

COMMUNICATION AS CRITICAL FACTOR IN DISASTER MANAGEMENT AND SUSTAINABLE DEVELOPMENT IN NIGERIA

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ABSTRACT: *Disasters, whether natural or man-made have engendered widespread unimaginable destructions to lives and properties across the world. Floods, the most frequent and most devastating of all had, between 1971 and 1995 affected more than 1.5 billion people or 100 million annually out of which 318,000 were killed while more than 81 million became homeless. Nigeria which is the focus of this paper has had her fair share of this flood-induced tragedy. In what appears like an annual occurrence, flooding in Nigeria had resulted in the loss of many lives and properties worth billions of Naira perished apart from precipitating extensive social and economic dislocation. It has been acknowledged in the last two decades that, while disasters cannot be prevented, the impacts can be mitigated through effective and collective management systematically planned around timely sharing of disaster warning information among the disaster management teams and the vulnerable population. This is why this paper among others theoretically observed the various communication methods engaged in disaster management; evaluate the interplay of communication with other disaster management tools with the purpose of discovering their mutual roles in the four stages of disaster management. It verified whether these have contributed to sustainable development in Nigeria and lastly, recommended efficient collaborative measures that could minimise the risk areas and the potentially vulnerable communities.*

KEYWORDS: Communication, Disaster Management, Sustainable Development

INTRODUCTION

The origin of disaster dates back to the beginning of humanity and that explains why whenever the issues of disaster and disaster management are mentioned; they are usually discussed in relation to mankind and its environment. Over the years, there have been disastrous occurrences in the world some with marginal impacts while some others with enormous consequences. Disaster happens everywhere, it may be natural or man-made and when it strikes, it makes no distinction between developed and developing nations. From America to Europe and Africa to Asia, there is no part of the world that has not experienced one form of disaster or the other. The only difference is in the degree of impact it had on the

affected area and people, which is a function of the effectiveness of disaster warning system put in place. For example, Hurricane Katrina (2005) that caused severe damages worth US\$ 25billion and about US\$ 75billion in recovery recorded far less casualty than the Indian Ocean Tsunamis in Sri Lanka (2004) and Pakistan earthquake (2005). While Hurricane Katrina claimed about 1,604 lives and 2000 missing in New Orleans, Sri Lanka lost about 38, 195 and Pakistan lost about 100,000 people respectively(<http://news.bbc.co.uk> ; <http://www.cbsl.lk>; <http://www.nhc.noaa.gov>).

The disparity in the above statistics illustrates two important facts. The first is that there was efficient disaster management system put in place in America than in Sri Lanka and Pakistan hence the minimal effect the disaster had on human lives. The second is that human community is daily susceptible to danger and hazardous situations but according to Samarajiva et al. (2005), this may not necessarily result in disaster if adequate disaster warning signals are promptly sent to the vulnerable population.

Within the last two decades, the issue of climatic change and its attendant impacts have prompted increased attention from scientists, environmentalists, disaster management experts and governments and for which several conferences, seminars and workshops have been organised in order to proffer workable and efficient solutions on how to tackle the problem. Climate change which FNC (2003) defines as a sudden shift in the average weather condition experienced in a particular region over a period of time has been identified as the cause of heightened frequency and intensity of widespread disasters such as tropical cyclone (hurricane and typhoons), floods, droughts and desertification, erosion and landslide (Copeland, 2013; Etuonovbe, 2011; Oladapo, 1993; FEPA, 1998). Besides, climate change also produces extensive socio-economic dislocation in the world in a way that impose great strains on water resources, agriculture and food security, human health, terrestrial ecosystem and biodiversity (Kolawole et al., 2011).

Although, Nigeria which is the focus of this study had experienced various degrees of disasters over the years of which flooding and epidemic are the natural ones, others, such as air or road mishap, oil spillage fire outbreak, and terrorism are man-made and are avoidable. In most cases, whether natural or artificial, Nigeria has always been caught unawares because there had not been any efficient disaster management system in place and as such each time disaster struck, it usually resulted in significant human and economic losses to the state. Flooding which is the most recurring disaster in Nigeria is usually caused by either climatic or non-climatic factors thus leading to river floods, flash floods, urban floods, sewage floods, glacial lake outburst floods and coastal floods (Collins and Sampson, 2007). In the history of flooding in Nigeria, the worst experience was recorded between July and October 2012 when 363 people lost their lives, 2.1million people across ten states were displaced and 18, 282 were injured (NEMA, 2012). Similar unfortunate experience befell the ancient city of Ibadan in August of 2011 when scores of lives were lost and properties worth N20billion were destroyed. The yearly recurrence of flooding in Nigeria with disastrous consequences serves to illustrate the country's ill-preparedness and lack of efficient disaster management plan by the government and the appropriate authorities. Particularly, communication which is an essential part of disaster management techniques has been observed to be inefficient

otherwise the people should have learnt their lessons from repeated calamities and avert it if they were adequately informed.

This is why this paper among others, will theoretically observe the various communication methods engaged in disaster management, evaluate the interplay of communication with other disaster management techniques with the purpose of discovering their interactive roles in the four stages of disaster management; discover how these have contributed to sustainable development in Nigeria and lastly, make recommendation on efficient collaborative measures that could minimise the risk areas and potential vulnerabilities.

EXPLANATION OF KEY WORDS

Communication: Generally speaking, communication is an indispensable tool in the daily transactions among human beings and particularly, it has been recognised as one of the critical requirements in communicating disaster and emergency situation to all stakeholders in disaster management process while promoting timely understanding of the issues at stake among the vulnerable population. This explains why, in this paper, communication will be seen as the gathering, processing, storage, retrieval and transmitting of disaster related information to individuals and group of susceptible people who need them to take immediate action so as to pre-empt and mitigate a potentially disastrous situation (Samarajiva et al. 2005; <http://www.preservearticles.com/201101143264/>). Disaster communication which is the nucleus of this paper can be divided into two distinct parts namely: the mediated or mass communication and the organisational communication. The mediated communication is particularly unique in that its performance is aided by modern satellite and broadcasting technologies and this is why it disseminates mass information simultaneously to heterogeneous audiences far and wide at an incredibly fast speed. The organisational communication on the other hand is the sharing of hazard and emergency information especially among the disaster management groups which include, fire service, police, government and non-governmental agencies as well as the vulnerable communities that are prone to disasters. The important fact that must be stressed is that both mediated and organisational communications work interdependent of each other to enhance shared performance at the various stages of disaster management process.

Disaster Management: The concept of disaster management cannot be meaningfully explained without first isolating 'disaster' for proper clarification. According to CBSE (2006), disaster is a sudden natural or man-made situation capable of engendering widespread human, material, socio-economic and environmental destruction far beyond what the affected communities can cope with.

Globally, the human and economic losses resulting from disaster are usually manifold and complex as it hardly spares any sector. According to Collin and Simpson (2007), between 1971 and 1995, floods which is the most frequent and worst of all disasters had affected more than 1.5 billion people or 100 million annually with 318,000 killed and 81 million becoming homeless. While commenting on the devastating impacts of natural disaster, Miller (1999) notes that flood alone contribute to about 39 percent of global death within the same period. It has been observed that disasters impair greatly on the health condition of the people,

deepen global poverty level as a result of damages to businesses and agricultural products. Besides, disaster causes accelerated decline in gross domestic product because a significant percent of annual budget that should have gone into new investment and recapitalisation of existing ones are usually channelled into reconstruction, provision of relief materials, remediation and sometimes compensation and relocation and sustenance of disaster victims (Planning Institute of Jamaica, 2012). It has also been observed that disaster-induced instability brings about mass migration of people from the affected nation to another where they believe they are more secured. Such movement on one hand often leads to loss of cultural identity of many migrants as well as put strains on available human resources and production capacity and in addition; it boosts the production and revenue generation capacity of their country of domicile.

Giving the above backgrounds therefore, when disaster occurs with widespread impacts, it is not unexpected that the affected communities might be compelled to seek assistance from government and international agencies. This is where disaster management becomes pertinent, to respond to adverse situations that overstretch the resources available to a community to cope with the adverse situation. As a management concept, it is a process of attending to negative circumstances by governments, humanitarian agencies and individuals working together to reduce the potential losses resulting from disaster situation by developing policies and plans that can mitigate the effects, prepare for disasters and outline the procedures involved in responding to the victims in order to ensure quick recovery from the impacts (Srinivas, 2006; Warfield, 2008). Against the above backdrop, four major basic steps are involved in the disaster management process. These include mitigation, preparedness, response and repair. Due to its systematic nature, managing disaster cannot be executed haphazardly but must be done consistently by strictly following management principles of planning, organising, coordinating and controlling in order to produce the desired effects (Khan and Khan, 2008).

Sustainable Development: The concept of sustainable development according to Aluko (2004) originated from the 1987 report of the World Commission on Environment and Development (WCED). The report titled “Our Common Future” exposed the cunning deception embedded in the developmental projects often brandished by many governments around the world especially among developing nations which tend to leave a considerable proportion of the population poor and vulnerable and yet degrading the environment. WCED therefore concluded that there is the imperative necessity of designing a new development pathway that focuses on the people’s need not just for few years in few places but globally and for distant future. It also argues that long term economic development and environmental protection against natural and artificial disasters are inextricably intertwined. In view of the above explanations, sustainable development according to Odigie and Orobosa (2008) citing Niger Delta Human Development Reports (2006) is a development that is human centred, pro-poor and pro-nature, pro-jobs, and pro-women; it emphasises economic growth that render quality life to significant population while securing the environment and guaranteeing empowerment with equality.

THEORETICAL FRAMEWORK

This study aims to identify the interplay of different communication channels with disaster management principles purposely to mitigate the disaster impacts on the vulnerable population. Against this background, the study will be premised on agenda setting theory by McComb and Shaw (1973) and social responsibility theory by Siebert et al.,(1963). Agenda setting theory presupposes that the salient public issues which most people know about are those which the mass media bring to the public domain. Similarly, the importance which the public attach to those issues tends to be proportionate to the amount of attention the media give to them by selecting and devoting more space and time through headlines and pictures display (Folarin, 2005). From the foregoing, it can be deduced that the more comments and reports in form of news, editorials, features, investigation and analysis on environmental disaster by the media, the more awareness and actions it provokes and invariably the level of attention paid to those issues by the communities that are prone to disaster. According to Dominick (1996), the freedom which the constitution and the society confer on the media under the social responsibility theory demands corresponding responsibilities of the press to the society where it operates by adequately reporting balanced news on public affairs, providing surveillance role (watchdog) on the government while reflecting the society's plurality and giving voice to the voiceless. This theory can be explained within the context of section 22 of the 1999 Nigerian constitution which places on the media the responsibility of effective coverage of issues of public interest especially those which may constitute serious threat to the society's wellbeing. Since environmental disaster falls within the ambit of this constitutional directive consequently, in the remaining part of this study; we shall observe how well the media have functioned within the aforementioned theoretical principles to complement the disaster management techniques in order to avert disaster or mitigate the impacts on the vulnerable communities.

Disaster Management and Communication Technology: Nigeria Perspectives

Over the years, disaster management experts have acknowledged the significant roles of communication and modern technologies in minimising disaster impacts on vulnerable people. Communication is seen as the nexus that anchors the relationships among the four elements of disaster management namely: mitigation, preparedness, response and recovery. In modern times, the evolution and advancement of information and communication technologies have increased the possibilities and efficiency of disaster management especially in the areas of prevention and mitigation of impacts (Yodmani and Hollister, 2001). Globally and particularly in Nigeria, the media of communication have witnessed tremendous improvement in terms of expansion, technology, coverage, personnel and managerial capability. The evolution of satellite technology has further heightened the opportunities and interoperability of both information and communication technologies thus, making the gathering, processing, storage, retrieval and dissemination of mass information from sender to receiver faster and more reliable than before (Owolabi and O'Neil, 2013). Both print and electronic media can swiftly transmit large volume of information courtesy of computer and satellite-aided technologies that have turned the world to a global village. It is also noteworthy the expansion of media industry as a result of improved literacy level, political awareness and apparent socio-economic advantages of mass media business such as

job creation, increase in the nation's GDP as well as serving the information needs of Nigerians. According to Wogu (2006) and Odeh (2007), there are 152 radio stations, 116 television, 116 television stations, 40 cable television stations, 143 newspapers and 25 magazines. Apart from newspapers, radio and television, the satellite technology has also given birth to internet, mobile phones, fax, e-mail and other newly emerging social media all of which have proved effective in information dissemination and prompt feedback mechanism. Besides, articulate women, charismatic opinion leaders, influential religious leaders, theatre groups and mobile cinema have been used effectively in rural communities as information channels to large rural populace (Wilson 1997 and Kalejaye et al., 2006). The interplay of traditional media channel with its modern mode has been supported by Lanahun (2003) who argued that considering the multi-lingual and multi-ethnic structure of Nigeria, both channels can be used together to produce mass effect. However, Yodmani and Hollister (2001) reason that effective application of these technologies independently or collectively to produce expected results depend largely on the existing social and economic contexts. Owolabi and O'Neill (2013) also agreed with this line of thought citing the example of print media which they argued may not make as much impact among the rural populace who are mostly illiterates; the same inadequacy is observed in television which may not be effective as message carrier to the grassroots where over 70% of the population live without access to electricity. Notwithstanding, in subsequent subsection, this paper will explain the emerging roles of communication in mitigation, preparedness, response and recovery stages of disaster management and identify the challenges that may limit its effectiveness.

The Role of Communication and Information Technologies in Disaster Management Process: Nigeria's Perspective

There is no way one can be discussing the word 'disaster', without mentioning its four elements which include mitigation, preparedness, response and recovery. Realising that the four are interconnected, communication serves as the string that binds them together. The interconnectedness therefore calls for well coordinated communication networking before positive results can be guaranteed at the end of the disaster management efforts. This explains why at this level; we will critically evaluate the roles and the challenges of communication technologies, professional skills and media channels in the disaster management process.

Disaster Management and Mitigation: This is the first phase of disaster management process which Warfield (2005) defines as every measure put in place by the disaster management experts before disaster takes place with the primary purpose of reducing the disaster impact on the vulnerable people as well as minimising the socio-economic consequences on the affected community. According to World Development Reports (1998), mitigation involves reviewing building codes, updating the vulnerability analysis, zoning and land use management and planning, reviewing of building use regulations and safety codes and implementation of preventive health measures. PAHO (2000) added that mitigation also entails educating the business communities on measure to take to diversify the line of businesses so as to minimise economic loss when disaster strikes.

Disaster Management and Preparedness: According to the World Health Organisation (2007), preparedness is a wide range pre-disaster programs that strengthens the personnel

capability, enhancing technical and managerial efforts of the governments, International organisations, non-governmental organisations, private sector, the media, scientific body and the disaster prone communities to satisfactorily respond to emergency and disaster situations. Preparedness process among others include planning, emergency personnel training, warning systems, emergency communication system, evacuation plan and training, resource inventories, emergency personnel contact list and public information (ISDR, 2008; Ulari, 2013).

Disaster Management, Response and Recovery: Disaster response and recovery are the overall immediate actions taken by government, agencies and disaster management professionals to meet the basic needs of disaster victims until more permanent and sustainable solutions are worked out (Warfield, 2008; Khan and Khan, 2008). The goals, according to VUSSC (2009) are to guarantee the survival of significant number, restore essential services as quickly as possible, repair and replace damaged infrastructure, reactivate the economic activities so as to prevent or minimise recurrence. Response and response activities consist of giving early warning to the people around the disaster prone areas, evacuation of victims, search and rescue, impact assessment, logistics and relief distribution, securing the affected area and people, rehabilitation and reconstruction (Hodgson and Palm, 1992; Stephenson and DuFranc, 2002; International Recovery Platform, 2007).

It is pertinent to reiterate here that the success of the four stages of disaster management process is dependent on efficient, clear and prompt dissemination of information not only among the disaster managers but more importantly to the disaster vulnerable people. According to VUSSC (2009), disaster communication can be divided into two parts for easy discussion. The first part includes equipment and technologies that facilitate free flow of information such as radio and television, telephones (fixed and mobile), short message service, cell broadcasting, e-mails, social media (face book, twitter, blog) and their satellites support system. The second aspect deals with the management and the process of packaging the information in other words, it involves the technical ability of *who* communicates *what*, in *which* channel, with *what* effect, *why* and *how*. This communication process was developed by Lasswell (1948), and Daramola (2003) refers to it as interrogatory model because it delineates the roles of individuals involved in the communication process. It is important to mention that the focus of this paper is not to critic the structure of the model but to use it as a framework to explain the process of communication in an emergency situation. In this circumstance, there is the source, the message, channel and receiver (SMCR).

Source: Emergency and disaster information evolve as warning or threat to a group of people at risk so as to prompt them to take appropriate actions either to prevent disaster or to mitigate the impact (Samarajiva *et al.*, 2005). As a system, disaster information (in form of warning) usually emanates from the government and such specialist agencies like National Emergency Management Agency (NEMA), Federal Environmental Protection Agency (FEPA) and disaster response officials whose statutory responsibilities are to ensure safety of life, property and environment. These agencies which are manned majorly by scientists and engineers generate their information from scientific findings based on the use of modern technologies (hardware and software) to store, retrieve, edit, map out, analyse, share and

display geographically referenced data otherwise referred to as geographic information system (GIS). Another tool used for obtaining emergency and disaster information is Global Position Systems (GPS) which is also known as Global Navigation Satellite Systems (GNSS) which can be used for tracking supplies or relief vehicle as well as monitoring the height of waves and volcano. Besides, the agencies also use remote sensing (RS) to acquire information about a phenomenon without any intimate contact with the object. Given that their operation is technologically based and scientifically proven makes their information very credible and this is why the government and disaster mitigation organisations are expected to establish and strengthen robust working relationships with the media in order to facilitate quick distribution of information to the expected users.

Message: How well the message is composed determines how it will be understood and what response it will generate. However, it needs to be emphasised that for warning information to achieve the desired results, it must be short, precise, unambiguous and timely (<http://annenbergnorthwestern.edu/pubs/disas/>). In Nigeria, the most common environmental disaster is flooding which frequently claims many lives and causes considerable degree of destructions to properties (Kolawole *et al.*, 2011). Generally, the causes of flooding in Nigeria could be natural (through heavy torrential rains/rain storm and ocean waves usually along the coastline) or man-made (during ruptured main water pipeline, dam overflow and blockage of major drainage system), thus Etuonovbe (2011) asserts that flooding sometimes is preventable and at other times it is not. Therefore, according to Ologunorisa (2006), the information to disseminate depends on the identified threat, the risk assessment of the hazard specifying the degree of probability of occurrence, the accurate identification of the vulnerable population, estimate of likely impact and the measures that can reduce the risk. For a nation like Nigeria that experienced repeated incidences of flooding, the disaster warning involves telling the residents of disaster-prone areas of the impending tragedy, the estimated cost to lives and property and the imperative need for them to take precaution if it could be avoided. There must be constant information sharing between emergency operation centres, emergency broadcasting systems and frontline emergency responders and the communities (Yodmani and Hollister, 2001). Particularly, the information managers must identify and communicate to the public past measures that proved successful or failed to mitigate the impact of natural hazard. For example, it must emphasise the urgency of relocating from the risky area and safeguard lives and property. Mitigating measures must be specified such as economic diversification. For instance, crops that are flood resistant such as coconut and palm tree can be introduced in the flood-prone areas while warehouses can be relocated to flood plain area far away from the factory; raising the foundation of houses as well as erecting concrete barrier to wall-off flood, construction of water channel while avoiding erecting structures across flood path, and blocking the flood drainages with wastes among others. In the opinion of Hodgson and Palm (1992), the hazard information must be able to sensitise the government to the need for political and legislative intervention where necessary, alerting relief organisations and the vulnerable population of necessary action. The message must create public awareness of the looming danger and must mobilise them by taking appropriate measures that can mitigate the impacts. IDNDR (2001) opines that disaster communication is expected to educate, warn, inform and enhance the stakeholders' efforts in

the disaster management process so as to take practical steps to secure lives and property from natural and man-made hazards.

Channels of Communication: In Nigeria, different channels are available for communicating disaster messages however; the effectiveness of the various channels varies depending on the nature of disaster, the region affected, the socio-economic status of the affected communities and particularly, the intended purpose of the message. It needs be re-emphasised that no one medium is all sufficient for this purpose, all are means to a common goal and any one can be used in combination with another to produce results. Although, the traditional electronic media, (radio and television) and the print media (newspapers and magazines) are very effective in communicating disaster warning to a large and diverse heterogeneous audience however, this is not without some drawbacks. For example, the newspaper and magazines cannot make much impact at the grassroots level where more than 56% of the population can neither read nor write. Besides, out of the literate audiences, about 30% cannot read English but indigenous languages. Notwithstanding, community newspapers can serve this purpose but the question is how many of such community –based papers publish in Nigeria? The same is for television that tends to be ineffective in reaching the rural communities where most of the 70% inhabitants according to Owolabi and O’Neill (2013), live without electricity. Though radio can be operated on battery but the people will still face the challenge of constantly operating the radio on battery because of its financial implication. What happen to information broadcast in the day or night when the radio and televisions are switched off for any reason? Another equally challenging condition is in how many languages will electronic media broadcast in a multilingual nation like Nigeria? These are what disaster information managers must take into consideration when sending out disaster warning. Depending on the target population, a combination of media channels may have to be used in certain situation to reach the target audience in order to produce mass effect (Lanihun, 2003).

In this modern day of advanced information and communication technologies when fixed and mobile telephones are commonly used by a significant population as dependable and efficient communication channels. Through telephone, quick warning messages can be sent by making calls and sending pre-determined short message service (SMS) to several people. The only disadvantage of this channel is the inability of many to access the message due to illiteracy level.

Disaster warning can also be sent through wireless mobile devices. Most Code Division Multiple Access (CDMA), Digital-Advanced Mobile Phone Service (D-AMPS) and Universal Mobile Telecommunications Service UMTS phones are capable of broadcasting for emergency purposes to hundreds of millions of people at no extra cost to both the sender and receiver.

Internet technology also plays very significant role in disaster warning especially in developed countries where almost every householder is connected to the facility. With this internet media, e-mails and instant emergency information can be shared among the government officials, professionals, first responders and disaster coordinating agencies and

many people as are connected to the technology. Notwithstanding, this medium equally has its inherent challenge in widening the gap between those with unlimited access and those whose access are limited due to economic, linguistics and technological constraints (Putnam, 2002).

Another noteworthy development from internet and satellite technologies is the advent of social media such as face book, my space, You tube, LinkedIn, Skype, Twitter, Blog and Micro blog etc through which disaster messages can be disseminated and feedback received immediately.

According to Wilson (1997) and Kalejaye *et al.*, (2006), besides the traditional mass communication organs and the modern satellite-aided media mentioned above, there are well-organized indigenous communication channels that can be used to disseminate information to a mass rural and urban populace in times of emergency. These include market women leaders, charismatic opinion leaders, influential religious leaders, trade union leaders, mobile theatre group and cinema.

Receiver: The process of communication is not complete until the intended receivers got the message and responded to it. How well the information is received depends on what information was sent, how it was packaged, the channels used and of course, the understanding ability of the receiver. The frequent manner at which flooding, the commonest disaster in Nigeria happen leaving in its wake several death and monumental devastation has provoked the questioning of the media role in disseminating vital disaster warning to the vulnerable population (Owolabi, 2013).

Communicating Disaster Information for Sustainable Development.

Since disaster communication is all about sending information about hazard or threat to a population at risk so as to prompt them into taking appropriate actions that can mitigate disaster impacts on their lives and property (Samarajiva *et al.*, 2005). Its success therefore depends on the audiences' perception of and belief in the expertise of the communicators, credibility of source, aggressiveness in presentation, consistency of idea and how persuasive the message is to the intended audience. Nigeria, a country where about 70% of the population including women, youths and children are living in abject poverty, the importance of discussing the issue of disaster management in relation to development cannot be over-emphasised. Failure to properly manage disaster in Nigeria due to inadequate information sharing among the stakeholders has contributed considerably to heightening of poverty level and sluggish development. Research findings have shown that the media in Nigeria has failed to sufficiently bring environmental issues and the danger it portends to the public domain. It has also not efficiently carried out its social responsibility roles of informing, educating and mobilising the public for actions that can engender sustainable development (Agboola and Hodder, (1983) cited in Akinleye and Ojebode, 2004).

Three factors have been identified as responsible for this disregard. According to Owolabi and O'Neill (2013) the Nigerian media have been battered and crippled as a result of economic melt-down that plagued several countries in the last one decade as a result of which most Nigeria media organisations are operating epileptically. The economic distress which

shrinks people's purchasing power yet, heightening the cost of production has made most media houses to struggle for survival and in many instances; it causes high mortality rate in the industry. Under this condition, there is often lack of funds to pay reporters' salaries and to mobilise them for event coverage. Sometimes too, media houses experience financial crisis to the point of not able to purchase needed spare parts, newsprints and other raw materials required for daily production, which oftentimes, hinder production and keep the medium off the newsstand. This may also explain why there has been continuous decimation of seasoned professionals in the media industry a situation that has led to consistent decline of professional standard. As a survival strategy, most media organisations often resort to serving their readers and listeners with soft sell stories of celebrities, showing foreign movies, playing every kind of foreign music, entertainment, human interest and gossips as against investigated hard news, features stories and analysis on critical issues of public interest like disaster management, poverty, environmental protection and sustainable development (Jacklin, 2005 cited by Usher, 2010). The above evidences show that Nigerian media did not consider environmental-related matter as major issue that can boost advertising patronage hence their sudden shift in editorial focus in favour of triviality while sacrificing public service or disaster communication on the altar of profit making (Adenekan, 2003).

Another factor responsible for giving little prominence to environmental and safety issues is what Okunlola (1996) describes as lack of specialised training for most reporters covering the beat which is largely responsible for lack of sound editorial judgement to discern timely, accurate and all important emergency life-saving messages that could avert disaster and minimise damages in vulnerable communities. While corroborating the assertion that most reporters are deficient in presenting their reports professionally, Akpati (1996) cited in Adenekan (2003) notes, for example, the 1995 flooding in Victoria Island, Lagos as a result of 'ocean surge' but which was wrongly presented as 'tidal waves'. A journalist with sound environmental reporting background ought to be able to differentiate between the two so as not to confuse reading and listening public.

One other important reason adduced for poor coverage of environment and safety matters is government bureaucracy and artificial bottleneck often created by government officials and disaster management personnel who are responsible for managing disaster information in Nigeria. According to Ochonogor (2008), most government policies and programs are usually conceived, planned and executed most of the times in the secret, far away from the prying eyes of the public especially media. This is because at every stage of executing the programs, corruption is usually built into the process, which expectedly, will normally attract media outcry. To safeguard the government and its officials against the media criticisms and public embarrassment is why the government officials prefer to hoard information from the media instead of seeing the media men as ally in disaster information management.

CONTRIBUTION TO KNOWLEDGE

This study has made some modest contributions to knowledge, which are worthy of note. First, it has been revealed in the study that the traditional mass media have suffered financial squeeze as a result of recent economic depression vividly illustrated by low circulation rate,

diminished advertising patronage, and escalated cost of production all of which combined to cause high mortality rate in Nigeria media industry. An industry experiencing mortality rate as witnessed in Nigeria can hardly communicate disaster messages effectively not to talk of contributing to sustainable development. Therefore, the media industry must be recapitalised to shore-up its capital base so as to be financially stable and be socially responsible to the society (Owolabi 2014).

Secondly, Nigeria as a multi-ethnic and multilingual society with over 250 languages (Omu, 2008) requires more than print and electronic media to effectively carry disaster messages to the rural communities many of which are the most vulnerable in times of ecological disasters. Therefore, in contemporary time of satellite technology and a wide range of information and communication organs, disaster communication can only be effective by using other media of information such as new media (face book, You tube, Internet, twitter, blog, computer multi-media and CD-ROMS), and indigenous media such as gong, town crier, opinion leaders, churches and mosque, theatre and drama groups among others.

SUMMARY AND CONCLUSION

From the above discussions, we can deduce two important facts. One is that the incidence of hazard does not automatically lead to disaster and two, although natural disasters cannot be prevented but their social and economic impacts on lives and property can be considerably minimised. This is because the last two decades have witnessed accelerated advancement in information and communication technologies, the proper application of which has brought about spectacular improvements on the four phases of disaster management. The technological revolution has made possible the timely identification of imminent disasters, detection of disaster-prone areas and communicating effective warning message about the threat to vulnerable communities in sufficient time to enable the residents take necessary measures to avert the negative impacts. While the developed nations have recorded significant breakthrough in disaster management, the developing nations, including Nigeria have not made much progress. In the last decade, there has been increase in the frequency of natural disasters especially seasonal flooding. Nigeria experienced the worst flood disaster between July and October 2012 when 363 people were killed, 18,282 were injured and 7.7million people displaced and properties including farmlands worth N20 billion were washed away by flood that affected ten states along the bank of rivers Niger and Benue (Reuters 2012). The fact that this disaster happens almost yearly around the same time with about the same degree of impact is a pointer to the fact that Nigeria is yet to key into the modern way of managing disaster information as to mitigate the disaster impacts on the vulnerable population. The recurring pattern of flood disaster with its attendant socio-economic implications may also explain why the Nigeria's development status has remained static and a large number of her populations, mostly women have been unable to break the yoke of poverty. Given the above circumstances, it is therefore the opinion of this paper that the following suggestions be considered.

- I. There is no mutual information sharing among the government, disaster management agencies, non-government organisations, the private sectors, vulnerable communities and the

media hence the frequency at which disaster strikes with its destructive impacts. This therefore calls for regular, routine pre-disaster contact among concerned stakeholders in order to foster readiness and mutual understanding of one another's working condition.

- II. The government and the disaster management agencies should commence the review of its environmental and disaster management policies and programs in a way that will collaborate with the mass media at every stage of planning and implementation of disaster management. This will enable them to recognize what they have in common, their differences, needs and how to collaborate to enhance each others' needs and efficiency.
- III. There is the imperative need for regular specialised retraining of environment and safety reporters on the latest trend in covering their beat. In view of the pathetic economic status of the media industry with regard to their expected social roles, NGOs and international agencies should provide supports inform of retraining, technical assistance and advisory information to upgrade the operational capabilities of the media.

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