

**ANALYSIS OF FLOOD RISK AND VULNERABILITY ASSESSMENT OF FLOOD PLAIN OF KOGI STATE**

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**Abstract**

*A flood risk and vulnerability assessment of Kogi state, Nigeria was investigated. The objectives were to identify the vulnerable flood prone areas, map the vulnerable areas and spatial extent of flood disaster risk area in the study area. Field observation, geospatial techniques using remote sensing and rainfall data were utilized in the analysis. Results indicate that, majority of the built up areas within -7.3889994 which were within the stream and river buffer of 1000m distance are likely to be inundated during the event of heavy rainfall and are vulnerable to flooding. This was clearly seen from the flood risk map after the overlay function of the images were been made (overlying of major stream network, digital evaluation model, river and stream network buffer). It is also observed that most of the built up areas in Lokoja and environs were located on and around the stream network and on the flood plain. The proximity analysis carried out indicate that built up or urban areas within the 1000m buffer zone where vulnerable to flood when there is heavy rainfall, release of water from dam while areas above 1000m buffer zone are less vulnerable under the same condition. It is recommended that buildings within areas within -7.3889994 which were within the stream and river buffer of 1000m distance that are likely to be undulated during the event of heavy rainfall and are vulnerable to flooding be discouraged among others.*

**Keywords:** *Flood, Vulnerability, Risk, Settlement*