

# **Coastal Communities' Tsunami Preparedness: Examining the Utility of Social Network Analysis and Social Capital**

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## **Abstract**

This study investigates the role of social network analysis (SNA) and social capital (SC) in enhancing tsunami preparedness among coastal communities, particularly in the Global South. The catastrophic impacts of the 2004 Indian Ocean tsunami highlighted significant gaps in disaster preparedness, emphasizing the need for improved community resilience through local resources such as SC. Despite advancements in early warning systems, deficiencies in community engagement and the integration of indigenous knowledge into disaster risk reduction (DRR) strategies persist. Utilizing a bibliometric analysis of literature from 2013 to 2024, this research addresses two primary questions: the utility of SNA in community tsunami preparedness and the significance of SC in managing tsunami disasters. Findings reveal that while SNA can elucidate community interactions and resource allocation, its application in tsunami contexts remains underexplored. The study underscores the importance of incorporating local knowledge and fostering community participation in disaster management planning. It concludes that leveraging SC and community networks is vital for reducing vulnerabilities and enhancing resilience in tsunami-prone areas, advocating for policy and practice that prioritize these elements in future DRR efforts.

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