

# PREPAREDNESS IN CONSERVATION PRACTICE

## Local Adaptations of Global Framework

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### Introduction

The flash floods of 2024 and the earthquake of 2025 in Thailand exposed vulnerabilities in cultural heritage sites, monuments, and collections. These events revealed the urgent need for systematic disaster preparedness in the field of conservation. International frameworks such as ICCROM’s First Aid to Cultural Heritage (FAC) as a proactive strategy, yet their implementation often requires local adaptation.

This research investigates adaptable and practical solutions for cultural institutions in Thailand, with emphasis on preventive measures, risk assessment, and community-inclusive preparedness planning.



Earthquake in Myanmar, 2025



The Southern Thailand flood of 2025



### Objectives

- Identify risks to cultural heritage collections in Thailand from natural hazards.
- Adapt global preparedness frameworks into locally relevant, scalable strategies.
- Propose innovative conservation-based solutions for emergency readiness.
- Strengthen the role of conservators, stake holders, government bodies and locals as active disaster risk managers.



Tectonic plate movement that caused earthquake in Myanmar and Thailand

### Methodology

- **Risk Mapping:** Site surveys and hazard mapping in museum and storage environments.
- **Collection Prioritisation:** Using value-based and vulnerability assessment models (after ICCROM & ICOM).
- **Stakeholder Interviews:** Gathering insights from conservators, curators, locals and emergency responders.
- **Simulation & Training:** Testing evacuation and salvage protocols with institutional staff.
- **Framework Adaptation:** Aligning recommendations with international guidelines (ICCROM, ICOM-DRMC, UNESCO) while tailoring to Thai conditions.

### Key Findings & Solutions

- 1. Risk Assessment & Preparedness**
  - Developed a risk matrix integrating local hazard probability (floods, earthquakes, humidity spikes) with collection vulnerability.
  - Proposed a digital mobile tool for on-site risk reporting and prioritisation (QR-tagging objects for quick status updates).
- 2. Collection Prioritisation**
  - Introduced a tiered “salvage hierarchy” system: high-value/high-vulnerability items flagged for immediate attention.
  - Suggested waterproof, shock-absorbent storage crates using locally available bamboo composites (sustainable & affordable).
- 3. Emergency Handling Protocols**
  - Designed modular “response kits” (absorbent cloths, archival foams, humidity indicator cards) stored in each collection zone.
  - Introduced low-tech flood barriers made of sand-filled geotextile bags for storage perimeters.
- 4. Institutional Coordination**
  - Proposed “Emergency Network for Heritage” (ENH) linking nearby institutions for mutual aid and equipment sharing.
  - Advocated cross-training of conservators with local fire, rescue, and military units for integrated response.

### Preparedness Cycle

➔ Risk Mapping ➔ Prioritisation ➔ Training ➔ Coordination ➔ Drills ➔ Review

### Conclusion

- Preparedness rather than reaction, is the key to ensuring the survival of cultural heritage under threat.
- Local adaptation of international preparedness frameworks is essential for effective conservation.
- Proactive measures like risk mapping, prioritisation, emergency kits, and institutional networks significantly reduce potential loss.
- Sustainability matters: using local, eco-friendly materials (e.g., bamboo composites) strengthens resilience.
- Community engagement turns citizens into stakeholders, creating broader protection for heritage.