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EXECUTIVE SUMMARY

Integrating Indigenous Knowledge with Formal Governance for Enhanced Disaster Resilience in Urban Coastal Areas:

Case of Karachi Pakistan

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Coastal communities in Karachi face escalating risks from erosion, pollution, declining fish stocks, and increasingly severe weather events, exacerbated by climate change. The traditional top-down master planning and disaster management approaches tend to marginalize the significant reservoir of Local Indigenous Knowledge (LIK) held by coastal and small island communities, leading to policies that are culturally inappropriate and operationally ineffective. This paper argues that the integration of LIK requires a radical shift to new models of collaborative governance. Through a qualitative case study of Karachi's six coastal communities, including Baba Island, Bhit Island, Rehri Goth, Ibrahim Hyderi, Salehabad, and Kakapir, this research investigates the potential for institutionalizing collaborative governance frameworks in local, provincial, and national policy and planning. It examines how locally-evolved knowledge—encompassing early warning signs based on biophysical indicators, traditional navigation skills, and indigenous practices—can be systematically partnered with scientific data and innovative governance mechanisms. The findings reveal that co-governance, built on principles of mutual respect, social inclusion, and equitable power relations, fosters a more robust, context-sensitive, and sustainable disaster resilience at the local level. This synergy enhances community trust and transparency, improves the value of local knowledge, and enables local actors and stakeholders as co-producers of new governance practices. The paper concludes that for coastal megacities such as Karachi, embedding LIK through co-governance is not just beneficial but essential for crafting adaptive and legitimate disaster management and risk reduction strategies in an era of climate uncertainty.