

Environmental Challenges and Geopolitical Stability: The Intersection of Climate Change and Global Security

Mohosina Mostofa¹

Introduction

The landscape of global security is undergoing a profound transformation. While traditional threats—military conflicts, terrorism, and economic rivalries—continue to shape geopolitical calculations, a silent yet formidable force is rapidly emerging as a destabilizing factor: climate change. No longer just an environmental concern, climate change has evolved into a direct threat multiplier, exacerbating existing tensions and creating new fault lines in global stability. From the shrinking ice caps in the Arctic, triggering competition for resources, to rising sea levels threatening the very existence of low-lying nations, the security implications of climate change are as vast as they are urgent.



Source: CSR Reporters

The intersection of climate change and global security manifests in multiple ways. Extreme weather events—such as hurricanes, wildfires, and prolonged droughts—are already displacing

¹Mohosina Mostofa is a Research Assistant at the Bangladesh Institute of Peace and Security Studies (BIPSS). She completed her BSS & MSS in International Relations from the Bangladesh University of Professionals (BUP).

millions, creating climate refugees who, in turn, strain resources and social structures in host nations. Water and food scarcity, driven by erratic climate patterns, fuel conflicts over essential resources, particularly in regions already prone to instability. In many parts of the world, armed groups exploit environmental crises to expand their influence, further compounding geopolitical turmoil.

Moreover, the geopolitical consequences of climate change are not limited to developing nations. Major powers are recalibrating their strategies in response to shifting climate dynamics. The melting Arctic, for instance, has triggered a new geopolitical contest as nations scramble for control over newly accessible trade routes and untapped energy reserves. Meanwhile, military institutions worldwide are recognizing climate change as a critical national security threat, integrating climate resilience into defense strategies. As climate change continues to redefine the global order, the urgency of integrating climate security into mainstream geopolitical discourse cannot be overstated. The future of global stability depends on recognizing that the battle against climate change is, in many ways, a battle for security itself.

Arctic Geopolitics and the New Cold War

The Arctic, once a remote and largely inaccessible region, is rapidly becoming a focal point of global geopolitical competition due to climate change. The melting of Arctic ice, accelerated by rising global temperatures, is exposing new trade routes and untapped natural resources, leading to increasing tensions among major powers. This phenomenon has triggered what some analysts call a “New Cold War”² in the Arctic, as states compete for strategic advantages in the region.

Russia’s Militarization of the Arctic: Russia has emerged as a dominant player in Arctic geopolitics. With approximately 53% of the Arctic Ocean’s coastline under its control, Russia is aggressively expanding its military presence.³ It has reopened Soviet-era military bases, deployed

²Åtland, Kristian. 2014. “Interstate Relations in the Arctic: An Emerging Security Dilemma?” *Comparative Strategy* 33 (2): 145–66. <https://doi.org/10.1080/01495933.2014.897121>.

³ Rumer, Eugene, Richard Sokolsky, and Paul Stronski. 2021. “Russia in the Arctic—a Critical Examination.” [Carnegieendowment.org](https://carnegieendowment.org). March 29, 2021. <https://carnegieendowment.org/research/2021/03/russia-in-the-arctica-critical-examination?lang=en>.

advanced missile systems, and strengthened its Arctic fleet. Russia's Northern Fleet, which is its most powerful naval force, has been conducting frequent exercises in the Arctic, signaling its intent to assert control over the region. Moreover, Moscow has staked territorial claims under the United Nations Convention on the Law of the Sea (UNCLOS), arguing that the Lomonosov Ridge, an underwater mountain range, is an extension of its continental shelf.⁴ If accepted, this claim would significantly extend Russia's economic rights over the Arctic seabed, which is believed to hold vast reserves of oil and natural gas.



Source: NATO Association of Canada

China's Growing Arctic Ambitions: Although not an Arctic state, China has declared itself a "near-Arctic power"⁵ and has been increasing its presence in the region. The country's Arctic strategy, unveiled in 2018, emphasizes scientific research, infrastructure development, and resource exploration. Through its Polar Silk Road initiative, China seeks to integrate Arctic trade

⁴Hossain, Kamrul. 2021. "Russia's Proposed Extended Continental Shelf in the Arctic Ocean: Science Setting the Stage for Law." The Polar Connection. June 2, 2021. <https://polarconnection.org/russia-extended-continental-shelf-arctic/>.

⁵"South China Morning Post." 2024. South China Morning Post. December 27, 2024. <https://www.scmp.com/news/china/science/article/3292430/chinese-launches-deep-sea-icebreaker-help-forge-path-research-and-arctic-influence>.

routes into its larger Belt and Road Initiative (BRI). China has also invested heavily in Arctic infrastructure, partnering with Russia on projects such as the Yamal LNG gas project.⁶ This growing collaboration between Moscow and Beijing has raised concerns in Western capitals about a potential Sino-Russian alliance that could challenge NATO’s influence in the Arctic.



Yamal LNG Project; Source: The Barents Observer

Western Responses and NATO’s Strategic Shift: Recognizing the security risks posed by increased Russian and Chinese activity, NATO has been strengthening its Arctic posture. The U.S. has reopened its Cold War-era base in Greenland, conducted military exercises with allies like Canada and Norway, and increased patrols in Arctic waters.⁷ In 2023, NATO formally identified the Arctic as a strategic priority, reinforcing the region’s significance in global security calculations.

⁶Rigot-Müller, Patrick, Ali Cheaitou, Laurent Etienne, Olivier Faury, and Laurent Fedi. 2022. “The Role of Polar seaworthiness in Shipping Planning for Infrastructure Projects in the Arctic: The Case of Yamal LNG Plant.” *Transportation Research Part A: Policy and Practice* 155 (January): 330–53. <https://doi.org/10.1016/j.tra.2021.11.009>.

⁷Torralba, Carlos. 2025. “Greenland, the Hotspot in the Global Race for Arctic Control.” *EL PAÍS English*. March 17, 2025. <https://english.elpais.com/international/2025-03-17/greenland-the-hotspot-in-the-global-race-for-arctic-control.html>.

Climate-Induced Displacement and Security Threats

At present, climate-induced displacement is emerging as one of the most pressing security challenges worldwide. The increasing frequency and intensity of extreme weather events—rising sea levels, prolonged droughts, and devastating storms—are forcing millions of people to flee their homes, creating climate refugees. This mass displacement is not only a humanitarian crisis but also a security concern, as it strains resources, fuels conflicts, and destabilizes regions.

The Horn of Africa Drought Crisis: In 2024, the Horn of Africa suffered from one of its worst droughts in decades, affecting Somalia, Ethiopia, and Kenya.⁸ The United Nations estimates that over 20 million people face food insecurity, with thousands displaced in search of water and arable land. The mass movement of people is exacerbating ethnic tensions and increasing competition for scarce resources. Extremist groups like Al-Shabaab in Somalia are exploiting the crisis, recruiting vulnerable individuals who have lost their livelihoods.

Rising Sea Levels Threatening Coastal Populations: In South and Southeast Asia, rising sea levels continue to pose an existential threat. In 2024, Bangladesh saw record-high coastal flooding, displacing tens of thousands. If current trends continue, major coastal cities like Dhaka, Jakarta, and Manila may experience waves of climate migration, putting immense pressure on urban infrastructure and governance. This instability creates risks of political unrest and economic decline, with global implications.

Water Scarcity and Resource Conflicts

Water scarcity and resource conflicts have significantly influenced global security dynamics, notably in regions like South Asia and the Nile Basin. Climate change-induced alterations in water availability have exacerbated tensions, leading to disputes over shared water resources between neighboring countries.

The Nile Basin and the Grand Ethiopian Renaissance Dam (GERD): The construction of the GERD by Ethiopia has been a source of contention among Nile Basin countries, particularly

⁸“The Greater Horn of Africa: Humanitarian Key Messages (February 2024) - Ethiopia.” 2024. ReliefWeb. March 14, 2024. <https://reliefweb.int/report/ethiopia/greater-horn-africa-humanitarian-key-messages-february-2024>.

Ethiopia, Egypt, and Sudan.⁹ In October 2024, six Nile Basin countries, including Ethiopia, ratified the Cooperative Framework Agreement (CFA), aiming to establish a more equitable system for utilizing Nile waters. Egypt and Sudan, however, have not signed the CFA, citing concerns over their historical water rights.¹⁰ Egypt perceives the GERD as a potential threat to its water security, given its heavy reliance on the Nile. The lack of a binding agreement on the dam's operation has intensified regional tensions, with fears of exacerbating water scarcity and triggering conflicts.



Source: The Independent Uganda

The Indus Waters Treaty Between India and Pakistan: The Indus Waters Treaty (IWT), signed in 1960, has historically governed the sharing of water from the Indus River system between India and Pakistan.¹¹ However, in January 2024, India issued a notice to Pakistan seeking modifications to the treaty, citing factors such as demographic changes, the need for clean hydropower, and security concerns, particularly regarding the Kashmir region.¹² Pakistan has opposed these

⁹Mbaku, John Mukum. 2020. "The Controversy over the Grand Ethiopian Renaissance Dam." Brookings. August 5, 2020. <https://www.brookings.edu/articles/the-controversy-over-the-grand-ethiopian-renaissance-dam/>.

¹⁰"Cooperative Framework Agreement | Nile Basin Initiative." n.d. Nilebasin.org. <https://nilebasin.org/about-us/cooperative-framework-agreement>.

¹¹The World Bank. 2018. "Fact Sheet: The Indus Waters Treaty 1960 and the Role of the World Bank." World Bank. June 11, 2018. <https://www.worldbank.org/en/region/sar/brief/fact-sheet-the-indus-waters-treaty-1960-and-the-world-bank>.

¹²Lad, Rahul M. 2024. "Turbulence in the Indus Waters Treaty." Deccan Herald. October 9, 2024. <https://www.deccanherald.com/opinion/turbulence-in-the-indus-waters-treaty-3224931>.

proposed changes, emphasizing the treaty's importance for its water security. The disagreement has led to legal proceedings, with a Neutral Expert appointed to assess the treaty's provisions. In January 2025, the Neutral Expert ruled on his competence to address certain issues under the IWT, with further proceedings ongoing.¹³

Climate Change and Terrorism: The Weaponization of Environmental Crises

Climate change is increasingly being exploited by terrorist and extremist groups as a tool for recruitment, control, and destabilization. In regions already affected by conflict, droughts, floods, and food shortages exacerbate grievances, providing militant organizations with opportunities to expand their influence.

Boko Haram and Climate Stress in the Lake Chad Basin: The Lake Chad Basin, covering Nigeria, Chad, Niger, and Cameroon, has been drastically shrinking due to climate change, affecting millions who rely on it for agriculture and fishing. The loss of livelihoods has fueled recruitment into Boko Haram and Islamic State West Africa Province (ISWAP).¹⁴ In 2024, worsening droughts pushed more people into displacement camps, where extremist groups actively recruited fighters by offering food, money, and security. The Nigerian military and regional forces have struggled to combat these groups as they exploit the humanitarian crisis to strengthen their operations.

Al-Shabaab Controlling Water Resources in Somalia: In Somalia, where recurring droughts and water shortages are worsening, the terrorist group Al-Shabaab has been using water access as a weapon. In early 2024, the group blocked humanitarian aid and took control of key wells and reservoirs, forcing rural communities to rely on them for survival. This strategy has allowed them to increase taxation and gain leverage over local populations. The Somali government, with

¹³ICWA. 2025. "India's Notices to Pakistan to "Modify" the Indus Water Treaty: Causes and Implications' - Indian Council of World Affairs (Government of India)." [icwa.in](https://www.icwa.in/show_content.php?lang=1&level=1&ls_id=12363&lid=7542). 2025. https://www.icwa.in/show_content.php?lang=1&level=1&ls_id=12363&lid=7542.

¹⁴Lamarche, Alexandra. 2023. "Climate-Fueled Violence and Displacement in the Lake Chad Basin: Focus on Chad and Cameroon." Refugees International. January 19, 2023. <https://www.refugeesinternational.org/reports-briefs/climate-fueled-violence-and-displacement-in-the-lake-chad-basin-focus-on-chad-and-cameroon/>.

international support, has launched operations to reclaim these resources, but the crisis remains dire.

Climate-Induced Economic Disruptions and Global Stability

Climate change is increasingly disrupting global economies, creating ripple effects that threaten political stability, social cohesion, and national security. Extreme weather events, supply chain disruptions, and energy crises can worsen economic vulnerabilities, triggering inflation, food insecurity, and social unrest in different regions.

The 2024 Global Heatwave and Agricultural Crisis: In mid-2024, an unprecedented heatwave swept across Europe, North America, and Asia, significantly impacting agriculture. Countries like Spain, India, and the United States recorded record-breaking temperatures that damaged crops, reduced yields, and drove up food prices.¹⁵ In India, wheat production declined sharply due to extreme heat, forcing the government to impose export restrictions. This led to global shortages, particularly in Africa and the Middle East, where many countries rely on imported grain. Inflation in food prices fueled protests in nations like Egypt and Sudan, worsening existing political instability.

Case Study of Bangladesh: The Gap in Security Framework

Despite being one of the most climate-vulnerable countries in the world, Bangladesh's national security framework remains heavily focused on traditional threats—border security, extremism, and political instability—while failing to comprehensively address climate-induced destabilization. Climate change is no longer just an environmental or developmental issue; it is a direct threat multiplier that exacerbates socio-economic vulnerabilities and weakens national security. However, Bangladesh's security institutions have yet to fully integrate climate resilience into their core strategic planning. One of the most glaring gaps is the lack of a dedicated Climate Security Unit within the national security apparatus. While disaster management policies exist, they primarily operate as reactive mechanisms rather than preemptive security strategies. The

¹⁵World Weather Attribution. 2024. "Climate Change Made the Deadly Heatwaves That Hit Millions of Highly Vulnerable People across Asia More Frequent and Extreme – World Weather Attribution." World Weather Attribution. May 14, 2024. <https://www.worldweatherattribution.org/climate-change-made-the-deadly-heatwaves-that-hit-millions-of-highly-vulnerable-people-across-asia-more-frequent-and-extreme/>.

absence of climate-focused risk assessments in military and intelligence planning leaves Bangladesh unprepared for the long-term security challenges posed by extreme weather, migration, and resource scarcity.

The climate-migration-security nexus is another critical yet overlooked dimension. With projections estimating that about 19.9 million Bangladeshis could be displaced by climate change by 2050, the growing influx of climate refugees into cities like Dhaka and Chattogram is already contributing to rising crime rates, informal settlements, and strained public services.¹⁶ The government's migration policies remain outdated and lack integration with national security considerations, leaving room for radicalization and organized crime networks to exploit the vulnerabilities of displaced populations.

Bangladesh also faces geopolitical risks linked to climate change, particularly in transboundary water disputes with India and Myanmar. The Teesta River dispute remains unresolved, and increasing water scarcity due to erratic monsoons and upstream diversions could heighten diplomatic tensions. Similarly, rising sea levels and erosion along the Bangladesh-Myanmar border could exacerbate conflicts over maritime boundaries and Rohingya refugee management.

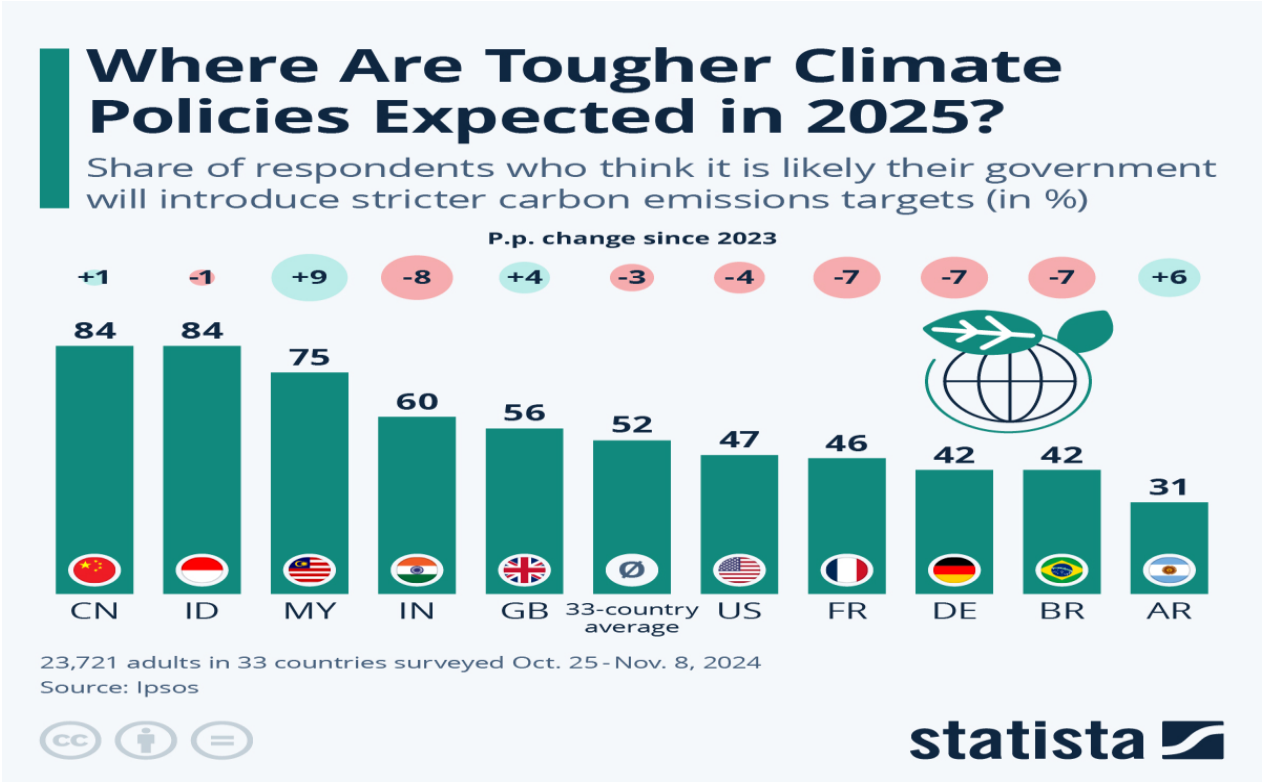
Without a climate-informed security doctrine, Bangladesh risks systemic instability. The government must prioritize a climate-security integration strategy, incorporating military preparedness, economic resilience, and diplomatic engagement to mitigate future threats. Failure to act decisively will not only weaken national stability but also increase Bangladesh's dependence on external assistance, compromising its sovereignty and long-term security interests.

Conclusion

Climate change is no longer a distant environmental issue—it is a defining security challenge of the 21st century. From the Arctic's militarization to climate-induced displacement in Africa and Asia, the world is witnessing how environmental stressors are fueling instability, geopolitical competition, and resource conflicts. Yet, global security frameworks remain largely rooted in

¹⁶Duque, Maria Camila . 2024. "Climate Change in Bangladesh Shapes Internal Migration and Movement to India." Migrationpolicy.org. September 3, 2024. <https://www.migrationpolicy.org/article/bangladesh-india-climate-migration>.

traditional threats, failing to fully integrate climate resilience into strategic planning. If this gap is not addressed, climate change will continue to act as a threat multiplier, exacerbating political fragility, economic downturns, and armed conflicts.



Source: Statista

To address this, nations must prioritize climate security as a central pillar of their defense and foreign policies. This requires a fundamental shift in military doctrines, where armed forces are not only prepared for conventional warfare but also for climate-induced crises—including resource conflicts, mass displacement, and infrastructure breakdowns. Countries like the United States, China, and Russia have begun incorporating climate resilience into their national security strategies, but the response remains uneven and inadequate across much of the world.

Secondly, multilateral cooperation must be strengthened to manage the transnational risks of climate change. Just as the world has established frameworks for nuclear non-proliferation and counterterrorism, there is an urgent need for an international climate security treaty that enforces binding commitments on climate adaptation, resource-sharing, and disaster response. The United Nations, NATO, and regional organizations must take the lead in establishing global norms for

climate-related conflict prevention. Besides, financial and technological resources must be equitably distributed to help vulnerable nations build resilience. The current climate finance mechanisms, such as the Loss and Damage Fund, remain inadequate and slow to deploy. Major powers must fulfill their commitments and ensure that at-risk nations, particularly in Africa, South Asia, and the Pacific, receive the necessary support to avert humanitarian and security crises.

Finally, the world must recognize that climate action is no longer just about sustainability—it is about survival. Governments must treat climate security with the same urgency as military threats, investing in renewable energy, climate-resilient infrastructure, and sustainable agriculture. The failure to act decisively will not only destabilize fragile states but also erode global stability, fuel conflicts, and intensify geopolitical rivalries. The future of global security depends on how quickly and effectively nations integrate climate resilience into their strategic calculus—failure to do so will result in a world where climate disasters and security crises become the new normal.