

Towards Integrated Natural Disaster Preparedness in Southeast Asian Coastal Regions: A Comprehensive Literature Review, Community Centric Solutions, Future Pathways for Urban Resilience

Omar Hassouna ^{1*}, Setyawati Yani², Mahar Diana Binti Hamid¹, Fathiah Binti Mohammad Zuki¹

¹*Universiti Malaya, Kuala Lumpur, Malaysia*

²*Department of Chemical Engineering, Faculty of Industrial Technology, Universitas Muslim Indonesia, Makassar, 90231, Indonesia*

**Presenter's Email Address : 22060162@siswa.um.edu.my*

Abstract. This research examines the limitations of traditional disaster management approaches in Southeast Asian coastal regions, which often focus on single-hazard responses and neglect the interconnected vulnerabilities of coastal communities. By conducting a qualitative comparative analysis of six significant natural disasters—such as the Kelantan Flood (Malaysia, 2014), Sulawesi earthquake (Indonesia, 2018), Typhoon Haiyan (Philippines, 2013), Central Vietnam Drought (Vietnam, 2015), Cyclone Nargis (Myanmar, 2008), and Chiang Rai earthquake (Thailand, 2014). The study aims to identify integrated disaster preparedness and management practices. Utilizing a systematic case study methodology, the research reviews various data sources to assess preparedness infrastructure, community engagement, response effectiveness, and recovery patterns. Expected outcomes include mapping systemic vulnerabilities, examining evacuation rates and documenting community-driven solutions, and developing an integrated disaster management framework tailored to coastal contexts. The findings are relevant to achieving Sustainable Development Goals related to urban resilience and climate action, aligning with the Sendai Framework for Disaster Risk Reduction. This research contributes valuable insights for policymakers and community organizations, emphasizing the importance of community-centric approaches in enhancing disaster preparedness and resilience against complex natural hazards.

Keywords: Disaster Preparedness, Community Resilience, Sendai Framework Disaster Risk Reduction, Disaster Management