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No. 008/2021 dated 25 October 2021

Asian Security in a Climate-changed World: A View from the US

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Extreme weather events in South Asia are part of the increasing climate-related threats to Asian security.
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SYNOPSIS

Climate change is an increasingly prominent factor in the calculus of national and regional security. Asia-Pacific, with its vast populations dependent upon melting

glaciers, dwindling fish stocks and receding rice paddies, is especially vulnerable. Diplomatic and security actors have a time-limited opportunity to institute systemic, data-driven collaboration to prevent the most consequential, and predictable, impending climate security risks.

COMMENTARY

Climate change is a defining feature of the 21st century, creating tectonic shifts in finance, industry and international relations. The security domain is no exception. Extreme weather stresses every aspect of military operations, from planning, infrastructure, procurement and training to operational readiness. The Pentagon is responding accordingly, with a trio of plans addressing mitigation, adaptation and risk preparedness.

This unprecedented effort has deep historical roots. The Measurements of Earth Data for Environmental Analysis (MEDEA) programme, initiated in the 1990s by then-Vice President Al Gore and Central Intelligence Agency Director Robert Gates, provided US scientists across a wide range of disciplines access to classified data on earth and ocean science. This data was later used to monitor climate treaty implementation. In the 2000s the US security community began to recognise climate change as a [threat multiplier](#), incorporating climate threats into National Intelligence Assessments and the Department of Defense *Quadrennial Defense Review*.

Climate security manifests in many complex ways, but can be understood using three broad categories: conditions that compromise military readiness and operational capacity; increased demand for humanitarian assistance and disaster response (HADR) missions; and a wide range of threat multiplier effects which exacerbate existing insecurity, and can increase state fragility and the likelihood of human hardship, forced migration and conflict.

Readiness and Operational Capacity

Extreme weather poses direct threats to military installations. Storms, floods and heat events are racking up serious bills for the US military. For example, Hurricane Florence, which hit Camp Lejeune, North Carolina in 2017, caused [\\$3.7 billion](#) in damage to buildings, aircraft hangars and roads. More recently, the Naval Air Weapons Station China Lake in California [cancelled](#) more than a dozen training exercises due to raging fires. Adapting for such events will require location- and mission-specific investments, from AI-guided virtual training to military aircraft that can operate in storms to burying power lines.

Humanitarian Assistance and Disaster Response

As extreme weather strikes communities worldwide, militaries — the first responders of last resort — are called upon to rescue, protect, feed, nurse back to health, and eventually, rebuild. HADR consumes significant, and likely an increasing percentage of military resources.

This is especially true in the Indo-Pacific. According to a recent [report](#), 99 of the 100 cities at greatest risk of exposure to environmental threats are in Asia — including 43 cities in India and 37 in China. The five cities most exposed to natural hazards are all

in East Asia: Guangzhou, Dongguan and Shenzhen in China, and Tokyo and Osaka in Japan. Some countries have established permanent natural disaster response forces. HADR has become a standard avenue for collaboration among regional militaries, as the magnitude of the threat outstrips individual nations' abilities to respond.

Multiplying Threats

Climate extremes increase stresses at all levels of society. Agrarian communities can lose their essential livelihoods from floods, droughts and soil salinisation, deepening poverty and rendering them vulnerable to recruitment from violent extremist organisations. Competition for scarce water, food or other resources can induce conflict, especially when framed as a struggle between religious or ethnic groups. As natural disasters tax the capacity of regional and national governments to respond, failure of both essential services and governance structures can dissolve civil societies into chaos.

The Indo-Pacific exemplifies these risks. In the Hindu Kush Himalayan region, [1.9 billion people](#) are dependent on a complex system of rivers and glaciers already being disrupted by climate change. Thriving seaports including Bangkok, Jakarta and Manila, already sinking from land subsidence, are increasingly vulnerable to rising seas and intense storms. Saltwater is intruding into the Mekong Delta, the rich basin that supports [Vietnam's rice crops](#). Recent studies combining climate projections and security analyses in [the Arctic](#), the [India-China border region](#) and [North Korea](#) demonstrate the dangers posed by cascading security and climate risks among nuclear-armed countries.

The extent to which environmental catastrophe devolves into climate security risk depends on a host of complex factors. Security actors can synthesise climate predictions with security tools to assess impending threats and prepare according to strategic interests. That is the essence of the Biden Defense Department's plan.

US Response to Climate Security

The climate challenge is often framed as “avoiding the unmanageable while managing the unavoidable”. Three new Pentagon initiatives aim to set the Department of Defense (DoD) on a path to do just that.

To mitigate future risk, the US military is developing targeted decarbonisation plans. A forthcoming DoD *Sustainability Report and Implementation Plan* will identify opportunities for energy efficiency, renewable energy and the integration of electric vehicles into military operations.

To identify predictable threat multiplier events, the DoD has developed a [Climate Risk Analysis](#), published in October 2021. The assessment highlights climate impacts with the potential to exacerbate security threats, and inform preventative action.

To manage operational risks posed by unavoidable climate impacts, the DoD's new [Climate Adaptation Plan](#) presents strategies for conducting worldwide missions in a climate-changed world. Steps include integrating climate factors into all decision-making, from threat assessments to procurement decisions; evolving training and equipment specifications for extreme weather; building resilience into installations

and infrastructure; and ensuring supply chain resilience in vulnerable areas, including critical energy needs.

In the Foreword of the *Climate Adaptation Plan*, Defense Secretary Lloyd Austin observes:

We at the Department of Defense (DOD) know first-hand the national security risk posed by climate change because it affects the work we do every day. Around the world, climate change is a destabilizing force, demanding new missions of us and altering the security environment (G)oining forward, the Department will include the security implications of climate change in all our risk analyses, strategy development, and planning These are essential steps, not simply to meet a requirement but to defend the nation under all conditions.

Response in Asia

Across Asia, the political response has been muted thus far. While Vietnamese President Nguyen Xuan Phuc recently called climate change [a war without gunfire](#), other United Nations Security Council members, notably China and Russia, still [oppose the framing of climate as a security risk](#). Political ambivalence hamstrings regional militaries, which have been pragmatically building experience in disaster response for decades but lack a mandate to take a more comprehensive approach.

A new United Nations University report, [Interconnected Disaster Risks 2020/2021](#), reveals the inherent danger of waiting too long. Earth systems changes in one part of the world cascade globally, and the report draws a direct line between diffuse human actions and specific impacts, such as [nine storms that ravaged Vietnam over seven weeks in 2020](#), affecting 7.7 million people and causing \$1.3 billion in damages.

These changes are systemic and increasingly predictable. The response needs to be equally systemic if it is to be effective.

Climate security poses both a challenge and an opportunity for Indo-Pacific security institutions, at the national level and in their various regional collaborations. The tools are ready: scientific data, AI, evermore sophisticated computational software to predict the flow of everything from glacial melt and dwindling fish stocks to oil spills. The question is how to get national and regional organisations to use them. The answer may define the security and stability of the Indo-Pacific this century.

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This article is of a series published with the RSIS Virtual Roundtable on [“Climate Security in the Indo-Pacific: Strategic Implications for Defence and Foreign Affairs”](#), organised by IDSS and the Centre for Non-Traditional Security Studies of RSIS, 25 October 2021.

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