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Citizen Participation and Flood Management: Lessons for Public Policy Implementation in Nigeria

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Abstract

One of the key elements that determine an effective flood management system is the level of citizen participation. Over the years, it is noticeable that disaster management practice as it relates to flood management in Nigeria revolves majorly around government agencies and assumes a formal-institutional, top-down, agency-driven and centralized forms. By implication, flood management has been less dynamic and grossly inefficient. This study highlights the centrality of citizen participation in flood management using South-west Nigeria, a region that is constantly prone to threats of flood every year, as a case study. Data for the study were obtained from both primary and secondary sources. For the primary sources, a total of 180 questionnaires were administered in selected communities across four out of the six states that make up the region. Besides, key informant interviews were conducted with relevant stake-holders. Also, available literature was critically reviewed and reports were examined to generate secondary data. This work identifies inherent flaws in the top-down, agency-driven approaches to flood management and explains how an all-inclusive, citizen-centered approach could yield better results. It was discovered that affected communities, prior to the flood incidents of 2011 and 2012 did not have concrete and functional mitigation plans aside the conventional monthly environmental sanitation exercise which is not even mandatory. Besides the absence of well-planned mitigation framework, it was discovered that the level of interaction between government agencies and citizens as it relates to flood management is low in the study areas. The paper argues that the level of citizen involvement would determine to a large extent the successful implementation of flood management policies. The paper recommends among other things that flood management agencies should factor in citizen participation in the overall process of flood management.
Key words: *Citizen Participation; Flood Management; Public Policy; Co-production*

1. Introduction

The continuous and fairly efficient discharge of certain functions by government, central or local is a necessary condition for the existence of any great society. Beyond the issue of efficiency and effective delivery of service is the issue of coping with catastrophes, hazards and disasters, particularly floods. Despite local, national and international efforts at flood mitigation and control, flood continues to be a major challenge to humanity (Yamada, Kakimoto, Yamamoto, Fujimi and Tanaka, 2010). It is on record that of all the hazards that have ravaged humanity, flood is the commonest. Smith (2006) estimates that flood disasters regularly claim over 20,000 lives yearly and adversely affect around 75 million people world-wide. Similarly, incidences of floods have been on the rise and are responsible for more than half of all disaster-related fatalities and a third of the economic loss from all natural catastrophes (Askew, 1999; Bradford, O'Sullivan, van der Craats, Krywkow, Rotko, Aaltonen, Bonaiuto, De Dominicis, Waylen and Schelfaut, 2012). Research has also shown that the number of residents exposed to flood risks has risen by 114% globally between 1970 and 2010 (UNISDR, 2011). Economic losses due to flooding are also predicted to increase over the coming years. Hence, floods have caused serious concerns to governments (Aderogba, 2012; Christopher, 1997; Action Aid, 2006; Pilgrim and Cordery, 1993; and Wright, 2011). In the rainy season in particular, it is common to read about devastating flood incidents in the media across many countries.

Nigeria as a country has had her own share of flood deluges. Flood has become a major problem in Nigerian cities since the first flood hit Ibadan, the headquarters of Old Western Region, Nigeria (now the capital of Oyo state) in 1948 (Etuonovbe, 2011:9). In 2012, the country witnessed its worst flooding incidents that wrecked serious havoc on the populace. Assessment reports on the incidents showed that 33 out of the 36 States of the Federation were affected in various degrees: 7 million people were directly affected; 363 people died; and the country lost estimated 2.7 Trillion naira to the deluge (NEMA. 2013: 2).

Unfortunately, all these occurred despite series of predictions and warnings from the Nigerian Meteorological Agency (NIMET) in February, 2012 as a result of the change in climate conditions (Tell, 2012). Also, the authorities of the Lagdo Dam in Cameroun where most of the waters came from, informed the country early enough of the intended release of excess water in order to prevent the collapse of the dam (Tell, 2012). Previously in August 2011, the city of Ibadan in Oyo State (South-west Nigeria) witnessed some of the worst flood disasters

in the country's history which resulted in the death of scores of persons and the destruction of properties worth more than N20 Billion (Onwubiko, 2012: 1).

In a bid to reducing flood risk and effectively manage floods, successive governments at various levels in Nigeria have made only feeble efforts either by setting up ad hoc agencies to distribute relief materials to victims of flood; or establish authorities like the National, States and Local Emergency Management Agencies (NEMA, SEMA, LEMA) which most times are ill-managed, optimally-deficient and poorly-funded (Obete, 2014). This is unlike in some European countries where the importance of stakeholder participation in decision making and in flood risk management in particular have been recognized and emphasized (When, Rusca, Evers, and Lanfranchi, 2014: 1). The Aarhus Convention of 1999 which aims for public participation in decision making on environmental issues and the European Flood Directive 2007/60/EC which requires the establishment of public participation are prominent flood management frameworks (When, Rusca, Evers, and Lanfranchi, 2014: 1).

Although, the National Disaster Management Framework of 2010 which is Nigeria's disaster management blueprint provides for the inclusion of all stake-holders in the overall management of disasters, there is still a growing apathy towards disaster management in Nigeria. By implication, flood management has been less dynamic and grossly inefficient in Nigeria due to the low involvement of citizens in the overall processes of planning, mitigation, preparedness, response and recovery. This has once again validated the notion commonly held that the policy implementation stage is the grave-yard for public polices in Nigeria.

To this end, this work concerns itself with the task of explaining the importance of citizen participation to the realization of the goals of flood/disaster management policies in Nigeria, with the South-west region as a case study.

2. Framework of Analysis: Co-production

'Co-production' as a framework of analysis has been widely adopted and used by different scholars from various academic fields and ideological leanings to either explain the primacy of clients' involvement in production processes, or citizens' involvement in governance. Horne and Shirley (2009), Commission on the Future Delivery of Public Services (2011) and OECD (2011) argue that co-production is currently one of cornerstones of public policy reform across the globe. Similarly, it is articulated by Boyle and Harris (2009) as well as Nambisan and Nambisan (2013) as a valuable route to public service reform. Also, co-production is conceived as being sacrosanct to the planning and delivery of effective public services (Durose et al. 2013). Pestoff (2006); and DoH (2010) perceive co-production as a response to the democratic deficit and a route to active citizenship; and as a means by which to lever in additional resources to public services delivery (Birmingham City Council, 2014). As observed by Mees, Crabbé, Alexander, Kaufmann, Bruzzone, Lévy and Lewandowski (2016:1), the notion of co-production as a framework of analysis in public administration stems from the need to study the interaction between citizens and public authorities from the decision-making process through to the implementation of public policies.

The underlying assumptions for co-production particularly in the public domain have been discussed by several authors including Edelenbos and Klijn, 2006; and Renn, 2008, Glucker et al., 2013). For instance, Glucker, Driessen, Kolhoff, and Runhaar (2013) distinguished a normative, substantive, and an instrumental rationale for public participation in the context of environmental impact assessment. The normative rationale aims to empower marginalized individuals and groups and to enhance democratic capacity. Conversely, the substantive rationale refers to the potential of public participation to improve the quality of the decision output. Finally, the instrumental rationale relates to the increase of legitimacy through conflict prevention and resolution.

Specifically, as discussed by Parks et al. 1981; Joshi and Moore 2004; and Mees, Crabbé, Alexander, Kaufmann, Bruzzone, Lévy and Lewandowski, 2016:1), the occurrence of co-production is primarily explained by economic considerations and the failure of a government to (effectively) deliver a service. The inclusion of citizens in the production of services is thus expected to increase effectiveness and improve allocative efficiency by:
One: Mobilizing otherwise unavailable community resources; Two: making public services more responsive; and three: enabling users to shape the outcomes (Bovaird 2007; Needham 2008). In turn, it is argued that this leads to the development of social capital, increased trust in public authorities, and an enhanced action capacity within the community (Ostrom 1996; Mitlin 2008).

In the field of flood management, Mees, Crabbé, Alexander, Kaufmann, Bruzzone, Lévy and Lewandowski (2016) observe that the government has long remained the dominant or even single actor in many countries. According to Meijerink and Dicke (2008), protection against flooding was traditionally seen as a pure collective good and thus ideally managed by public authorities and agencies. However, shifts in the public–private divide have resulted in some cases in which flood risk management has arguably transitioned into a private good, that is benefits are excludable and *rivalrous* (Meijerink and Dicke 2008, Geaves and Penning-Rowsell 2016).

However, despite the numerous utilities of the co-production theory, it has been faulted by some scholars who have attributed the interest of public authorities to involve the public in policy delivery to the neo-liberalist ideal of "self-reliance," which is particularly evident in resilience agendas in public policy (Davoudi 2012, MacKinnon and Derickson 2013). In spite of the skepticism associated with the co-production theory, it presents a lot of utilities for the achievement of effective flood governance, particularly in Nigeria and particularly in the South-west region where citizen participation in flood risk management is low.

3. Conceptualizing Citizen Participation

Generally, participation refers to the different mechanisms for the public to express opinions and ideally exert influence regarding political, economic, management and other social decisions. However, over the years, the meaning of citizen participation has taken different dimensions as a result of the expansion of the frontiers of research. In another opinion, Andre, Martin, and Lanmafankpotin (2006) see citizen participation as a process in which ordinary people take part – whether on a voluntary or obligatory basis and whether acting alone or as part of a group – with the goal of influencing a decision involving significant choices that will affect their community. Such participation may or may not take place within an institutional framework and it may be organized either by members of civil society (for example, through class action, demonstrations citizens' committees, etc.) or by decision makers (for example, through referendums, parliamentary commissions and mediation, etc. (Andre, Martin, and Lanmafankpotin, 2006).

Examining the various definitions of citizens' participation, Cunningham (1972) concludes that citizens' participation has so far been defined using three essential elements: One, ordinary people, or common amateurs – that is, members of a community who have no formal source of power except for their numbers; Two, the exercise of power by these people, who lead their community to think and act as they do; and Three, decisions involving significant and substantial choices related to the affairs of the community. More recently, Hardina (2008) has defined citizen participation as the process whereby those with the least resources – people on the margins of society – are involved in decisions about the services they receive on the part of those that represent them, namely, the government and not-for-profit organizations.

It is important to note at this juncture that notion for enhanced citizens' participation often rest on the merits of the process and the belief that an engaged citizenry is better than a passive citizenry (King, Feltey and Susel 1998; Putnam 1995; Arnstein 1969). Arnstein (1969) for instance, define citizen participation as the redistribution of power that enable the have-not citizens, presently excluded from the political and economic processes to be deliberately included in the future. Sherry Arnstein further discusses eight types of participation in *A Ladder of Citizen Participation* often termed as "Arnstein Ladder" these are broadly categorized as:

- Citizen Power: Citizen control, Delegated power, partnership
- Tokenism: Placation, Consultation, Informing
- Non- participation: Therapy, Manipulation.

Furthermore, with citizen participation, formulated policies might be more realistically grounded in citizen preferences, the public might become more sympathetic evaluators of the tough decisions that government administrators have to make and the improved support from the public might create a less divisive, combative populace to govern and regulate (Irvin and Stansbury, 2004). Irvin and Stansbury (2004) further present the advantages of citizen participation to government decision-making and to citizen participants:

Advantages of Citizen Participation in Government Decision-Making

	Advantages to Citizen Participants	**Advantages to Government**
Decision Process	Education (learn from and informed government representatives) * Persuades and enlightens government * Gain skills for activist citizenship	Education (learn from and inform citizens) * Persuades citizens; build trust and allay anxiety or hostility * Builds strategic alliances * Gain legitimacy of decisions
Outcomes	Breaks gridlock; achieve outcomes * Gain some control over policy process * Better policy and implementation Decisions	Breaks gridlock; achieve outcomes * Avoid litigation costs * Better policy and implementation Decisions

Source: Irvin and Stansbury (2004): Citizen Participation in Decision-Making: Is it Worth the Effort?

4. Perspectives on Flood Disaster

Across the globe, floods have posed tremendous danger to the survival of humans, wild life and the environment. Also, they have had negative and gory consequences on government spending and development in general (McLoughlin 1985: 165; Arrow, Becker, Ostrom, Schelling, Sen, and Solow, 2012: 43). According to Askew (1999) floods cause about one third of all deaths, one third of all injuries and one third of all damage from natural disasters. Similarly, Smith (1996) estimates that floods claim 20,000 lives annually, and affect around 75 million people. Unfortunately, a majority of those affected by flood disasters are mostly those classified as poor, and mostly in developing countries (Stephen, 2011; Lutz *et al,* 2008: 716-719; Ovosi (2012).

In Nigeria, the pattern is similar with the rest of world. Flooding in various parts of Nigeria have forced millions of people from their homes, destroyed businesses, polluted water resources and increased the risk of diseases (Etuonovbe, 2011; Aderogba, 2012; Adetunji and Oyeleye, 2013). The 2012 incidents for instance, claimed an estimated 363 lives; affected 7 million people across 33 of the 36 states of the federation; and the nation lost an estimated 2.7 Trillion naira to the deluge (NEMA, 2013:12). Particularly in the South-west region (a region noted for incessant flooding incidents), flood, since when flood first hit Ibadan, the headquarters of Old Western Region, Nigeria (now the capital of Oyo state) in 1948, has appeared to be untamable thereafter. Subsequently, serious flood disasters have occurred in Ibadan in 1963, 1978, 1980, 1985, 1987, 1990, 2011 and 2012. Lagos recorded the first flood in early 1970s and till date, floods have become perennial event in the state (Etuonovbe, 2011:9).

Generally, there are three schools of thought on the preponderance of flooding all over the world. The first is of the view that there is global warming and climate change, which has directly and indirectly increased the amount of rain and ice melt. The result of this is increase in runoff water. In the case of South-west Nigeria, however, the only source of water that results in massive flooding in Nigeria is rainwater. The second school is of the opinion that there have been a lot of impairments on the physical environment of man: and the environment is only responding to these impairments. These include poor physical and environmental planning, poor waste management, insufficient drainages, dams and levees and so on. The third school creates a convergence between the two theories discussed above. It is of the opinion that massive flooding is a product of global warming, climate change and the impairment on the environment. However, according to Dow and Dowing (2006: 64-77), the facts behind these three schools have not been thoroughly researched and confirmed.

From the foregoing, it is important to state that the notion which attributes flooding solely to climate change has been debunked. In a study of the flooding problems in Lagos State, Adeloye and Rustum (2011) indicate that climate change is not the culprit rather but anthropogenic factors. Their investigation revealed that contrary to popular wisdom, climate change or unusually high rainfall is not the primary cause of the flooding problems in Lagos. Rather, increased urbanization, inadequate planning laws in relation to the erection of buildings in flood plains and the inadequacy of storm drainage facilities in the city are to blame. Lending a voice to this, Sentra explains that floods are not only caused by high amount of precipitated water (which results from change in climate), but also by man-made changes to the earth's surface. He adds that poor management of agricultural land, increased deforestation and urbanization alter the retention properties of surface soil layer, resulting in greater run-off and increased erosion (Sentra, 2013:639).

In an empirical study, Aderogba (2012) interrogates the causes of flood disasters in the South-west region of Nigeria. According to the study, they include: anthropogenic factors like construction of illegal structure on/across drainage channels, inadequate drainage channels, blocked canals/drainages and poor waste management. Natural factors like torrential rainfall, ocean surges and global warning were also identified. This further complements the position of the third school of thought on the preponderance of flood disaster which attributed the occurrences of flood disaster to the interaction between both natural and unnatural (human-induced) factors. It also affirms that hazards themselves do not constitute disasters. Rather, they are exacerbated when hazards come in contact with physical, political, environmental, economic and psychological vulnerabilities present in a community.

5. Public Policy and Disaster Management: A Discourse

The test of a government is the welfare of its people. Thus, the standard of merit of any government can be judged by the adequacy with which it performs the chief functions of government: the protection of its people from internal and external threats to their survival and the provision of environment that would enable the mass of men realize their full potentials at the largest possible scale. Therefore, it is imperative that government formulates set of laws and policies that would create order; promote happiness and regulate behaviour; thus, public policy becomes expedient. Explaining the centrality of public policy to the attainment of the overall purpose of the state, Udofia and Abasilim (2015) posit that:

> The issue of public policy is central to public administration and public administration is involved in the entire process of policy making and implementation. The negligence of public policy is at the peril of any state or organization and this is because it is through public policy that the needs of the citizens and problems of any society is been taken care of.

In similar vein, Dye (2005) had expressed that:

> Public policy is whatever government chooses to do or not to do. Government do many things – they regulate within society; they organize society to carry on conflict with other societies; they distribute a great variety of symbolic rewards and materials services to members of the society; and they extract money from society, most often in the form of taxes. Thus public policy may regulate behaviour, organize bureaucracies, distribute benefits, or extract taxes – or all these things at once.

In addition, public policy is the means by which a government maintains order or addresses the needs of its citizens through actions defined by its constitution. Because public policies are in place to address the needs of people, they are often broken down into different categories as they relate to society. These categories may include public policies as related to finance, health, environment, tourism, politics, education, sports, homeland security, disaster management and so on.

In the arena of disaster management, government should take the lead in implementing preventive actions both directly, by allocating efficiently public resources and indirectly, by showing people how to protect themselves against disaster occurrences (Bertilaso, 2012). The first major step however in the management of disasters and work towards achieving a virile disaster management system is the formulation of public policies/legislations that would in turn establish an emergency/disaster management bodies (2013:639). Petak (1985) observes that throughout history, public policy makers have sought to anticipate the unexpected in order to reduce the risk to human life and safety posed by intermittently occurring natural and man-made hazardous events. Therefore, it is important that any policy guide in the area of flood management should clearly spell-out its policy objectives and assign responsibilities to relevant agencies and groups at various levels of government. This notion is corroborated by Nick Carter, and explicates that:

> Clear definition of national disaster management policy is essential if a country is to establish and maintain adequate arrangements to deal with all aspects of its disaster threat. This applies to all levels of the national structure and organization—that is, from the national government to the local government or community level. If such a policy does not exist, arrangements to deal with disaster will be ill-defined and inadequate. Consequently, loss of material and human resources will arise; the nation, as a whole, will suffer (Carter, 2008: 25).

From the foregoing, it is important to state that the proper management of hazards becomes expedient because of over the years, hazards have had adverse and gory consequences on economies of countries and have disrupted

the functionality of societies by displacing families and hampering relationships. Besides, disaster occurrences put a question mark on the level of preparedness of countries for disasters which is reflected in a government's policy approach.

As reported by the International Strategy for Disaster Reduction (ISDR), an estimated 500 disasters occurred in 2002 alone, with more than 10,000 people killed; 600 million others affected, with $5 billion and $13billion as total damages and insured losses respectively (ISDR, 2004). In his estimation, Dewald van Niekerk asserts that more than 180 deaths are recorded daily due to the impact that unmitigated and mismanaged hazards have on the volatile conditions in the developing world and elsewhere (Niekerk, 2004). Also, Arrow, Becker, Ostrom, Schelling, Sen and Solow in a World Bank Book Project titled: *Natural Hazards, Unnatural Disasters*: *The Economics of Effective Prevention*, it was estimated that over 2.4 million people, the majority of them in developing countries have been directly affected by disasters (2012: 26). Likewise, they reported that between 1970 and 2010, an estimated 3.3 million people all over the world have died as a result of disaster occurrences (Arrow, Becker, Ostrom, Schelling, Sen and Solow 2012: 26).
Therefore any policy thrust in the area of disaster management ought to seek and explore every available resource, both human and non-human for the coordination and integration of all activities necessary to build, sustain, and improve the capability to prepare for, protect against, respond to, and recover from threatening or actual natural or human-induced disasters (NDMF, 2010:2). According to the United Nations Development Programme (2005), disaster management policy represents a body of policy, administrative decisions and operational activities required to prepare for, mitigate, respond to, and repair the effects of natural or man-made disasters.

6. Methodology

A total of 180 questionnaires were administered across four out of the six States in the South-west region. Lagos and Oyo states were selected purposively due to the frequency of flooding in the two states and were classified as 'category A. On the other hand Ogun, Osun, Ekiti and Ondo were classified as 'Category B'. However, Ogun and Ekiti were eventually selected using the simple random probability sampling technique and thereby represented category B. Areas which the study covered were Owode-Onirin-Ikorodu, and Aboru-Iyana-Ipaja (Lagos); University of Ibadan, Agbowo and Oke-padi-Ogunpa (Oyo); Sango-Ota (Ogun); and Ajilosun-Ado-Ekiti (Ekiti). All the communities were selected purposively due to the frequency of flooding in the areas.
Besides, twelve key informant interviews were conducted with two top officials of NEMA, one each at the Agency's two offices in Lagos and Ado-Ekiti; Directors of Public Communication and the Zoological Garden of UI; and eight residents of affected communities across the selected states. For the secondary data, literature from academic journals, scholarly articles from newspapers, textbooks, gazettes, NEMA's yearly reports and Newsletters were extensively reviewed. Primary data collected were presented, interpreted and analyzed by Tables, Frequency Count and percentage Scores; while secondary data were analyzed descriptively.
The data gotten from the field are presented below:

Firstly, key informants in the selected communities that comprised chairmen of landlord associations, resident youths and Directors of Public Communication and the Zoological Garden of UI were interviewed with the view to ascertain the prevalence of flooding particularly the 2011 and 2012 incidents in their communities/institution. At Aporin and Captain Salawu streets in Agbo-owo area of Ibadan, incidents of destructive floods were recorded. In particular, a whole family was wiped-out by the 2011 flooding on Captain Salawu Street. The case was similar at Owode-Onirin, Ikorodu, Aboru-Iyana-Ipaja areas of Lagos; and Sango-Ota area of Ogun state. At the University of Ibadan, Mr. Olatunde Mohammed and Dr. Morenikeji who are the Directors of Public Communication and the Zoological Garden respectively confirmed that the 2011 flood deluge meet the University by surprise and meted wanton destruction to the University's fence, fish ponds, Bookshop and the Zoological Garden among other places.

In the area of flood mitigation, it was discovered that there were total absence of flood mitigation initiatives in affected communities apart from the conventional monthly environmental sanitations sanitation exercise that affords these communities the opportunity to clear surrounding gutters and drainages which is even not mandatory. In the case of the UI, Mohammed confirmed that prior to the 2011 flooding; the University had no flood mitigation plan but was forced to embark on massive channelization and construction of flood waters.
Data from administration of questionnaire are presented below:

Table 1: Within the last 3-4 years (2011-2014), did you observe any activity of National Emergency Management Agency, State Emergency Management Agency, Local Emergency Management Agency and other Emergency Management agencies on flood prevention and sensitization?

State	Yes	No	Can't Remember
Lagos	40	7	3
Oyo	21	27	2
Ogun	0	30	10
Ekiti	11	26	3

Source: Fieldwork, 2014-15.

Table 2: How would you generally rate government's involvement (Federal, State and Local) in the management of flood hazards in the South West?

A. The Federal Government

State	Very Poor	Poor	Good	Very Good	No Response
Lagos	7 (14%)	27 (54%)	16 (32%)	0 (0%)	-
Oyo	11 (22%)	23 (46%)	13 (26%)	4 (8%)	-
Ogun	22 (55%)	18 (45%)	0 (0%)	0 (0%)	-
Ekiti	4 (10%)	13 (32.5%)	16 (40%)	5 (12.5%)	2 (5%)

Source: Fieldwork, 2014-15.

Table 3: The State Government

State	Very Poor	Poor	Good	Very Good	No Response
Lagos	7 (14%)	11 (22%)	32 (64%)	0 (0%)	-
Oyo	4 (8%)	28 (56%)	13 (26%)	5 (10%)	-
Ogun	20 (50%)	20 (50%)	0 (0%)	0 (0%)	-
Ekiti	4 (10%)	24(60%)	4 (10%)	4 (10%)	4 (10%)

Source: Fieldwork, 2014-15.

Table 4: The Local Governments

State	Very Poor	Poor	Good Frequency	Very Good	No Response
Lagos	12(24%)	29 (58%)	9 (18%)	0 (0%)	---
Oyo	10 (20%)	27 (54%)	10 (20%)	13 (26%)	---
Ogun	20 (50%)	20 (50%)	0 (0%)	0 (0%)	---
Ekiti	5 (12.5%)	25 (12.5%)	4 (10%)	2 (5%)	3 (7.5%)

Source: Fieldwork, 2014-15.

Table 5: Have you ever been involved in any flood planning (mitigation and flood preparedness) exercise?

State	Yes	No	No Response
Lagos	5	42	3
Oyo	8	37	5
Ogun	3	37	--
Ekiti	11	27	2

Source: Fieldwork, 2014-15.

Table 6: How would you describe citizens' involvement in the areas of response to flooding particularly during the 2011 and 2012 flood incidents?

State	Poor	Prompt	Erratic	1nformed	No Response
Lagos	23 (26%)	6 (12%)	18 (36%)	11 (2%)	----
Oyo	23 (46%0	0 (0%)	20 (40%)	5 910%)	2 (4%)
Ogun	18 (45%)	0 (0%)	14 (35%)	8 (20%)	---
Ekiti	23 (57.5%)	4 (10%)	8 (20%)	5 (12.5%)	---

Source: Fieldwork, 2014-15.

6.1 Discussion

The above results show that a vast majority of residents in that selected areas were unaware of the operations of the National Emergency Management Agency (NEMA), State Emergency Management Agency (SEMA), Local Emergency Management Agency (LEMA), and other Emergency Management Agencies within the past 3-4 years. Ogun State had the highest figure of non-awareness, while Lagos had the highest figure of awareness. This may be due to the fact that Ogun Sate has no statutorily- recognized SEMA and Lagos has a vibrant emergency management agency (LASEMA) (Adebayo, 2014). Table two to four presented respondents' perception of government's involvement in flood hazard management in the South-west region. Generally, responses show that government's involvement has been minimal and poor particularly by both state and local governments. Conversely, table five shows that only 27 respondents out of 180 were involved at one point or the other in flood planning-related activities like mitigation and preparedness. In the area of disaster response, responses show that citizens' involvement were very poor and erratic. This is a reflection of the possibility that respondents' were not equipped with the necessary/useful knowledge needed to adequately respond to flooding.

From the foregoing, it can be deduced that the level of citizen participation in flood management is marginally low: despite the fact that the South-west region possesses 27,511,992 of Nigeria's total population (National Population Commission, 2007). Hence, it is important for government agencies saddled with the duty of managing flood risk to actively partner with locals to equip them with the necessary knowledge of flood management in order to reposition flood risk management to an enviable position in Nigeria and particularly the South-west region.

7. Towards An All-Inclusive Flood Management System in Nigeria

The relevance of citizen participation to actualization of the overall objectives of disaster management as it relates to flood cannot be over emphasized. More specific, the successful implementation of public policies in the arena of flood management calls for integrating a number of factors. The three most fundamental of these are: human inputs; natural events and their probabilities; and governmental responsibilities (OTA, 1980). In the case of Nigeria, although the National Disaster Management Framework of 2010 stipulates the inclusion of locals and community dwellers in the overall process involved in disaster management, it has become rather difficult to achieve this due to systemic/structural inadequacies, administrative ineptitude and citizen apathy.

However, it is imperative to express that citizen involvement in flood management is central to the attainment of the overall goals of disaster management policies and its relevance cuts across all various elements and stages involved in disaster management (Koh and Cadigan, 2008). These elements/or stages can broadly be classified into two: Pre-disaster risk reduction; and Post-disaster recovery. The first category involves activities that are geared towards the prevention of disasters and possible reduction in the impact of hazards on a community or nation. Components include; prevention, mitigation, preparedness, and early warning (Ojo, 2004: 10-12). On the other hand, Post-disaster recovery focuses on activities meant to save lives and reposition a community or country which had witnessed disasters. Components include; disaster impact, response (rescue and relief), recovery, and development (Ojo, 2004: 10-12).

It is important to note that the successes or failures that will be recorded in implementing the activities surrounding pre-disaster risk reduction would be largely dependent on the level of use of citizen participation. In flood prevention for instance, levees and dams may be provided by local or central authorities as part of measures to for stalling flood disasters, however, the proper use of these facilities can largely be ensured and achieved by the people in the local community who make its social capital. Through the various interactions; social, cultural, religious, political, etc, and amity that ensue from such, disaster prevention activities could be effectively mobilized. In the case of early warning, citizen participation' is highly needed. This phase requires that appropriate well-timed and useful information are passed to communities on impending disasters in clear

and understandable manners. To effectively achieve this, efforts must first be geared towards correcting the notion commonly held by Nigerians that disasters are *acts of the gods*. Also, there is the need to *conscientize* the local populace to believing that disaster management is the responsibility of all.

Under Post-disaster activities, disaster impact is the first element. Disaster impact refers to the point where disaster managers intervene at the point of disaster occurrence with the intention of saving lives and properties (Carter, 1991). The response element is the combination of activities embarked upon immediately prior, during or immediately following the disaster impact (Ojo, 2004: 12). Such activities include search and rescue for dead bodies, survivors, and properties. It also involves setting up of relief camps, provision of relief needs like food, sanitation, water, medications, security etc. The recovery element generally focuses on how to: one, re-integrate Internally Displaced Persons (IDPs), and other victims of disasters; and two, repositioning a community or nation on the path of functioning. This stage is further divided into restoration, rehabilitation and reconstruction (Ojo, 2004: 12). The developmental element involves mainstreaming disaster prevention and risk reduction strategies into the developmental plans of a country (Niekerk, 2003).

Stemming from the foregoing, it is important to assert that the level of success of the Post-disaster phase is dependent on the degree of citizen participation in an affected community. For instance the response phase which is targeted at saving lives and properties goes beyond the singular effort of Search and Rescue Teams, Disaster Response Units (DRU) of the Armed Forces, Fire Brigade, Red Cross and so on, but on the understanding and cooperation and support these groups could get from the local populace. Unfortunately, there have been cases where angry community youths beat up rescue officers and damaged their equipments as a result of perceived poor performance. Besides seeking cooperation, members of communities especially youths could be trained in the art of disaster response.

8. Conclusion

This study has examined the importance of citizen participation to flood management in Nigeria as it relates to policy implementation. It is important to conclude therefore that the task of achieving a virile flood management system and the successful implementation of disaster management policies is hinged upon ability of government agencies saddled with the responsibility of flood management to effectively mobilize both human and non-human resources to achieve the overall goals of flood risk management. In doing this, citizen participatory mechanisms must be put in place to facilitate full involvement of all stakeholders in planning, mitigation, preparedness, response and recovery process of flood risk management.

References

Action Aid (2006): "Climate change, urban flooding and the rights of the urban poor in Africa", Available on line at: http://216.219.73.118/docs/urban%20africa%20repot.pdf. Retrieved on: 17th April, 2012.

Adeloye, A. J. and Rustum, R. (2011): "Lagos (Nigeria) flooding and influence of urban planning, Urban Design and Planning", Volume 164, Issue DP3, 185 187.

Aderoga, K. (2012): "Substantive Cause and Effect of Floods in South West Nigeria and Sustainable Development of Cities and Towns", *Journal of Emerging Trends in Educational Research and Policy Studies (*JETERAPS) 3(4): 551-560.

Adetunji, M. and Oyeleye, O. (2013): "Evaluation of the Causes and Effects of Flood in Apete, Ido Local Government, Oyo State, Nigeria", *Journal of Civil and Environmental Research, Vol. 3, No.7: www. iiste.org.*

André, P., Martin, P., and Lanmafankpotin, G. (2006). *Participation publique : principes internationaux pour une meilleure pratique,* Publication spéciale, Série no. 4, Fargo (ND): International Association for Impact Assessment.

Alexander, J. (2015): "The human cost of the Tbilisi floods: The truth is, I'd really lost all hope", *The Guardian,* Friday, July 3.

Arnstein, S. R. (1969): "A Ladder of Citizen Participation", *Journal of American Institute of Planners,* vol. 35, no. 4, pp. 216-224.

Arrow, K.J., Becker, G.S., Ostrom, E., Schelling, T.C., Sen, A., and Solow, R.M. (2010): *Natural Hazards, Unnatural Disasters: The Economics of Effective Prevention*, Washington: World Bank.

Askew, A.J. (1999): "Water in the International Decade for Natural Disaster Reduction" in: Leavesley et al (eds.) *Destructive Water:Water-caused Natural Disasters, their Abatement and Control, IAHS Publication.*

Ayeni, B. (2007): Challenges to Mainstreaming Disaster Risk Reduction into the Development Process in Nigeria" in Ayeni, B. (ed.) *Mainstreaming Disaster Risk Reduction into the Sustainable Development in Nigeria* (Vol. II), Proceedings from the National Conference of Directors and Heads of Disaster Management Organizations in Nigeria, Abuja: NEMA.

Babcicky, P. and Seebauer, S. (2016): "The two faces of social capital in private flood mitigation: opposing effects on risk perception, self-efficacy and coping capacity", Available online at: http://dx.doi.org/10.1080/13669877.2016.1147489 Retrieved on 25th August, 2016.

Bariweni, P., Tawari, C., & Abowei, J. (2012): "Some Environmental Effects of Flooding in the Niger Delta Region of Nigeria", *International Journal of Fisheries and Aquatic Sciences. 1(1).*

Bertilaso, G. (2012): "Comment on the World Bank Report on Disaster Prevention" in Arrow, K.J, Becker, G.S, Ostrom, E., Schelling, T.C, Sen, A., and Solow, R.M. (2010): *Natural Hazards, Unnatural Disasters: The Economics of Effective Prevention*, Washington, World Bank.

Birmingham City Council (2014): "Responding to the challenge, looking to the future", Birmingham: Birmingham City Council.

Blaikie, P., Cannon, T., Davis, I., abd Wisner, B. (1994): *At Risk: Natural Hazards, People's Vulnerability, and Disasters*, London: Routledge.

Bovaird, T., Van Ryzin, G.G., Loeffler, E. and Parrado, S. (2015): "Activating citizens to participate in collective co-production of public services", *Journal of Social Policy* 44(1):1-23. Available online at: http://doi.org/10.1017/S0047279414000567/ Retrieved on: 25th August, 2015.

Boyle, D. & Harris, M. (2009): *The Challenge of Co-production*, London: NESTA.

Bradford, R. A., O'Sullivan, J.J., van der Craats, I.M., Krywkow, J., Rotko, P., Aaltonen, J., Bonaiuto, M., De Dominicis, S., Waylen, K. and Schelfaut, K. (2012): "Risk perception–issues for flood management in Europe", *Natural Hazards and Earth System Science*, 12(7): 2299-2309.

Carter, W.N. (2008): *Disaster Management Handbook*, Mandaluyong City, Phil.: Asian Development Bank.

Christopherson, R. W. (1997) (Third Edition): *Goesystems: An Introduction in Physical Geography*, London: Prentice- Hall.

Commission on the Future Delivery of Public Services (2011): "Report of the Commission on the Future Delivery of Public Services", Edinburgh: Scottish Government.

Cunningham, J. V. (1972): "Citizen Participation in Public Affairs", *Public Administration Review*, vol. 32, Special Issue.

Davoudi, S., Shaw, K., Haider, L.J., Quinlan, A.E., Peterson, G.D., Wilkinson, C., Fünfgeld, H. McEvoy, D. and Porter. L. (2012): "Interface: Applying the resilience perspective to planning: critical thoughts from theory and practice", *Planning Theory & Practice* 13(2):299-333.

Department of Health (DoH) (2010): "Practical approaches to co-production", London: DoH.
Dow, K., & Dowing, T. (2006): *The Atlas of Climate Change: Mapping the World's Greatest Change*, Brighton: Earthscan.

Durose, C., Mangan, C., Needham, C. & Rees, J. (2013): *Transforming Local Public Services through Co-production,* AHRC, Birmingham: University of Birmingham.

Dye, T. (2005): *Understanding Public Policy,* New Jersey: Prenttice Hall.

Edelenbos, J., and Klijn, E.H. (2006): "Managing stakeholder involvement in decision making: a comparative analysis of six interactive processes in the Netherlands", *Journal of Public Administration Research and Theory* 16(3):417-446. Available online at: http://dx.doi.org/10.1093/jopart/mui049. Retrieved on: 17th May, 2015.

Etuonovbe, A.K. (2011) "The Devastating Effect of Flooding in Nigeria", FIG Working Week: *2011 Bridging the Gap between Cultures*: Marrakech, Morocco.

Faniyi, O.T. (2015): "National Emergency Management Agency and Flood Disaster Management in South West, Nigeria", A M.Sc Thesis submitted to the Department of Political Science, Ekiti State University, Ado-Ekiti (unpublished).

Glucker, A. N., Driessen, P.P.J., Kolhoff, A. and Runhaar. H.A.C. (2013): "Public participation in environmental impact assessment: why, who and how?", *Environmental Impact Assessment Review* 43:104-111. Available online at: http://dx.doi.org/10.1016/j.eiar.2013.06.003 Retrieved on: 17th June, 2015.

Hardina, D. (2008): "Citizen Participation," in Mizrahi, T. and Davis, L.E. *Encyclopedia of Social Work*, National Association of Social Workers and Oxford University Press, (e-reference edition), Available online at: www.oxford-naswsocialwork.com/entry?entry=t203.e57 Retrieved on: 18th June, 2015.

Horne, M., & Shirley, T. (2009): *Co-production in Public Services*, London: Cabinet Office.

Irvin, R.A. and Stansbury, J. (2004): Citizen Participation in Decision-Making: Is it Worth the Effort? Available online at: www.scholar.google.com/scholar?.q=irvin+participation&hl+en&as_vis+I&oi+scholart. 24th November, 2016. Retrieved on: 12th July, 2013.

Joshi, A., and Moore, M. (2004): "Institutionalized co-production: unorthodox public service delivery in challenging environments", *Journal of Development Studies* 40(4):31-49. Available online at: http://dx.doi.org/10.1080/0022038041000167318 4. Retrieved on: 16th May, 2013.

Koh, H. K., and Cadigan, R.O. (2008): "Disaster Preparedness and Social Capital", in Kawachi, I., Subramanian, S.V. and Kim, D. *Social Capital and Health*, (eds.) New York: Springer. 273–285.

Lutz, W., Sanderson, W., & Scherbov, S. (2008): "The Coming Acceleration of Global Population Ageing, Nature", 451, 716–719, doi:10.1038/ nature06516.

MacKinnon, D., and Driscoll-Derickson, K. (2013): "From resilience to resourcefulness: a critique of resilience policy and activism", *Progress in Human Geography* 37(2):253-270. Available online at: http://dx.doi.org/10.1177/0309132512454775. Retrieved on: 10 March, 2015.

McLoughlin, D. (1985): A Framework for Integrated Emergency Management. *Public Administration Review* 45 (Issue Special): 165-172.

Mees, H., Crabbé, A., Alexander, M., Kaufmann, M., Bruzzone, S., Lévy, L., Lewandowski, J. (2016): "Coproducing flood risk management through citizen involvement: insights from cross-country comparison in Europe", *Ecology and Society* 21(3):7. http://dx.doi.org/10.5751/ES-08500-210307.

Meijerink, S., and Dicke, W. (2008): "Shifts in the public-private divide in flood management", *International Journal of Water Resources Development* 24(4):499-512. Available online at: http://dx.doi.org/10.1080/07900620801921363/ Retrieved on: 10th March, 2015.

Nambisan, S., & Nambisan, P. (2013): *Engaging Citizens in Co-Creation in Public Services: Lessons Learned and Best Practices,* Washington D.C: IBM Center for the Business of Government.

National Emergency Management Agency (NEMA) (2013): "NEMA seeks collaboration to curb flood disaster", *NEMA News Letter: vol.5 no 10, July 2013.*

National Population Commission (2007): "Nigerian National Population: Interim Results", Abuja: National Population Commission.

Needham, C. (2008): "Realising the potential of co-production: negotiating improvements in public services", *Social Policy and Society* 7(2):221-231. Available online at: http://dx.doi.org/10.1017/s1474746407004174/ Retrieved on: 20th March, 2015.

Niekerk, D.V. (2003): *Disaster: A Theoretical Perspective,* South African: African Centre for Disaster Management.

Niekerk, D. V. (2004): "Disaster Reduction and Sustainable Development" in Ayeni, B. (ed.) *Mainstreaming Disaster Risk Reduction into the Sustainable Development in Nigeria* (Vol. II)*,* Proceedings from the National Conference of Directors and Heads of Disaster Management Organizations in Nigeria, Abuja: NEMA.

Obete, M.C. (2014): "Institutional Approach to Flood Disaster Management in Nigeria: Need for a Preparedness Plan", *British Journal of Applied Science and Technology* 4(33): 4575-4590

Office of Technology Assessment (1980) "A Framework for Floods Hazards Management", Princeton University: Available online at: https://www.princeton.edu/~ota/disk3/1980/8012/801206.PDF. Retrieved on: 10th April, 2017.

Ojo, O.E. (2004): "Disaster Studies: Some Theoretical and Conceptual Reflections" in Ayeni, B, and Ojo, O.E. (eds.): *Proceedings from the National Conference of Directors and Heads of Disaster Management Organizations in Nigeria, held at 'Meridien' Hotel, Abuja 6th-8th July, 2004.* Abuja: NEMA.

Onwabiko, E. (2012): "Disaster in Nigeria's Disaster Management Nigeria", Available online at: *www.huriwa.Blogspot.com*. Retrieved on: 13th October, 2013.

Organisation for Economic Cooperation and Development (OECD) (2011): "Together for Better Public Services: Partnering with Citizens and Civil Society", Paris: OECD.

Ostrom, E. (1996): "Crossing the great divide: coproduction, synergy, and development", *World Development* 24(6):1073-1087. Available online at: http://dx.doi.org/10.1016/0305-750x(96)00023-x Retrieved on: 11th March, 2015.

Parks, R.B., Baker, P.C., Kiser, L., Oakerson, R., Ostrom, E., Ostrom, V., Percy, S.L., Vandivort, M.B., Whitaker, G.P. and Wilson, R. (1981): "Consumers as co-producers of public services: some economic and institutional considerations", *Policy Studies Journal*, 9, 7, pp. 1001-1011.

Pestoff, V. (2006): "Citizens and co-production of welfare services", *Public Management Review,* 8, 4, pp. 503-519.

Pilgrim, D. H. and Cordery, F. S. (1993): Flood Runoff in D.R Maidmemt (Ed.) *Handbook of Hydrology,* New York: McGraw-Hill Inc.

Renn, O. (2008): *Risk governance: coping with uncertainty in a complex world,* London: UK.: Earthscan.

Santra, S.C (2013): *Environmental Science*: Kolkata; New Central Book Agency Ltd.

Simrell, K.C.,Feltey, K.M., and Susel, B. (1998): "The Question of Participation: Toward Authentic Public Participation in Public Administration", *Public Administration Review* 58(4): 317-326.

Stephen, A. (2011): "River Systems & Causes of Flooding", Tulane University: EENS 2040.
Tell Magazine (2012): "An Avoidable Disaster", October 8, 10-12.

Udofia, A. N. and Abasilim, U. D. (2015): "Public Policy and Policy Implementation in Nigeria: An Introductory Discourse*", Nasarawa Journal of Political Science*, 3 (3). Pp 62-76.

UNISDR (2011): *Global Assessment Report on Disaster Risk Reduction*, Geneva, Switzerland: United Nations International Strategy for Disaster Reduction.

Wright, T. (2011): Waterlogged: Pakistani children push a motorbike through flooded streets after rain in Lahorerin. *The Wall Street Journal*. London.

When, U., Rusca, M., Evers, J. and Lanfranchi, V. (2014): "Participation in flood risk management and the potential of citizen observatories: a governance analysis", A paper delivered at the 6th International conference on flood management held in Sao Paolo, Brazil in September, 2014.

Yamada, F., Kakimoto, R., Yamamoto, M., Fujimi, T., Tanaka, N. (2010): "Implementation of community flood risk communication in Kumamoto, Japan", *Journal of Advanced Transportatio*n, 45(2): 117-128.

List of Interviews

Interview with Akiode, S.A.O., the Head of Operations of the National Emergency Management Agency (NEMA) at the Agency's Operation Office in Ado-Ekiti on 14th August, 2014.

Interview with Mr. Adebayo, B.R., the Assistant Zonal Coordinator of the National Emergency Management Agency at the Agency's Sub Regional Office in Ikeja Lagos on 18th September, 2014.

Interview with Mr. Olatunde Mohammed, the Director of Communications, University of Ibadan (UI) in his office on 16th September, 2014.

Interview with Dr. Morenikeji Olajumoke, the Director of the Zoological Gardens, University of Ibadan (UI) in her office on 16th September, 2014.

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