



Combating Flood Crisis with Geographic Information System (GIS): An Example from Akure, Southwest Nigeria

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Flood is a natural environmental disaster which could be aggravated by man's unguided development. It may subsequently cause destruction of properties and loss of life. Therefore it needs to be controlled and human influences controlled. This study attempts to describe an application of GIS as decision support to flooding problems in an urban area in Nigeria. The objective of the study is to describe the efficacy of GIS in monitoring of development on floodplains in an urban area in Nigeria.

Topographic features were digitised from an existing 1:5,000 topographic map of Akure, with some position data collected and map updated using a handheld GPS. A database was created using both cartographic and attributes data collected from these and other sources. Spatial analyses were carried out using a PC based Integrated Land and Water Information System (ILWIS), version 3.2. The results obtained implicated dumpsites within the river channel as well as structural development within the River Ala floodplain as the major causes of inundation in this section of the city, especially, in the wet season. The study concluded that GIS could provide adequate decision support information to policy makers.