

Development of Built Environment and Its Implication on Flood Risk in Gombe Metropolis, Nigeria

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The increasing frequency of flood events in urban areas and its devastating impact to lives, properties, resources and the environment as a whole posed a serious concern to environmental scientist the world over. There are many different perspectives regarding factors responsible for flood risk in urban areas, which range from hydrological extremes to man-induced factors. This paper examined the impact of built environment on the increasing flood occurrences in Gombe Metropolis. Data was essentially collected through questionnaire survey and analyzed using statistical model so as to discover the main factors causing flood in the metropolis. A multi-stage sampling technique was applied for data collection, where Gombe Metropolis was categorized into eleven residential quarters and a total of two hundred and fifty one questionnaires were administered to household heads in the respective residential quarters in the metropolis. And finally multi- linear regression analysis was conducted, where flood risk is conveyed as a function of some selected urban development variables and used to examine the relationships and impact of those variables in causing flooding and the increasing flood risk via a statistical model. The result shows that rapid growth of built-up structures with poor implementation of building control measures as the main factor for flood risk in Gombe Metropolis. However, construction of built-up areas on floodplains as well as inadequate space between building structures as recommended by the town planning laws, has also contributed immensely in the increasing flood risk in Gombe Metropolis.

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