

ABSTRACT

Seasonal flood is a major problem in Nigeria and the world at large claiming lives and properties and also causing displacement of people. The rapid rates of urbanization and population growth led to uncoordinated development in the swamps and floodplains of Ikere-Ekiti thereby aggravating the risk of flood hazards. The study assessed the flood risk in Ikere-Ekiti using Geographic Information System (GIS). Both primary and secondary data were used, the coordinates of the river and buildings affected during flood were taken as primary data; these were used in generating hydrologic analysis such as stream network, flow accumulation map, flow direction map, flow length map and surface analysis of the study area such as contour and slope maps of the study area. The digital elevation model (DEM) of the study area was generated (3D DEM), Color black and white void-filled DEM which shows the proportion of the study area at risk during flooding. Flood risk map of the study area was developed and the result shows that over 80% of the study area are at risks during flooding even the peak region that are safe because they are elevated zones are still flood zone. The risk of flood is bound to increase in the future with increasing urbanization hence the need to demarcate the flooded areas for effective flood mitigation, also good drainages and water channels should be put in place within Ikere Ekiti for effective discharge of surface water during heavy rainfall.