

**MEDIA AND RISK REDUCTION IN DISASTER MANAGEMENT IN NIGERIA: A
STUDY OF “EMERGENCY UPDATE” PROGRAMME ON NTA AND AIT
NETWORK STATIONS IN KADUNA METROPOLIS**

BY

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**A PROJECT DISSERTATION SUBMITTED TO THE SCHOOL OF
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EZE COSMOS (PhD)

DECEMBER, 2018

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DECLARATION

I hereby declare that this research work titled “**MEDIA AND RISK REDUCTION IN DISASTER MANAGEMENT IN NIGERIA: A STUDY OF “EMERGENCY UPDATE” PROGRAMME ON NTA AND AIT NETWORK STATIONS IN KADUNA METROPOLIS**” was conducted by me as part of the requirements for the award of Master of Science Degree in Mass Communication at the Department of Mass Communication, Faculty of Social Sciences, Ahmadu Bello University, Zaria, under the supervision of Prof Suleiman Salau and Cosmos Ikeckwu Eze, PhD.

The information derived from literatures was appropriately acknowledged. This work or part of it has never been presented by anyone for the award of another degree in Ahmadu Bello University or any other institution in Nigeria or abroad.

.....

ABDULLAHI Ahmed Maiyaki

.....

Signature & Date

CERTIFICATION

This dissertation titled **“MEDIA AND RISK REDUCTION IN DISASTER MANAGEMENT IN NIGERIA: A STUDY OF “EMERGENCY UPDATE” PROGRAMME ON NTA AND AIT NETWORK STATIONS IN KADUNA METROPOLIS”** by ABDULLAHI Ahmed Maiyaki meets the regulations governing the award of the degree of Master of Science (M.Sc.) in Mass Communication of the Ahmadu Bello University, Zaria- Nigeria and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

I dedicate this work to my late parents; Mallam Abdullahi and Hajiya Rabi for all their support till they breathed their last. May Allah in His infinite mercies grant and unite them in Aljanna Firdaus, Amin thumma Amin.

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ABBREVIATION

AIT - Africa Independent Television

BCC - Behavioural Change Communication

CDC - Centers for Disease Control and Prevention

CERC - Crisis and Emergency Risk Communication

DRR – Disaster Risk Reduction

DRM - Disaster Risk Management

FGN – Federal Government of Nigeria

GSM – Global System for Mobile Communication

IBM – International Business Machines

ICT - Information and Communication Technology

IPCC – Intergovernmental Panel on Climate Change

KASU - Kaduna State University

KRPC - Kaduna Refinery and Petro-Chemical Company

KII - Key Informant Interview

LASEMA - Lagos State Emergence Management Agency

NEMA - National Emergency Management Agency

NDA - Nigeria Defence Academy

NiMET – Nigeria Meteorological Agency

NPC - National Population Commission

NTA - Nigerian Television Authority

UN – United Nations

UNDP - United Nations Development Programme

UNISDR – United Nations International Strategy for Disaster Reduction

URL – Uniform Resource Locator

WEB – World Wide Web

WEP - Web Ecology Project

EMERGENCY UPDATE: SYNOPSIS

Background

Emergency Update is a Television programme produced and sponsored by the National Emergency Management Agency (NEMA). The agency has the sole copyright of the programme, which was designed and developed as a weekly broadcast media programme that monitors disaster prone areas and provide the public with viable information on risk management.

The programme also educates the public on the activities of NEMA. During disasters, impact and losses can be substantially reduced if authorities, individuals and communities in hazard-prone areas are well prepared and equipped with the knowledge and capacities for effective disaster risk management. The programme is typically proactive and reactive inclined.

Format/Duration

The presenters in three segments record the 25-minute TV programme namely; News Segment, Interview/Analysis Segment and the Feedback segment. The news segment provides update on news development on disaster incidents, evolving issues and interventions by the Agency; this segment takes 7 minutes.

The second segment is the Interview and or Analysis that educates and enlighten the audience on risk reduction strategies and other disaster related content. Technical persons are usually interviewed as guests or a particular is analysed in this 13-minute long segment.

The Feedback segment is the third segment that connects the target audience with the programme. A dedicated phone number and email is provided on the screen for viewers to send in questions and contributions. Though the feedback is not instantaneous, it is delayed. The feedback segment takes 3 minutes. Two 60 seconds jingle that calls the audience to action is aired in between the first and second segments of the programme.

Nigerian Television Authority (NTA)

The Nigerian Television Authority (NTA) is a Nigerian government-owned and partly commercial broadcaster established in 1977. Formerly known as Nigerian Television (NTV), the network began with a takeover of regional television stations in 1976 by the then Nigerian military authorities, The NTA runs the biggest terrestrial television network in Nigeria with stations in several parts of Nigeria.

Africa Independent Television (AIT)

Africa Independent Television (AIT) is a Nigerian private satellite television station based in Lagos established in 1996. AIT is a subsidiary of Daar Communications plc, available throughout Africa, and via Dish Network to North America, the United Kingdom and Ireland. AIT is also available on Sky channel 454, as a free-to-air channel originally a subscription channel until August 1, 2016.

Transmission of the Programme

Emergency Update runs on two national television networks; the Nigerian Television Authority (NTA) and Africa Independent Television (AIT). The programme is aired once weekly as an episode every Tuesdays at 6:30 PM on the NTA and on Thursdays at 6:30 PM on AIT. Thirteen episodes of the programme are produced and aired every quarter, and a total number of 52 episodes every year.

ABSTRACT

The study investigated media and risk reduction in disaster management in the metropolitan area of Kaduna, Nigeria. It specifically studied the influence of “Emergency Update” programme aired on the network of Nigeria Television Authority (NTA) and Africa’s Independent Television (AIT) on risk reduction in disaster management among audience in Kaduna metropolis. The main objective of the study is to determine and evaluate if the television programme “Emergency Update” made significant impact on audience towards risk reduction. Primarily, the study was necessitated in view of the low attention given to the role of the media in mitigating disaster in Nigeria with attendant rise in many incidences of disasters in the country. The increase in disaster incidents has continued to generate concerns around the world and media reportage has placed the media in a vital position as a risk reduction tool. The scope of this study was limited to 52 episodes of the programme produced and aired in the second and first quarters of 2013 and 2014. The study adopted the survey method, questionnaire and Key Informant Interview (KII) as instruments. Using the multi-stage sampling techniques, a sample size of 385 respondents was drawn from a total population of 1,570,331; the sample size was derived using the survey monkey method. The Key Informant Interview (KII) was conducted among officials who designed and produced the programme “Emergency Update”. The agenda setting theory and risk communication model were adopted as the theoretical framework to undertake this work. Findings of the study show that the majority (67.6%) of the respondents agreed that the programme Emergency Update as effective in risk reduction in disaster management despite some challenges. The study identified inadequate airtime and non-use of local languages in the production of the campaign as some of the major challenges that hindered the effectiveness of the programme. The study therefore recommends among others, the integration of the media in the review and planning of disaster and environmental policies by government towards effective risk reduction campaign.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Mass media have been ascribed the normative role of educating, enlightening, and mobilizing the society towards a common good. These responsibilities are no doubt a critical one. That is, the mass media are expected to take the surveillance role in the society. The mass media is seen as the mirror of the society. This shows that whatever is happening in the environment, it is the responsibility of the media to alert their audience in order to take a rational decision. No doubt, this task bestowed on the mass media- as the watchdog of the society is a herculean one.

That is why Saleem (2014), states that media are the most important source of information on hazards and disasters for people to be enlightened, but he puts a caveat that for decades, the media have neglected its role in disaster situation in the sense that risk and hazard have received less attention by researchers in the field of social sciences and mass communication. Media play an important role in awareness raising and providing information to the masses. This role becomes crucial when it comes to passing information on disasters and risk reduction.

Notwithstanding, broadcast media are the most important source of information for developing nations in this 21st century. This explains why Bhavan (2009), observes that timely communication about impending disasters can lead to appropriate individual and community's call to action, which is the key to implementing effective prevention strategies, including evacuation and survival of people and the environment.

That is, such communications can educate, inform, and empower people to take practical steps to protect themselves from both human and natural hazards.

Globally, there is a shift from reactive to proactive method against disaster in order to mitigate the impact of an incident when it occurs. However, in Nigeria, the National Emergency Management Agency (NEMA), the coordinating agency in charge of disaster management, in all ramifications, states in a report in 2004 that for a long time, the conventional focus of disaster management strategies has been the delivery of relief (response) after a disaster. This approach does not proactively address the need to reduce the impact of future disasters. It has been observed that there is a growing realization among countries and communities of the need to place more emphasis on a holistic approach on disaster risk reduction – an approach that involves risk assessment, risk reduction, early warning and disaster preparedness – if the social, economic and environmental costs of the disasters are to be effectively reduced.

With the aforementioned approaches, without the involvement of the mass media and to be specific broadcast media, it is likely to yield limited success. The issue of risk and disaster reduction has to involve high level of timely information dissemination among the people. The broadcast media serve as a potent tool in reaching mass audience simultaneously with information that requires them to take a rational decision before, during and after emergencies.

Having a good knowledge of risk communication is paramount here. The main aim of risk communication is to provide the public (audience) with meaningful, relevant, accurate and timely information in relation to risk reduction and disaster management, in order to influence choice and attitude change.

Some disaster prone nations, especially the developed ones, have over the years, embraced risk reduction as a proactive strategy to cut cost, save more lives and reduce effects. According to the UNISDR 2014 report, on average, \$1 spent on reducing disaster risk saves \$7 that would have been spent responding to disaster through the provision of relief to victims.

Nigeria, like many other countries around the world, experiences its own forms of disaster. According to the Federal Government of Nigeria report (2013: 77), “Nigeria is one of the most disaster-prone countries in Africa, being extremely vulnerable to droughts, floods, landslide, gully erosion, and windstorm.” The need for a new orientation and better approach to disaster management has made Nigeria also embrace the move from emergency response to risk reduction, necessitating the development of this new approach (NEMA, 2007:21).

Now, NEMA is actively engaging the broadcast media in its campaign and advocacy to reduce risk and manage disaster. The agency is engaged in the production of broadcast media programmes to educate, inform, enlighten and mobilize the public on how to manage disaster so as to reduce hazard when disaster occurs.

On this note, NEMA designed and developed a weekly television programme known as “*Emergency Update*” which runs on two national television networks: the Nigerian Television Authority (NTA) and Africa Independent Television (AIT). While the programme is aired on Tuesdays by 6:30 PM on NTA, it is aired on Thursdays by 6:30 PM on AIT. The programme is typically proactive and reactive inclined. It is a television programme that monitors disaster areas, and provides the public with viable information on risk management.

The programme informs the public on the activities of NEMA. During disasters, impact and losses can be substantially reduced if authorities, individuals and communities in hazard-prone areas are well prepared and equipped with the knowledge and capacities for effective disaster risk management.

The role of the media, especially electronic, includes informing the people and the authorities during emergencies, being critical, especially the ways in which media can play a vital role in public awareness and preparedness through educating the public about disasters; warning of hazards; gathering and transmitting information about affected areas; alerting government officials, helping relief organizations and the public towards specific needs; and even in facilitating discussions about disaster preparedness and response. During any emergency, people seek up-to-date, reliable and detailed information (Bhavan, 2009).

1.2 Statement of the Research Problem

The media have always been concerned about events and stories with human impact (Saleem, 2014). Human and natural disasters in some sense have the highest impact as they destroy a large volume of human and material elements. No doubt, the broadcast media provide information and updates on the catastrophe and ongoing occurrences. However, whenever disaster occurs, the interests of reporters appear to tilt towards collecting data and information about damage, destruction and casualties even when no one is yet clear about the situation in the early stages of the disaster.

Responding to the increased interests of people for information about natural hazards in the wake of a natural disaster, the media often go to their resource files and disseminate background information about natural disaster in a bid to utilize time and space allotted for disaster or emergency news stories though such background information helps create awareness among the people about the causes, impacts and aftermaths of a natural disaster, the information are far removed from the real condition which made the provision of such information imperative; hence not connecting with the requisite background information of the natural disaster that just occurred. The present global shift from emergency response to risk informed NEMA's decision to utilize the broadcast media in its effort at risk and disaster management in the country.

1.2 Aim and Objectives of the Study

This study aims at examining the role of broadcast media as a tool for risk reduction in disaster management in Nigeria; with a focus on "*Emergency Update*" programme on NTA and AIT.

To actualize these aims, the following objectives have been set:

RO1: To find out how *Emergency Update* programme on NTA and AIT responds to risk reduction in disaster management in Kaduna metropolis.

RO 2: To investigate the influence of NEMA's *Emergency Update* television programme on risk reduction in disaster management in Kaduna Metropolis of Northwest Nigeria.

RO 3: To find out the challenges of *Emergency Update* in responding to risk reduction in disaster management in Nigeria.

RO 4: To determine the ways *Emergency Update* can improve NEMA's performance on risk reduction in disaster management.

1.4 Research Questions

The main questions to be answered in this research are:

RQ 1: In what ways has the NEMA's emergency update programme on NTA and AIT responded to risk reduction in disaster management in Nigeria?

RQ2: Does the NEMA's *Emergency Update* programme influence risk reduction in disaster management?

RQ3: What are the challenges faced by *Emergency Update* in responding to risk reduction in disaster management in Nigeria?

RQ4: How can the programme, *Emergency Update* improve on performance on risk reduction in disaster management in Nigeria?

1.5 Significance of the Study

The study shows how the Nigeria television industry has been responding to risk reduction in disaster management. Furthermore, the study helps ascertain the trends in television response to risk communication. It equally shows the strategies adopted by the media (television) in effectively transmitting messages of NEMA activities in respect to risk and disaster management in Nigeria. The study draws conclusion on the necessary strategies broadcast media need to adopt in their programmes on public enlightenment on risk reduction, hazard/disaster management.

Also, this study serves as a veritable academic material, which contributes to the existing body of knowledge in this field. It may also serve as a resource for other researchers who will venture in similar field of research. Similarly, it may serve as a background for researchers to build on the work undertaken by this study.

Furthermore, it will serve as an aid to the Government and Non- Governmental Organizations (NGOs) to know the appropriate media programme to use or adopt in order to reach out to the wide range of audience with specific developmental messages. Since the project is based on television campaign on risk and disaster management, which is seen as a problem in the society, the audience will know which television programme to tune to for latest information concerning any update on risk hazard and disaster.

1.6 Scope of the Study

The more varied a research is, the more authentic its findings (Creswell, 2014). The study would have covered the whole of mass media in the country but, it is a cross-sectional research for short-term period, the scope of the study was limited to NTA and AIT “*Emergency Update*” programme sponsored by NEMA in Kaduna metropolis.

This study limited its scope to 52 episodes of the programme “Emergency Update” aired on the network of the Nigeria Television Authority (NTA) and African’s Independent Television (AIT) from the second quarter of 2013 to the first quarter of 2014.

1.7 Limitations of the Study

This research was greatly constrained by lack of documented script for the researcher to analyze. Despite the pitfall, the researcher made effort to balance the study to avoid prejudices and bias. In this respect, the researcher interviewed the producers of the programme “*Emergency Update*” to corroborate the data gathered in the survey.

1.8 Operational Definitions of Terms

Broadcast Media: The channels through which audience receive mass mediated messages (radio and television). This study focused on television content which has the edge of audio-visuals.

Television: This is an electro-magnetic device used to transmit audiovisual information to a heterogeneous audience which is meant to educate or inform them about a particular subject matter such as ideas about risk reduction, hazard and disaster management, etcetera.

Campaign: This is the act of creating awareness about an existing issue of public interest with the aim of behavioural change.

Disaster: Disaster is the sudden occurrence of event such as flood, storm, war, terror and accidents that cause huge damage or suffering on victims.

Disaster Management: Is the organization and management of resources and responsibilities for dealing with all humanitarian aspects of emergencies, in particular preparedness, response and recovery in order to lessen the impact of disasters.

Risk Communication: refers to the exchange of real-time information, advice and opinions between experts and people facing threats to their health, economic or social well being. The ultimate purpose of risk communication is to enable people at risk to take informed decisions to protect themselves and their loved ones.

Risk Reduction: This is a method or strategy aimed at reducing or lessening the impact of an incident or disaster that may happen.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

Literature review is the evaluation of relevant literatures or works that are related to the area of study embarked upon. Review of related literature is relevant in any research work in the sense that it will give room for any researcher to understand or be knowledgeable about other scholars work. In this regard, this chapter reviewed the studies from the angle of conceptual review, empirical review and theoretical framework.

2.2 Conceptual Review

The main thrust of this study examined the role of broadcast media in risk reduction in disaster management. In line with this, there is need to clarify the dominant variables used in this subject matter. The concept of the role of mass media in a society, risk reduction, disaster management and mass media in disaster management were reviewed and discussed.

2.2.1 The Role of Mass Media in the Society

The media institution have a mediating and connecting role in the society by providing the materials by which individuals form a picture of social reality of their society. The media exist to meet certain needs of society; it has societal functions of change and integration through mobilization. Thus, Gabriel Tarde in Clarks (1969) in account of his work stressed the functions of media in accelerating change by providing publicity for new ways of doing things.

Similarly, McCormack (1961:74) cited in McQuail (2005), argued that the fulfillment of the media in modern states is to integrate and socialize.

Changing the society is necessarily segmented and the unique function of the mass media is to provide industry and society as coherence, a synthesis of experience, an awareness of the whole, which does not undermine the specialization that reality requires. Media content is not only informational but also for entertainment and amusement that can provide a sense of wholeness, continuity and shared experience.

Harrold Lass well cited in Sambe (2004) identifies the following functions of the mass media in a society it is representing:

Surveillance of the environment: This refers to the provision of information, which is creating awareness. The mass media provides information about events and conditions that are of likely interest and relevance to the audience and informing the public about the aims and activities of a given organization. It also selects processes and disseminates information thereby facilitating innovation, adaptation and progress while it educates the general public.

The media also correlate the parts of the society in responding to its environment, which is making comment and interpretation to help make sense of the fragments of information. It also has to do with providing support for established authority and norms, socializing, co-ordinating separate activities, consensus building, setting orders of priority and signaling relative status.

The mass media provide information to the entire society on a daily basis. Such information comes through news on radio, television, newspaper and magazines. The news raises the awareness of listeners as in the case of radio, viewers (television) and readers (newspapers and magazines).

Education: The education function of the mass media is meant to teach the people by imparting knowledge with a view to broadening the horizon of members of the society. Through different programmes like “Who wants to be a Millionaire?” “Super Story” “Health Watch”, etc, members of the public can develop themselves mentally and morally. Through education via the mass media, people can discover themselves and the potentials in their environment and harness such potentials for the holistic development of the society. It can be said therefore, that the mass media is a school of its own. Through it, a lot of people have been delivered from the bondage of ignorance and illiteracy and it has the power to introduce light in the life of the audience.

Entertainment: Another important function of the mass media is entertainment. The media can make the people laugh and forget their sorrows. Entertainment through the media can come in different forms - sports, drama, motion pictures, short stories, crosswords, puzzles and cartoons. All these forms of entertainment are by-products of the mass media.

Transmission of Cultural Heritage This function of the mass media focuses on the transmission of knowledge, values and social norms from one generation to another or from members of a group to newcomers. The existence of a community depends on the ability of its members to share common values and to agree on what constitutes acceptable behaviours.

Also, the continued existence of the society depends on the ability of its members to transmit the values and norms of the society from one generation to another. This can be done through songs and preservation of certain artifacts. People’s way of life in terms of dressing can also be preserved through the mass media. This is applicable to certain cultural festival, which can be preserved for the sake of posterity by the mass media.

Status Conferral: Another function of the mass media is the bestowal of prestige on people who attempt to remain well informed about events in their community. In Nigeria, for instance, being well informed about what is going on in government and society generally is a source of prestige. People who are well connected are looked upon as opinion leaders. The function of status conferral comes from being the subject of news reports.

The mass media have the power to make instant celebrities of hitherto unknown persons either for good or bad. The electronic media, most especially, have conferral effect on the audience. People or organizations that are featured in the media tend to acquire some level of importance above the ordinary (Sambe, 2004).

Interpretation of News: The main function of interpretation is to prevent such undesirable consequences of the mass communication of news. The selection, evaluation and interpretation of news – focusing on what is most important in the environment, according to Sambe (2004) tend to prevent over stimulation and over mobilization of the population. Like surveillance, he observed that the activities of news interpretation and presentation when performed as mass communication can also be dysfunctional both at the societal and individual level.

On the societal level, experts believe that some activities can impede social change and enhance social disorder in a society. At the individual level, the dysfunctional role of the mass media is believed to create panic among individual members of the society.

Another important function of the mass media in modern society is the agenda setting function. The agenda setting function of the mass media presupposes the fact that the media can lead members of the public in taking very sensitive decisions on issues of public significance be it politics, economic and social standings.

The agenda setting function of the media is predicated on the fact that the mass media can influence the thinking of members of the public through its court of public opinion.

2.2.2 Disaster Management

Disaster is serious precarious activities that can be caused by human or natural activities with serious human and environment implications. The National Science and Technology Council (2005: 21) sees Disaster as a “serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources” Disasters are sometimes equated with crises, but crises have been singled out as organization-based while disasters are community-based (Seeger, Sellnow, & Ulmer, 1998).

Disasters, however, can spawn crises for organizations when the public becomes concerned not only about the disaster itself, but also about how well organizations managed the disaster (Coombs, 2010). But in the Nigerian and to some extent African context, human atrocities like terrorism, insurgencies that cause huge catastrophes and humanitarian situations are viewed as disasters.

Frequent drought witnessed in the Horn of Africa and some parts of sub-Saharan countries is retarding development gains made by African governments. The disasters have destabilized the African economies and exposed thousands of vulnerable communities to abject poverty as they contend with the situation.

A United Nations (2009) report sees disaster as a social crisis characterized by a sense of great uncertainty, significant disorder, or potential collapse in a community caused by a serious disruption in its normal functioning and involving widespread human, material economic, or environmental losses and impacts that exceed the community's ability to cope using its own resources.”

Disasters such as floods, storms, environmental degradation, road carnages, marine, urban pollution, desertification, landslides, among others have continued to increase in Africa, exposing millions of the people to suffering and sheer poverty. Nigeria at different times experienced various forms of disaster. It experienced huge humanitarian crisis from flood, drought, erosion, storm, oil spillage and terrorism. Some of these disasters have made over a million people become internally displaced.

Disaster brings serious disturbance in the regular activities of a community or society and may cause loss of lives, livelihoods and environmental disorder. These natural disasters are more challenging in the developing countries like Nigeria, India, Pakistan, Nepal, Bhutan, Bangladesh etc., where the impact of these natural disasters are often most devastating.

2.2.3 Disasters Occurrence in Nigeria

Four main categories of disasters have occurred in Nigeria over the past ten years, and they have had significant human and environment consequences. These include Industrial or Technological Accidents, Urban Violence, Civil Strife and Conflicts, Rural and Urban Poverty that lead to deadly risks and natural disasters

Industrial/Technological Accidents

Under this heading, some of the disasters that have occurred in Nigeria include:

- On July 10 2000, a pipeline in Nigeria exploded killing about 250 villagers accompanied by wild fires burning out of control over about 20 km from the town of Jesse, Delta State.
- On 27 January 2002, at least 660 people drowned and thousands were rendered homeless after a multiple bomb explosions at a Nigerian Military armoury in Lagos, triggered by an accidental fire. Mass panic ensued.
- The 2002 textile factory fire accident in Lagos killing hundreds of workers.
- Plane crash incidents, the most recent being the 10/22 Bell view airline flight 210 crash near Lagos in which 117 people died.

Urban Violence, Civil Strife and Conflicts

Some of these are related to community land resource ownership; for instance,

- On 4 June 1999, ethnic clashes flared up in Nigeria's southern oil industry hub of Warri, Delta State. Dozens of people were reported dead in six days of fighting.
- On 19 July 1999 at least 60 people died in clashes between Hausa and Yoruba tribes near Lagos.
- On 26 July 1999, troops were sent to Kano after at least 60 people were killed in renewed ethnic clashes in northern Nigeria.
- Several incidents of urban violence occurring frequently in major urban centres, claiming hundreds of lives and property.

Property Rights and Unequal Sharing of Benefits from Natural Resources

- On 1 January 1999, at least 19 people died in clashes in Nigeria's oil region after an ultimatum to oil firms to leave ethnic Ijaw areas.
- On 3 June 1999, local youths set fires at four separate points on the Warri-Kaduna products pipeline near the village of Adeje, after police arrested suspected product thieves. The number of the dead was undetermined.

The country has witnessed several disasters accompanied by numerous casualties including property damage. In 2001, the communal conflict in Akampa Local Government Area in Cross River State led to the displacement of about 3,000 people and 12 dead. The Tiv/Hausa-Fulani clash in Nasarawa State culminated in the death of 50 persons and displacement of 50,000 people. Furthermore, during the same period the flood disasters in Aba, Kirfi (Bauchi State), Talata Mafara (Zamfara State) led to the dislocation of about 13,000 people although no casualties were recorded (Orebiyi, 2002).

Pipeline Vandalism in Urban and Rural Areas

- On 18 October 1998, fire engulfed more than 2000 villagers who were scrambling for petrol near a ruptured pipeline in Jesse outside Warri. Nearly 1000 people were killed.
- On 14 March 1999, at least 50 villagers who were scooping up gasoline from a broken products pipeline at Umuichiechi-Umungbede village in Abia State were burned to death after an explosion.
- There were several incidences of pipeline vandalisation aimed at siphoning oil in different parts of the country especially Lagos, Ibadan and the Niger Delta leading to thousands of death.

Natural Disasters

Though there is a growing debate by stakeholders globally on whether or not disasters are natural, by available literature on Nigeria shows the existence of spatial differences in the nature of disasters. While oil and gas pollution is largely a Niger Delta problem, drought and quella birds infestation occur in the Sudan-Sahelian states (e.g. Kano, Sokoto, Katsina, Borno and Yobe). However, soil erosion, rainstorm and flood disasters are prevalent in virtually all the states. (NEMA 2002).

2.2.4 Risk Reduction

It should come as no surprise that “Disaster Risk Reduction” as a concept, which is a subset of “Disaster Risk Management,” according to International Strategy for Disaster Reduction (ISDR, 2009), also has multiple definitions. Olson, Prieto and Hoberman (2010), define disaster as;

“a set of coherent and systematic actions designed to reduce the physical, economic, social, and environmental vulnerabilities of a given community or component part of a community to the particular hazard or hazards to which it is exposed. More specifically, for a given community or component part of a community, Disaster reduction constitutes actions designed to reduce the probability that losses from its most likely hazard events (e.g., an earthquake of a particular magnitude, a hurricane of a particular intensity, a toxic spill of a particular potential lethality and dispersal) would exceed the resources required for effective local coping”(Olson et al 2010).

According to Al-ameen (2013), hazards and disasters are two sides of the same coin; neither can be fully understood or explained from the standpoint of either physical science or social science alone; and are inextricably linked to the ongoing environmental changes at global, regional and local levels. Environmental hazards exist at the interface between the natural events and human systems.

Human responses to hazards can modify both the natural events, and the human use of the environment. Environmental degradation is a process that reduces the capacity of the environment for meeting the social and ecological objectives, and related needs. The potential effects of degradation vary, and may contribute to increase in vulnerable conditions along and intensity in occurrence of natural hazards. Some examples include: land degradation, deforestation, desertification, wild-land fires, loss of biodiversity, land, water and air pollution, climate change, sea level rise and ozone depletion etc. The perception that disasters and emergencies are happening more frequently is unfortunately correct.

Disasters are events of environmental extremes that are inevitable entities of this living world. The major environmental changes driving hazards and vulnerabilities to disasters are climate-change, land-use changes and degradation of natural resource (Gupta and Nair, 2011).

Environmental concerns are crucial in all phases of disaster management and vice versa. Environmental services like shelter, water, food security, sanitation, waste management and disease control form crucial components of emergency relief. Disaster risk reduction as important aspect in all stages of environmental management is crucial in order to focus on disaster prevention and reduce risk from hazards, minimization of rehabilitation and overall leading to sustainability.

Opportunities for integration also exist in planning and decision making tools, and in regulatory provisions pertaining to environmental governance and disaster management.

The Scientific and Technical Advisory Group of the United Nations International Strategy for Disaster Reduction (UNISDR) has brought together case studies from around the world to show how scientists and decision-makers have applied research to real-life problems to achieve real impact in disaster risk reduction. In this way, we aim to show that science is useable in disaster risk reduction.

According to Intergovernmental Panel on Climate Change (IPCC) 2012 report, “the number, scale and cost of disasters are increasing. Many disaster hazards are becoming more frequent as a result of climate change, while human exposure and vulnerability to hazards is increasing: growing and ageing populations, unplanned settlements, and increasing assets all put communities at greater risk of physical and economic harm when a disaster occurs.

In addition, between 2005 and 2009 more than 50% of people affected by natural disasters lived in fragile and conflict-affected states (Harris, Keen, and Mitchell, 2013).

There is strong evidence that conflict and fragility increase the impact of natural and human disasters, and there is an expectation that disasters and conflict will collide more in the future.

Since the International Decade for Natural Disaster Reduction in the 1990s (UNISDR, 2013), disasters have taken an increasingly high priority on the global political agenda.

Increasing attention is being given to the rising impacts of disasters and to ways to reduce the exposure and vulnerability of communities and assets to natural hazards. While the hazard posing a disaster risk – a tsunami, storm or earthquake – generally cannot be influenced, the impact and frequency of disasters can be significantly reduced through the coordinated efforts of governments, experts and communities to mitigate against, prepare for, respond to and recover from disasters.

Nigeria is no exception as in 2012, it experienced an unprecedented flood disaster that affected half of the 36 states including Kano, with 21 million people displaced; 597,476 houses destroyed or damaged; over 363 people killed and an estimated loss of USD 19.6 billion (NEMA, 2013).

Examples of disaster risk reduction activity include extreme weather forecasting, improving building design and urban planning, provision of insurance to households and businesses, and exercising of disaster plans. Disaster risk reduction requires strategic planning and implementation as well as technical and scientific expertise. It sits at the interface of policymaking, engineering and scientific research, and requires a close and continuous exchange among these fields in order to provide effective and durable solutions.

The adoption of disaster risk reduction strategies requires not only investment, but also a different approach to policy development. In disaster-prone areas, the exhaustion of resources in responding to a disaster, and the disruption it causes, can be a perverse obstacle to investment in risk reduction strategies even though they may provide long-term protection and reduce future vulnerability to similar events.

2.2.5 Mass Media Campaign in Disaster Management

Scholars have written extensively on the role mass media can play in disaster management in their quest for performing their social responsibility role. It has been proven that media have a great role to play in risk reduction and managing disasters. Saleem (2014) states that media are the most important source of information on hazards and disasters for people. From many decades, role of mass media in disaster situation has received less attention by the researchers.

Media play an important role in awareness raising and providing information to the masses. This role becomes crucial when it comes to reporting during disasters.

However, in many disasters, it was seen that the media remained focused on the single story event (Joseph Scanlon & Alldred, 1982), such as the coverage of 2005 earthquake in Pakistan, ice Storm in Ottawa, Hurricane Katrina in USA and fires in Russia. As Miller & Goidel (2009) have noted, during Hurricane Katrina, the media had the invaluable role of reporting the 'breaking news' and everyday developments of the disaster, but were unable to gather contextually rich information about the causes and consequences of the natural disaster.

Media such as television and newspapers also tend to favour the dramatic components of the disaster if they are available to "pump up ratings" and to be critical of governments (Ardalan, Linkov, Shubnikov, & Laporte, 2008).

Media personnel are trained to gather information. Moreover, they are also trained to compete. They jump into an unknown situation to capture the story in the rush of being the first, original and exclusive. During disaster, hype is moved more quickly by the reporters' competition with a desire to be the first to give the report on the incident. So journalists try to reach the scene immediately and use traditional as well as non-traditional methods to gather information, which in turn becomes a commodity.

In this regard, Otieno an African journalist stated that the media can increase lobbying for political commitment to make the leaders be more responsive to the vulnerable communities' needs and demands through consistent reporting. Media can also influence the government to prioritize disaster risk issues into a development component through expanded research and regular reports on natural hazards.

Scanlon (2010), sees it in a way that it is now fairly well established what media do when disaster strikes. The media hear of the event, try to obtain more information, use their own files to add background to their stories, dispatch reporters and report anything they are told. Often, they devote all their airtime or much of the space available to that single story. That was why Bhavan (2009) observes that timely mass media communication about impending disasters can lead to appropriate individual and community action, which is the key to implementing effective prevention strategies, including evacuation and survival of people. Such communications can educate, warn, inform, and empower people to take practical steps to protect themselves from natural hazards.

Golfin (2011), established plan for social media use before a disaster occurs, utilize popular and relevant social media tools, localize disasters in social media use, and utilize mapping efforts. In a disaster situation, information must be disseminated quickly to people affected by the disaster as well as to those responding to the disaster (Dougherty, 1992). Communication during a disaster requires many standard crisis communication techniques. But, in order to understand how a crisis and disaster are related, their relationship must be understood (Adkins, 2010; Ulmer et al., 2007). Disasters, unlike crises, are solely external crises caused by natural events in which it is not the fault of an organization (Adkins, 2010).

Crisis communication is known for its immediate communication with stakeholders and its ability to change at a moment's notice during disaster. Crisis management is the larger umbrella that covers crisis communication (Coombs, 2010), which is paramount in disasters reduction. Disaster management allows an organization to possibly prevent, prepare, respond to and analyze a crisis before, during and after the crisis has occurred (Coombs, 2010).

Crisis communication in disaster management is the collection of information, followed by processing that information into knowledge, and finally, the sharing of information with others throughout a crisis situation process (Coombs, 2010, p. 25).

Crisis communication has been studied for over 30 years. The bulk of that study has emerged from the field of public relations and has received heightened attention in the past decade (An & Cheng, 2010; Coombs, 2010). Crisis communication research is practical and meant to be put to use in order to improve crisis management practices and crisis communication (Coombs, 2010).

The media, as a communicator with the public, should be viewed as a resource throughout a crisis (Seeger, 2006). A designated spokesperson should interact with the media to provide continuity and this person should continue a dialogue with the media throughout the crisis or disaster (Seeger, 2006: 240).

2.3 Empirical Review

Many studies were conducted around the world on the role of media in risk reduction in disaster and hazard management. Some studies were conducted in Europe, America, Asia and Africa. There are equally studies conducted in Nigeria on the role of media in disaster like flood and environmental protection management. Some studies were focused on the print media; others are broadcast media and the new media. Also, some of the studies used content analysis to analyze media content in reportage of democratic process; while some studies used survey to sample audience or readers opinion on the role of media in disaster management.

Notably, these studies by many scholars (Scanlon, 2005; Bhavan, 2009; Olson, Prieto & Hoberman, 2010; Festus & Ogoegbunam, 2012; Adedeji, Odufuwa & Adebayo, 2013; Saleem, 2014; and Patrick & Ferdinand, 2014), have been conducted in the area of media and risk reduction in disaster management.

Saleem (2014), in a recent study analyses the role of media in disaster reporting in Pakistan. The research concluded that currently, no code of conduct is available for reporting disaster related issues; however, some training is provided to the reporters. Currently, all the news channels including private and national news channels have self-regulatory code of conduct whereas any code of conduct for natural disaster reporting is still not in existence in Pakistan.

There is a need that national authorities formulate code of conduct for disaster reporting and disseminate it to the entire news channels so the channels and reporters are bound to cover disasters within the limitations. At the end, guidelines are provided for disaster reporting that may help to alert the officials, emergency and aid organizations, about the specific needs of the affected people in the wake of disaster and in the provision of accurate, timely, and sensitive information to the public.

During disaster, hype is moved more quickly by the reporters' competition with a desire to be the first to give the report on the incident. So journalists try to reach the scene immediately and use traditional as well as non-traditional methods to gather information, which in turn becomes a commodity. Reporters not only head towards the scenes themselves, but also rely on gathering information from victims, survivors, rescue workers, relief activists and government officials.

Thus, media make the best use of the opportunity to sell themselves as organs of information when a disaster strikes. Their sole purpose to be there at the scene of disaster is to uphold their status of information provider in the eyes of the audience who thoroughly rely on the media for this specialized task.

In a related study here in Nigeria, Adedeji, Odufuwa & Adebayo, (2013), studied the building capabilities for flood disaster, hazard preparedness and risk reduction in Nigeria; focusing on the need for spatial planning and land management. They examined the level of preparedness and capacity building to tackle urban flooding in Nigerian cities. They concluded that lack of proper spatial planning and land use management coupled with incapacity of governments to ensure good urban governance exacerbate the cases of urban flood in Nigeria.

A GIS-based spatial planning and land use management can be a versatile tool in building capacities for flood disaster reduction and preparedness to ensure sustainable urban development but not without the involvement of the media in the process.

It can be concluded that without the involvement of media in the campaign on disaster management, damages can be huge. The incidence of flood events in Nigerian urban space has a long history of devastation of lives and properties.

Extensive urban flooding is a phenomenon of every rainy session in Lagos, Maiduguri, Aba, Warri, Benin and Ibadan. Urban flooding is a constant occurrence in towns located on flat or low lying terrain, especially where little or no provision has been made for surface drainage, or where existing drainage has been blocked with municipal waste and other materials.

With urbanization rate at 5.5% yearly which is the highest rate in the world, Nigerian cities of today face numerous problems which include rapid urbanization, deteriorating environment, urban decay, un-cleared refuse, flooding, erosion and pollution (Babanyara et al., 2010; Etuonovbe, 2011). For instance, according to available records, the first time flood hit Ibadan; the headquarters of old western region (now the capital of Oyo State) was in 1948.

Subsequently, serious flood disasters have occurred in Ibadan in 1963, 1978, April 30, 1980, 1985, 1987 and 1990 destroying many lives and properties. Lagos metropolis recorded the first flood in early 1970s and till date, floods (both river and coastal floods) have become perennial event in the state. Most recently, the Lagos State Emergency Management Agency (LASEMA) evacuated about 700 inhabitants of settlements along the River Ogun in Lagos State to refugee/relief camp after a devastating flood that plagued the area around October 12, 2010.

The devastating flood disaster that occurred on the 26th of August 2011 caused a lot of woes for people around the Eleyele wetlands in Ibadan, southwest, Nigeria destroying lives and properties around Apete, Idi-Ishin, Apata, Odo-Ona Elewe, Oke-Ayo, Ologuneru and University of Ibadan where the university library and Zoological Garden were badly affected. The degradation of the Eleyele wetlands is seen as a major cause, compounded by anthropogenic impacts and the emerging reality of climate change.

Most recently in 2017, the devastating floods ravaged Lekki, Victoria Island in Etiosa local government area of Lagos state after many days of rains as well as similar incidences in Suleja in Niger State, and some parts of Jos, Plateau State, north central Nigeria were adequately covered by the media, especially through the use of social media by victims and others who closely monitored the incidents; and this further reveals the vibrancy of citizen journalism.

In the area of environmental protection, Festus & Ogoegbunam (2012), look at the imperatives of environmental education and awareness creation on solid waste management in Nigeria. They discussed the importance of education and awareness creation on solid waste management. The strategies to be utilized in education and awareness is equally discussed, so also the benefits of educating the citizens. Their study recommends that educating the citizens both formally and informally should be sustained. The print, electronic media, environmental education materials should all be utilized in creating awareness.

The indiscriminate dumping of wastes especially at odd times and places, the violation of the rules and regulations guiding the dumping of solid wastes exists in Port Harcourt City (one of the major cities in Nigeria).

This was revealed by Ayotamuno & Gabo (2004:389), as they observe that “indiscriminate dumping of wastes from industrial, commercial and households such as food wastes, paper, polythene, textiles, scrap metals, glass, wood, and plastic at street corners and gutters is very common in Port Harcourt city.” Another observation made by the authors is that the residents of the city do not segregate their wastes into different categories of wastes before disposal.

These wastes are usually mixed together and dumped indiscriminately in the environment and as a result, pose a lot of problems for effective management of wastes. It will be interesting to note that this phenomenon occurs in all the states of the federation, including the Federal Capital Territory.

This practice could be attributed to lack of education on the types of wastes, characteristics of wastes and methods of solid waste disposal as well as the effects of improper wastes disposal on human beings. Even when the bins for separation are provided, different categories of wastes are still lumped together and disposed at the same point.

This practice, no doubt, results from lack of knowledge and skills needed for segregation of wastes at the source of generation and carefree attitude towards solid wastes management on the part of the citizens.

Festus & Ogoegbunam (2012), recommend that education of the citizens about the management of wastes be carried out formally and informally. Open or public education through the print, electronic and audio-visual media should be intensified. In essence, the integrated use of all media should be employed in dissemination of information on solid wastes management in Nigeria.

The use of environmental education through strategic communication materials like posters, leaflets, billboards should be utilized and placed at strategic locations in schools and public places to keep the citizens constantly informed on the need for proper management of wastes and how to manage their wastes properly.

Scanlon (2005), conducted a research on the Mass Media and Disaster. He reviewed two areas of scholarship into the role of the mass media in crisis and/or disaster. Scanlon states that there is substantial research by scholars in a number of disciplines and by scholars in Journalism and Mass Communications.

The two appear unaware of what each other are doing. Cross-referencing is rare. The scholarship shows that the media can play a critical role before, during and after such incidents. The media are essential, for example, for warnings to be effective and may be the single most important source of public information in the wake of a disaster. The scholarship also shows that media reports distort what happens in a disaster and lead to misunderstandings.

On their part, Olson, Prieto & Hoberman, (2010), analyzed the post-impact role(s) that media played in two major 2010 events: the January 12 Haiti catastrophe and the February 27 Chile disaster, supplemented by an analysis of media coverage in two “mirror countries” that share roughly equivalent catastrophe/disaster risk profiles in Jamaica and Peru respectively. The study focused on media attention spans, other emergency or disaster relevant media roles, and “zones of silence” in event coverage, particularly about pre-event accountability for effective disaster reduction.

The study discovered that the media play an increasingly crucial role in catastrophe/disaster situations with specific objectives that include:

- (1) What was the attention span, or rate of decay, of the media attention to the Haiti catastrophe and the Chile disaster?

- (2) Aside from providing the normally expected disaster and emergency response information, what other roles did the media play, particularly about accountability and “Disaster Risk Reduction?”
- (3) What major Disaster Risk Reduction problems or issues were notably absent in media coverage of the events? That is, on what problems or issues were the media silent?

At the end of the study, no empirical answers were provided to the probing questions it raised. Therefore empirical study needs to be done in this regard.

Bhavan (2009), states the ethical guideline the media need to follow in reporting disaster; that the main principle of information provision, therefore, should be an ethical one: and so, during an emergency, the media should be sensitive to the needs of the public in affected areas and should avoid misinforming and broadcasting unconfirmed reports that may lead to despair and panic. Therefore, correct and reliable information disseminated through the media is an important instrument for balancing the possible effects of incorrect, misleading or even willfully distorted information. Reliable and timely information provided through the media can help people overcome any kind of fear and fatalism during and after an emergency.

Indeed, the availability of reliable and timely information and knowledge about an event and the resulting needs help to improve solidarity and support; and it also creates an atmosphere conducive to collective response for sharing the humanitarian challenges created by disasters. Media today have arguably penetrated every household in the world, in one form or another. Journalists pride themselves in reporting objectively on global events and regard an independent media as one of the pillars of a democratic society.

Turkcell, Turkey's largest GSM operator, and Ericsson Response established communications in the disaster area within a day of an earthquake, responding to the request of the Iranian authorities. Volunteers from Ericsson Response and colleagues at Ericsson Turkey and Ericsson Iran were sent to install an emergency GSM system, which was connected via satellite to Turkcell's network. The project came under the umbrella of Turkcell's unique Emergency Communication System project.

The project was launched in response to the devastating August 1999 earthquake at Izmit in the Marmara region, which claimed thousands of lives and destroyed much of the city. According to the United Nations Development Programme, Turkey and Iran are two of the country's most vulnerable to the impact of earthquakes (GSM Association, 2005).

The project builds on a growing body of literature on crisis informatics (Hagar, 2009; Hughes, Palen, Sutton, Liu and Vieweg, 2008; Palen, Vieweg, Liu, Hughes and Sutton, 2009), which addresses social and technological concerns in emergency and crisis response. Here, they mostly consider indicators of Twitter technology adoption. During a two-year study following Hurricane Katrina (Shklovski, Burke, Kiesler and Kraut, 2008), displaced victims adopted new information and communication technology (ICT) to help with their response and recovery efforts.

Interestingly, Shklovski et al. (2008), found that even after the crisis was over, continued technology use became incorporated into a number of the victims' lives and in some cases was even helping them rebuild a sense of community during the recovery stages. Twitter, a form of micro-blogging using an open-source web framework called Ruby on Rails, is a free, short messaging service established in 2004 by a private company based in San Francisco.

The growing research on the use of twitter in emergencies, crises or disasters has a short history, given twitter's short life. Some of the most relevant work has been done by Palen, Hughes and colleagues on the 2008 Hurricanes Gustav and Ike (Hughes & Palen, 2009), the 2007 wild fires in Southern California (Hughes et al., 2008), by Zuckerman on the Moldovan election protests in Africa (Zuckerman, 2009), and Starbird and colleagues (2010).

These studies specifically focus on the use of twitter in a disaster or crisis situation. Highly relevant is the work of Devin Gaffney (2010) and a 2009 study by the Web Ecology Project (WEP) that analyzed over 2 million twitter posts (tweets) on the Iran elections that WEP collected between June 7 (just before the election) and June 26, 2009. The Gaffney research and the WEP analyses include tweets both inside and outside Iran, with the vast majority of tweets being posted from outside Iran.

Hughes et al (2008), report that twitter use under duress and in crisis conditions of the two hurricane episodes of Ike and Gustav in 2008 is distinct from routine general twitter communication behavior in two ways: (1) fewer tweets are sent as replies to other tweets; and (2) fewer URLs are included in the tweet posts. They surmised (true but without evidence) that this is because in a crisis, people need information broadcast as widely as possible to as many people as possible at once (i.e., no need to reply to a specific individual) and people are less likely to go to a website for additional information during the emergency.

In the case of Iran, it was difficult to consult the Web, because the Internet was extremely slow during the weeks following the elections.

Studies exploring the acceptability of the use of social media to emergency services organisations have identified mistrust in information sources and the management of misinformation as areas of concern and inhibitors to its adoption. For example, the American Red Cross (2010), identified authenticity, privacy, veracity and ownership as key issues related to the use of publicly available data from social media sites in an emergency management context.

Another study by White et al. (2009), also found respondents were concerned about uncertainty of information quality and the credibility of resources. NGIS Australia (2009), found similar results, with reasons given for a lack of uptake of social media among emergency services including a perceived lack of reliability and validity of information provided. These concerns are understandable given the spread of misinformation in previous incidents (Lindsay, 2011). For example, in a recent bomb scare in Auckland, New Zealand, musician Che Fu created “a frenzy of misinformation” when he mistakenly tweeted that he had been cordoned into a building nearby where the bomb scare had been sparked because of an ‘at large’ gunman, who he believed had already shot someone (Hopkins, 2011).

Within minutes, this resulted in a number of calls to police, who in turn diverted officers to check the accuracy of the claims (Hopkins, 2011). As a result, Counties Manakau Police have launched their own Twitter account (@ManakauPolice), stating they wished to have a means to communicate quickly with people in the interests of allaying people’s fears and anxieties (Hopkins, 2011).

A similar spread of misinformation was also observed during the Canterbury Earthquakes:

“It ... showed how easy it is for one piece of misinformation to grow. Early reports on twitter of looting in the streets turned out to be one or two isolated incidents. Imagination and one hundred and forty characters can be a dangerous combination when unhindered in their message.” (Godchild, 2011).

However, evidence also shows that generally people are conscientious and take responsibility for what they say online.

In a case study of social media use during the Virginia Tech shooting tragedy in the US, Palen et al. (2007), found those updating Wikipedia and Facebook pages correctly listed the 32 victims before Virginia Tech officially released the names to the public, with no incorrect names added to the list.

In addition, sites such as Wikipedia illustrate the accuracy of information provided on social media sites. A study by Nature found the serious error rate in Wikipedia articles was comparable to Encyclopaedia Britannica (Terdiman, 2005).

An earlier study by IBM also found that vandalism to Wikipedia pages was usually repaired extremely quickly, with Wikipedia having “surprisingly effective self-healing capabilities” (IBM, 2003). Therefore, the spread of misinformation through social media is an issue although it may be the exception rather than the rule.

According to Coyle and Childs (2005), prior to the tsunami in the Caribbean, there had already been a substantial amount of work on emergency alert schemes. In many parts of the world, there are already warning systems, usually based on broadcasting via radio and television, or even direct person-to-person warnings like the hurricane warning schemes in place in the Caribbean. Of course, the tsunami led to redoubled efforts to put in place an improved scheme.

Some of the efforts concerned implementing a tsunami-warning framework in the Indian Ocean, similar to that already operating in the Pacific. Other schemes focus on the communication of warnings to the many individuals who might be affected.

However, the intensity of disaster in Nigeria have been attributed to the cause of poverty, poor housing, lack of information about disaster risk, poor telecommunications, and inadequate physical infrastructures, including bridges or roads, frequently exacerbate natural disasters such as floods, earthquakes, hurricanes, and volcanic eruption. Evacuation of large populations are complicated by low-capacity infrastructure or family or cultural impediments. Although every nation is generally aware of their propensity for various kinds of human and natural disaster scenarios, their occurrence and consequences are often sudden, random and not well predicted.

Olorunfemi & Adebimpe (2005), stated that in recent years, there has been a major shift in how people seek to cope with disasters from natural hazards. While humanitarian response capacities are vital and need continued attention, the focus on addressing risk underlines the recognition that human intervention designed to reduce the vulnerability of communities and their assets can reduce the impact of disasters.

2.4 Gap in Literature

Disaster risk reduction is a new paradigm in disaster management with a body of policies, strategies and practices geared toward curtailing vulnerabilities and disaster risks in a society through appropriate prevention, mitigation, preparedness and early warning programmes and facilities. It aims to motivate societies at risk to be more involved in the conscious management of risk and reduction of vulnerability in their communities.

However, this review noticed that there is dearth of literature in this part of the world in respect to the contribution of media to risk and disaster management. Therefore, this study takes up the task of adding to the body of knowledge in this regard.

2.5 Theoretical Framework

This study adopts the agenda setting theory and the Risk Communication model as frameworks. While the agenda setting theory will provide explanations to the ‘why’ of the programme under study, the risk communication model will seek to explain the likely findings of the effectiveness or otherwise of the programme studied. These will provide the basis for conclusion. This is in tune with the fact that theory is interwoven with research and both are significant to arriving at a logical conclusion. Anaeto, Onabanjo & Osifeso (2008:44) while relying on Babbie’s description of the three elements of social science as “theory, research, and statistics, adding that a scientific assertion needs to have both logical and empirical support, that is, it must make sense, and it must align with other observations in the real world”.

Agenda Setting Theory

According to Okaiyeto (2017), the agenda setting was first conceptualized in 1968. Maxwell McCombs and Donald Shaw tested the issues in media during the 1968 elections campaign in Chapel-Hill United States and the issues in public domain at that point in time to see whether there is correlation (Okaiyeto, 2017). Their study found a significant correlation of +979 between agenda in the media and agenda in the public domain (McCombs & Shaw, 1972). Thus, the press will not be successful in telling us the issue to think, but they are successful in telling us the issue to think about.

Agenda-setting theory hypothesized that press men and news editors through their news content shape our socio-political reality in the sense that, what the public holds as important issues are determined by the amount of information received from the media (McCombs & Shaw, 1972).

The Agenda-setting theory is the creation of public awareness and concern of salient issues by the news media. Two basis assumptions underlie most research on agenda-setting: (1) the press and the media do not reflect reality; they filter and shape it; (2) media concentration on a few issues and subjects, lead the public to perceive those issues as more important than other issues. One of the most critical aspects in the concept of an agenda-setting role of mass communication is the time frame for this phenomenon. In addition, different media have different agenda-setting potential. Agenda-setting theory seems quite appropriate to help us understand the pervasive role of the media. McQuail & Windahl (1993).

The theory explains the capacity of the media to influence certain things and which media partners and users found very strategic to engaging the media for set goals. It states, the media

have “the ability to effect cognitive change among individuals, to structure their thinking- has been labeled the agenda-setting function of mass communication. Here may lay the most important effect of mass communication, its ability to mentally order and organize our world for us. In short, the mass media may not be successful in telling us what to think, but they are stunningly successful in telling us what to think about (McCombs and Shaw, 5) cited in Spring, 2002”.

The Agenda Setting theory therefore clearly underpinned why NEMA embarks on using the media to make the people adapt to the emerging concept of risk reduction through *Emergency Update*, in view of the second assumption of the Agenda Setting theory that the “media’s concentration on a few issues and subjects leads the public to perceive those issues as more important than other issues”.

The media have an obligation to set positive agenda for the society (McQuail, 2010, p.171). So, *Emergency Update* seeks to set agenda for its audience towards risk reduction through its broadcast media content. Through setting of media agenda on the kind of behaviour risk and disaster management experts, the public attitude can be influenced.

A major strength of this theory as it relates to this work, it is aptly described by McQuail (2010:515); that “the mass media news selects issues for more or less attention according to several pressures, especially those from real world events” like disasters which is the main thrust of this study; and the main weakness of the agenda setting theory is that “agenda effects are peripheral and short term” (McQuail 2010), whereas disaster risk reduction campaigns required a sustained media messaging over a long term for positive behavioral change in people’s response to disaster.

Risk Communication Model

Over the years, communication scholars have made efforts to improve risk communication practice through developing, testing and refining communication theories and models that measure impacts of risk communication. The Crisis and Emergency Risk Communication (CERC) Model was part of the outcome of the scientific discovery efforts. The CERC model was developed by the Centers for Disease Control and Prevention (CDC) after the 9/11 attacks and the 2001 anthrax attacks to combine image and reputation research with persuasion and strategic messaging research (Seeger, Reynolds, & Sellnow, 2010).

The main thrust of the model splits into five stages and each stage provides a broad set of strategies and suggestions for communication, which include Pre-Crisis, Initial Event, Maintenance, Resolution and Evaluation. The model further discusses who should be seen as the most exigent public at each stage and the types of messages that should be directed to those groups (Reynolds, Galdo, & Sokler, 2002).

The Pre-crisis stage stresses that communication is directed to the public and response community to provide risk messages, warning, and guidance regarding preparation. The next stage is the Initial event, which emphasizes that communication is directed to the general public and affected groups to reduce uncertainty and increase self-efficacy and reassurance.

At the maintenance stage communication is directed to the general public and affected groups to continue the communication efforts from the initial event. The fourth stage is the resolution level where communication is directed to the general public and affected public to provide updates regarding resolution and discuss causes and new risks or new understandings.

The final stage is the Evaluation stage. At this level, communication is directed to agencies and response communities to discuss the adequacy of response and work toward lessons and new understandings. (CERC, 2014 edition). Overall, CERC is a model that supports pre-crisis communication as a method to increase the effectiveness of the response stages and reduce harm in the resolution stages (Seeger, Reynolds, & Sellnow, 2010). Thus, the theory is relevant to this research work which main thrust is the reduction of risk in disaster even before it strikes.

Risk communication model is a behavioural change communication strategy. That is, any public behaviour that can easily make them susceptible to hazards is meant to be discouraged. Therefore, through risk communication, risk and disaster management can be ensued. This means that *Emergency Update* of NEMA is geared towards influencing the public to change risk behaviour. For instance, people living in riverbank, such as in Kogi, Niger and Kebbi states that are prone to flood are always warned against an impending disaster. At the beginning of rainfall season each year, relevant agencies of government like NiMET and NEMA issue early warning messages through the media to communities, to evacuate from flood plain locations to avoid flood disaster.

Both theories owe their origins to disasters that created the imperative for a model that would forestall the recurrence of the phenomena that culminated in their birth. The semblance they share relates to the actuality that they pursue the fundamental purpose of advancing an approach that has the capacity of suitability for risk prevention and management. Given the onus the media are saddled with by way of their responsibility of keeping the people abreast of information required to enable them to navigate the terrain of survival and the focus of the study, both theories provide a veritable framework of analysis of the issue in contestations.

Therefore, they will both be appropriated in the discourses of the issues that gain representational prominence in the research.

CHAPTER THREE RESEARCH METHODOLOGY

3.1 Introduction

This chapter deals with method used in gathering data for the research. It also explains the area of study, Instrument for data collection, validation of the instrument, reliability of instrument, method of data collection and method of data analysis.

3.2 Research Method

The research method employed for this study is the survey research. Lawal and Adeyeye (2006), note that survey is meant to answer questions about fact, description, condition and relationship. This method was considered for this study because the researcher examined the role of broadcast media in risk reduction and disaster management with specific focus on how *Emergency Update* has impacted the people. Thus, sampling the opinion of the general public affected by the phenomenon (*Emergency Update*) is most suitable using survey. Similarly, related studies (Scanlon, 2005; Bhavan, 2009; Olson, Prieto & Hoberman, 2010; Festus & Ogoegbunam, 2012; Adedeji, Odufuwa & Adebayo, 2013; Saleem, 2014; and Patrick & Ferdinand, 2014), adopted the survey method, both quantitative and qualitative. The quantitative was adopted for data gathering from the public, while the qualitative was adopted through the Key Informant Interview (KII) method for gathering data from key informants who were involved in the production and presentation of the programme in focus, *Emergency Update*. The Key Informant sought that their identity be concealed for civil service procedures and privacy.

3.3 Population of the Study Area

The population of this study is composed of the residents of Kaduna metropolis. Kaduna metropolitan area comprises four local government areas - two urban and two semi-urban; Kaduna North, Kaduna South, Chikun and Igabi Local Government areas constitute the area of this study. The people in these areas constitute the population of the study. According to the 2006 census figure, the metropolitan area population of the study area is put at **1,570,331** with each local government area population distribution as follows; Kaduna North; **364,575**, Kaduna South; **402,731**, Igabi; **430,753** and Chikun; **372,272** (National Population Commission, 2007).

Most residents of this area are civil servant, farmers, businessmen, and students from primary, secondary and institutions of higher learning such as Kaduna State University (KASU), Nigeria Defence Academy (NDA) and Kaduna Polytechnic. Kaduna Refinery and Petro-Chemical Company (KRPC) and other Textile Companies which are also located in this area of study.

The area was chosen because over the years, incessant floods and other forms of disasters has always ravaged some parts of the area. There is a high presence of commerce and tourism in the area, making the people in the area to have access to the entire mass media outlet that exist with an unhindered access to all forms of media through both terrestrial and satellite systems. Additionally, the producers and programme designers of the programme under investigation also constitute part of the population of the study as key informants.

3.4 Sampling Technique

For this research, the researcher used the multi-stage sampling technique because the research was conducted in large urban and semi urban areas. At every stage of the selection, the simple random sampling (through the ballot system) technique was employed because, being a probability sampling method, it is objective and scientific in the sense that every member of the community is given equal chance of being selected in the sample size (Aina, 2002).

Out of the four local government areas (four local government areas - two urban and two semi-urban; Kaduna North, Kaduna South, Chikun and Igabi), five streets were selected to represent each of the local government areas from a pool of all the streets (see Appendix IV) in the local government areas, making a total of twenty streets. Stage two was the selection of 18 households to represent each of the 20 streets, making it a total of 360 households. The 18 households were randomly selected from a pool of households in each of the 20 streets. After the selection process, the eldest occupant irrespective of gender not below the age of 18 in each of the selected households was administered the questionnaire, which were collated and analyzed.

For the three key informants (Planner, Producer and Presenter of *Emergency Update* names withheld) for the KII were purposively selected because they have been directly involved in the planning, production and presentation of the programme.

Structured and unstructured questions were used to probe response from the producers and presenters of the programme that the researcher interviewed. This is a qualitative research procedure in the sense that, data gathered were analysed qualitatively.

Thus, the in-depth interview ensured that credible and knowledgeable respondents could only be got if sampled respondents are professionals and have an in-depth knowledge on the issue of study (Lee, 2013). Thus, 3 informants served as the interviewees for this study.

This study utilized semi-structured, in-person, one-on-one interviews. Face-to-face interviews are beneficial because rapport can be built between the researcher and interviewee more quickly than during phone interviews (Rubin & Babbie, 2015).

3.5 Sample Size

A sample size of 385 respondents was drawn from all the sections of the population (1,570,331) as got from the survey monkey online calculator (see appendix iii) at 95% confidence level and 5 margin of error. The selection was based on the level of awareness on the programme. Also, for the interview, 3 key informants consisting of the producer, planner and presenter of the programme were involved using the purposive sampling method.

3.6 Method of Data Collection

This research adopted both quantitative and qualitative method of data collection (mix method). In the quantitative method, questionnaires were administered using the self administered method, while in the qualitative method; key informant interview was conducted on three key informants.

Out of a total of three hundred and eighty five (385) copies of the questionnaire administered, only 342 were retrieved. All efforts to retrieve the remaining others were not successful. The data gathered during the KII session with the three key informants were collated for interpretation of results of the analyses in tables as presented in chapter four of this work, where necessary.

3.7 Instrument for Data Collection

For the survey, the instrument for the collection of data is the questionnaire. The Questionnaire contained open and close-ended questions. There were more of close-ended questions so as to enable the respondents to follow the laid down direction of the study and for easy apprehension. The researcher adopted the multi-stage sampling technique, because the study was conducted in a large urban and semi urban centre in the population of the study; while in the case of the Key Informant Interview (KII), a guide was developed to serve as the instrument including the use of sound recording instrument.

3.8 Validity and Reliability of the Instruments

To ensure the instruments designed for this study were valid and reliable, they were subjected to validity test, which was closely linked to the intended objective of this study. Subsequently, the two supervisors vetted the questionnaire and the KII guide.

To further ascertain the validity and reliability of the questionnaire, a pilot study was conducted in Samaru and Bomo, an urban and semi urban area in Sabon Gari local government area of Kaduna State, using 5% of the sample size (20 copies) for the pilot study. Responses from the pilot study were subjected to a reliability test using Cronbach's alpha coefficient (Creswell, 2014). As such, the scale of broadcast media response to risk reduction in disaster management was 0.78, influence of NEMA Emergency Update risk reduction in disaster management 0.81, challenges of the programme 0.85 and how the programme can be improved 0.91. Coefficient Alpha ranged from 0.78 to 0.98 reliability.

3.9 Method of Data Analysis

This research adopted descriptive and inferential statistics in the analysis; Data were presented in table of frequencies and percentages to ease analysis.

CHAPTER FOUR

DATA PRESENTATION, INTERPRETATION AND ANALYSIS

4.1 Introduction

At this stage, the data collected through the administration of questionnaire to the audience of *Emergency Update*, a television disaster management programme on NTA and AIT in addition to the interview conducted with the producers of the programme, are presented and analyzed.

In addition, this chapter is segmented into three sections; section 4.1 is the introduction, 4.2 covers data presentation, interpretation and analyses; and section 4.3 deals with discussion of findings.

4.2 Data Presentation, Interpretation and Analysis

Table 1: Sex of Respondents

Variable	Frequency	Percentage
Male	208	60.8
Female	120	35.1
No response	14	4.1
Total	342	100.0

Source: Field Survey, 2018

Table 1 indicates that male respondents are higher with 63.4% compared to female 36.6%. The reason may be connected to the fact that male folks watch the programme more compared to female.

Table 2: Age of Respondents

Variable	Frequency	Percentage
18-29	24	7.0
30-49	51	14.9
50-59	141	41.2
60 and Above	80	23.4
No response	42	12.3
Total	342	100.0

Source: Field Survey, 2018

Table 2 indicates that age 50-59 represents the highest proportion of respondents with 47.0%. This is followed by age bracket 60-above with 26.7% and age 30-49 with 17.0% of respondents. This clearly shows that most respondents who watch *Emergency Update* programme on NTA and AIT are adults, while the youths are the least number of respondents expose to this programme.

Table 3: Marital Status of Respondents

Variable	Frequency	Percentage
Single	123	36.0
Married	193	56.4
No response	26	7.6
Total	342	100.0

Source: Field Survey, 2018

Table 3 above indicated that we have more married respondents with 56.4% compared to those who are single with 36.0%. This may not be far from the fact that most of the respondents are adult with interest in getting update on emergency situation.

Table 4: Occupation of Respondents

Variable	Frequency	Percentage
Public/Civil servant	60	17.5
Students	6	1.8
Trading	42	12.3
Others	150	43.9
No response	84	24.6
Total	342	100.0

Source: Field Survey, 2018

From table 4, it is obvious that most of the respondents are public servants with 23.3%. This is followed by respondents of other occupation like driving, artisans, mechanics, students, etc. 58.1%. Traders have 16.3%. It shows who most people who watch the programmes are aware of the disaster and emergency issues being discussed.

Table 5: Educational Status of Respondents

Variable	Frequency	Percentage
Primary Education	3	.9
Valid Secondary Education	42	12.3
Higher Education	182	53.2
Others	1	.3
No response	114	33.3
Total	342	100.0

Source: Field Survey, 2018

Table 5 indicates that respondents with higher education are mostly represented. They constitute 79.8% of the total sample. This is good for the study as it means that informed data may have been gathered.

Table 6: Awareness of NEMA’s “*Emergency Update*” Programme aired on NTA and AIT by the Respondents

Variable	Frequency	Percentage
Fully Aware	157	45.9
Aware	76	22.2
Fairly Aware	14	4.1
Completely unaware	18	5.3
Don’t Know	6	1.8
No response	71	20.8
Total	342	100.0

Source: Field Survey, 2018

Table 6 shows that respondents are aware of NEMA’s *Emergency Update* Programme aired on NTA and AIT as 91.1% of the respondents agreed that they are aware of the programme on risk and disaster management.

The programme was essentially designed and produced ‘to educate, inform, enlighten and mobilize the public on how to manage disaster so as to reduce hazard. According to the producers, it was aired on AIT and NTA consistently for a period of two years, 2012 and 2013. One of the key informants says;

The programme was aired on a weekly basis in the two national inclined broadcast stations in Nigeria. *Emergency Update* ran in two national television networks. It was aired on Tuesdays by 6:30 PM on Nigerian Television Authority (NTA) and aired on Thursdays by 6:30 PM on Africa Independents Television (AIT). The programme is typically proactive and reactive inclined. It is a media programme that monitors disaster prone areas and provide the public with viable information on risk managements.

The desk officer, who is in-charge of producing *Emergency Update* notes, “Media play an important role in awareness raising and providing information to the masses. This role becomes crucial when it comes to passing information on disasters and risk reduction”. Thus, exposing the information on how to manage disaster can go a long way in reducing the danger of natural and human disaster in the country.

Disaster is a serious, precarious activity that can be caused by human or natural activities and that has serious human and environment implications. Therefore, media should always see the important of public enlightenment on disaster management. For the many decades; role of mass media in disaster situation has received less attention by the researchers. Media play an important role in awareness raising and providing information to the masses. This role becomes crucial when it comes to reporting during disasters.

Table 7: Awareness on how to Manage Drought, Flood, Landslide, Erosion or Windstorm as a Result of *Emergency Update* Programme on NTA and AIT

Variable	Frequency	Percentage
Completely Unaware	191	55.8
Fairly Aware	69	20.2
Aware	12	3.5
Completely Aware	9	2.6
No response	58	17.0
Total	342	100.0

Source: Field Survey, 2018

The results of the analyses in table 7 reveal the awareness level of the respondents on how to manage drought, flood, landslide, erosion or windstorm as a result of messages passed by *Emergency Update* programme on NTA and AIT; though the level of awareness of the respondents were not measured before watching the programme.

In fact, on a general note, 98.9 % of respondents agreed to have acquired the knowledge of how to manage drought, flood, landslide, erosion or windstorm from the programme. This was corroborated by the data from the key informants, as they stated that the programme impacts the disaster management consciousness of the audience to a great extent.

One of the key informants puts it this way:

It is impacting to a great extent. It assists the public in reducing the level of exposure and reactions to disaster control measures. The programme was mainly for sensitization, the language and mode of the presentation was essentially simple and direct for easy comprehension by all normal adults. This was also generally acceptable by them.

This finding corroborates Bhavan's (2009), observation that timely broadcast media communication about impending disasters can lead to appropriate individual and community action, which is key to implementing effective prevention strategies including evacuation and survival of people and the environment. Therefore, communication content can educate, warn, inform, and empower people to take practical steps towards self-protection from both human and natural disaster.

If media personnel are trained to gather information, then the public will be adequately enlightened on disaster management. During disasters, hype can be utilized quickly by the reporters' competition with a desire to be the first to give the report on the incident. So journalists try to reach the scene immediately and use traditional as well as non-traditional methods to gather information, which in turn becomes a commodity.

Table 8: *Emergency Updates* Plays the Role of Educating, Informing, Enlightening and Mobilizing the Public on Risk Reduction in Disaster Management

Variable	Frequency	Percentage
Strongly Disagree	4	1.2
Disagree	11	3.2
Undecided	44	12.9
Agree	60	17.5
Strongly Agree	103	30.1
No response	120	35.1
Total	342	100.0

Source: Field Survey, 2018

The information in table 8 has shown that the public strongly agreed (53.6%) that *Emergency Update* programme educate, inform, enlighten and mobilize the on risk reduction in disaster management.

A key informant stated that; “NEMA has decided to sponsor the television programme, *Emergency Update* on NTA and AIT simultaneously as an important source of information on hazards and disasters for people”. Media play an important role in awareness raising and providing information to the masses. This role becomes crucial when it comes to reporting during disasters

Table 9 below: Respondents' Agreement on Whether NEMA has Effective Communication on Preventive Strategies in Risk Reduction and Disaster Management in *Emergency Update* Programme

Variable	Frequency	Percentage
Strongly Agree	167	48.8
Agree	64	18.7
Undecided	22	6.4
Disagree	11	3.2
Strongly Disagree	6	1.8
No response	72	21.1
Total	342	100.0

Source: Field Survey, 2018

Table 9 shows that the majority of the respondents constituting 85.6% agreed that NEMA's *Emergency Update* is an effective communication programme on preventive strategies in risk reduction and disaster management. This was buttressed by one of the key informants, who stated that:

The issue of risk and disaster reduction has to involve high level of information among the people. The broadcast media serve as a potent tool in reaching mass audience simultaneously with decisive information to take a rational decision before, during and after emergencies. As such, *Emergency Update* play a vital role in public awareness and preparedness through educating the public about disasters; warning of hazards; gathering and transmitting information about affected areas and alerting government officials, which usually go a long way in reducing the severity of disasters in the country.

During disaster, such as flood, drought, fire outbreak or even earth tremor the media had the invaluable role of reporting the 'breaking news' and everyday developments of such events; also to be able to gather contextually rich information about the causes and consequences of the natural disaster.

For media to be effective in disaster reduction, at the breaking of the event, they should try and obtain more information, use their own files to add background to their stories, dispatch reporters and report anything they are told. Often, they devote their air time or much of the space available to that single story.

Table 10: Extent of the Effectiveness of *Emergency Update* Programme as a Strategy in Risk Reduction in Disaster Management

Variable	Frequency	Percentage
Highly Effective	146	42.7
Effective	75	21.9
Undecided	19	5.6
Ineffective	29	8.5
Highly Ineffective	6	1.8
No response	67	19.6
Total	342	100.0

Source: Field Survey, 2018

As it is important to know whether NEMA *Emergency Update* programme is effective strategy in risk reduction in disaster management; results show that 80% of the respondents agreed that the programme is an effective strategy in risk reduction in disaster management.

Timely mass media communication about impending disasters can lead to appropriate individual and community action, which is the key to implementing effective prevention strategies including evacuation and survival of people. Such communications can educate, warn, inform, and empower people to take practical steps to protect themselves from natural hazards.

Similarly, one of the key informants noted:

The programme provides the latest information and updates on the catastrophe and ongoing occurrences as they unfold. Having a good knowledge of risk communication is paramount here. The main aim of “*Emergency Update*” programme is to provide the public (audience) with meaningful, relevant, accurate and timely information in relation to risks reduction and disaster management in order to influence choice and attitude change. This is exactly what the programme as strategy for risk reduction does.

The broadcast media have been earlier found to be an effective strategy in reducing the adverse effect of natural and artificial or man-made disasters (Yodmani and Hollister, 2001).

Similarly, Owolabi and Ekechi (2014), point that communication is the nexus that anchors the relationships among the four elements of disaster management namely: mitigation, preparedness, response and recovery.

Table 11: Respondents’ Views on *Emergency Update* Influences Public Response to Risk Reduction Preventive Strategies during Disaster Management

Variable	Frequency	Percent
Strongly Agree	145	42.4
Agree	79	23.1
Undecided	14	4.1
Disagree	22	6.4
Strongly Disagree	6	1.8
No response	76	22.2
Total	342	100.0

Source: Field Survey, 2018

On whether *Emergency Update* influences public response in reacting to risk reduction preventive strategies during disaster management; the majority of the respondents (84.2%) agreed that the programme influences their response to risk reduction preventive strategies during disaster.

This result shows that the programme met the four basic elements of risk reduction, which include mitigation, preparedness, response and recovery. Realizing 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. Olson, Prieto and Hoberman (2010), argue, the media play an increasingly crucial role in catastrophe/disaster situations in Haiti and Chile.

Table 12: Cultural and Religious beliefs of the People Serve as a Barrier to acceptance of *Emergency Update* Messages on Risk Reduction and Disaster Management

Variable	Frequency	Percentage
Strongly Agree	145	42.4
Agree	79	23.1
Undecided	14	4.1
Disagree	22	6.4
Strongly Disagree	6	1.8
No response	76	22.2
Total	342	100.0

Source: Field Survey, 2018

Table 12 reveals that the majority of the respondents (84.2%) agreed that cultural and religious beliefs of the people serve as a barrier to the acceptance of messages on risk reduction and disaster management. A key informant acknowledged this that such barriers are the reasons why *Emergency Update* takes cognizance of the public's cultural milieu in the production of the programme.

In African, culture and traditions are full of superstitions that are still revered in some societies. For instant, in Nigeria it is common to hear that villagers along the riverbank are usually adamant to official's admonishment when it comes to flooding or erosion.

Thus, through adequate education and enlightenment via the mass media, people can discover themselves and the potentials in their environment and harness such potentials for the holistic development of the society. It can be said therefore, that the mass media is a school of its own. Through it, a lot of people have been delivered from the bondage of ignorance and illiteracy and it has the power to introduce light in the life of the audience.

Table 13: Not enough time for the airing of *Emergency Update* on Risk Reduction and Disaster Management

Variable	Frequency	Percentage
Strongly Agree	167	48.8
Agree	64	18.7
Undecided	22	6.4
Disagree	11	3.2
Strongly Disagree	6	1.8
No response	72	21.1
Total	342	100.0

Source: Field Survey, 2018

The table above shows that respondents are not satisfied with the time available for *Emergency Update*. Thus, 85.6% of the respondents agreed that there was not enough time allotted for the airing of the risk reduction and disaster management programme.

During disaster, Media hype is paramount as the reporters' compete with a desire to be the first to give the report on the incident. So journalists try to reach the scene immediately and use traditional as well as non-traditional methods to gather information in ensuring that the potential victims are adequately enlightened.

Table 14: The public finds it difficult to understand media instructions on how to manage disaster

Variable	Frequency	Percentage
Strongly Agree	4	1.2
Agree	46	13.5
Undecided	41	12.0
Disagree	64	18.7
Strongly Disagree	93	27.2
No response	94	27.5
Total	342	100.0

Source: Field Survey, 2018

Another challenge that the public faces regarding media instruction on disaster management is the difficulty to interpret the information. The results show that 20.2% of the respondents agreed that the public finds it difficult to understand media messages on how to manage disaster. However, the majority of the respondents (63.3%) disagreed that the public finds it difficult to understand media instructions on how to manage disaster.

The media are essential here, for example, for warnings to be effective and may be the single most important source of public information in the wake of a disaster. The scholarship also shows that media reports that distort what happens in a disaster lead to misunderstandings. However, the onus lies with the media in ensuring that adequate enlightenment and persuasion techniques are utilized during risk communication.

Table 15: *Emergency Update* should make use of Local Language, Costumes etc. in Production of Content

Variable	Frequency	Percentage
Strongly Agree	167	48.8
Agree	64	18.7
Undecided	22	6.4
Disagree	11	3.2
Strongly Disagree	6	1.8
No response	72	21.1
Total	342	100.0

Source: Field Survey, 2018

Following the need to improve on the programme, the results of the analyses in table 15 show that the majority of the respondents (85.6%) agreed that risk reduction messages by *Emergency Update* should be in languages and costumes of the target audience. Through the use of local languages and costumes, the audience, particularly the non-literate, can easily be carried along and thus, having a clear grip of the message. Nigeria as a multi-ethnic and multilingual society with over 250 languages 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.

This corroborates the submission by a key informant who suggests other forms of engaging the public for effective risk reduction campaign in addition to the ongoing TV programme. “NEMA is engaged in community based activities through focus group discussions to further involve target communities in their languages with considerations of their beliefs, especially in rural settings”.

Table 16: Increase Time of broadcast for *Emergency Update*

Variable	Frequency	Percentage
Strongly Disagree	4	1.2
Disagree	60	17.5
Undecided	44	12.9
Agree	11	3.2
Strongly Agree	103	30.1
No response	120	35.1
Total	342	100.0

Source: Field Survey, 2018

Table 16 shows that 51.4% of the respondents agree that the duration of the programme *Emergency Updates* should be increased. This is coming following the fact that respondents agree the time (30 mins) allocated to the programme was not adequate enough.

Table 17: *Emergency Update* should involve audience through introduction of Phone-in Segment

Variable	Frequency	Percentage
Strongly Agree	146	42.7
Agree	75	21.9
Undecided	19	5.6
Disagree	29	8.5
Strongly Disagree	6	1.8
No response	67	19.6
Total	342	100.0

Source: Field Survey, 2018

The majority of the respondents (80.4%) agreed that the programme should involve audience through the introduction of phone-in segment for effective feedback mechanism. Through participatory communication, behavioral change tends to be more effective. In the case of enlightenment campaign on disaster management, programmes that involve the audience in the production will be accepted with excitement.

Additionally, some of the respondents and key informants suggested the adoption of social media as platforms of educating the public especially the youth with disaster and risk reduction messages. This will may help to address the low number of youths that watch the programme '*Emergency Update*' in the proportion of respondents as discussed in table 2 above.

As succinctly put by a key informant:

'There is the need to leverage on the rising rate of social media use especially among the youth group for delivery of early warnings and effective disaster risk messages'.

However, there are increasing concerns about the reliability and authenticity of social media as a source of news. Studies exploring the acceptability of the use of social media in emergency situation have identified mistrust in information sources and the management of misinformation as areas of concern and inhibitors to its adoption. This is found by a study conducted by White et al. (2009) citing the concerns of respondents about uncertainty of information quality and the credibility of sources.

In the same vein, NGIS Australia (2009), found similar results, with reasons given for a lack of uptake of social media among emergency services, including a perceived lack of reliability and validity of information provided. Similarly, a report by the American Red Cross (2010) identified authenticity, privacy, veracity and ownership as key issues related to the use of publicly available data from social media sites in an emergency management context.

4.3 DISCUSSION OF FINDINGS OF THE STUDY

This section related the research questions with the results of the analyses so as to establish findings.

THE FIRST RESEARCH QUESTION: What are the ways *Emergency Update* can respond to risk reduction in disaster management in Nigeria?

The result provided in Tables 6, 7, and 8 reveal the ways *Emergency Update* do respond to risk reduction in disaster management. The results in table 6 show that the programme created awareness about risk reduction in disaster management. Similarly, the results in table 8 showed that the programme has responded to risk reduction in disaster management by informing, educating, enlightening and mobilizing the public in that direction. Therefore, it has contributed to enlightening and educating the society on risk reduction and disaster management. Also, the data from the key informant interview affirmed what the respondents claims as the producers and presenters of *Emergency Update* on disaster management on how communities that are susceptible to flood, erosion etc. are warned on the likely occurrence of disasters.

The agenda setting function of the mass media presupposes the fact that the media can lead members of the public in taking very sensitive decisions on issues of public significance be it politics, economic and social standings. The agenda setting function of the media is predicated on the fact that the mass media can influence the thinking of members of the public through its court of public opinion. Therefore, through succinct move, the media are expected to hype risk situations during disaster management. Here, the audience will know the importance of the disaster messages they are receive from the media.

THE SECOND RESEARCH QUESTION: What is the influence of NEMA *Emergency Update* television programme on risk reduction in disaster management?

The results in tables 9, 10 and 11 and the responses from the KII showed that NEMA's *Emergency Update* programme has impacted positively on the public in the area of influencing the decision they take during emergency situations whether natural or man-made disasters. Table 11 shows that public awareness of NEMA "*Emergency Update*" Programme aired on NTA and AIT is high, as 91.1% of the sampled respondents are aware of the programme on risk and disaster management.

The producer of the programme as recorded in the interview equally notes the reason for the production which is 'to educate, inform, enlighten and mobilize the public on how to manage disaster so as to reduce hazard'. In fact, on a general note, 98.9 % of respondents to the question affirm that they have knowledge of how to manage drought, flood, landslide, erosion or windstorm, as they are the likely natural disaster that Nigeria is prone to. One can invariably see the importance of media in disaster mitigation and control. Media are helpful in reducing the severity of disasters.

Previous studies have shown the importance of media in reducing hazards in flood, hurricane, earthquake, landslide, tsunami prone nations, such as Nepal, India, Indonesia, Malaysia, Haiti in the Caribbean and the North America (Bhavan, 2009; Coyle & Childs, 2005; Saleem, 2014; Scanlon, 2005).

The Nigerian media are not left behind in their contributions towards disaster management. Data in table 9 shows that 85.6% of the respondents agree that NEMA has effective communication for preventive strategies in risk reduction and disaster management in its *Emergency Update* programme. NEMA's utilization of the broadcast media in its effort for risk and disaster management in the country yields positive commendations from the public as they experience its impact on their environment.

Furthermore, as it is important to know that NEMA *Emergency Update* programme is an effective strategy in risk reduction in disaster management; hence the results in table 10 show that about 80% of the respondents agree that NEMA *Emergency Update* programme is an effective strategy in risk reduction in disaster management.

Therefore, media is successful in setting agenda on risk and disaster management among the public. As so doing, the programme is also successful in influencing the public behaviour regarding disaster management.

In this case, the NEMA media programme is an effective strategy in disaster management in Nigeria. The importance of media use as a strategy to adopt for risk reduction for disaster management as an aspect of crisis communication cannot be over emphasized. As earlier noted, communication is seen as the nexus that anchors the relationships among the four elements of disaster management namely: mitigation, preparedness, response and recovery (Owolabi & Ekechi, 2014; Yodmani & Hollister, 2001).

Having a good knowledge of risk communication is paramount here. The main aim of risk communication is to provide the public (audience) with meaningful, relevant, accurate and timely information in relation to risks reduction and disaster management in order to influence choice and attitude change. Some disaster prone nations, especially the developed ones, have overtime, embraced Risk Reduction as a proactive strategy to cut cost, save more lives and reduce effects. Nigeria experiences its share of disaster like other countries in the world.

THE THIRD RESEARCH QUESTION: What are the challenges facing *Emergency Update* in responding to risk reduction in disaster management in Nigeria?

Though *Emergency Update* strive towards risk reduction and disaster management reporting, there are bound to be some challenges. Results in Tables 12, 13 and 14 reveal the challenges of the programme in responding to risk reduction in disaster management in Nigeria. Results show that cultural and religious belief, lack of adequate time and space, non use of local languages in the packaging of the programmes are the challenges *Emergency Updates* faced in responding to risk reduction in disaster management in Nigeria. Table 12 shows that 84.2% of the respondents agree that the cultural and religious belief of the people serve as a barrier to acceptance of messages on risk reduction and disaster management put up by NEMA's *Emergency Update*. The results in table 13 also show that 85.6% of the respondents agree that the time (30 minutes) for the programme is inadequate for the airing of risk reduction and disaster management content.

Agboola et al, succinctly put it that research findings has shown that the media in Nigeria have failed to sufficiently vis a vis duration, bring environmental issues and the danger it portend to the public. (Agboola and Hodder cited in Akinleye and Ojebode, 2004).

Another major challenge faced by the Nigerian Media in risk reduction content, is economic, since primarily media is established to maximize profit. This is captured by studies carried out by Owolabi and O'Neill (2013), where it was discovered that the Nigerian media have been battered and crippled as a result of economic meltdown 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 struggle for survival and in many instances, it causes collapse of many media outfits in the country. Nigerian media did not consider environmental-related matter as major issue that can boost advertising patronage, hence the 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 time to environmental and safety issues is what Okunlola (1996), describes as lack of specialized training for most reporters covering the beat which is largely responsible for lack of sound editorial judgment to discern timely, accurate and all important emergency life-saving messages that could avert disaster and minimize damage invulnerable 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 flood 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 'Ocean Surge' and 'Tidal Waves' in order not to confuse the reading and listening audience.

THE FOURTH RESEARCH QUESTION: How can *Emergency Update* be made to improve to response on risk reduction in disaster management in Nigeria?

Results presented in tables 15, 16 and 17 shows that the programme can improve on its responsibility in risk reduction in disaster management in Nigeria through the use of local content such as language, costumes etc. at most times; more time on risk reduction should be initiated and the programme should involve audience through introduction of phone-in segments.

Applying the thesis of agenda setting and that of risk communication model in risk reduction in disaster management in Nigeria by the media will go a long way in improving the enlightenment role of the media during disaster. Here, the social responsibility role of the media as an ethical framework suggests that an entity, be it an organization or individual has an obligation to act for the benefit of society at large. Social Responsibility is a duty every individual has to perform so as to maintain a balance between the economy and the ecosystems.

CHAPTER FIVE SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter is a summary of the entire research work; it gives a detailed summary of the whole work. It also made conclusion and recommendations on the role of *Emergency Update* as a tool for risk reduction in disaster management in Nigeria; with a focus on the use of *Emergency Update*, a sponsored programme on NTA and AIT by NEMA.

5.2 Summary

This study was carried out with the intention of assessing the role of the broadcast media as a tool for risk reduction in disaster management in Nigeria; with a focus on the use of *Emergency Update* programme sponsored by the National Emergency Management Agency (NEMA) on NTA and AIT using Kaduna metropolis as the location of the study.

Primarily, the study sought to investigate the effectiveness, challenges and ways to improve NEMA's *Emergency Update* in risk reduction in disaster management in Nigeria. Interestingly, evidence from literature review and theoretical review showed that media have a vital role to play in risk reduction during disaster management.

5.3 Major Findings of the Study

In gathering the needed data, primary sources were used such as the questionnaire and in-depth interview. The researcher used the survey method to gather data through the instruments of the questionnaire and KII guide.

After the analyses of the data, interpretation and discussion, subsequently, the followings were reached as key findings of this study;

- i. *Emergency Update* contributes to risk reduction in disaster management through informing, enlightening, educating and mobilizing the public on the measures to reduce the adverse effect of disaster when it occurs. Audience believes that the programme has contributed to enlightening and educating the society on risk reduction and disaster management.
- ii. *Emergency Update* is seen by the public to be effective in enlightening them on risk reduction and disaster management.
- iii. NEMA's *Emergency Update* programme has impacted on the public in the area of influencing the decision they take during emergencies. Therefore, *Emergency Update* plays an important role in awareness raising and providing information to the masses. This role becomes crucial when it comes to disseminating information on disasters and risk reduction.
- iv. Cultural and religious beliefs, inadequate air time, non use of local languages in the packaging of the programme are identified as challenges of the *Emergency Update* in responding to risk reduction in disaster management in Nigeria.
- v. *Emergency Update* can improve response on risk reduction in disaster management in Nigeria through the use of local language, costumes, increased duration and coverage and the programme should involve audience through introduction of phone-in segment and other audience inclusion methods.

5.4 Conclusion

In conclusion, it is pertinent to note that *Emergency Update* has appropriately responded in awareness creation and effectiveness for enlightening, educating, informing, mobilizing, integrating, socializing and liberalizing the public on disaster mitigation and control. *Emergency Update* provided the latest information and updates on the catastrophe and ongoing occurrences as they unfolded. It provided information about damage; destruction and casualties even when no one was yet clear about the situation in the early stages of the disaster.

This study confirms the efficacy of Agenda Setting Theory in the sense that Emergency Update is successful in setting agenda among the public regarding risk and disaster management. In the same vein, risk communication is used here for behavioral change among the public.

Emergency Update faced cultural and religious belief, inadequate airtime, non use of local languages and programme packagings are some of the challenges broadcast media in responding to risk reduction in disaster management in Nigeria.

5.5 Contribution to Knowledge

The study was able to document how Nigerian television industry has been responding to risk reduction in disaster management. Furthermore, the study helps in ascertaining the trends in television response to risk communication. The strategies adopted by the media (television) in effectively transmitting messages of NEMA activities in respect to risk and disaster management in Nigeria is a good attempt at showcasing the importance of media in enlightenment.

This study draws a conclusion on the necessary strategies broadcast media needs to adopt in its programmes in public enlightenment on risk reduction, hazard/disaster management.

Furthermore, this study serves as an aid to the Government and Non- Governmental Organizations (NGOs) to know the appropriate media programme to use or adopt in order to reach out to the wide range of audience with specific developmental messages. Since the project is based on television campaign on risk and disaster management, which consist a problem in the society, the audience will know which television programme to tune to for latest information concerning any update on risk hazard and disaster.

5.6 Recommendations

In the light of the findings made during the course of this research, the following recommendations were made:

- i. The audience should be more involved in the interaction during the cause of the programme. This can be done through, text messages; internet postings and introducing phone-in segment where audience can call in during the programme and make their own contributions on the environmental and disaster risk issues being discussed.
- ii. There is the need for regular specialized retraining of environment and safety reporters on the latest trends in covering risk reduction in disaster management.
- iii. Citizen journalism should be encouraged to improve audience participation through calls for regular, routine pre-disaster contact among concerned stakeholders in order to foster readiness and mutual understanding of one another's working condition.

- iv. Social media is relevant and effective in disseminating disaster risk messages. This study recommends its use for risk reduction campaign, but with caution and fact-check to avoid misleading the public against undue panic in times of disaster; though some concerns exist on the ethical reliability of social media source by previous studies carried out previously.
- v. This study further recommends that the media should strike a balance between ‘urgency’ or rush to break stories and ‘authenticity’ of its story or content. This will help in not only reducing the risk in disasters, but in coordinating response and relief efforts whenever disaster strikes.

5.7 Suggestion for Further Studies

As concluded by this study, ‘there is a dearth of literatures in this area of study’, and this corroborates with Saleem’s (2014) assertion in his analysis on the Role of Disaster Reporting in Pakistan, that “researchers have given less attention to Disaster Risk Reduction (DRR) especially in the field of social sciences and mass communication”. It is based on this that this study suggests the followings for further studies and research in this area of study;

- i. It is necessary to embark on a study with specific focus on the use of radio to reduce risks in disasters in developing countries like Nigeria. Radio remains the most common source of Information to Nigerians. A 2015 snap poll results released by **NOIPolls**, a country-specific researchers in West Africa sub region, revealed that “62 percent of Nigerians get their daily information through Radio in both rural and urban based”.

This study focused on the use of television as a channel in reducing the risks of disaster in Nigeria, which was limited to audiences who have access to TV content in urban centres. Radio has remained a major affordable source of information with wide range of audience in both the urban and rural areas.

- ii. With the growing population of Internet users in Nigeria, which **Statista Portal** (2018) puts at 93 million Nigerians with most on social media platforms, this work suggests a study on the use of social media in emergency situations in Nigeria.

Globally there is a growing research on the use of twitter in emergencies, crises or disasters which have has a short history, given twitter's short life.

Some of the most relevant work, have been done by Palen, Hughes and colleagues on the 2008 Hurricanes Gustav and Ike (Hughes &Palen, 2009), the 2007 wild fires in Southern California (Hughes et al., 2008), by Zuckerman on the Moldovan election protests in Africa (Zuckerman, 2009), and Starbird and colleagues (2010). These studies specifically focus on the use of twitter in a disaster or crisis situation.

- iii. It is also necessary to carry out further research to measure the impacts of media reports on the management of different forms of disasters in Nigeria. Such studies may seek to know whether using the Behavior Change Communication Strategies, to determine if people in flood plains locations heed to early warning signs and or if such early warning messages in the media call to action and influence the behaviors of vulnerable people before disaster strikes

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APPENDIX I
QUESTIONNAIRE

Dear Respondent,

I am a post-graduate student of the Ahmadu Bello University, Zaria, from the Mass Communication Department conducting a research on the “Broadcast media as a tool for risk reduction in disaster management in Nigeria: A Study of “*Emergency Update*” Programme on NTA and AIT. Any information given is strictly for Academic purpose and will be treated as confidential. Your responses and co-operation are highly appreciated.

Thank You.

Tick (✓) the appropriate option(s)

SECTION A

DEMOGRAPHIC DATA OF RESPONDENTS

1. Sex of Respondent:
(a) Male [] (b) Female []
2. Age of Respondent:
(a) 18-29 [] (b) 30-49 [] (c) 50-59 [] (d) 60 and above []
3. Marital Status of Respondent:
(a) Single [] (b) Married [] (c) Others []
4. Occupation:
(a) Public/Civil servant [] b. Students [] c. Trading [] d. Farmer [] e. Others specify.....
5. Education Status:
a. Primary Education [] b. Secondary Education [] c. Higher Education []

SECTION B

RESPONSE ON BROADCAST MEDIA RESPOND TO RISK REDUCTION IN DISASTER MANAGEMENT IN NIGERIA

6. What is the basic function of Nigeria broadcast media?
a. Enlightenment [] b. Education [] c. Information [] d. Mobilization [] e. National integration [] f. All of the above [] e. None of the above []
7. Do you agree that Nigerian broadcast media have a role to play in risk reduction during disaster management?
a. Strongly Disagree [] b. Disagree [] c. Undecided [] d. Agree [] e. Strongly Agree []
8. How do you perceive Nigeria broadcast media role in risk reduction in disaster management.
a. Highly ineffective [] b. Ineffective [] c. undecided [] d. effective [] highly effective []
9. Nigeria broadcast stations engaged on educating, informing, enlighten and mobilizing the public on disaster management.
a. Strongly Disagree [] b. Disagree [] c. Undecided [] d. Agree [] e. Strongly Agree []
10. The Nigeria broadcast stations are effective in communicating preventive strategies during disaster. a. Strongly Disagree [] b. Disagree [] c. Undecided [] d. Agree [] e. Strongly Agree []

SECTION C:

RESPONSE ON THE INFLUENCE OF NEMA ‘EMERGENCY UPDATE’ TELEVISION PROGRAMME ON RISK REDUCTION IN DISASTER MANAGEMENT

11. Are you aware of NEMA “*Emergency Update*” Programme aired on NTA and AIT?
a. Completely Unaware [] b. Fairly Aware [] c. Aware [] d. Completely Aware []
12. Are you aware of how to manage drought, flood, landslide, erosion or windstorm as a result of “*Emergency Update*” programme on NTA and AIT? a. Completely Unaware [] b. Fairly Aware [] c. Aware [] d. Completely Aware []

13. Do you Agree that NEMA has an effective communication preventive strategies in risk reduction and disaster management in it “*Emergency Update*” programme? a. Strongly Disagree [] b. Disagree [] c. Undecided [] d. Agree [] e. Strongly Agree[].

14. NEMA “*Emergency Update*” programme educate, inform, enlighten and mobilize the on risk reduction in disaster management

a. Strongly Disagree [] b. Disagree [] c. Undecided [] d. Agree [] e. Strongly Agree[].

15. NEMA “*Emergency Update*” programme is effective strategy in risk reduction in disaster management.

b. Highly ineffective [] b. Ineffective [] c. undecided [] d. effective [] highly effective []

16. NEMA “*Emergency Update*” programme influences public activeness in responding to risk reduction preventive strategies during disaster management.

a. Strongly Disagree [] b. Disagree [] c. Undecided [] d. Agree [] e. Strongly Agree[].

SECTION D

RESPONSE ON THE CHALLENGES OF BROADCAST MEDIA IN RESPONDING TO RISK REDUCTION IN DISASTER MANAGEMENT IN NIGERIA

17. Do you agree that cultural and religious belief of the people serve as a barrier to acceptance of broadcast media messages on risk reduction and disaster management?

a. Strongly Disagree [] b. Disagree [] c. Undecided [] d. Agree [] e. Strongly Agree[].

18. Broadcast media in Nigeria do not allot enough time for the airing of risk reduction and disaster management.

a. Strongly Disagree [] b. Disagree [] c. Undecided [] d. Agree [] e. Strongly Agree[].

19. The public find it difficult to understand media instructions on how to manage disaster

a. Strongly Disagree [] b. Disagree [] c. Undecided [] d. Agree [] e. Strongly Agree [].

20 Risk reduction and disaster management messages on Nigerian broadcast stations are poorly packaged and thus not able to enlighten or educated the public as intended.

a. Strongly Disagree [] b. Disagree [] c. Undecided [] d. Agree [] e. Strongly Agree [].

SECTION E

RESPONSE ON HOW THE BROADCAST MEDIA CAN IMPROVE ITS RESPONSE ON RISK REDUCTION IN DISASTER MANAGEMENT IN NIGERIA

Items	SD	D	U	A	SA
21. Risk reduction messages should make use of local content such as language, costumes etc. at most times					
22. More programmes / time on risk reduction should be initiated					
23. The programme should involve audience through introduction of phone-in section.					
24. The programme should equally be produce in local languages					

APPENDIX II

Key Informant Interview Guide

Dear Respondent,

Below questions are designed to generate vital information for a research work titled; 'An Assessment of the Media in Risk Reduction Campaign; A Focus on *Emergency Update* aired on NTA AND AIT'.

It is part of requirement for the award of a Masters Degree in Mass Communication at the Department of Mass Communication, Ahmadu Bello University, Zaria.

Please respond freely as responses will be treated with utmost confidentiality.

Section A

- a) Name:
- b) Designation:
- c) Organisation:
- d) Specific Role in the Production Process:

Section B

- 1) Were you involved in the design and implementation of the programme *Emergency Update* produced by NEMA and aired on AIT and NTA?
- 2) Did you consider demographic factors such as age, literacy level; gender in the content design of the programme?
- 3) Do you think cultural and or religious beliefs influence the viewership of the programme?
- 4) Do you consider time of airing the programme as well as reception and reach of the selected TV stations effective for the disaster risk reduction campaign?
- 5) Do you consider '*Emergency Update*' effective media strategy in Risk Reduction Campaign?
- 6) What other media strategies do you think can be deployed to achieve an effective risk reduction campaign?
- 7) Do you have any useful information that will assist this research work?

APPENDIX III

SAMPLE SIZE CALCULATOR

How many people do you need to take your survey? Even if you're a statistician, determining survey sample size can be tough.

Want to know how to calculate it? Our sample size calculator makes it easy. Here's everything you need to know about getting the right number of responses for your survey.

Calculate Your Sample Size:

? Population Size:

? Confidence Level (%):

? Margin of Error (%):

Calculate

Sample Size:**385**

Sample Size Calculator: Understanding Sample Size

APPENDIX IV

Location of Population Selected

Five streets selected to represent each of the local government areas from a pool of all the streets in the local government areas making a total of 20 streets.

KADUNA NORTH LOCAL GOVERNMENT AREA

- I. Yahaya Imam Road, Malali, Kaduna
- II. Dange Road, Sardauna Crescent, Kaduna
- III. Kafur Road, Unguwan Sarki, Kaduna
- IV. Sabon Titi, Rafin Guza, Kawo Kaduna
- V. Ramat Crescent, Unguwan Rimi, Kaduna

KADUNA SOUTH LOCAL GOVERNMENT AREA

- I. Jaafaru Road, Barnawa Kaduna
- II. Bashama Road, Tudun Wada, Kaduna
- III. General Pump, Kakuri, Kaduna
- IV. Kagoro by Express, Kaduna
- V. Fire Brigade, Tudun Nupawa, Kaduna

IGABI LOCAL GOVERNMENT AREA

- I. Layin Sarki, Rigachikun
- II. Makarfi Road, Rigasa,
- III. Unguwan Pete, Jaji
- IV. Kofar Gidan Sarki, Zangon Aya
- V. Airport Road, Mando

CHIKUN LOCAL GOVERNMENT AREA

- I. Church Road, Narayi
- II. New Street, Dan Hono I, Millennium City, Kaduna
- III. ECWA Street, Romi, Kaduna
- IV. Yakowa Expressway, Kamazau
- V. Sa Gbagyi Avenue, Sabon Tasha