

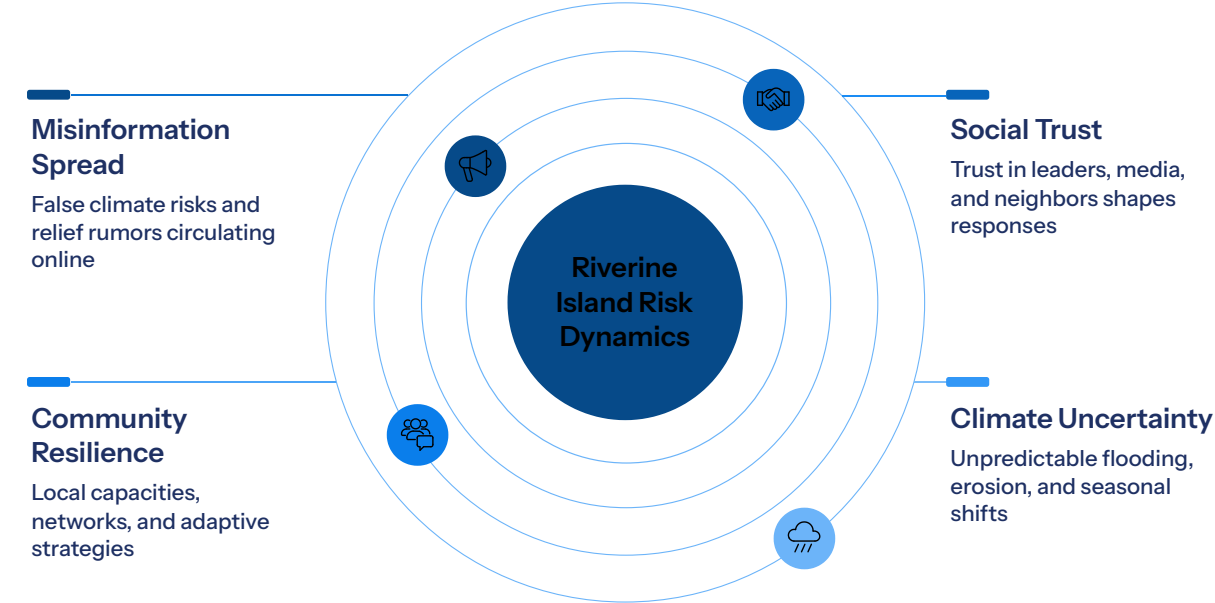
Facts, Fears, and Resilience: Climate Misinformation in Koh Kret, Thailand



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How misinformation, social trust, and community resilience intersect on a vulnerable riverine island in the age of climate uncertainty.



Where Environment Meets Misinformation



The Challenge

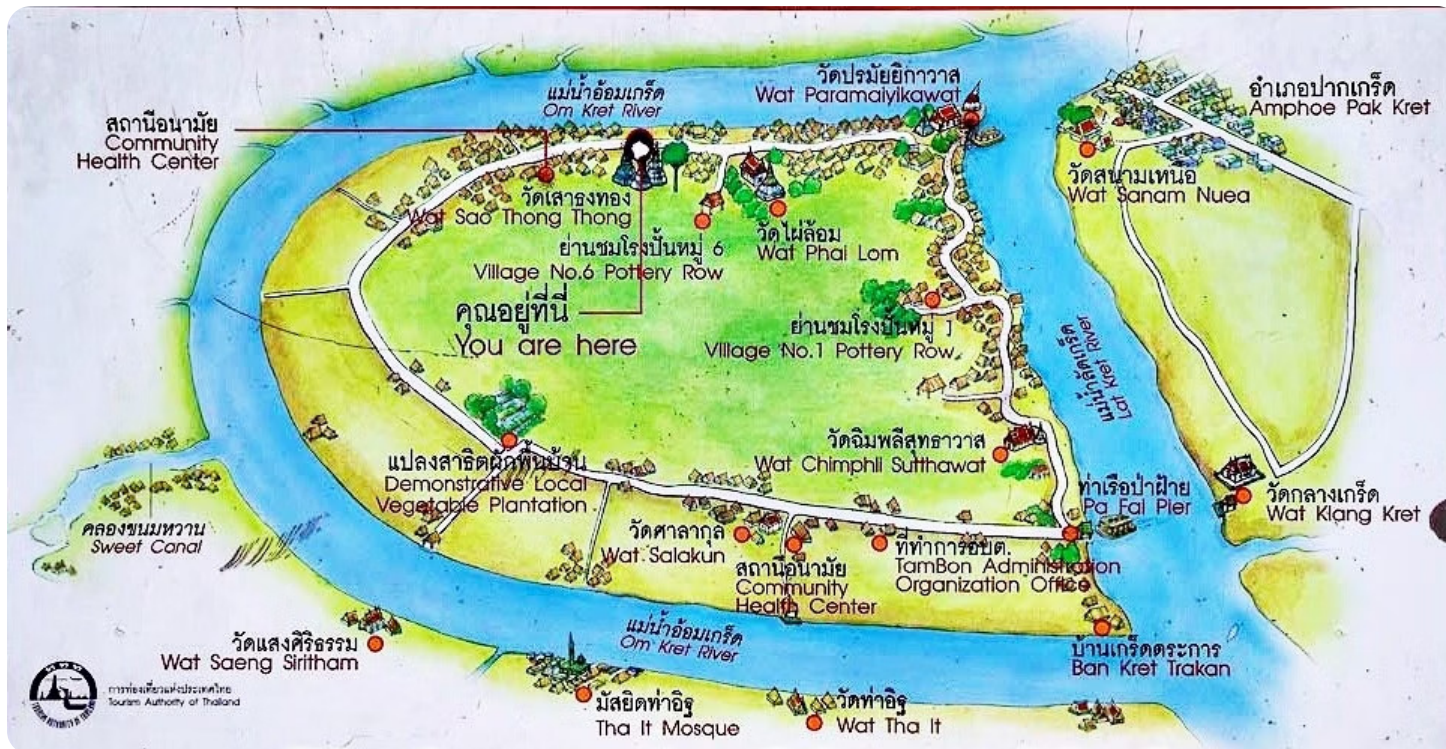
Climate change has become deeply intertwined with social trust, public communication, and political uncertainty. Communities face not only physical impacts but an "infodemic" of misinformation and conflicting narratives.

This paper argues that climate misinformation functions as a "social amplifier of risk," intensifying vulnerability by weakening trust and delaying collective adaptation.



Koh Kret, Thailand

A small riverine island in Nonthaburi Province, Koh Kret is recognized for its Mon heritage, pottery craftsmanship, and community-based tourism — yet faces growing environmental vulnerability: riverbank erosion, recurrent flooding, and ecological degradation compounded by fragmented information.



Theoretical Foundations

Risk Society

Ulrich Beck's framework: modern societies confront manufactured uncertainties from industrialization and globalization. Climate misinformation distorts public understanding, polarizes opinion, and weakens institutional trust — making risk perception socially constructed rather than evidence-based.

Social Resilience

Resilience has three dimensions: **absorptive capacity** (preparedness), **recovery** (restoring functions after crisis), and **adaptive capacity** (long-term transformation). W. Neil Adger highlights social networks and institutional trust as critical — especially where misinformation erodes collective understanding.

Participatory Governance

Effective adaptation requires institutional coordination and participatory approaches that incorporate local knowledge. In tourism-dependent communities like Koh Kret, adaptation links directly to cultural preservation — but misinformation fragments public understanding and creates competing narratives.

Research Design

This qualitative study examined climate misinformation, risk perception, and community resilience in Koh Kret through in-depth interviews, field observations, and document analysis. Purposive sampling ensured representation across diverse social and cultural groups.

11

Total Participants

6

Community Members

Vendors, restaurant operators, handicraft producers, and flood-affected residents from Mon, Thai-Chinese, and Muslim communities

3

Local Officers

Administrative officers responsible for tourism and community management

2

Academics

Environmental experts in climate risk, adaptation, and sustainable tourism





STUDY AREA

Koh Kret: A Community at the Crossroads

Cultural Significance

Koh Kret's coexistence of Mon, Thai-Chinese, and Muslim communities has created a unique socio-cultural environment reflecting historical continuity and cultural adaptation. Its traditional pottery craftsmanship and community-based tourism make it both a significant destination and a critical research site.

Environmental Pressures

The island faces riverbank erosion, flooding, fluctuating water levels, biodiversity loss, and waste management challenges intensified by tourism and climate variability — directly threatening local livelihoods, infrastructure, and tourism sustainability.



FINDINGS

Environmental Vulnerabilities & Misinformation



Physical Vulnerabilities

Riverbank erosion causes structural damage to riverside homes. Flooding disrupts transportation routes. Ecological decline reduces local biodiversity and traditional plant species. Waste management is strained by growing tourism.



Fragmented Information

Residents receive conflicting explanations for flooding — seasonal rainfall, infrastructure projects, tourism expansion, or political decisions. Inconsistent government messaging and absent climate data weaken public trust, causing some to underestimate risks while others experience heightened anxiety.



Ambiguity of Responsibility

Community members are uncertain whether environmental problems should be addressed by local authorities, national agencies, or residents themselves. This ambiguity delays collective action and reduces participation in adaptation initiatives.

Community Strength in the Face of Uncertainty

Despite significant challenges, Koh Kret demonstrates strong community resilience rooted in cultural capital, social cohesion, and community-based networks.

Cultural Capital

Traditional knowledge, craftsmanship, and shared cultural identity provide collective strength and adaptive flexibility.

Adaptive Strategies

Residents modify tourism activities, develop alternative income strategies, and collaborate with academic institutions and external organizations.

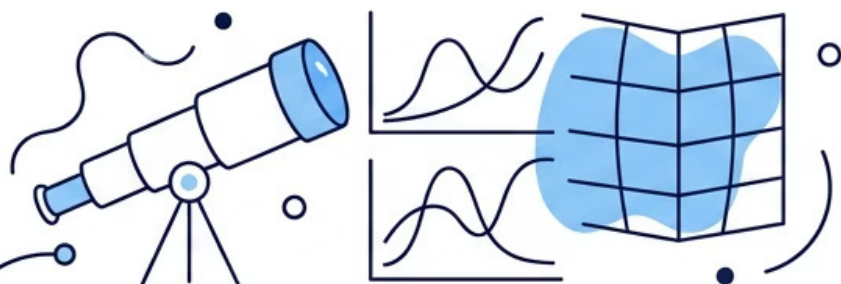
Participatory Dialogue

Local leaders and educational partnerships translate scientific information into locally meaningful forms, countering misinformation through trusted community spaces.



A Reflexive Climate Risk Assessment Framework

Based on the findings, this paper proposes a four-dimensional framework that shifts climate risk assessment from a purely technical exercise toward a **socially embedded process** recognizing trust, communication, and collective learning.



SCIENTIFIC EVIDENCE

climate projections, ecosystem monitoring, spatial vulnerability analysis.



TRANSPARENT COMMUNICATION

clear, consistent, accessible risk messaging to reduce misinformation.



LOCAL KNOWLEDGE INTEGRATION

community experiences and traditional ecological knowledge.



PARTICIPATORY GOVERNANCE

community involvement in decision-making, adaptation planning, environmental monitoring.

CONCLUSION

Bridging Facts and Fears

The case of Koh Kret demonstrates that climate risks are shaped not only by environmental change but also by misinformation, uncertainty, and fragmented communication. Climate misinformation acts as a social amplifier of risk — distorting public perception, weakening trust, and delaying adaptation.

At the same time, the study reveals the power of cultural capital, social cohesion, and participatory engagement. Koh Kret should be understood not merely as a vulnerable community but as a "**community of potential**" capable of adaptive transformation when supported through inclusive governance and credible communication.

- ✓ Effective climate adaptation demands reflexive governance systems that integrate science, local knowledge, trust-building, and democratic participation.



Facts

Scientific evidence and credible communication are the foundation of effective climate adaptation.



Fears

Misinformation and uncertainty amplify perceived risk, weakening trust and delaying collective action.

SUMMARY

Key Insights at a Glance

→ Misinformation Amplifies Risk

Conflicting narratives about flooding and erosion delay collective action and erode institutional trust in Koh Kret.

→ Culture Is a Resilience Asset

Mon heritage, shared identity, and traditional knowledge are not just cultural treasures — they are adaptive resources.

→ Participation Counters Confusion

Trusted community dialogue spaces and educational partnerships translate science into action and rebuild public trust.

→ Reflexive Governance Is the Path Forward

Integrating scientific evidence, local knowledge, transparent communication, and participatory governance is essential for climate-resilient communities.



A stylized map of Koh Kret island is centered in the background, enclosed within a circular frame. The map shows the island's irregular shape with various land features: green areas representing forests, a grey area for a road or path, and a light blue area for a body of water. A small orange-shaded region is located in the lower central part of the island.

FACTS, FEARS, AND RESILIENCE: CLIMATE MISINFORMATION IN KOH KRET

Thank You

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For questions or collaboration, please reach out.