How Do Indian Security Institutions Engage with Strategic Climate Risks?

Event Summary | Thursday, 27 November 2025

- The Centre for Social and Economic Progress hosted the 36th edition of its Foreign Policy and Security Tiffin Talk series on **"How Do Indian Security Institutions Engage with Strategic Climate Risks?"** with **Dhanashree Jayaram,** Senior Assistant Professor, Department of Geopolitics and International Relations (DGIR), Manipal University.
- The presentation contrasted Western "securitisation" with India's approach of "climatising" security within developmental frameworks. It highlighted the Indian military's shift toward **anticipatory governance** to handle climate risks. Despite logistical challenges with renewables, the discussion concluded that mandating climate foresight in defence planning and establishing civil-military protocols is essential for comprehensive preparedness.
- The lead discussants were Air Marshal **M. Matheswaran** (Retd.) and **Pooja Ramamurthi,** Fellow, CSEP. The talk was moderated by **Constantino Xavier,** Senior Fellow, CSEP.
- The discussion included participants from foreign diplomatic missions and embassies, media, academic institutions, and think tanks from India and abroad.
- This series of closed-door research seminars is curated by **Constantino Xavier** and **Shivshankar Menon.** It focuses on contemporary, evidence-based research with policy relevance to bridge Delhi's scholar-practitioner divide.

The Securitisation of Climate

The concept of climate security was first formally debated by the United Nations Security Council (UNSC) in 2007. This marked a pivotal shift in global governance. Since then, the discourse has evolved but remains fragmented with no standardised global framework. However, international bodies like the Planetary Security Initiative and the Global Military Council on Climate Change have attempted to formalise these concerns. The core thesis emerging from the discussion was that India is moving away from the Western model of 'securitisation', which treats climate change as a threat multiplier requiring military intervention, toward a model of 'climatisation'. This approach involves integrating climate logic into existing military mandates, ranging from symbolic acknowledgements to transformative ecological engagement. The session highlighted that traditional strategic planning is insufficient for the unprecedented risks posed by the triple crisis of biodiversity loss, climate change, and pollution. There is an urgent need for anticipatory governance to manage this crisis, arguing that the traditional responsibility to protect must now be complemented by a "responsibility to prepare".

The discussion highlighted that a critical component of anticipatory governance is the foresight to prepare for emerging technologies, especially geoengineering techniques like Solar Radiation Management (SRM). This field presents a profound security dilemma and underscores the urgent need for defined governance principles for three key reasons. Firstly, there is an inherent dual-use concern stemming from the potential for military assets to be used for non-benign purposes, such as the use of aircraft for spraying aerosols in the stratosphere. Secondly, since these critical technologies are being developed almost exclusively in the Global North, we face a security dilemma akin to an arms race, where climate technology risks becoming militarised or weaponised. Lastly, this challenge is exacerbated by private actors who are beginning to invest heavily in these dual-use

technologies, introducing non-state volatility into a high-stakes domain. Effective governance is essential because planetary change is not restricted to territorial borders; the impacts of geoengineering interventions will have transboundary effects.

The Indian Experience

In Western discourses, climate security is often securitised and framed as an existential threat requiring extraordinary, often militarised, measures. India has resisted this narrative. As a net security provider in the region, the Indian security establishment does not view climate change primarily through a threat multiplier lens. On the contrary, the Indian military is being "climatised", which refers to the gradual integration of climate concerns into the military's existing mandate without necessarily altering its core warfighting doctrine. This process manifests in four distinct types of institutional responses – symbolic, strategic, precautionary, and transformative.

The Indian military dominates Humanitarian Assistance and Disaster Relief (HADR) operations, a shift that accelerated after the 2004 Indian Ocean Tsunami. The military's dominance of HADR operations is both internal, like the 2015 Chennai floods, and external, such as in the Bay of Bengal countries. India's expeditionary capability is focused on regional players, and it plans regular exercises to strengthen those ties. The discussants noted that this strategy enables the Indian government to leverage HADR capabilities as a key instrument of statecraft to advance diplomatic objectives.

The starkest example of climate impact is in the Himalayas. Data presented at the talk highlighted that the Siachen Glacier has retreated by approximately two kilometres in the last two decades. Along the coast, no port in India is climate-ready, and there is a lack of granular vulnerability assessments for coastal assets. Specific concerns were raised about the vulnerability of ports like Paradip in Odisha to cyclones. However, the Karwar Naval Base in Karnataka was cited as an example where the defence sector underwent elaborate, multi-phase environmental impact assessments.

The Indian military has taken steps toward reducing its carbon footprint. Since 1980, the Ecological Task Force under the Territorial Army has been conducting afforestation programmes. In 2023, the Indian Army and National Thermal Power Cooperation (NTPC) agreed to collaborate to install a green hydrogen project in Ladakh. The India Air Force has also experimented with biofuels. As participants noted, this is driven not just by environmental concerns but by logistics; reducing dependence on fossil fuels in forward areas simplifies the perilous supply chain. A discussant questioned the viability of fully 'climatising' the armed forces. It was stated that while weather patterns dictate logistics, the military's core obligation is to win wars. While green transitions are progressing during peacetime, their implementation remains contingent on not compromising combat readiness. Consequently, the adoption of low-carbon alternatives is limited by the strict need for operational reliability and assurance, particularly during active conflict.

Considerations for the Future

For the Indian military, the short-term operational ease is outweighed by severe long-term risks, including water stress, unpredictable avalanches, and the destabilisation of border regions. The environmental cost of war in these ecologically fragile zones includes the degradation caused by troop deployment and ammunition. In the long term, while a renewable energy transition is feasible during peacetime operations, discussants agreed it is unlikely during wartime due to reliability concerns and that this issue needs to be further studied. One discussant highlighted an operational paradox, that while glacial retreat signals environmental degradation, the resulting loss of altitude theoretically benefits the military by rendering high-altitude terrain more accessible.

The reality of the climate crisis implies that security institutions are no longer exempt. Under the Paris Agreement, while military emissions reporting remains voluntary, there is growing scrutiny on the carbon footprint of defence forces. As noted during the session, defence is a carbon problem, and initiatives are underway to account for emissions, such as the Pentagon's recent carbon accounting efforts.

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