

THE INUNDATION EFFECT OF SEA LEVEL RISE ALONG THE BARRIER COAST LAGOS ISLAND USING GEOSPATIAL ANALYSIS

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Abstract

When considering impact study of low lying coastal areas, the important factor to evaluate is the state of the sea level in relation to land. Globally, sea level has been rising during the last century. From Literatures, most of the Nigerian coast will face the consequences of one to two (1 to 2m) meters rise in sea level, which will result in the effect of climate change, resulting in a catastrophic effect on the human activities in these regions. A geographic information system (GIS) were used to examine the impact scenarios that sea level rise will have on both land areas and [population of the study area with a projected inundation zones. Results showed that there is a significant relationship between the income level and vulnerability to flood of inhabitants. This study provides relevant information concerning the implication of sea level rise, which will be useful for coastal planners and managers to develop a frame work to support a sustainable development along the barrier island, the coast, in the light of rising sea level. Based on findings, the following recommendations are made in respect to inundation effects due to sea level rise in Lagos island local government of Lagos state. The implication of planning laws and regulations should be monitored and construction of additional drainages and adaptation to climate change issues is seriously advised.

Keywords: *Inundation, mitigation, adaptation, scenarios.*