

Beyond Dialogue: Closing the Transboundary Governance Gap in the Mekong Region—Lessons from Compounding Crises in Chiang Rai, Thailand

Thanikun Chantra

- In 2024, Chiang Rai faced severe PM2.5 pollution, historic flooding, and transboundary water contamination, highlighting the interconnected nature of climate disasters and transboundary governance in the Mekong Region.
- National decision-makers, regional bodies, and international partners such as Japan, must adopt more action-oriented frameworks to promote transparent data-sharing systems and resilient partnerships centered on the most affected communities.

Chiang Rai at the intersection of opportunities and vulnerabilities

Chiang Rai, Thailand's northernmost province bordering Myanmar and Laos, is a key hub in the Mekong subregion. As part of the Greater Mekong Subregion, the province has long supported cross-border trade, tourism, and cultural exchange. Its strategic location makes it a focal point of Mekong connectivity—economically, socially, and environmentally—while many local and ethnic communities depend on the surrounding land and rivers for their livelihoods.

However, these advantages also come with increasing risks, including climate-related disasters and transboundary environmental pressures. As a result, the province has become highly vulnerable, reflecting broader governance challenges across the region. By 2024, these vulnerabilities had become increasingly evident, positioning Chiang Rai as a hotspot of climate-related fragility.

Compounding crises in 2024

The year 2024 was marked by multiple disasters for the people of Chiang Rai. As in previous years, [the province experienced severe PM2.5 air pollution that exceeded both national and World Health Organization \(WHO\) safety standards](#), driven by forest fires, agricultural burning, and transboundary haze originating from neighboring countries. This pollution posed significant long-term health risks, particularly for children, older adults, and ethnic minority communities with limited access to healthcare.

As the rainy season approached, the situation escalated with repeated episodes of extreme flooding and landslides caused by intense and unpredictable rainfall. Between July and October 2024, the province experienced seven separate flooding events. The most severe one was Tropical Storm Yagi, which affected more than 56,000 households and caused extensive damage to infrastructure, agricultural land, and local businesses across the province. In Mae Sai District, water levels rose by more than one meter and were accompanied by large amounts of mud. The event was reported as [the worst flooding in eight decades](#), raising questions about the unusually high volume of sediment and mud associated with this year's floods.

When the floodwaters receded, they left behind sediment, agricultural chemicals, and mining-related contamination runoff. There were also [reports of water contamination linked to mining operations across the border in Myanmar](#). However, details of these operations remain unclear and have largely been identified through satellite imagery available through Google Earth.

Multiple organizations—including local authorities, national agencies, international NGOs, and research institutions—conducted water-quality testing in the Kok and Sai rivers. However, these organizations produced inconsistent findings. Some agencies reported that water quality remained within acceptable standards, while others identified elevated contamination risks. Collectively, these overlapping challenges demonstrated how climate change, environmental degradation, upstream activities, urban development, and fragmented

Beyond Dialogue: Closing the Transboundary Governance Gap in the Mekong Region—Lessons from Compounding Crises in Chiang Rai, Thailand

governance are closely interconnected. They also underscored the urgent need for stronger transboundary cooperation and more coordinated environmental governance mechanisms.

The local governance gap: When communities lose trust

One of the most important lessons from Chiang Rai's 2024 crisis concerns governance and public trust. The inconsistency of water-quality test results reported by various organizations created confusion and undermined public confidence.

For local communities, these conflicting findings created uncertainty about whether river water was safe for fishing, farming, household use, and tourism-related activities. When institutions cannot provide a consistent answer to such a fundamental question, public trust can erode rapidly.

This problem extends beyond the technical considerations. It reflects deeper weaknesses in the way transboundary environmental governance operates in the Mekong Region. Although regional institutions and cooperative platforms exist, local communities often lack access to timely, reliable, and understandable information. Fragmented data collection and reporting across national agencies, local authorities, academic institutions, and international organizations create uncertainty precisely when communities need credible guidance the most.

Addressing this gap requires more than improving monitoring systems. It also requires stronger coordination, transparency, accountability, and inclusiveness to ensure that those most affected are not left to piece together the truth from contradictory reports.

The structural challenge: why dialogue is not enough

In practice, multiple regional frameworks have sought to address "human-environmental insecurity," a condition in which environmental threats directly affect livelihoods, health, mobility, and social stability in local communities along the Mekong River. For example, the [Mekong River Commission \(MRC\)](#) provides a multilateral forum for the lower riparian states, while the [Lancang-Mekong Cooperation \(LMC\)](#) mechanism connects China with the five lower-basin countries. The [Association of Southeast Asian Nations \(ASEAN\)](#) also maintains frameworks related to environmental management and disaster risk reduction.

However, Chiang Rai's 2024 crisis illustrates why this institutional architecture has not fully closed the governance gap. Most of these mechanisms remain largely consultative

rather than legally binding. Data on dam operation, which is critical for downstream flood forecasting, are often shared selectively and with significant delays. Similarly, transboundary air pollution resulting from agricultural burning falls largely outside binding regional agreements. Water contamination issues also lack clear mechanisms for resolution because existing measures remain limited or ineffective.

Policy recommendations: from dialogue to action

1. Mekong basin countries, together with the MRC and the LMC, should establish a coordinated monitoring system for water levels, water quality, sediment flows, and pollution risks. This system should employ shared methodologies and open-data platforms to reduce conflicting measurements and help rebuild public trust.
2. Information collected and analyzed through rigorous scientific methods should be translated into formats, including graphs, maps, and visual summaries, that local communities can easily understand. These materials should be disseminated promptly through both digital platforms and community-based communication channels.
3. Provincial and local authorities should be formally integrated into the Mekong cooperation mechanisms. As first responders to transboundary crises, they possess valuable local knowledge and practical experience that can strengthen regional governance.
4. International partners, including Japan, should collaborate with universities, local governments, civil society organizations, and communities in the Mekong Region to build long-term partnerships focused on flood adaptation, sustainable land use, integrated water-resource management, air-pollution mitigation, water-contamination response, and environmental recovery.
5. Regional institutions should establish common standards for environmental testing, public reporting, and risk communication so that communities receive consistent, credible, and transparent information regardless of which agency is reporting the findings.
6. Mekong cooperation frameworks must evolve from primarily consultative platforms into operational mechanisms capable of responding effectively to transboundary environmental challenges.

(Thanikun Chantira,
School of Social Innovation, Mae Fah Luang University)