



# Adapting to Coastal Erosion in West African Comoros: Strategies and Challenges

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## Abstract

Coastal erosion poses significant threats to communities in West African Comoros, exacerbating vulnerability due to climate change. A mixed-methods approach combining stakeholder interviews ( $n=30$ )  $\wedge$  remote sensing data analysis  $\wedge$  assess erosion dynamics  $\wedge$  community responses. Remote sensing revealed a 25% increase in coastal retreat over the past decade, with significant variability across islands. Community surveys identified reliance on traditional sand dune stabilization techniques which are effective but insufficient for current rates of erosion. Current adaptation strategies need scaling up and diversification to address increasing erosion rates and ensure long-term community resilience against future climate impacts. Promote integrated coastal zone management, including policy support and funding for innovative erosion control measures such as rock revetments and mangrove restoration programmes. Coastal erosion, West African Comoros, Climate change adaptation, Community resilience

**Keywords:** *Geography, Africa, CapeVernonIslands, SocioeconomicAdaptation, ClimateChangeEcology, CaseStudy, CommunityBasedManagement*

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