health, and livelihood security, among others.

India is at the heart of South Asia and the Indian Ocean Region (IOR). Being a major and responsible power, India’s foreign policy at the regional and multilateral level with regard to climate change assumes great significance. While India has taken enormous strides in terms of climate action, particularly in the field of clean energy, when it comes to addressing climate security concerns, it has largely tiptoed around the subject. Hence, this policy brief emphasises the need for the Indian foreign policy establishment to recognize the transnational nature of climate security and build capacities to deal with the issue (regionally and multilaterally).
The AR6 WG I report has the following findings (among others) regarding South Asia:

- There has been a clear increase in mean surface temperature, heat extremes, heatwaves, and droughts.
- While marine heatwaves are expected to rise, fire weather seasons could lengthen and intensify further.
- The region is likely to witness an increase in average and heavy precipitation.
- Apart from a decline in glaciers and snow cover, permafrost thaw in the HKH region will increase. Besides, the likelihood of glacier runoff is high.
- Apart from an observed rise in the regional-mean sea level that will continue, the region is experiencing loss of coastal area and shoreline retreat.
- This century will see an increase in the annual and summer monsoon precipitation, with greater inter-annual variability.
- Extremely severe and super cyclones will increase with the rising sea surface temperatures.

Pathways of how climate impacts become security risks in South Asia

The security implications of climate change can be categorized into a few pathways, which are interdependent and interwoven. These pathways are mere representations of different ways in which climate change and security interact, as the real threat is more systemic in nature, as climate change and other risks intermingle with each other to undermine security at various levels.

Among the security implications of climate change in South Asia that have wider ramifications for India, transnational or regional risks are critical. For example, glacial variability will affect the water flow in all the rivers of the Hindu Kush-Himalaya region (HKH) – spanning Afghanistan, Bangladesh, Bhutan, China, India, Nepal, Myanmar, and Pakistan. The majority of these rivers are transboundary and originate in the Tibetan Plateau. The Indus basin is most dependent on glacial and snow melt for its water flow, especially during the dry season.2 On the one hand, the Indus basin coincides with a portion of the largest agricultural belt in the region, thereby having direct implications for food and livelihood security. According to a study, approximately 9 percent of wheat production, 15 percent of rice, 28 percent of cotton, and 17 percent of sugarcane annually, can be attributed to meltwater from glaciers and snow.3 Furthermore, in the absence of a basin-wide climate adaptation strategy, the countries in the basin are expected to be affected severely by an increase in the number of flooding events.4 On the other hand, it is also central to the India-Pakistan conflict, as recurring disputes over water sharing, construction of dams, etc. continue to affect the stability of the Indus Waters Treaty (IWT) signed by the two countries in 1960.5 What complicates matters further is the uncertain effects of climate change in the upper Indus Basin, which could potentially endanger water requirements of the downstream populations, thereby increasing the risk of disputes and even violent conflict between the two countries.

The second climate security pathway in South Asia is that of conflicts between resource users, livelihood insecurities, and anti-government mobilisations. South Asia has witnessed many instances of food riots

3 Ibid, 596.
in the past – West Bengal (India) in 2007, Peshawar (Pakistan) in 1997, etc. In fact, a study reveals that during 2005-15, Pakistan experienced 19 “serious incidents of unrest”, wherein food insecurity and/or food price rise was identified as one of the reasons for staging protests, demonstrations, riots, and so on. The most vulnerable populations are affected by the pre-existing armed conflict(s) in the country as well as food insecurity that are influenced by an increasing number of climate extremes among other factors. Similarly, demand for clean drinking water amidst growing water scarcity in the region has given rise to several anti-government demonstrations/protests. For example, mass protests took place in Chennai (India) in 2019 when the city ran out of water due to a heatwave and drought, which made mismanagement of water very visible. Furthermore, the worsening water crisis has been linked to large and small-scale farmer protests in the country, as their livelihoods are threatened.

The third pathway is insecurities caused by displacement and migration, such as rural-to-urban migration, displacement due to disasters, migration from coastal regions to interior areas, etc. South Asia is one of the hotspots when it comes to mobility related to climate change. According to the World Bank, “in South Asia, internal climate migrants could number over 40 million, representing up to 1.8 percent of the region’s total population.” In many cases, climate change intermingles with conflict dynamics in the region. For instance, Cox’s Bazar district (Bangladesh), which houses more than a million Rohingya refugees (from Myanmar), is highly vulnerable to climate and environmental change. The district has seen increasing levels of conflict between the refugees and locals over jobs, price rise, social tensions, law and order problems, and environmental destruction (mainly deforestation and water stress). While internal migration and displacement have increased in recent years, there are growing trends of inter-state migration too, which are linked to climate change-related concerns. For example, seasonal migration of people from Nepal to India is considered a means of climate change adaptation as their livelihoods in agriculture and livestock sectors are affected by climate-related slow onset and rapid onset disasters. Subsistence farmers, in particular, are more vulnerable to these unprecedented environmental changes.

The fourth pathway is concerned with the interlinkages between climate change and violent groups in the region, including terrorist organizations. Although these interlinkages are not explored enough in the South Asian context, there are examples of terrorist outfits based in Pakistan, such as Lashkar-e-Taiba (LeT) that have carried out humanitarian and relief missions in the country -and even in other countries such as the Maldives- in the aftermath of disasters, such as the 2010 floods, through their front organization, Jamaat-ud-Dawa (JuD). Such charitable activities are often used by these outfits to gain legitimacy among the public, as the government authorities fail to provide the necessary

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6 Bappa Majumdar, “Food riots expose how corruption hurts India’s poor,” Reuters, October 12, 2017.
10 Centre for Science and Environment, “Five-fold rise in farmer protests in India since 2017, says CSE’s new statistical analysis,” State of India’s Environment in Figures 2021.
support, and this could potentially even help them advance their recruitment efforts.\textsuperscript{14}

The fifth pathway is associated with the effects of climate change on military security – tactics, operations, and strategy. South Asia is a highly politically volatile region with protracted border disputes and bitter rivalries. The region has seen several high and low-intensity conflicts, primarily involving China, Pakistan, and India. Hence, the ecologically fragile, climate-vulnerable borderlands are highly militarized too. Siachen glacier, the world’s highest battleground, where Indian and Pakistani soldiers are deployed, is threatened by glacial retreat, and increasing number of snow and ice avalanches that have forced the militaries to recalibrate deployment procedures.\textsuperscript{15} Similarly, navies in the region are increasingly aware of the threats posed to coastal and island infrastructure by sea level rise, cyclones, storm surges, coastal erosion, etc.\textsuperscript{16}

**Why does climate security matter to India’s foreign policy?**

From the above pathways, it is clear that climate security is extremely critical to its foreign policy objectives and processes. First and foremost, at the regional level, security implications of climate change need to be understood in a more systematic manner and integrated into the neighbourhood policy. As climate change affects water flows in the rivers of the HKH region, the existing river water sharing treaties and other strands of hydro-relations among the countries of the region would have to be relooked into. With the worsening signs of climate change in the HKH and Indian Ocean regions, India’s regional diplomacy has begun to take into account common concerns related to climate change. Bilaterally, with countries such as Bangladesh and the Maldives for whom climate change is an existential and a more immediate threat, India has begun to take into account these concerns.\textsuperscript{17}

Furthermore, climate change is also a cornerstone of India’s engagement with the regional organizations such as the South Asian Association for Regional Cooperation (SAARC), Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) and Indian Ocean Rim Association (IORA), among others.\textsuperscript{18} Even the conflicts in the region are likely to be influenced by climate variability, as explained in the earlier section.

Secondly, climate security has become part of the international security discourse(s). The establishment of a United Nations (UN) Climate Security Mechanism and the continuing discussions on climate security in the UN Security Council (UNSC) have solidified the place of climate security in many countries’ foreign policy. Several other multilateral forums have also acknowledged the need for addressing climate security. However, India has so far been reluctant in acknowledging the security implications of climate change at the international level. It has constantly reminded the international community of the dangers of introducing climate change in the UNSC as well as addressing climate change through the security prism.\textsuperscript{19} Yet, as more and more countries endorse the climate security discourses, and climate-security pathways in South Asia become ever more visible, this position may need to be reconsidered, which would also makes it easier to discuss

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\textsuperscript{17} Dhanasree Jayaram, “Climate Fragility Risk Brief: South Asia,” *adelphi*, 2019.


\textsuperscript{19} Jayaram, “Climate Fragility Risk Brief,” 11.
and address legitimate concerns against securitisation more openly.

Very importantly, India’s own immense contribution to UN peacekeeping missions in various parts of the world, which are also highly climate-vulnerable, could be another entry point for the integration of climate security into its foreign policy. The peacekeeping forces today are grappling with the effects of climate change, as much as they are also providing support to communities to cope with them in fragile areas. Peacekeeping missions have to deal with climate migration, food insecurity, droughts, floods, health hazards, and other climate-related impacts while protecting individuals in conflict regions such as South Sudan, Democratic Republic of Congo, and so on.\(^20\)

**India’s positions on climate security**

Despite the growing recognition of climate security internally and internationally, India has been opposed to discussing climate security in the UNSC for various reasons. When the issue was discussed in the UNSC in September 2021, the Indian representative raised the following concerns: first, “viewing conflicts in poorer parts of the world through the prism of climate change will only serve to present a lop-sided narrative;” second, “ignoring basic principles and practices relating to climate change [such as Common but Differentiated Responsibility and Respective Capabilities or CBDR-RC], has the potential to disrupt the nature of the overall discussion” on climate change; third, “over-simplification of causes of conflict will not help in resolving them nor can it justify extreme policy measures.”\(^21\)

For India, climate change is a development issue and less a security one, wherein the role of the industrialized countries’ ‘historical responsibility’ and the principle of CBDR-RC cannot be compromised upon.\(^22\) India has called for action on climate change through forums such as the UN Framework Convention on Climate Change (UNFCCC) and other UN agencies that are not ‘unrepresentative’ like the UNSC.\(^23\) It has also stressed on the need for “a broader approach, anchored in development, adaptive capacity, risk assessment and institutional build-up.”\(^24\) In effect, India has consistently questioned the logic of both securitization of climate change and the UNSC as a forum for discussing climate change on ethical, legal, geopolitical, and technical grounds. In the 2019 open debate, the Indian representative reiterated that even the assessment reports of the Intergovernmental Panel on Climate Change (IPCC) have labelled the climate-violence nexus “contested” and hence, the international community should tread this path carefully.\(^25\)

Other concerns include vilification of fossil fuels such as coal, which, despite massive investments in clean energy, continues to be mainstay of India’s energy security goals.\(^26\) Besides, the possibility of sanctions, aimed at coercing countries into implementing domestic measures or adopting more ambitious commitments

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21 Deepti George, “Bringing climate security into UNSC discourse has potential to disrupt nature of overall discussions: India,” Money Control, September 23, 2021.
25 UNSC, “Massive Displacement.”
in the UNFCCC\textsuperscript{27}; and the implications of principles such as Responsibility to Protect (R2P) for sovereignty as securitization of climate change could result in interventionist policies, among others also influence India’s international positions on climate security.\textsuperscript{28} Most importantly, the UNSC, involving the application of veto power and exemplifying an exclusionary approach towards global governance and international security, is not considered representative in its current format. Not only is India vying for a permanent seat (with veto power) in the UNSC\textsuperscript{29}, there are growing voices of discontent that question the UNSC’s legitimacy and credibility to discuss these issues, considering it has failed at addressing violent conflicts in Afghanistan, Myanmar/Burma, Yemen, and other countries/regions.\textsuperscript{30}

Internally, there are several signs of the acknowledgement of the scholarly and policy communities of climate security concerns – but largely restricted to the national, and at the most, regional scales of analysis. Several think-tanks and research institutions in the country have highlighted the urgency of the climate change problem, especially by linking it to food, water, energy, health, and livelihood security.\textsuperscript{31} Forums such as the National Security Advisory Board, National Security Council, and the Prime Minister’s Council on Climate Change (PMCCC) (or at least members of these forums) have, from time to time, drawn attention to the security implications of climate change. They have highlighted the need for India to address them by reconceptualising notions of security, creating evidence-based knowledge on climate-security linkages, and equipping the existing security architecture(s) to deal with climate security.\textsuperscript{32} The NSAB included an agenda on “Resource, Water and Food Security”, and the Joint Doctrine of the Indian Armed Forces lists climate change as a security threat.\textsuperscript{33} However, these efforts could not be sustained.

Furthermore, the armed forces have also gradually begun to recognize the security implications of climate change. As argued by Vice Admiral Pradeep Chauhan, Director General of the New Delhi-based National Maritime Foundation (NMF), “The Indian Navy is increasingly vulnerable to the impacts of climate change. For instance, each of the several naval bases and installations that have been established along India’s coastline and in its island territories face an inordinately high exposure to climate risks such as rising sea level, cyclones, and storm surges. These pose major threats to the billions of dollars-worth of infrastructure and personnel.” The NMF has therefore initiated research to “study the impacts of climate change on India’s maritime and naval security, examine the progress that has been made thus far, and establish medium and long-term goals.”\textsuperscript{34}

Towards a revisited Indian stance on climate-security and its impact on South Asia

Strengthening regional cooperation through the existing and potentially new mechanisms, including sub-regional ones, should be a priority for India. Most of the regional and sub-regional arrangements – including SAARC, BIMSTEC, IORA, etc. – address climate change, yet due to the ineffectiveness of these arrangements itself,
having to do with geopolitical hurdles, and a lack of financial and technical resources, climate action initiatives have not taken off well. For instance, the SAARC Action Plan on Climate Change launched in 2008 could be revitalized to address climate security risks. Similarly, other initiatives such as South Asia Disaster Knowledge Network (SADKN)35, aimed at knowledge exchange could be reinvigorated for improving early warning, developing preparedness, and building capacities.

Geopolitical tensions between India, and Pakistan, China, Nepal, and other countries have hampered regional and/or bilateral cooperation. However, transboundary river water sharing offers scope for cooperation on sustainable joint river basin management that takes into account effects of climate change. Sub-regional arrangements such as BBIN Initiative (Bangladesh, Bhutan, India, and Nepal) can devise and implement initiatives in this direction, especially when it comes to the Ganges River Basin. There are a few benefit-sharing mechanisms on hydropower between India and Bhutan36, and India and Nepal37, but these arrangements can be augmented further to build confidence between communities and countries through climate adaptation measures. For instance, some of the Indian dam projects in the neighbourhood have reportedly triggered local grievances and protests as they are known to cause flooding.38 Hence, infrastructure projects need to be climate-proofed as well as sensitive to local contexts. Furthermore, India could build platforms to assist preventive diplomacy to avoid conflicts over resource sharing or other environmental concerns with its neighbours.

Most of the countries in the region are conflict-prone or conflict-ridden. Nepal is still in search of political stability after coming out of a 10-year long civil war, and subsequent power and constitutional struggles.39 Sri Lanka continues to grapple with the reconciliation efforts between its ethnic and religious groups after an almost three-decade long civil war that ended in 2009.40 As India engages in climate diplomacy with its neighbouring countries and provides developmental assistance in accordance with climate change requirements41, it needs to take into consideration these conflict sensitivities too.

The possibility of finding common solutions to common problems needs to be underscored at various levels of decision-making concerning foreign policy, especially at the regional level. All the countries in the region are invariably affected by the systemic risks posed by climate change. An example is the way in which the second COVID-19 pandemic wave (2021) in India and the associated health emergency coincided with two severe cyclonic storms – Tauktae (western coast) and Yaas (eastern coast). When the COVID-19-affected Indian states struggled to provide treatment to the rising tide of patients, Cyclone Tauktae disrupted the electricity sector in several parts of these states, thereby also distressing healthcare, particularly oxygen supply – critical to the survival of many patients.42 Similar problems were observed in countries such as Bangladesh and Pakistan too during this period. The increasing frequency and

Intensity of cyclones in the Arabian Sea are being attributed mainly to rising sea temperatures.

Hence, regional organizations and bilateral/plurilateral arrangements should invest in joint knowledge production to promote a systemic understanding of climate-related security risks. They should invest in identifying the most vulnerable sectors and regions, and estimate and mobilize the financial, technical, technological, and other requisite resources to cope with these risks. More importantly, they need to review the existing regional mechanisms and other arrangements to mainstream climate concerns and/or create new institutional mechanisms to deal with climate security, and these security actors should be included from the start. Such cooperation already exists to some extent in the case of regional Humanitarian Assistance and Disaster Relief (HADR) – through SAARC\(^\text{43}\), BIMSTEC\(^\text{44}\) and Indian Ocean Nava Symposium (IONS)\(^\text{45}\). However, there is scope for translating these efforts into other areas of climate security policy, including disaster risk reduction initiatives. Clean energy cooperation, under the umbrella of the International Solar Alliance, a brainchild of India, is yet another upcoming area for climate change cooperation that augments energy security and climate mitigation, and strengthens infrastructural and community resilience to environmental disruptions.

An area that remains untapped is the combined energies of grassroots climate action movements and local measures that could potentially build peace between communities across political boundaries.\(^\text{46}\)

Transnational networks, involving scientists, planners, policy-makers, academics/researchers, financiers, technologists, civil society organizations, local communities, and others, around specific issues such as urban planning, gender, disasters, water conservation, etc. could help in developing knowledge hubs and sub-national diplomatic initiatives to deal with common concerns. For example, transnational women’s networks in the region can create awareness about context-specific security risks faced by women under different circumstances associated with climate change such as climate migration, climate-related disasters, livelihood security, etc. as well as representation of women in climate policy-related decision-making.

Globally, India’s burgeoning climate diplomacy engagement with the most vulnerable countries, not only in the South Asian region, but also in other regions such as Africa, South Pacific, etc. can be scaled up further to bolster India’s commitment to global climate governance as a means of achieving international peace and security. For instance, India has substantially increased its engagement with the island nations of the South Pacific – providing support in climate change adaptation, solar electrification, energy efficiency, etc.\(^\text{47}\) At the same time, India’s immense contributions to peacekeeping missions in many parts of the world, including in Africa, can complement its ongoing climate diplomacy efforts by training the peacekeeping forces and equipping them with the latest knowledge on climate change and ways to help local communities cope with its effects.

Multilaterally, the UNSC’s engagement with climate security will continue to be a sticking point for India. Although India has begun to acknowledge the security implications of climate change in recent times, the UNSC as a platform to discuss them is likely to continue to induce objections from the Indian establishment.


\(^{45}\) https://www.ions.global/.


Hence, India needs to emphasize the relevance of the principles of “fairness, effectiveness, representation, and transparency”, which are central to India’s multilateral approach to global governance. These principles can be effectively used to strengthen an initiative like the UN Climate Security Mechanism, wherein India could play a bigger role. If India is to prepare itself for the worsening climate crisis, it needs to mobilize voices in favour of climate justice at the international level, whereby the industrialized countries would need to commit more and fulfil their promises, especially with regard to climate finance. At the same time, India should take cognizance of climate-related security risks to ensure long-lasting peace and stability in the South Asian region.
About the Planetary Security Initiative
The Planetary Security Initiative sets out best practice, strategic entry points and new approaches to reducing climate-related risks to conflict and stability, thus promoting sustainable peace in a changing climate. The PSI is operated by Clingendael - the Netherlands Institute of International Relations.

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