

Community – Based Risk Management and Resilience Assessment

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Abstract- Community-based disaster management (CBDM) is an approach to building the capacity of communities to assess their vulnerability to both human induced and natural hazards and develop strategies and resources necessary to prevent and/or mitigate the impact of identified hazards as well as respond, rehabilitate, and reconstruct following its onset. CBDM strategies have become increasingly important in the face of global climate change, increased populations expanding into more vulnerable regions, and the heightened recognition of a need for greater linkages between top-down governmental and community level responses. CBDM empowers communities to be pro-active in disaster management and creates a space for them to develop strategies on their own terms rather than waiting for already overstretched governments and NGO's. Members of a community are the immediate victims of adverse effects of a disaster. They have the best knowledge about their local surrounding in terms of the most disaster-prone areas, the demography of their community and their social and traditional organization. It is important that they have the capacity to cope with the impacts of a disaster and are involved in the development of disaster management activities right from the initial planning stages. Community participation can also make them more confident in their capabilities to act in the event of a disaster leading to a self-reliant community. There for this Paper, focused on how Communities manage their risks and resilience in adverse effect of geographical location as well as development arising from organizational growth. Improving community/urban resilience is a global developmental goal as nowadays more than half of the world's population lives in often vulnerable areas; especially for Cities and Communities along the coast of River Niger where rate of development and population growth is highest and challenges to cope with natural and man-made hazards arising while arrangements that will successfully support

community – based disaster risk management are still quite seldom and no adequate assessment as well as implementation due to lack of resources as well as other challenges. A case study is on Niger Delta region with particular focus on Delta State Capital Asaba and its communities. Relevant primary and secondary data sources, such as Scholar projects, documents, literatures, Journals and documents published by government and Non-Governmental organizations (NGOs), Medias, newspapers, Oral interviews of victims affected by the hazards as well as Community Chiefs and government representatives, focused group discussion, authoritative reports from National Emergency Management Agency (NEMA), National Institute of Meteorological Agency (NIMET), UNDP, UNEP all geared towards flooding, environmental vulnerability and resilience of Delta State Capital and its Communities. Findings reveal challenges which this writes up gave recommendations to in order to reduce the impact and become resilience.

Indexed Terms- Community – base, Risk, Hazard, Vulnerability, Disaster Management, Development, Climate change, Resilience

I. INTRODUCTION

Prior to 1992, Asaba was a small provincial town located on the west bank of River Niger directly across River from Onitsha on the East bank. In July 1992, the town was designated the administrative capital of newly created Delta State. The change of status resulted in an instantaneous influx of people, industry and the associated rise in the demand for infrastructure, goods and services. In anticipation of this expansion, government acquired a capital territory, with the Old Asaba town as nexus. Asaba capital territory is about 230 km² in area and includes the towns of Ibusa to the west and Okpanam to the North of the main Asaba town, thereby developing as

an urban resident. The city of Asaba, as shown in Fig.1 falls approximately between latitude 6° 15" N and longitude 6° 40" E – 6° 45" E, is bounded on the east and North east by River Niger and on the West by rolling slopes of the Asaba plateau.

The River Niger and Asaba plateau with its undulating slopes dominate the Asaba landscape. These slopes descend gently eastwards towards the River Niger such that the Asaba city itself is located on the valley and west bank of the river. Okpanam and Ibusa are located on the scarp of the Asaba plateau. Several streams that originate as springs at high elevation dissected the plateau slopes but only one, the relatively broad Amilimocha River joins the River Niger at Asaba town. Mean annual temperatures range from about 22 ° C to 34 ° C, while rainfall is between 1,501mm and 2,700mm. The regional geographical map of Delta State Fig. 1 shows Somebreiro – Warri Deltaic plain extending from Ughelli to Asaba where it thinned out. It also suggests that fresh water swamps flank the River Niger at Asaba which occupies the low – lying River Niger flood plain / Anambra River flood plain. The flood plain re-emerges south of Asaba and widens out as the River Niger flood plain thus flood effect is on increase yearly due to sea level, climate change, heavy rainfall, development and population growth.

The lack of economic resources and capacity to mitigate flood hazards has necessitated A shift of research focus to the modeling of self-help community-based flood response/management approach (Msangi et al 2006; Maza, et al, 2008. Before now, there is dearth of empirical investigation on the effect of flood hazard on food security in the flood belt of Nigeria. No study has been conducted to evaluate the capacity of indigenous people to manage flood hazards. Furthermore, there is no model so far developed to guide community-based flood management in Nigeria. Community-based flood management models provide climate information for the benefit of community people (Ash, et al 2007; Letson et al, 2005; Roncoli, 2006. Hansen, et al. 2009). The essence of investigating flood community-based

response behaviour model is therefore to involve community people participation to maintain or conserve the environment and to save their lives and properties from flood disaster through flood surveillance, and early warning/early action or very timely.

Thienkamol; (2011), had earlier advocated environmental education and consciousness in relation to alleviation of extreme flood events on agriculture. Agricultural livelihood activities in Nigeria are threatened by extreme climate events such as flood which is capable of disrupting farming cycles and fishery activities in Nigeria. Effects of climate change on agriculture and related livelihood assets, including food availability of vulnerable communities could be serious (Climate Lab. Org., 2011).

How serious flood hazards is to farming households especially with respect to food security, leaves much to be studied and therefore deserves empirical investigation. It is important to strategically search for information on the linkages between flood Causal Linkages between Flood Hazards and Food Insecurity: Evidence from Nigeria 93 hazards and food security as well as the spillover effects on the larger society. This evidenced-based research provided information on flood frequency, flood severity and effect on food security, flood spillover effects, as well as flood and food security management strategies adopted by indigenous farmers in the flood belt of Nigeria.

Available literature suggested the possibility of relationship between flood hazards and how the communities are able to cope as well as be resilience to it. Several questions come to mind such as: i. what are the indirect or spillover effects of flood hazards in the flood belt of Nigeria? The major objective of the study was on how community – base be able to co-unite and contain, prepare, respond timely, recover and be able to mitigate the risk alongside the hazards of the disaster with the help from governance and community participation.

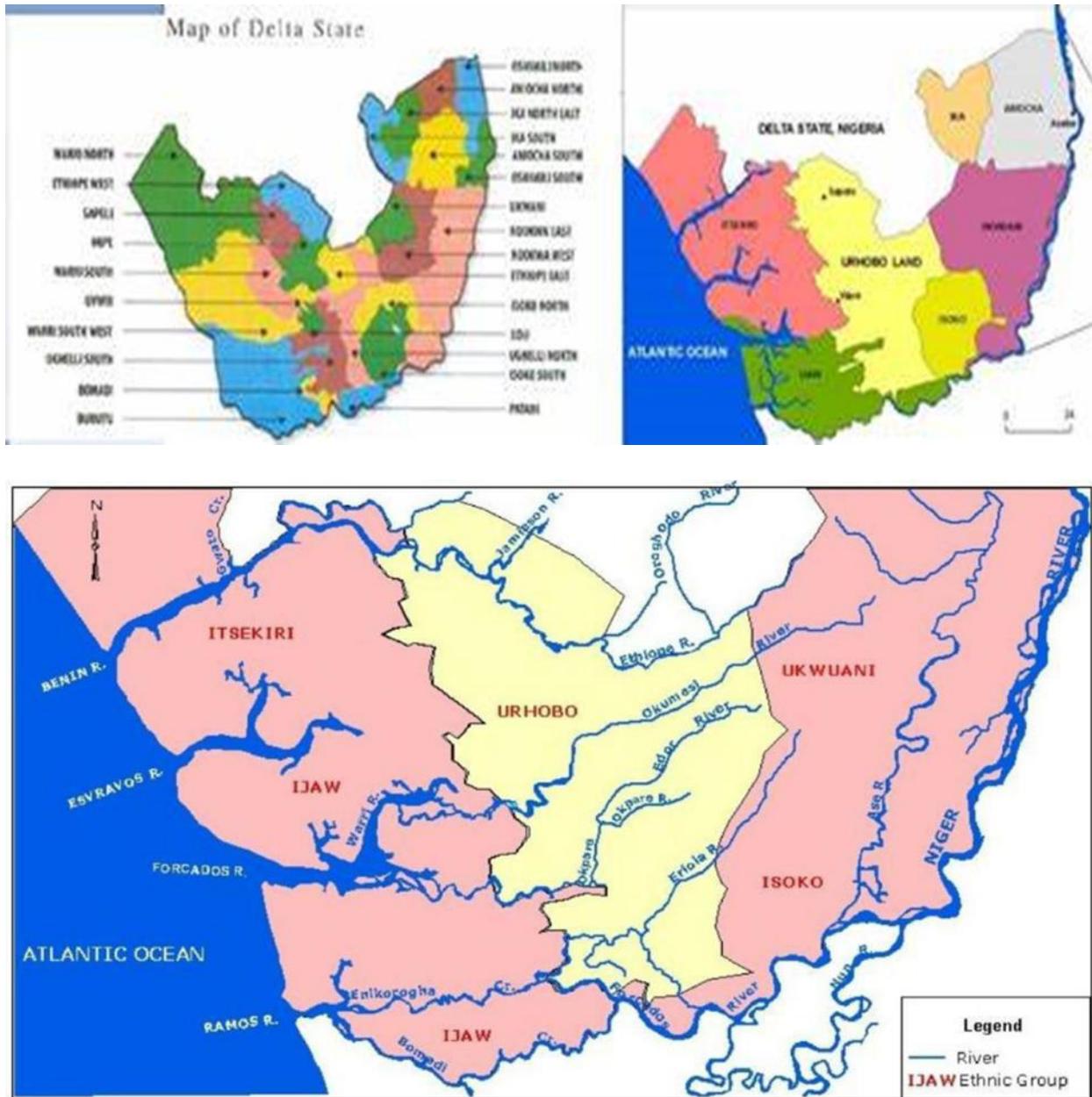


Figure 1. Map of Delta State showing the Geographical location, Rivers and tributaries.

A. THE IMPORTANCE OF COMMUNITY BASED APPROACH TOWARDS DISASTER MANAGEMENT

There has been a significant shift in attitude in addressing the challenges of disasters. For too long disasters have been seen as one-off events that were addressed through humanitarian response and relief efforts. For a few decades there was a clear move towards strengthening preparedness, and ensuring a more effective and efficient response which involving

of the community is must. This bottom-up approach is used to assess and develop policies that come from the efforts of the subordinate, the individual or of the people's problems itself (Howlett et al, 2003).

Community is a group of people living in the same place or having a particular characteristic in common. In details, community emerged as a group of people with diverse characteristics who are linked by social ties, share common perspectives, and engage in joint action in geographical locations or settings (Kathleen et al, 2001). Community must be involved and should

be encouraged to participate fully in all aspects of the process of disaster management in order to develop their potential and capacities to cope with disasters on their own.

Furthermore, Turoff et al. (2013), suggest that despite improvements in terms of planning and infrastructure spending, on balance the process of planning and mitigating disasters is subject to improvement. In this regard to improve disaster management, the following issues warrant greater attention: (i) need for proper modeling specific disasters within a given local community; (ii) call for greater collaboration between public, private sector and citizens in creating disaster management systems are more robust (iii) designing systems that bring together both citizen and public sector agencies across the different phases of a disaster.

There are various advantages when communities are well-prepared and actively participate in any disaster events. A well-prepared community has the ability to provide immediate assistance and aids in any disaster event. The first 72 hours of disaster is the most critical time. In catastrophic incidents, bringing in outside assistance during this period is difficult, hence, the most effective responses from those who are closest to the scene (Carafano et al., 2007). This is where the community acts as the ‘first-responder’, helping not only oneself and the family but also the closest neighbour, especially those who are seriously affected and vulnerable members of community. This only can do if the community is highest awareness and well-prepared community.

Another benefit is, involvement of community in any disaster event helps to provide detailed information on the affected area. The community which has been living in the area usually has detailed information on its members and the surrounding area. Thus, the participation of the community in disaster response helps to determine priority needs and culturally appropriate interventions for the affected community. At the same time, the community can help to actively engage people to work for their community’s own rehabilitation and development (Azrina, 2016).

II. CONCEPTUAL FRAMEWORK

A. Disaster

Disaster is a sudden, calamitous (www.ifrc.org/.../disasters/what-i), distressing, or ruinous effects of a disastrous event (such as drought, flood, fire, hurricane, war etc.) *European Journal of Research in Social Sciences* Vol. 4 No. 2, 2016 ISSN 2056-5429 Progressive Academic Publishing, UK Page 24 www.idpublications.org [www.businessdictionary.com/.../disaster...] that cause serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources (https://en.m.wikipedia.org/wiki/Disaster).

B. Disaster management

Disaster management is a process of getting prepared to improve the impacts and to mitigate the risk of disaster involving emergency operation and rebuilding the society after the occurrence of devastating disaster (Tan, 2009). It is associated with various factors and it is obvious for us to have good understanding about the disaster. According to Ariyabandu (2003) describes the concept in the following manner:

“Hazard is defined as the probability of the occurrence of a dangerous phenomenon at a given place within a given period of time. ... On the other hand, vulnerability is defined as the degree of susceptibility to a hazard, or the lack of capacity to absorb the impact of a hazard and recover from it.”

Hazard is always not disaster but when the structural and non-structural infrastructures of affected area are too dilapidated to cope with these risks then hazard turn into disasters. Basically, hazard like flood, cyclone, drought, tidal wave etc. are meteorological risk (Bhatti, 2003) but according to UNDP (2007) this type of hazard get the shape of disaster when vulnerable populations do not have the capability to combat it and who are unable to cope with it.

C. Community-Based Disaster Management (CBDM)

The government alone cannot and will not be able to properly manage and handle all types of disasters with

its machinery without active participation by the people of any country, a common theory given by policy makers, experts and professionals. Failures of top-down effective disaster management approach to reduce the risk of disaster are the evident of that notion. As a consequence, numerous scholars and stakeholders feel that it is high time to adopt a new strategy that will involve vulnerable people directly in the planning and implementation of mitigation, preparedness, response, and recovery measures because communities are the best judges of their own vulnerability and capable of making the best decisions regarding their well-being. This philosophy, involves local level people, leaders and community to provide necessary services and logistics to their victims during and after disaster has been encouraged both in the developed and developing countries and launched the generation of Community-Based Disaster Management (CBDM) strategy.

D. Emergency response

Emergency response includes the fundamental services and activities that are undertaken during the initial impact or in the aftermath of a disaster including those to save lives and to prevent further damage to properties (Bhatti, 2003; Kreps and Gary, 2006; Kapucu, 2008).

E. Vulnerability

Vulnerability refers to a set of prevailing and consequential conditions that adversely affect the ability of a person, group or community to prevent, mitigate, prepare for and respond to hazardous events and recover from impact of natural hazards (Bhatti, 2003; O'Brien et al., *European Journal of Research in Social Sciences* Vol. 4 No. 2, 2016 ISSN 2056-5429

Progressive Academic Publishing, UK Page 25 www.idpublications.org 2006) which is related not only to physical factors, but also to a range of social, economic, cultural and political factors (Ariyabandu, 2003).

F. Preparedness

Preparedness is a broad term that covers the activities designed in foresight of a disaster to ensure that appropriate and effective action is taken earlier to cope with the disaster and to abate the loss of lives and properties. These measures include the disaster plans,

the training of responders, the maintenance of human, material and financial resources and the establishment of public education and information system (Kreps and Gary, 2006).

G. Prevention

There is an old adage that “prevention is better than cure” that includes the measures taken to impede the occurrence of a disaster. Notwithstanding, it is not possible to prevent the occurrence of natural disasters fully but the extent of its damages can be reduced (Ahmed, 1994).

H. Recovery

Getting back of something that has been lost during the occurrence of any odd situation is called recovery (Hornby, 2000) but in disaster management it refers to the activities that are taken after the initial impact to develop socio-economic and environmental conditions that are demolished by disaster for achieving normality (Kapucu, 2008), that is, disaster recovery activities are related to the reestablishment of pre-disaster social and economic routine provision of financial and other services to the victims and to repair of destroyed properties (Kreps and Gary, 2006).

I. Mitigation

Minimization of the destructive effects of hazards and lessening the magnitude of disaster through some meaningful activities that can occur before, during and aftermath of disaster and overlap of all phases of disaster management is called mitigation (Fernando, 2001).

In brief flood, cyclone, drought, tidal surge, tornado, cold wave, river erosion, arsenic contamination of ground water is acquiesced as disaster when it turns into hazardous event and affects a certain territory and the affected people of that area who are not able to cope with it. On the contrary, disaster management is considered as an approach that combines prevention, preparedness, mitigation, emergency response and recovery to cope with hazardous situation created by above-mentioned natural hazards. *European Journal of Research in Social Sciences* Vol. 4 No. 2, 2016 ISSN 2056-5429

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J. Community – Base Risk Management

Yordmani (2001) defined CBRM as an approach that reduces vulnerability and strengthen people’s capacity to cope with hazards, which seek to 1. Reduce vulnerabilities and increase and increase capacities of vulnerable groups and communities to cope with, prevent or minimize loss and damage to life, property and environment 2. Minimize human suffering and 3. Hasten recovery.

K. Flood Disaster

Flood according to Macmillan English dictionary (2007), describe flood as a situation where water covers the dry land and water rises to its edge and covers the land around it. It is also a situation where there is a lot of more water than usual and may rise up over it onto the land and one of the causes of flood is raising sea levels and disruptions in weather pattern. Court (1990), states that whenever flood occurs, creates disastrous situations. Also, climate change causes flood, which is the scenario today and it is resulting fear in most river side communities because it’s becoming difficult to predict locally. According to the Encyclopedia of Wkipedia (2009), a flood or deluge is an over flow of water that submerges the land and can be riverine, estuarine, coastal, and catastrophic or muddy in nature. Flood occurs under varied environmental situations. For instance, it is a fact that from time to time, an ocean can literally trespass its natural boundary hence submerging or flooding adjoining areas. Existence of marine features or deposits in continental ares is confirmation or a proof that such features must have been formed during transgression, but came to lime light after the ocean had regressed.



Figure 2 Picture of a submerged area of Asaba – Delta state Capital

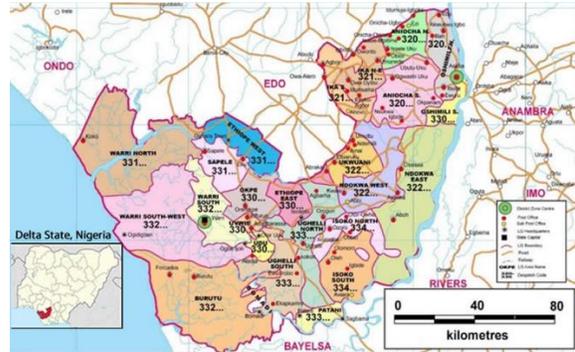


Figure 3. Demographic Map of Delta State

III. MATERIALS AND METHODS

This study provides a case analysis of Delta State Capital, Asaba and its communities suffering from effect of flooding, the management and communities and government efforts to cope with the hazard. Relevant primary and secondary information’s such as focused group discussion, news from media houses, journals, other literatures and projects, Newspapers as well as oral interviews with Victims were adopted to evaluate flooding since 2012 Delta state flooding disaster.

Participatory methodology (PM) is suitable, being a direct and all-inclusive approach; the victims were reached for interviews and on the ground analysis of the problems of the study. According to Chambers (2010), current development thinking and practice have diverged into two clusters, with procedures associated with the paradigm of things imposed by powerful actors and organizations intension and contradiction with participatory methodologies (PMs) associated with the people. PM combine methods have proved increasingly versatile and adaptable to contexts and purposes. For our purpose we explore the “paradigm of people” as a recommendation to resilience.

Secondary data sources included authoritative reports from National Emergency Management Agency (NEMA), UNEP reports, newspapers, magazines, reports and documents published by government and non-governmental organizations. Focused group discussion held at Asaba- Ase out of 106 Delta State communities submerged as flood killed 12 victims and destroy houses, residents described the flood as

unexpected and a big surprise therefore call for government help.

President general of Isoko Development Union, High chief Iduh Amadhe who was interviewed at Ekregbesi community in Uzere Kingdom confirmed surprise for the life-threatening danger and appeal for urgent intervention from the state government.

In Okon clan near Asaba, heavy rainfall also destroyed several houses in Asaba and six communities within the clan.. Barr. Chuks Greatman reported in Orient daily sept.29, 2020 regretted that the entire Oko Clan have been submerged and saying that “Oko Communities are mainly farmers, and many have been trapped in their houses and they swim in water. He however appealed to the government for aid because the community has been destroyed and their properties swept into River Niger.”

Delta Broadcasting Station, DBS also reported that parts of Asaba, the delta state capital was also submerged following a heavy down pour which lasted for over six hours and caused gridlock on Okpanam road, DBS road, SSS road and West end were heavily flooded, cutting off the Asaba shopping Mall. The media also reported that the drainage being constructed on the Okpanam road was over whelmed by the flood and led to the collapse of parts of the fence of the State Broadcasting Station (DBS), ALSO CUT OFF State Police headquarters and Okpanam Village from the Asaba metropolis.

Sunday Vanguard sept.29, 2020 also reported that commercial activities suffered setbacks as many businesses, including supermarkets and stores were forced to close.

DBS media reminded communities’ severally as early warning on the prediction from Nigerian Meteorological Agency, NIMET on the flood stating “the much talked about and predicted flood by NIMET has come again stretching its ugly hands on some coastal communities in Nigeria and Delta State is not spared as one of the 11 states predicted to be affected by flood.” DBS also reported that “ Delta State recorded the first flood victim as an 11- years old child was drowned in Okpai Community in Ndokwa west. The commissioner for information, Mr Patrick Ukah

confirmed that some affected areas included Ndokwa East, Oshimili south, Brutu, Ughelli south, Patani and Bomadi.”

DBS media reported that Ovwodokpokpo in Igbide ,Uzere, Oleh and some parts of Agbarharo were not left out as the torrential rainfall turned major roads of Oleh, Uzere, Agbarharo – Otor and Agbarho to look like a flowing river despite the fact that the river banks are far away.

Akpoborie I.A.et al (Arch.Appl. Sci-Res., 2011.3(2) : 537 – 538). Literature stated that regional water flow in the combined alluvial deposit/ Ogwashi; Asaba formation first aquifer is generally down gradient from west to east towards the Niger River. However, a major distortion in flow is already occurring. This distortion appears to be centred on the location of Asaba Alluminium in the west end area and stretches west wards to the general Hospital and Asaba Stadium. Northwards, it also includes the locality of the Delta Television station and the Offices of the Federal Ministry of works.Heavy abstractions in these areas appear to have reversed the gradient such that the flow is now from east, the Amilimocha River and the River Niger towards Asaba, thereby washing away top soil inform of erosion and depressing water level and increasing water influx from River Niger thereby enlarging Asaba flood plain.

Evidence from previous studies on flood hazard shows that unpredicted distribution of rainfall, both spatially and temporary, makes flooding a continuous threat. However, other schools such as Ologunorisa Adeloje and Rustun, Alayi et al have argued that flooding in community/ Urban area is not just related to heavy rainfall and extreme climatic event but to changes in the builtup areas themselves. It was observed that flood increases in spatial extent and frequency due to human activities in both the up and downstream which in most cases resulted into greater flood damage of properties located on the flood plain section of the River systems.

Climate change, Poor community/Urban planning/Enforcement,improper drainage systems, poor waste disposal, excessive rainfall and excess water released from upstream dams have 132 been identified as some of the major causes of flooding in

several developing regions (Olayinka et-al, 2013, Nkwunonwo et-al, 2016) unique management measures are required depending on the flood type /cause. Niger Delta is particularly at risk from sea level rise because of low elevation over extensive areas. The risks are also high because erosion and flooding are widespread and severe in many areas (Olounorisa, 2004).

Rainfall intensity, duration and amount are generally believed to be the principal factors in most flood events in the tropics which are partly or wholly climatological in nature (Ayoade, 1988). Other factors only aided the incidence of flood in communities/urban areas of Nigeria. This has been confirmed by several studies (Oriola 2000:2004; Daily Trust 2007).

Assessing flood risk; analysis must be conducted by the product of vulnerability and flood hazard of each element at risk. Flood risk can be written as Risk = Vulnerability x Hazard. Depth of inundation is the main determining parameter in defining the flood hazard and its vulnerability; assets in areas at risk were considered as well (Apel et-al, 2009).

The Flood risk is an analysis conducted by the combination of hazard and vulnerability (Apel et-al, 2009). Ologunorisa (2004), has proposed the relationship between risk, hazard and vulnerability as Risk (R) = Hazard (H).

Journal of Architectural Engineering technology authored by Warebi Gabriel Brisibe, published April 22, 2020 focuses on the adverse effect of flooding. Flooding occurs as a result of incessant rainfall, overflowing of Rivers, storms and hurricanes, sea level rise and increased ground water. The four main sources of flood risk includes : Fluvial or River flooding, Coastal Flooding, Surface water flooding and ground water flooding. The author further states although it may not yet be possible to prevent all flooding and coastal erosion from taking place but with effective adaptation, transformation, mitigation and risk management methods on adverse effect of climate change that directly impacts the built environment and for which adaptation for resilience is crucial, government standards and regulations as depicted in building codes and planning laws mainly

focused on more general issues related to building designs should be more adhered to.

Community participation is the most effective elements to achieving sustainability in dealing with natural disaster risks. The prevention of occurrence of the natural disasters influenced by natural causes may be impossible but it can be reduced by proper planning, management and human collective participation.

A. INTERVIEWS AND OBSERVATION

Flood victim Uche Eziezie interviewed said government has been warning them to relocate while no provision on where to relocate to and they had nowhere to go hence; they decided to accept what have been available for them to remain in the location. Also his wife Mrs Uche Eziezie cried aloud of their losses and request the government to build small permanent houses at up land as assistance to them.

Another Victim , a mother with a two months old baby interviewed commended government for quick intervention but urge Ministry of Health to assist them with drugs and other things that will prevent them from contracting diseases.

Observation showed that government has abysmally failed to explore proactive measures in tackling perennial flood in some disaster prone area. Also no matter how government will provide relief materials , it cannot salvage the suffering dwellers of the affected communities.

Communities chiefs and elders also interviewed at Okpai said despite warnings from experts on flood disaster most government Officials are insensitive in proffering solutions and that the problem is that Nigerian leaders do not know how to curtail impending disaster; its occurrence has overwhelmed or over stretch them.

Southern Voice newsorg.com Reported that Delta community residents lives in fear, as erosion swept over 50 houses. Reported by Godwin –Maria Utuedoye. He also reported that fear, tension and anxiety has enveloped residents of Abari community

in Patani local government area of Delta state over erosion which possess grave threat to the community. Also reported is “ At National Assembly , the communities are represented by one of the longest serving senator in Nigeria, senator James Manager as well as one of the longest serving Honorable member in the house of Representatives Hon. Nicholas Mutu; both at different times has headed NDDC as Chairman; ironically, their presence over the years did not reflect in Abari community as resident alleged that projects linked to them by government are often abandoned.

In one of the government entourage visitations To Mr Abraham Zituboh, community Chairman by politicians, angry youths made this comment “Una don’t come again, bad people, every year una go come with una camera, yet una no fit do anything. E go red for una one day, the visible angry youths stated.

B. With several persons displaced and living in temporary camps, their daily subsistence has been a challenge.

An observer on the allocation of the relief materials provided by the Niger Delta Development Commission (NDDC) said, “We are not satisfied based on what the masses are facing in the hands of those feeding us. They are mismanaging the relief materials that are given to them; even though government supply those things in quantity; they economise them,” one of the victims complained. The representative of the Agency, Prof. Aminigo advised the people to always cooperate with those managing affairs in the camps, noting that the materials donated by the agency would go a long way to ameliorate their plight. The materials were provided in most affected communities in the various Niger Delta states’ (Sahara Reporters, 2012).

“Flooding in the oil rich Niger Delta, has disrupted oil production to the tune of around 500,000 barrels per day (bpd)– more than a fifth of nation’s oil output according to the Department of Petroleum Resources” (Sahara Reporters, 2012).

Managing the issue has been a complicated affair for both the victims and the governments of the region. Most of the camps established for the Internally

Displaced Persons (IDPs), could hardly contain them, others are not in good habitable conditions. The temporary camp has been described as worse and could lead to outbreak of diseases as most of them are over-stretched.

Sahara Reporter , 2012 also stated that hazards such as flood, drought, fire, war, environmental insecurity and displacement to mention but are few have been major threats to all most all communities in Delta State but worse of is Asaba, the state capital. as well as Disaster management and risk assessment of selected area of study namely; Asaba, Asaba – Asa, Oshimili south, Okpai community, Okpanam, Okon, Urhrobo and Isoko communities.

Information reveals that victims despite early warnings decided to stay for they were not having other alternatives, government been overwhelmed and failed to explore proactive measures in tackling perennial flood in some disaster prone areas as well as inadequate risk assessment. Also, the warnings of climate change on flood disaster issued by experts to government are been ignored or insensitive in proffering solutions to the effect of the flood. The prevention of occurrence of natural disaster influenced by natural causes may be impossible but it can be reduced by proper planning, management and human collective participation. This paper has suggested some few points that will help communities and government to mitigate or reduce the risk to resilience.

IV. SUGGESTIONS / RECOMMENDATIONS

Moreover, the community-based approach to disaster management becomes important due to the following shortcomings of the present system:

- The same plan, regardless of the regional characteristics, is implemented or imposed everywhere.
- Local knowledge, experiences, skills, resources and techniques are not given due importance. Rather external resources and techniques are proposed to be utilized.
- Negligence about local cultural instincts and heritage.
- Prioritisation is decided by an outsider and not the stakeholders or the community itself.

- Local community does not have any information about the disaster management plans for their area and the role of different sectors in helping the community during disasters.

Adaption is the next step after having the ability to resist. It includes measures that deal for longer periods with hazardous processes impacting the communities. Taking the example of the wall embankment and the ability to resist by using sandbags to heighten the wall, the permanent heightening with concrete would be the adaption. Nevertheless, strategies to adapt still focus on the handling of symptoms. If a community has the knowledge to implement strategies solving the driver that pressures on them they have reached the most sustainable type of resilience: the ability to transform.

Transformation includes the knowledge on reasons and triggers of processes that affect communities in their housing area. However, the ability to transform is defined as a 'two - way - knowledge'. At first the ability aims to reduce or even eliminates the driver, which means, in the example of a wall embankment, to be safe against flood. This would not be an adequate strategy of an ability to transform. For that, the strategies must aim at the reason for the flood itself, and if this is not possible a resettlement in an area not prone to flood could be a second way of transformation. So the state of transformation is surely the most sustainable one and a goal every community should try to achieve.

To sum it up, all communities within the research areas have the potential to create or enhance urban resilience. Nevertheless, although they evaluated their own socio-economic strategies as positive and useful, there are huge differences, despite their close proximity. The main challenge is to make those strategies which are suitable for the respective community more sustainable and holistic. A resilient community development requires strategies for disaster response and preparedness and strategies to benefit from socio-economic processes on an urban scale.

GkToday- Current Affairs Nov..2020 States as follows:

C. Advantages of Community-based Disaster Risk Management

- Feelings of coordination and self-belonging to the society are developed.
- Local geo-climatic and socio-cultural characteristics get attention of the people in development and disaster management.
- Local initiatives begin and community provides assistance to the executing agencies involved in disaster management.
- There is exchange of knowledge, information, skills and techniques between the community and the experts involved from outside.
- Community comes forward to put forward its ideas for selection of appropriate programmes suitable to their locality and society.
- Community can monitor the quality of works being done in its locality. It will also generate a sense of responsibility among the community.
- It will lead to capacity building of the community on issues of disaster-safe developmental activities.

D. Bottom-up Participatory Approach

Every community has members who can be ignorant of events around them especially when these events do not affect them directly or more frequently. This type of attitude can also be gradually changed by involving members of the local community in decision-making processes such as planning national disaster management plans or even designing awareness programmes.

This bottom-up, participatory approach can make community members more receptive of new knowledge and information presented to them. Local residents who speak or understand their native language only may be hesitant to accept non-native people conducting education and awareness programmes for them.

One of the viable approaches in mitigating the Asaba environmental degradation is a bottom-top approach rather than the traditional top-bottom approach. Policies should be made and executed at the three levels as follows: At the local level, where planning is brought to the grass roots through public enlightenment programs, public participation needs to

be effected by regular consultations between state and local governments, stake holders, religious leaders, community groups and Non-Governmental Organizations (NGOs). The local government authority should provide action plans for public/private partnerships in the delivery of prioritized urban basic services and facilities. Monitoring of development through effective British Journal of Environmental Sciences Vol.4, No.3, pp.17-33, August 2016 ___Published by European Centre for Research Training and Development UK (www.eajournals.org)

E. Stakeholders in Community Based Disasters Management

An effective and successful community-based approach in reducing disaster risks is often attributed to the spontaneous participation and involvement of the following stakeholders:

- Government
- Non-governments (NGOs)
- Regional and International Organisations/Donor Agencies
- Local governments / Municipalities / Zilla Parishads
- National/Local Organisations (youth groups, schools, etc)
- Community workers
- Trainers
- Disaster Managers (Local and National)
- Policy Makers
- Grass-roots people/Religious Denominations

There is a need for coordination in the Community-Based Approach among all the stakeholders.

CONCLUSION

Disaster Management in Delta State is an important phenomenon for sustainable and meaningful development as Delta State Capital Asaba and its communities is a natural disaster prone area by its geographical location. Government alone cannot cope with the disaster for this need community participation with their opinion and ensuring participation in every stage of policy cycle, emerged on the backdrop of dominant approach though it is very difficult to predict the impending danger and the socio-economic conditions and the logistics support facilities. But

there are some problems related to community participation which must be solved by social workers as they have extended networks in communities, they are familiar with community resources and potentiality of local leaders and are equipped with necessary knowledge for addressing complex situation resulting in emergency at local and national levels (Mathbor, 2007). Because of climate change more trained as well as devoted social worker need for post disaster situation. Moreover the government has to allocate more funds in disaster management sector, government Officials have to give-up bureaucratic attitude and have to be more people friendly to make CBDM program a success(Hossain,2012). Nonstructural measures should be enhanced (Mirsa and Mathur,1993) for flood management. Weather forecasting and warning system should be adequately planned and timely done. For this need expert and trained personnel which can be generated by training on regular basis. Seminars, consultations and public discussions are necessary tools for providing education and counseling service. Giving emphasis on building more strong infrastructures for shelter during disaster. At the end, it is urgent to bring disaster prone areas under feasible communication system for the reduction of disaster period losses and gradually become resilience.

REFERENCES

- [1] Adishakti, L. 2008. Community Empowerment Program on the Revitalization of Kotagede Heritage.
- [2] Badan Pusat Statistik. (2015a). Percentage of Urban Population by Province, 2010-2035.
- [3] Dennis K, Niang-Diop I, Nicholls R (1995). "Sea level rise and Senegal: potential impacts and consequences". J. Coastal Res., special issue 14:243-261.
- [4] Ackerman, B. (1971); Regulating Slum Housing Markets on Behalf of The Poor. Journal of Scholarship Series Paper, Vol. 12, (9) 217-219.
- [5] Agbola, T. & Jinadu, A. M. (1997). Forced Eviction and Force Relocation in Nigeria: The Experience of those Evicted from Maroko in 1990. Environment and Urbanization Vol. 9(2) pp 271-288.

- [6] Aka, E.O. (1993). Town and country planning and administration in Nigeria. ed. Kurt M. Campbell, pp.213–223. Washington, D.C: Brookings Institution Press.
- [7] Alabi, J., Okunola A., Dabara I., and Odewande A. (2012). Principles of Property Development and Management. Lagos: Aseda Publishing Inc.
- [8] Alagbe, O. A. (2005). Combating the challenges of rise in urban slums in cities in Developing World: A case study of Lagos State. Conference Proceeding on the built environment: innovation policy and sustainable development, held at CLR building, Covenant University, Ota between 23-25 June 2005.
- [9] Anazodo B. C. (2008). Slum Clearance and Urban
- [10] Adibe E (1994). "Weak States and The Emerging Taxonomy of Security in World Politics", FUTURES, June 4961-505.
- [11] Agbu I (2012). "Wiping Tears of Flood in Niger Delta".
- [12] Amadi L (2013). Climate Change, Peasantry and Rural Food Production Decline in the Niger Delta Region: A case of the 2012 flood disaster. J. Agric. Crop Res. Vol. 1(6).
- [13] Amadi L (2012b). Africa and Sustainable Environmental Health: Challenges and Policy Implications. International J. Health, Safety Environ. Manag. (IJHSEMR) 1(7):26-44
- [14] Amadi L (2012). Talking Right, Walking Wrong: Global Environmental Summits, Unsustainable Consumption and Environmental Engineering. Paper presented at the 3rd International Chemical and Environmental Conference (ICEEC 2012) 21-23 Dec Kuala Lumpur, Malaysia.
- [15] Awosika L, French G, Nicholls R, Ibe C (1992). The impacts of sea level rise on the coastline of Nigeria (O'Callahan, J. (ed.). In: Global Climate Change and the Rising Challenge of the Sea. Proceedings of the IPCC Workshop at Margarita Island, Venezuela, 9-13 March 1992. National Oceanic and Atmospheric Administration, Silver Spring, MD, USA, 690 pp.
- [16] Campbell K, Weitz R (2008). The clear implications of global climate change. In Climatic cataclysm: The foreign policy and national security implications of climate change,
- [17] Channels Television Report (2012) "Flooding: UN says Nigeria will need \$38 million in aid".