



An examination of national response to emergency and disaster in Nigeria: A case study of flood

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Abstract

This study examined the national response to emergency and disaster in Nigeria (with special focus on emergency response to flood). The study also considered the National Disaster Management Framework, which mandates that emergency risk reduction be mainstreamed into development activities at all levels of governance with respect to spatial development planning including NEMA, SEMA and LEMA at the federal, state, and local government levels in order to enhance federal, state, and local government's capacity to lessen the likelihood and severity of emergencies. Despite the existing framework no significant progress has been made regarding national response to emergency and disaster in the nation. The challenge witnessed is that the local government in Nigeria is dysfunctional, because it has been enmeshed at the basement of the chaotic Nigerian federal system. This paper used secondary data and identified some of the reasons for inefficiencies. It also identified lack of the requisite manpower and subventions as factors contributing to dysfunctionality of the framework. The study recommends that the process and time of securing fund for emergencies should be addressed for effective response intervention. It also advocates for the allocation of part of the State Ecological fund to the local government for proper functioning of NEMA.

Keywords: Gender, Disaster, Hazards, Disaster Management, Emergency, Emergency Response



Introduction

Emergency management has been defined as the coordination and integration of a broad range of activities ranging from policy and administrative decisions to operational activities required to prepare for, mitigate, respond to, and repair the effects of natural or manmade emergencies (Adefisoye, 2015; NDMF, 2010:2; UNDP, 2005). The response to emergency is multi-jurisdictional, multi-sectional, multidisciplinary, and multi-service initiative. Firstly, it should be acknowledged that Nigeria's emergency response or management practice is tailored after the country's federal political system having three levels of government comprising the federal, state and local government.

The National Emergency Management Agency (NEMA) is the federal government agency responsible for emergency management in Nigeria. The responsibilities of NEMA are meant to be cascaded down to the state and handled by the State Emergency Management Agency (SEMA). Thereafter, there exists the Local Emergency Management Agency (LEMA) or committee as the case may be. NEMA was established as an agency directly under the Presidency, is in charge of managing emergencies and disaster in Nigeria and has a new vision to create a culture of preparedness, prevention, response and community resilience to emergency in Nigeria, which was lacking with antecedent agencies (Medugu, 2012).

The pre-independence emergency's response in Nigeria was handled by the Fire Brigade, established in 1906. However, it was superseded by ad hoc arrangements based in the offices of the Head of State and State Governors in the 1960s and 1970s. But the terrible effects of the 1972–1973 drought changed the course of events. Consequently, the National Emergency Relief Agency (NERA) was created through *Decree 48 of 1976* to address natural emergency reduction strategies in line with the UN International Decade for Disaster Reduction (IDNDR). Resultantly, to address the limited scope of NERA, the Federal Government in 1990 set up an Inter-Ministerial body and in 1993 decided to raise the status and expand the scope of NERA as an agency under the Presidency (Adefisoye, 2015). Eventually, Emergency Management was formalized in Nigeria in 1999. Based on the recommendation of an inter-ministerial committee and the outcome of the 1976 stakeholders workshop, NERA evolved into NEMA in March 1999 under *Act 12 of 1999* (as amended by *Act 50 of 1999 Constitution of Nigeria*) to manage emergencies in all its ramifications (Emenike, 2017). NEMA had the primary responsibility for coordinating Federal

emergency preparedness, planning, management, and emergency assistance functions. NEMA also has been delegated the responsibility for establishing Federal Emergency Assistance Policy.

Emergency

An emergency is any actual threat to public health and safety (WHO). It is a current or impending incident that necessitates quick coordination of actions involving people or things in order to safeguard people's health, safety, or welfare or to prevent further harm to things like property or the environment. All emergencies are not disasters, but all disasters are emergencies. There are two significant types of emergency; non-disaster emergency and disaster emergency. In non-disaster emergencies, the local emergency services are not part of the impacted population or group, and they can operate normally. Examples of non-disaster emergencies are local floods, storms, epidemics, transport or Industrial accidents, environmental pollution, etc. However, in disaster emergencies, the local emergency services are victims and cannot function effectively. Disaster emergencies require the reconstruction of the community.

Emergency management

Emergency management is "a field that deals with risk and risk avoidance." Risk represents a broad range of issues and includes an equally diverse set of players. It is integral to the security of everyone's daily lives and should be integrated into daily decisions, and not just called on during times of disaster. Emergency management is the management of emergencies concerning all hazards, including all activities and risk management measures related to prevention and mitigation, preparedness, response and recovery. It is the organisation and management of the resources and responsibilities for dealing with all humanitarian aspects of emergencies (prevention, preparedness, response, mitigation, and recovery). The main goal of emergency management is to prevent and reduce the harmful effects of all hazards, including disasters, that is, to protect public health and safety regardless of magnitude or cause.

Comprehensive Emergency Management (CEM)

According to Etkin (2016), the five pillars of Comprehensive Emergency Management are as follows:

1. Mitigation are long-term measures (such as like building dams and forbidding people from erecting structures such as homes or

businesses in high-risk locations) that reduce the risk of natural disasters.

2. Preparedness entails making plans for disasters and setting up the tools necessary to deal with them when they occur. Examples include keeping emergency supplies on hand and creating plans to follow in case of calamity.

3. Response involves steps taken after a disaster has taken place. Such acts included those taken by the firefighters, police and medical personnel during and right after a disaster.

4. Recovery includes longer-term initiatives to rebuild and return the neighbourhood to either its pre-disaster condition or a functional state. Additionally, it is a good time to take action to lessen vulnerability and lessen the impact of upcoming disasters, such as strengthening building codes or altering risky land-use regulations.

5. Prevention is sometimes separated as a fifth pillar.

Disaster

Disaster Oxford Dictionary defines a disaster as a sudden accident of a natural catastrophe that causes significant damage or loss of life. It is an emergency that local authorities cannot handle or cope with. Okoli (2014) defined disaster as a life- or system-threatening occurrence that happens unexpectedly and requires emergency intervention to remedy its impact. Naturally occurring or induced epidemics can also become disasters. Eighemhenrio (2015), citing Landeman, defined disaster as any event, typically occurring suddenly, that causes damage, ecological disruption, loss of human life, deterioration of health and health services, and exceeds the capacity of the affected community on a scale sufficient to require outside assistance.

Disaster Management

According to Okoli (2014), citing NEMA, disaster management is the continuous process by which all individuals, groups and communities manage hazards to avoid or ameliorate the impact of disasters resulting from hazards. Disaster Management is also defined as the systematic process of using administrative decisions, organisation, operational skills and capacities to implement policies, strategies and coping capabilities of the societies and communities to lessen the impacts of natural hazards and related environmental and technological disasters. This refers to forms of activities, including structural and non-structural measures to prevent or limit (mitigation

and preparedness) adverse effects of hazards (NEMA's study as cited in Okoli, 2014). 5 Disaster management is the act of dealing with and avoiding risk. It involves the systematic approach to managing the responsibilities of disaster prevention, preparedness, response and recovery.

Flood

Flood is one of the major environmental (natural) disasters confronting Nigerians. According to WHO (2013), there is no universal definition of the term 'Flood'. Merriam Webster (2012) defines a flood as 'a rising and overflowing of a body of water especially onto normally a dry a land'. Flood is also defined as the overflow or outpouring of water, typically caused by rainfall, that destroys dry areas and interferes with people's socioeconomic activities. (Okafor, 2021). Flood is an overflow of large quantities of water onto a normally dry land. It can occur when much water is released on the dry spaces through upsurge of dam. GUKANI cited by Magami, Yahaya & Mohammed, 2014 noted that another definition of a flood is a substantial increase in the water level in a lake, reservoir, stream, coastal zone, or any other situation where water covered the ground. Olajuyigbe et al (2012) noted that in some other literature flood is considered to be a large amount of water covering an area that is usually dry or an overflowing of a great water body over a land which normally would not be submerged. On the other hand, Abam (2006) refers to flood as large volume of water that arrives and occupy the stream channels and its flood plain in a short time that its damages cannot be prevented. A flood can strike anywhere without warning occurs when a large volume of rain falls within a short time (New Delhi Municipal Corporation cited by Magami, Yahaya & Mohammed, 2014). Flood is one of most frequent meteorological risks on earth and can occur anywhere and at any moment in the world. Floods can occur within a matter of minutes. Flood effects can be local, impacting a neighbourhood or a community. It can even transcend beyond a single settlement, affecting entire river basins and numerous places (NOAA cited by Magami, Yahaya & Mohammed, 2014).

Consequences of Flooding in Nigeria

Though the consequences of flooding in Nigeria are enormous, there is little or incomplete record of its havoc. According to Bariweniet al. (2012), two significant consequences of flooding exist; primary and secondary consequences. The primary consequences include physical damages to structures such as buildings, sewerage systems, bridges, cars, roadways, and canals, while the secondary consequences include water pollution, which oftentimes leads to the

outbreak of water-borne diseases. Amongst others, the following are the consequences or effects of flooding in Nigeria:

Displacement of people/ Loss of lives: one of the associated risks of flooding is the displacement of people or loss of lives. During most flooding issues (e.g), buildings such as houses, schools, hospitals, and commercial buildings are submerged or collapsed and washed away, leading to the displacement of people, including women and children. In 2019, over 200,000 people were affected by flood, with 159 deaths. Over two (2) million people were affected by flooding, while 69 people were lost to the disaster.

Alteration of Ecosystem of Animals, Plants and Humans: The aftermath of flooding is the displacement of animals and plants from their natural habitats. These animals (such as rodents, reptiles and insects) later found alternatives habitats and constituted threats to human beings and other domestic animals. Collapse of Economy: Another area affected by flooding is the economy. The flood of July 2012 led to the shutting down of businesses due to submerging and washing away of buildings, loss of stock and non-access to utilities and transportation infrastructure. The Lagos State's annual total economic losses from flooding are estimated to exceed USD 4 billion (Croitoru, Miranda, Khattabi, & Lee, 2020) while the average annual losses in Ibadan, Oyo State is estimated at USD 105.3 million per year (World Bank, 2014)

Shortage of Food: Apart from the loss of buildings and lives, livestock and farming were also affected. The washing away of farmlands usually leads to food shortage due to loss of entire harvest, submerging of crops and loss of animal fodder. Also, animals' lives are lost during flooding (Etuonovbe, 2011). 1.4.5 Insecurity and underdevelopment: Seventy per cent (70%) of Nigerians are farmers. Therefore, the nation's poverty level will continue to rise as long as flooding remains unsolved. It has been reported that about 94 million of the estimated 200 million Nigerians live in poverty. Also, about 3.7 million are experiencing food insecurity due to insurgent attacks, internal displacement, rising food prices (United States Agency for International Development (USAID)). Reoccurrences of flooding will worsen food insecurity, making it difficult to achieve the Sustainable Development Goals of No Poverty and Zero Hunger.

Gender and Emergency/Disaster Management

Dijkhorst and Vonhof (2005) noted that, in addition to addressing the actual needs of women before, during, and after catastrophes, gender perspective also examines the roles and relationships between women and men. A community's capacity to foresee, prepare for,



survive, cope with, and recover from disasters is influenced by the social and cultural background, which includes gender relations. It has been discovered that people are not equally affected by natural catastrophes and gender concerns have an impact on both social and personal protections in times of disaster or emergency (Neumayer and Plumper, 2007).

Gender can influence how people perceive what is risky, who makes decisions and how people get or seek help or support during or following an emergency. 'Women are all too often represented as the universal disaster victim (tearful, beleaguered, and overwhelmed) while men are denied emotion but depicted as sturdy and resourceful' (Enarson and Meyreles, 2004). Studies have revealed that women who provide care for other are more vulnerable in many disasters or emergencies since they are required to stay with, support, shield, and nurture members of the family.

Neumayer and Plumper (2007) in their study found out that natural disasters affect women more badly than men in terms of the influence of disasters on the life expectancy at birth. That is, on average, women die in natural disasters at a younger age than men do, and this difference increases with the severity of the disaster.

However, the degree to which women are more likely than males to die from the direct effects of disasters or from post-disaster events or to die at a younger age varies not only on the strength of the disaster itself but also on the socioeconomic position of women in the affected country. Men and women will generally die in nearly equal numbers during and after natural catastrophes if women's socioeconomic position is high, whereas when women's socioeconomic status is poor, more women than men will die (or women will die at a younger age). Ashraf and Azad (2015), therefore, suggested the need for individuals involved in disaster and emergency management (policymakers, the academic community, and non-governmental organisations) should pay closer attention to the gendered dimension of disaster vulnerability for the sake of improving the socioeconomic well-being of women. Their attention should be directed towards measures that will ensure equitable distribution of aid funds as well as the unique medical, financial, and security requirements of women in the wake of disasters.

Cannon opined that the degree to which an individual is vulnerable during a disaster depends on their baseline circumstances (such as how nourished they are, their level of mobility they are, their self-reliance and how motivated they are). The capability of people with little or no access to (natural) resources to bounce back after an emergency or disaster is very slim.



Despite the fact that women typically provide the majority of the food and emotional security in most families, their needs are typically disregarded, and their capacities and skills are not used as a resource in emergency management and planning during the relief and recovery process (Dijkhorst and Vonhof, 2005; Ashraf and Azad, 2015). Gender equality in disaster and emergency reduction policies and procedures must therefore be ensured by supporting women to be increasingly involved in positions of leadership, management, and decision-making while also acknowledging the place that women hold in their local communities and in society at large.

The National Emergency Management Framework

In 2010, NEMA developed the National Disaster Management Framework (NDMF) to correct implementation gaps and increase efficiency and effectiveness of emergency management in Nigeria (NEMA Bulletin). NDMF provides this mechanism that serves as a regulatory framework for effective and efficient emergency management in Nigeria. The NDMF mandates that emergency risk reduction be mainstreamed into development activities at all levels of governance with respect to spatial development planning including NEMA, SEMA and LEMA at the federal, state, and local government levels in order to enhance the federal, state, and local government's capacity to lessen the probability and magnitude of emergencies. These three government agencies are meant to work hand in hand to respond to major emergency issues. Aside from the NDMF, there are related national frameworks that are relevant to emergency management in Nigeria. This includes the National Drought and Desertification Policy; National Flood and Soil Erosion Policy; and National Policy on Health, and Safety and Environment (HSE).

Emergency Response Coordination in Nigeria

NEMA is saddled with the overall coordination of emergency response and emergency management in Nigeria, in conjunction with a variety of institutions in Table 1 set up by the government to provide emergency and emergency management services across the Country. Having noted that NEMA, SEMA and LEMA work hand in hand, however there are different levels of coordination, which are the vertical and horizontal. The vertical coordination is from federal through the state to the local government. On the other hand, the horizontal coordination is among relevant federal agencies that are in charge of a particular area of emergency such as National Environmental Standards and Regulations Enforcement Agency (NESREA to ensure a cleaner and healthier environment for Nigerians; it is saddled with the responsibility of enforcing environmental standards for all sectors except the petroleum sector), NISA, NIMET

among others, having NEMA as the lead agency. NEMA is meant to coordinate across the federal levels, and also across the federal, state and local levels.

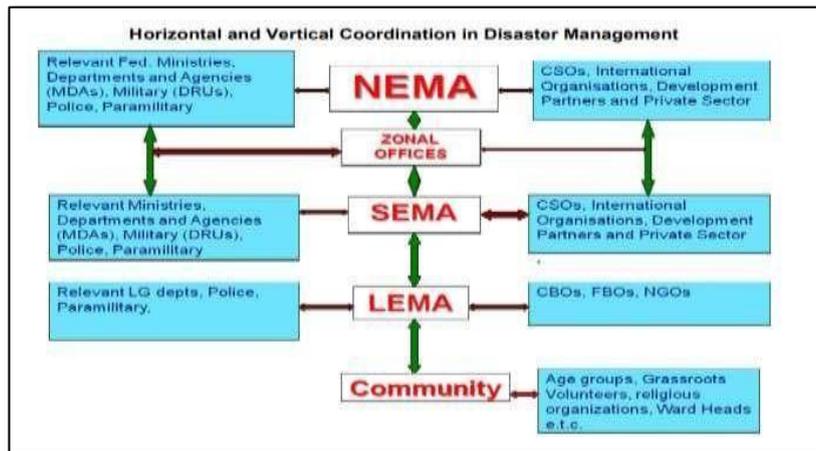


Figure 1: Emergency Coordination in Nigeria

Table 1: Primary and Secondary Federal Emergency Response Institutions in Nigeria

Nigeria Police Force	NPF
Federal Fire Service	FFS
Federal Road Safety Corps	FRSC
Nigeria Security and Civil Defence Corps	NSCDC
Nigerian Red Cross Society	NRSC
National Emergency Management Agency	NEMA
Nigerian Airspace Management Agency	NAMA
Nigeria Maritime and Safety Administration	NIMAS
Nigerian Inland Water Ways	NIWA
Directorate of Road Transport Services	DRTS/ VIOs
Private Construction Companies	PCC
International Development Partners	INGOs
Federal/ State Ministry of Health	FMOH

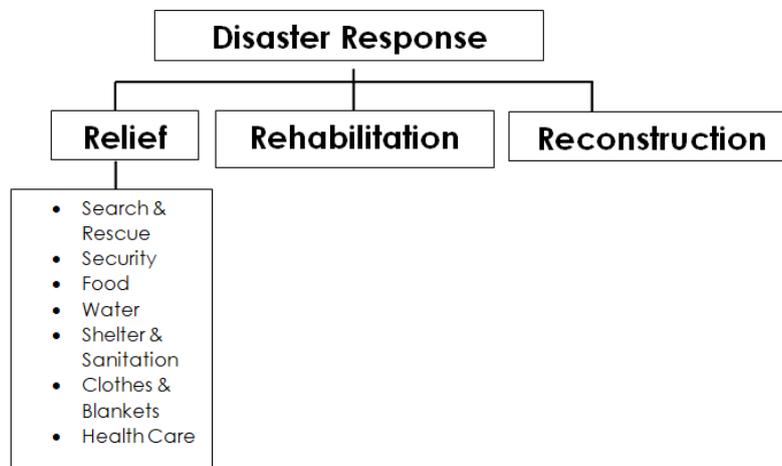
Federal/ State Ministry of Environment	F/SMEn v
Federal/ State Ministry of Works	F/SMO W
Federal Roads Maintenance Agency	FERMA
Federal Ministry of Transport	FMOT
Federal Ministry of Aviation	FMOAv i
Federal Airport Authority of Nigeria	FAAN
Nigerian Immigration Service	NIS
Nigerian Customs Service	NCS
Nigerian Prison Service	NPS
Accident Investigation Bureau	AIB
Military (Army, Navy, Air Force) - Disaster Response Units	DRUs
National Environmental Standards and Regulations Enforcement NESREA Agency	

Source: (Anthony et al., 2019; Gambo, 2016)

Structure of Emergency Response

Emergency response is structured into relief, rehabilitation and reconstruction as in Figure 2, which can be described as short term, medium term and long-term strategies, respectively.

Figure 2: Emergency Response Architecture



Post-disaster

Immediate intervention.	Rehabilitation	Reconstruction
Duration... by definition, Short-term	Restoration of basic socio-economic social functions. Duration... weeks to months measures.	Full resumption of functions, plus preventive Duration... months to years

Emergency Response in Nigeria: A Case Study of Flood

So far, in the past years, it has been observed that flood is the major emergency in Nigeria, going by the 2011 emergency, 2012 and 2018 flood deluges that affected major parts of the country. Using this as an example, it was noted that the response was initiated by NEMA at the federal level. However, NEMA had to mobilise the stakeholders at the state and also at local government levels.

The challenge witnessed is that the local government in Nigeria is dysfunctional, because it has been enmeshed at the basement of the chaotic Nigerian federal system. Hence it has been largely held dysfunctional, because emergency response ought to be bottom top but not top bottom. The implication is that those at the local government and state levels ought to, at least, respond to emergencies first before the advent of the federal agency (agencies). As a matter of fact, every emergency happens at the local level. Taking a cue from 2006 hurricane Katrina in the United States, for the first 72 hours, it was the state and local emergency



management agencies that responded effectively before the advent of the Federal Emergency Management Agency (FEMA). In Nigeria, the reverse is the case. Despite the fact that most states are beneficiaries of the Ecological fund, they are largely dependent on NEMA.

About 1% of Nigeria's annual budget goes to the Ecological fund, out of which NEMA gets 12%, with the Federal Ministry of Environment, Health and other agencies getting their share of the ecological fund. The state government also gets its share of the ecological fund. Sadly, the local government has been constantly robbed by the state governors under the aegis of the infamous Nigeria's governor's forum, making the local government an extension of the empires of the state governors. Sometimes misdirection of requests have been observed in the time past where a commissioner claims that NEMA is yet to release the ecological fund due to the state, instead of the governor, who is the principal.

Generally, it appears that there is no functional SEMA. Considering 2011 Omiyale in Agbowo, Apete, Ibadan, nothing like NEMA, NEMA was not visible (Akanle et al., 2015). In Ogun State, the government did not recognise or set up SEMA within its jurisdiction, rather until the scourge of flood in 2011. In fact, the Ogun State Government (OGSG) said "What is an emergency? When it happens the state will respond", there was nothing like SEMA at that time. However, the 2012 deluge that affected 33 states and resulted in 363 fatalities was the game changer, when it was thought that there should be a structure or emergency response. Despite the structure (under the office of the Deputy governor), the 2018 deluge that affected many parts of the country, 6 years after that of 2012, revealed that these structures lack the requisite manpower and subventions to make them functional (Adefisoye, 2015).

The National flooding of July 2012 even though predicted by the Nigerian Meteorological Agency (NIMET) was one of the devastating flooding ever experienced by Nigeria due to the failure of governments at all tiers. Thirty percent (30%) of the nation's landmass was covered by floods which affected about 7.7 million people (Social Action, 2012). Reuter (2012) reported that over 363 people lost their lives during the emergency. The National Emergency Management Agency (NEMA), reported that thirty (30) out of thirty-six (36) states were affected by the floods. Over 176,000 people were displaced, 150,000 hectares of farmland and 17,800 houses submerged and 321 roads and bridges were destroyed. as a result. Large-scale flooding in 2018 resulted in the displacement of 286,119 people and the death of 199 people. 18,640 households in 54 localities have been impacted by floods since September 2019 as a result of rising river levels in the Niger and Benue rivers and excessive



rains in the states of Cross River, Kogi, Niger, and Taraba. According to estimates, floods between 2000 and 2015 resulted in 129 fatalities, 3,102 home losses, and 9,112 home damages. (Adelekan, 2010; Adelekan, 2020; Adelekan and Asiyebi, 2016). Despite that flooding is an annual occurrence in Calabar (Cross River State), and Makurdi (Benue State), very limited information on the impacts is available, except partial evidence of a few specific flood events. It is evident from most of the information available that the impacts of flooding in Nigerian cities are not differentiated by gender, however it is well established globally that women and girls are disproportionately impacted and vulnerable to the effects of natural hazards (Bogdan, McPherrlain, & Yoon, 2019 cited by Lucas, 2021). A study on Lagos shows that this finding in the Nigerian context, showing that low-income women experienced more severe impacts and slower recovery in relation to flooding compared with other women and men (Ajibade, McBean, & Bezner-Kerr, 2013).

Conclusion and Recommendations

It is obvious that there are frameworks for emergency response in Nigeria, however these frameworks lack proper implementation. The structures also lack the requisite human and financial resources to make these agencies functional, in particular the SEMA and LEMA, which are directly located at emergency centres. Therefore, the following are recommended:

1. Timeliness of a response is very crucial in the event of an emergency. Hence, the process and time of securing funds for emergencies should be addressed for effective response intervention. Hence, the process and time of securing funds for emergencies should be addressed for effective response intervention.
2. Stakeholders in emergency management should ensure proper implementation frameworks at all levels.
3. State government should be encouraged to allocate part of their Ecological fund to the local government for proper functioning of NEMA.
4. Proper training of all stakeholders especially at the grassroots.

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