



The Water Insecurity-Climate Change Nexus: A Looming Threat to Peace and Security in Southeast Asia

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By Julius Cesar Trajano and Adam X. Hansen

SYNOPSIS

Climate change is intensifying water insecurity across Southeast Asia, heightening both interstate frictions and local societal tensions. Recent disputes over transboundary dam projects and public unrest over failed flood control efforts underscore how water governance challenges are increasingly becoming peace and security concerns in the region.

COMMENTARY

Water security issues amid the worsening impacts of climate change may create interstate tensions and localised peace and security issues. In April 2025, Thailand officially urged the Lao PDR to relocate its proposed [Sanakham Hydropower Dam Project](#) on the Mekong River to minimise the transboundary impacts on Thai communities, representing yet another contentious development.

The lack of effective flood control and water management can also fuel inherent societal tensions. In recent months, the Philippine government has [faced public protests and dissatisfaction](#) over massive corruption on flood control projects, primarily along the country's major river systems, following climate-induced extreme weather events this year that inundated urban and rural communities. Exacerbated by climate change, these pressures heightened local grievances, contestations and societal tensions.

Climate change pressures on water resources, especially from transboundary rivers, may also increase friction between neighbouring states. With [41 transboundary](#)

[groundwater bodies](#) across Southeast Asia, enhanced transboundary river management is a critical endeavour to preserve peace and security.

The Case of the Mekong River: Untamed Interests, Growing Tensions

At the intersection of water insecurity and climate change, the Mekong River remains a pivotal case. Critical to more than [70 million people](#) across six countries, climate change is a reality that Mekong's stakeholders cannot ignore. Over the last five decades, the Mekong region has warmed by [about 1.4 degrees Celsius](#). Communities are facing harsher heatwaves, unpredictable rainfall, and rising sea levels that are bringing salinity deeper into Vietnam's farmlands, weakening production along its crucial Mekong Delta "rice bowl".

Yet, the [more than a thousand dams along the Mekong River](#) have worsened conditions. Existing dams have further contributed to alterations of water flows for millions of people downstream, placing clean energy goals in contention with water security. Combined with the effects of climate change, changes in water flows have left local communities in Cambodia's vital Tonlé Sap with reduced fish stocks. Simultaneously, in Laos and Thailand, rising water levels from the prospective Sanakham dam are placing [more than 62,500 people at risk](#). Ungoverned, these issues are estimated to displace [3.4 to 6.4 million people](#) in the Lower Mekong Region by 2050.

As access to water becomes increasingly unstable, governments have been forced to prioritise their own interests, contributing to the ever-expanding push for hydropower along the river. Yet, this scenario further heightens interstate tensions. Vietnam's public concerns about the [Cambodian Funan Techo Canal's](#) impact on water flow into the Mekong Delta reflect unresolved ongoing high-level issues.

Presently, the Mekong River Commission (MRC) is the only transboundary water governance body in Southeast Asia to help states ["cooperate better"](#) in managing the Mekong River.

Nonetheless, concerns remain about the MRC's ability to address present and future issues effectively. Crucially, while the absence of strict enforcement mechanisms has incentivised state participation, it has not been able to mitigate the social and environmental consequences of hydro-projects.

Further, while the commission has successfully strengthened interstate ties, the influence of non-state actors [remains limited](#). The lack of inclusivity limits the participation of those living along the river's banks, who are most affected by the changing climate and water flows. Presently, civil society actors, including the Living River Siam and the Rivers Coalition of Cambodia, are elevating issues faced by local riparian communities, providing a potential avenue for the MRC to pursue deeper engagement.

Water Insecurities and Security Challenges in Southeast Asia

Apart from the Mekong sub-region, water and climate insecurities are also intensifying throughout Southeast Asia. Perennial floods, droughts, and hydrological projects currently threaten water access and food production along the Irrawaddy River, having previously sparked [protests in Myanmar in 2011](#).

Similar upstream developments in the Red River threaten food production in Vietnam, while [looming Chinese and Burmese hydro-projects](#) threaten communities along the Salween River, Southeast Asia's remaining undammed river.

In Indonesia, the climate crisis poses significant risks to agriculture, as recurring periods of water stress during the dry season make it increasingly difficult for farmers and communities to access sufficient water, leading to reduced crop yields. This has led to growing competition over water between agricultural and industrial users in recent decades, forcing the government to navigate a difficult balance between supporting industrial development and protecting agricultural livelihoods. A notable example is [the ongoing dispute in the Kendeng Mountains](#) of Central Java, where farmers have clashed with cement factories and lime mining operations over access to water and environmental impacts.

In the absence of strong transboundary water governance, security risks emerge. In rural communities across Southeast Asia, livelihoods are commonly linked to stable water flows for fishing or agriculture. Issues relating to limited water access, decreased sediment flows, salt intrusion and declining fish stocks directly threaten the viability of these livelihoods. From this, increased competition over resources and migration are two follow-up events that may occur at a growing pace.

Continuing climate change exacerbation and poor water management places additional tolls on cities and capitals such as Manila, Jakarta, and Bangkok, which are already facing water access issues and sea-level rise, along with compounding sociopolitical tensions. With these far-reaching consequences, the effects of climate and water insecurity threaten human security and stability.

Inclusive Water Governance

Tackling water insecurity in the region demands an inclusive approach that actively involves those most impacted by changing water conditions. At the 15th Regional Stakeholder Forum for Mekong in April 2025, the MRC conveyed that it is taking steps in this direction by providing greater opportunities for farmers, fishers, community representatives, and local leaders to contribute their insights. This vision needs to be realised sooner than later.

The [recent public demonstrations](#) over graft-ridden, substandard, or nonexistent flood control projects in the Philippines have also highlighted the absence of community consultations, especially for those living along riverbanks. Ignoring the consultation process causes direct harm to communities, as seen in this year's deadly floods in the Philippines.

Inclusive participation is crucial to formulating effective solutions to climate-related water challenges and preventing unintended consequences on peace and security. This allows for the effective incorporation of socioeconomic fragilities within water governance, ultimately protecting livelihoods and human well-being.

Role of the Security Sector

Viewing the water insecurity-climate change nexus solely as a technical or environmental matter overlooks its implications for peace and security. Water is inherently a political and security issue that demands a fundamental shift in how it is understood and managed. A wide range of stakeholders, agencies, and institutions, particularly the security sector, will need to take on vital roles in addressing these complexities.

As the impacts of climate change on water intensify over the coming decades, security actors can, and likely will, play a role, despite the risks often associated with their involvement. Securitising the water-climate-peace nexus, however, should not mean a militarised approach.

The military, police and relevant law enforcement bodies, and other security actors, should be equipped to analyse water-related risks, identify potential conflict pathways, and understand how these challenges affect local communities. The sector's capabilities can be tapped for infrastructure maintenance, conflict prevention, disaster response, and resource management to safeguard water access and ensure water availability for communities.

The security sector's role in conflict prevention measures can include proactive resource distribution plans, especially during severe floods or droughts, and supporting mechanisms for dispute settlement among local communities, where resource competition might expand. These contributions by the security sector should be systematically integrated into broader national strategies for water and climate security.

Conclusion

Amid intensifying insecurities driven by human activity and climate change, there is a pressing need to strengthen water and climate security frameworks – not only for the Mekong subregion but for Southeast Asia as a whole. A more integrated security governance approach, emphasising prevention and mitigation, will be crucial in building resilient communities and safeguarding shared water resources.

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