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HOUSEHOLD PREPAREDNESS TO FLOOD HAZARD IN NIGERIA

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Abstract: Climate change triggers severe rainfall events in many regions across the globe, and this make flooding more frequent. The need to adapt to flood risks and other disasters is imperative. This paper attempts to make a summary of household preparedness to flood hazard in Nigeria from relevant literature. It seeks to provide researchers with relevant information and gaps to fill for other research works and educate interested parties on this issue. The results of literature search of issues relating to flooding in Nigeria showed that Flood impacts and mitigation have received ample attention while improving public perception of flooding risks and preparedness are poorly addressed. The status of household preparedness to flood hazard and the triggers were discussed.
Keywords: Flooding, Flood Risk, Management, Household, Preparedness.

1.0 Introduction

The rate of flooding occurrence in recent times has been unprecedented. With millions of people globally exposed to flooding every year, and more than 800 million living in flood prone areas [1].[2] indicated that Climate change with more frequent and severe rainfall events, sea level rise, rapid population growth and urbanization, the rate of development on floodplains, the level of awareness of flood risk and the ineffectiveness of efforts towards tackling flooding in many places are factors of concern all over the world.

The impacts of flooding in Nigeria include mortality, widespread infections and vector-borne diseases, homelessness, and food insecurity among others [3]. In 2012, Nigeria experienced the worst flooding in more than 40 years as a result of heavy rainfall that lasted for many days. The incidence affected 32 states with 24 considered severely affected [4]. The floods extended from July to October that year and affected 7.7 million people with more than 2 million others reckoned as internally displaced (IDPs). More than 5000 people were physically injured and over 5900 houses were destroyed. However, various levels of government, the community and other stakeholders have been active with measures to tackle flooding in Nigeria [5]. These measures have been criticized as ad-hoc and not well established [6].

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In most cases, the devastation caused by urban floods especially on households is usually a reflection of their lack of preparedness. None preparedness, poor and low budgetary allocation for disaster prevention in developing countries make them experience greatly the impacts of natural disaster [7]. No country is immune to flooding and the impacts are heightened by lack of capacity and preparedness [7]. Hazards cannot be prevented from occurring especially natural hazards such as flooding but the vulnerability associated with flood disaster can be mitigated by one aspect of disaster management: "preparedness". Preparedness action is closely related to how individuals perceive and act on risk information [8]. Preparedness measures have the big advantage of being able to address root causes and dynamic pressures instead of symptoms in a system, which is more stable than after a disaster [9].

2.0 Description of the Study Area

Nigeria, a sub-Saharan West African country, is on the Gulf of Guinea, east of the Greenwich and north of the equator. The country, made up of 36 states including the federal capital territory (FCT), Abuja, lies between latitudes 4° and 14°N, and longitudes 3° and 15°E, with a total land area of 923,768 km2 and borders with Republics of Benin and Niger, Chad, and Cameroon. It maintains a large expanse of coastline, over 853 km in magnitude, with hydrological features which includes the rivers Niger and Benue, both of which confluence at Lokoja, and flows further southwards passing through the Niger Delta to empty into the Atlantic ocean. The 2006 census confirmed over 140 million people in Nigeria, but this population has grown steadily, and is presently estimated at more than 180 million people, making the country the seventh most populous country in the world [6]. Nigeria is one of the eight countries expected to account collectively for half of the total population increase in the world from 2005-2050, and will by 2100, record a population amounting between 505 million and 1.03 billion people [10].

3.0 Preparedness to Flood Hazard

Flood preparedness plan (FPP) for households is about putting in place a set of appropriate arrangements in advance for an effective response to floods. This is an important phase of flood disaster management which is almost being neglected in developing countries. There is a tendency to rely more on what the government can do while neglecting self-help options. Thus disaster risk reduction measures that reduce the vulnerability of households to flood disasters are advocated for in view of the fact that the cost implication of recovery and rehabilitation measures are enormous compared to preventive strategies such as preparedness

actions. Residents' low risk awareness and preparedness may hinder an effective response in case of a natural disaster, thus becoming key issues to be considered for effective emergency planning and management. A common assumption is that the residents' low risk awareness is among the main causes of an insufficient level of preparedness, which in turn generates inadequate response to disasters.

[11] Indicated that disaster preparedness is positively associated with the feeling of worry about the risk. Similarly, the willingness to adopt precautionary measures is positively related in many cases with the residents' level of risk awareness [12]. The logic behind the examples reported above is that awareness of risk automatically translates into an actual behavior (i.e. adoption of precautionary measures/actions) or influences its adoption.

3.1 Household Preparedness to Flood Hazard in Nigeria

[13] Assessed public perception of flooding in Donga town in Taraba state, Nigeria. Two wards were purposively drawn out of ten wards. Yamane method of sample size determination was used to arrive at a sample size of 130 for the study. Systematic random sampling was used in the administration of 130 questionnaires to respondents. Non parametric statistics of Spearman rank correlation and descriptive statistics were used to analyze the data. The results of the findings showed that majority of the respondents were aware that their area was prone to flooding. The correlation analysis result was insignificant which implied that in Donga town, educational level of Perception of flooding was influenced by factors other than respondent's literacy level. The conclusion from the study was that rainfall intensity is the main cause of flooding in the study area, and individual's response to flooding was poor.

[14] Evaluated the level of households' preparedness on flood management along Apete River in Ibadan, Nigeria. A structured questionnaire focusing on socio-economic characteristics of residents, causes, effects of flood disaster, control measures and households' level of preparedness on flood management was administered to 172 households' heads in the study area. In depth interviews were conducted with community representatives on coping strategies employed. The findings revealed that there is significant relationship between the effects of flood disaster and household's preparedness on flood management in the study area. [15] Examined Disaster Risk Reduction (DRR) in the light of household preparedness in Benin City, Nigeria. The study's findings confirmed that there is no household preparedness in relation to flood. The ANOVA test shows that there is a significant difference among households in terms of their flood disaster preparedness. A

multiple correlation analysis indicated that religious belief and lack of funds determine household preparedness as these two variables explain the highest variance in the socio economic factors influencing utilization of flood disaster preparedness measures. Even though preparedness is an effective flood disaster mitigation measure, it is hardly practiced by households in areas identified to be flood prone in Benin City. Rather the households depend more on reconstruction and rehabilitation which are capital intensive measures and actions taken in most cases after the flood has had devastating effects on the populace. Household/community preparedness can reduce the impact of flood disasters especially for the most vulnerable in flood prone areas.

[16] Investigated the emergency preparedness and response to Ibadan 2011 Flood Disaster in Oyo State, Nigeria. Key informant interviews were conducted with participants from National Emergency Management Agency (NEMA), Oyo State Emergency Management Agency (SEMA), Nigerian Meteorological Agency (NIMET) and other stakeholders. The result indicated that the affected communities were not effectively informed to enable them prepare for the flood disaster by emergency agencies due to financial constraints and ineffective communication system. The study established a gap in public/institutional flood hazard preparedness and responses.

4.0 Conclusion

Some affected communities in conclusion, were found to have not been effectively informed to enable them prepare for flood disasters by emergency agencies. Some findings revealed that there is significant relationship between the effects of flood disaster and households preparedness on flood management in certain areas in Nigeria. Other studies confirmed that there is no household preparedness in relation to flood and that religious belief and lack of funds determine household preparedness in other areas. The work of [17] "Flooding and Flood Risk Reduction in Nigeria: Cardinal Gaps" Clearly indicated the results of literature search of issues relating to flooding in Nigeria. Flood impacts and mitigation have received ample attention while improving public perception of flooding and preparedness to the risks are poorly addressed. This is a reason for concern knowing that the success of present approaches of flood risk reduction depends on public participation which is driven by public perception and high awareness of the hazard. These indicate that investigation of the problem area is unsatisfactory and incomplete especially in Nigeria.

4.1 Recommendations

It is therefore recommended that:

1. There should be a holistic adoption of disaster risk management strategies of mitigation, preparedness, response and recovery at states and community levels

2. There should be more investigations on disaster risk perception, hazard awareness and preparedness.

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