

Assessment of Risk Factors in Residential Areas of Bosso in Minna, Nigeria

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Abstract : The housing environment in many developing countries is fraught with risks that have potential negative impacts on the lives of the residents. The study examined the risk factors in residential areas of two neighborhoods in Bosso Local Government Areas of Minna in Nigeria with a view to determining the level of their potential impacts. A sample of 378 households was drawn from the estimated population of 22,751 household heads. The questionnaire and direct observation were used as instruments for data collection. The data collected were analyzed using the Relative Importance Index (RII) rule to determine the level of the potential impact of the risk factors while ArcGIS was used for mapping the spatial distribution of the risks. The study established that the housing environment of Angwan Biri and El-Waziri areas of Bosso is poor and vulnerable as 26% of the houses were not habitable and 57% were only fairly habitable. The risks of epidemics, building collapse and rainstorms were evident in the area as 53% of the houses had poor ventilation; 20% of residents had no access to toilets; 47% practiced open waste dumping; 46% of the houses had cracked walls while 52% of the roofs were weak and sagging. The results of the analysis of the potential impact of the risk factors indicate a RII score of 0.528 for building collapse, 0.758 for rainstorms and 0.830 for epidemics, indicating a moderate to very high level of potential impacts. The mean RII score of 0.639 shows a significant potential impact of the risk factors. The study recommends the implementation of sanitation measures, provision of basic urban facilities and neighborhood revitalization through housing infrastructure retrofitting as measures to mitigate the risks of disasters and improve the living conditions of the residents of the study area.

Keywords : assessment, risk, residential, Nigeria

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