

**Adaptation strategies for sea level rise impacts a case of Kiwengwa Shekhia, Unguja Island,
Zanzibar**

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This study assessed the impacts of sea level rise in coastal environment along the coast of Kiwengwa Shekhia including Kairo and KumbaUrembo villages. It identified potential impacts on coastal resources and assessed the vulnerability of the coastal people to the impacts of sea level rise and how they adapt to the impacts of sea level rise. Further this study examined the existing policies that are addressing the adaptation and mitigation to sea level rise impacts. The methodologies employed in this study include GIS and remote sensing analysis. Random and stratified sampling were used in collecting data to local people and purposive sampling was used to collect data from key informants. Participant observation and literature reviews were extensively used. Findings from the study revealed that coastal resources are vulnerable to the increased temperatures, sea water intrusion, and coastal flooding. The threats from sea level rise and coastal erosion pose vulnerability to the coastal communities. Several adaptation strategies such as building of defensive sea walls, planting of trees, and accumulating coastal wastes along the beach were noted to be applied. It is therefore recommended that adaptation strategies should be reviewed as the existing ones do not seem to be much effective through integrating various stakeholders and ensure institutional capacity building, re-afforestation programmes and enhancing public awareness through promotion of education on climate change and its associated sea level rise impacts on local communities.