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ANALYZING THE COMMUNICATIVE IMPERATIVE IN AWKA URBAN FLOOD RISKS CONTROL

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Abstract

The importance of Communication in transmitting information about health and environmental risks cannot be over emphasized. Communication helps human beings to interact and be aware of their environment. This study explored the relevance of flood risks control communicative interventions in Awka Urban. Effective Risk Communication equips people with information on risk events and happenings around them, especially information on flood menace and ecological risk, hence this study sought to explore what was obtainable in Awka Urban. This study was designed as a survey. A sample of 384 respondents was drawn from 10 villages, randomlyselected from Awka Urban. Findings show that residents of Awka urban werenot really exposed to flood risks communication. The study also discovered that, although, flood risks control communicative campaigns in Awka urban were available, the awareness was still very low. The study recommended,increased and sustained aggressive flood risks communicative campaigns in Awka urban, using all available channels of communication. It also recommended that the authorities should enact and strictly enforce necessary environmental laws guiding the erection of structures and clearing of water ways through sanitation in Awka urban

Keywords: Analyzing, Communicative, Imperative, Urban, Flood, Risk

INTRODUCTION

Floods are gradually becoming a common phenomenon around the world which is as a result of increase in global temperatures that result in torrential rains and rise in sea level that overflow their banks and flood surrounding coastal lands.Onwuka,Ikekpeazu and Muo(2015) aptly explains that floods are naturally occurring weather event that result in the overflowing of large amounts of surface water over land. Also, the European Union (EU) flood Directives defines a flood as a covering by water of land not normally covered by water. What this means is that flooding can be caused by rise in volume of water within a body of waters that is overflowing of water from their banks such as lakes, rivers due to accumulated rainwater.
According to WHO (2001), Risk communication is any purposeful exchange of information about risks between interested parties… risk communication is the act of conveying or transmitting information between parties about a range of areas including: levels of health or environmental risks; the significance or meaning of health or environmental risks; decisions, actions or policies aimed at managing or controlling health or environmental risks. Interested parties include: government, agencies, corporations and industry, groups, unions, the media, scientists, professional organizations, interested groups, and individual citizens.

In communicating flood risks, Mass Communication and Interpersonal Communication are as important as salt is to food or sugar to tea. Generally, communication animates lives and improves the way human beings do things. With communication, human beings interact and

become aware of events and happenings around them, such as information on flood menace and its life cum ecological risks. Simply put, the essence of flood communication is to enlighten people on the serious environmental, health and psychological hazards posed by flood. Through adequate flood communication, industries, groups, organizations, governments and residents in flood prone cities like Awka can be educated, informed, sensitized and mobilized towards better environmental policy formation and positive attitudinal change; flood communication enhances positive behaviour changes against those human activities that are likely to exacerbate flood in city centers. In fact, effective flood communication offers prompt knowledge about flood dangers and how to avert such dangers before they occur. Allen (2007, p.324) posits that, "To be effective, communication (flood risk communication) must be a two-way process in which, the receiver of the original message responds or reacts to the message; a response (in the desired manner) from the audience becomes the appropriate way to determine whether the intended message has been received and understood by the audience".

Risk communication to the public is critically important in public health emergency preparedness.Savoia , E., Lin. L. and Viswanath, K.(2013). write that "It is one of 15 public health emergency preparedness capabilities developed by the Centers for Disease Control and Prevention (CDC): "Public Information and Warning." During a crisis, Federal, State, and Local public health agencies are typically engaged in a variety of public information efforts to inform the population, encourage the adoption of preventive behaviors, and limit the adverse impacts of specific events. Yet, individuals and groups may not be able to access and use some of the resources offered to them, including information on health and specific threats, because of existing social inequalities, including socioeconomic position, race, ethnicity, and physical and mental health disabilities, among others"

However, Akpofure and Ogbiten (2007, p. 241) posit that the role of communication in the environmental field and its relevance in environmental management has been discussed in many fora.

Statement of Problem

It has been observed that flood does not only pose a risk to humans but it also destroys the ecosystem. During raining seasons, between the month of May and October, annually, most cities in Nigeria experience flood.

Awka urban is one of such cities in Nigeria where government and private businesses lose revenues, buildings, electric poles, malls and other social facilities each day there is flooding. However, these flood menace has been attributed to heavy rainfall, but there are certain human activities within the environment that may cause flood.

Flood risks control communication interventions are one way to mitigate incidents of flooding; Demeritt and Nobert (2014) also posit that "Risk communication plays an increasingly central role in flood risk management"

In the light of the foregoing, the relevance of flood risks control communicative messages in mitigating incidents of flooding in Awka Urban becomes imperative. Are these messages available to residents of Awka Urban? To what extent are residents in Awka Urban exposed to flood risks control communicative campaign messages disseminated among? Is there mitigation vis-à-vis awareness and response?

Objective of the study

This study explored the relevance of flood risks control communicative interventions in Awka urban, Awka urban residents' exposure and response to flood risks control communicative interventions. However, the specific objectives are;

- Determine the sources of flood risk control messages available to Awka Urban residents.
- Find out the number of Awka urban residents that are exposedto flood risks control messages.
- Examine the response of Awka residents to Flood Risk Control messages.

Research Questions

Based on the foregoing objectives, the following research questions were formulated to proffer solutions to the problem of this study;

- What are the sources of flood risk control messages available to Awka Urban residents?
- What number of Awka urban residents are exposed to flood risk control messages?
- What is the response of Awka residents toFlood Risk Control messages?

FLOOD MENACE IN AWKA URBAN

Flooding is one of the worst natural disasters that occur globally, ranging from building collapse, volcanic activities to earthquakes. In Nigeria, 90% of natural disasters are as a result of flooding aside from drought. (Adeleke, 1978) cited by Onwuka et al (2015). Adeleke, (1978) opines that "annually, more than 700,000 hectares of arable lands and built up areas are damaged due to flooding in Nigeria". This means that flooding a reoccurring phenomenon in most areas of Nigeria.

These flooding can be as a result of manmade and natural factors like construction of structures on flood plains, indiscriminate dumping of refuse, excessive rainfall and deforestation.

The National Emergency Management Agency (2012) reported that the 2012 flood in Nigeria was declared a national disaster as it affected over 2.3 million people and killed 363 people. According to Khandihela and May (2006, p.276) cited by Efobi and Anierobi (2013, p.58) stated that 2012 flooding affected 34 out of 36 states of the federation including Anambra state. Also, the National Emergency Management Agency (NEMA) reported that four local government areas in Anambra state was mostly affected and they include; Anambra west, Anyamelum, Anambra East and Ogbaru.

Awka urban in Anambra state is one of the cities in Nigeria where her residents experience havoc as a result of flood in different parts and villages. Some of the badly affected areas in Awka Urban include; the popular ZiksAvenue,Aroma,EkeAwka, Arthur eze Avenue, UnizikTemp site, Umuogbunu, Umuoramma, Umunneoke, Umuzocha, Amikwo, Umukwa, Ifite, Iyiagu, Umubele and Umuike.

According to a report by Gab Alokwe of ABS in Nov 3rd, 2016 that the economic activity was paralyzed at the Ogechukwu street of Umudioka as a result of flood menace. The report blamed the flooding on lack of proper flood channeling at both sides of the road. Also, another report from the same ABS in September,2015 has its headline like this "flood ravages village in Awka".

ROLE OF FLOOD RISKS COMMUNICATION

There are different roles that communication play in risk management especially flood. Akpofure and Ogbiten (2007, p. 241-242) enumerated the role of communication in environmental cum flood management to include, among others:

- **Raising awareness in environmental issues**. They maintain that communication enhances effective participation in the management of environmental issues ranging from information provision to consultation to joint planning and empowering decision making.
- **Promotion of positive and responsible environmental behavior**. Through flyers, posters, radio and television drama, and documentaries, developmental social media posts and comments, communication can be used to demonstrate the benefits of positive lifestyles and human activities that can prevent and control floods.
- **Understanding of interactions between natural resources and the environment.** This can be achieved through the various media weather and ecological reports.
- **Creation of two-way motivational platform for discussion and debate on environmental issues.** Communication can be used to create a participatory and constructive approach through the various media platforms and public spheres where people – environmental experts can come to discuss, enlighten and sensitize people on flood dangers and possible behaviour change and lifestyles through which such dangers could be mitigated.

Uwakwe (2016, p. 43) in his submissions, states that the role of communication towards mitigation environmental issues includes:

- Creating better planning and programme formulation by consulting the people and actively involving them in making decisions that will affect them.
- Creating people's participation and community mobilization by building their confidence to make decisions and carry them out as a community in a self-reliant way.
- Changing lifestyles through the use of mass media to raise awareness, peer counseling, techniques of interpersonal communication and social communication methods to pioneer attitudinal changes.
- Rapid spread of information far and wide through a region or an entire country through the mass media; gaining the attention of decision makers and generating their supports.

DOING FLOOD COMMUNICATION: SIMPLISTIC TECHNIQUES, STEPS AND APPROACHES

Doing flood communication with a view to creating awareness, enlightening and mobilizing a large number of people and residents, requires effective mass media, social media (Twitter, Facebook, WhatsApp etc.) and traditional or fold media techniques and interpersonal approaches. Uwakwe (2016, p. 43-44) advocates that effective application of communication techniques will help mitigate environmental issues, such as flood. Uwakwe (2016) further opines that the use of radio and television drama, documentaries, talk-shows, posters, billboards, adverts, participatory interpersonal communication and development news, as **dialogical instruments for change**, should be paramount. Ebeze (2002, p.29) suggests the use of traditional communication systems or channels in reaching out to the rural people about the dangers of floods, as mentioned below:

- Market Place
- Town Crier
- Visits

- Church
- Village Square

From the foregoing discussions, doing flood communication requires 'mixed approaches' for effectiveness. Thus, the approaches may involve the following steps:

- Identifying the flood prone areas.
- Conducting an environmental assessment or study to understand why s areas are susceptible to flood menace, a form of **community profiling strategy**.
- Doing an advocacy by appealing and galvanizing concerns from key policy-makers to make favourable laws that support flood control interventions.
- Embarking on social mobilization which behooves flood communicators cum environmental change agents to engage groups- religious and cultural groups, as well as the affected communities and other residents to support flood control interventions.
- Communicating social behavior change through dialogic face-to-face or interpersonal communication approaches. This also involves behaviour change analysis to communicate positive lifestyles and activities towards effective flood management.
- Carrying out a participatory evaluation incorporating flood communicators and the people to ascertain the extent of residents' responses to flood communicative interventions.

CHALLENGES INRISK COMMUNICATION

Many scholars have proved that effective communication about risks (flood) help in reducing the effect of the disaster. In communicating risk, there are challenges that makes risk communication less effective. These challenges Rakow, Heard and Newwell (2015) identified as follows;

- How best to help people understand the phenomenology of the risk that they are exposed to.
- How best to present quantitative risk information about risk probabilities.
- The role played by people's emotional reactions to the risks that they face and to the messages that they receive about these risks.

Similarly, Covella(2001) enumerated four basic challenges to any risk communication, although used to explain the challenges in communicating about risks to children, it is found to be relevant to this study. They are namely;

- Complex, confusing or inconsistent risk messages
- Lack of trust and credibility of information sources
- Distortion by News media
- Psychological biases

These challenges above shall be explained to fully grasp the extent of threat they are to risk communication.

Complex, confusing or inconsistent risk messages: in order to help people to understand the extent of the risk they are exposed to, risk communicators develop messages that are complex and confusing to the people through the use of professional terms that either complex or confusing to their audience.

Lack of trust and credibility of information sources: For flood risk control communicative interventions to achieve desired result there is need to consider the sources. People tends to believe and respond positively to information from sources they can trust. Samaddar, Misra

and Tatano(2012)in their findings on *Flood Risk awareness and preparedness…,* state that "higher trust leads to higher risk awareness and better acceptance of perusing preventive action". People often respond and acceptmessages from source they are conversant with. So, in disseminating flood risk control messages, risk communicators are to consider sources that are closer to the audience. For risk communication to be effective, there must be trust and credibility of information sources.

Distortion by News media: Developing content for risk messages, risk communicators face the challenge of news distortion by journalist.According to a major conclusion from a research conducted by Wohlberg and Sjoberg in 1997 on media news, "journalists are biased towards stories containing dramatic and sensational materials". This means that journalists are likely to report stories that they deem news worthy.

Psychological biases: Risk communicators face the challenge of emotional attachment and bias people have about risks(flood) and messages they receive about the risk. According to Covello (2001) there are three causes of this emotional biases towards risk communication;

- Mental shortcut- people calculating the probability that adverse action will happen.
- Unfounded optimism – This leads people to incorrectly ignore or dismiss risk information because of perceived lack of personal relevance.
- The third is what he called the psychological factors such as perceived trust, benefits or control.

THEORETICAL FRAMEWORK

This work is anchored on the Public sphere theory and the Mental Noise theory. The Public Sphere theory which was coined by a German philosopher Jurgen Habermas in the 18th century. This theory postulates that different opinions are expressed, problems of general concern are discussed and collective solutions are developed communicatively. The public sphere is the central arena for societal communication. In large scale societies, mass media and more recently, online network media support and sustain communication in the public sphere. (Hartnult&Kainer 2017).

In relation to this study, through the media and other forms of communication, projecting or disseminating flood risk messages, people, groups, organizations, government and residents in flood prone cities like Awka can be educated, informed, sensitized and mobilized towards better environmental policy formation and positive attitudinal change.
In order words, residents in Awka urban experiencing this ecological problem can express their opinions and problems they face as a result of flood hazards through interactive communication.

Uwakwe and Amadi (2007, p. 144-145) also submit thus, "Scholars agree that the audience will attach importance to issue in the domain of the public discussion because the mass media have effectively brought them to public focus.

The **Mental Noise theory** identified by an English Professor of Public Health Vincent Covello in 2001. The principles of this theory focus on how people process information under stress and how changes in the way information is processed affects the outcome of risk communication.
In view of this work, people who are exposed to flood risks can be said to be under stress because they feel threatened by flood. This threat can cause mental agitation that can lead to feeling of anxiety, worry and fear which in turn creates mental noise.

In his work, *Risk Communication, Children's health and Environmental Tobacco smoke,* Covello views mental Noise as having the ability to reduce the way people process information effectively and efficiently by as much as 80%. (Covello 2001).The theory also posits that in situations of stress due to Mental noise, clear and concise messages should be used in addition to employing several communication channels.

Similarly, Infanti,J. et al (2013) opine that it is important to ensure that risk communication materials for people under stress due to mental noise are easily comprehensible and contain adequate repetition and visualization in order to reach the intended audience. In the present study, where relevance of flood risk control communicative interventions is been explored, it becomes imperative for risk communicators especially as it regards flood risks to consider the content of the risk communication materials as to make it easily comprehensible and achieve desired result.

METHODOLOGY

The research design adopted for this study was survey. The population of this study covers only human population, mainly the adult residents of Awkaurban. The target Awka urban residents were predominantly traders, students, civil servants and drivers, between the ages of 18 years and above. Awka urban has an estimated human population of **167,738** (http://worldpopulationreview.com/countries/nigeria-population/cities/)

A sample size of 384 was statistically determined for this study using online calculator for determining sample size; specifically, calculator.net.

Result

Sample size: **384**

This means 384 or more measurements/surveys are needed to have a confidence level of 95% that the real value is within ±5% of the measured/surveyed value.

Confidence Level:	99%	
Margin of Error:	5	
Population Proportion:	50	Use 50% if not sure
Population Size:	167738	Leave blank if unlimited population size.

The Multi- stage sampling technique was adopted for the study. At the first stage, 33 villages in Awka urban were divided into groups or clusters with each cluster housing a number of villages. To ensure that every resident within the villages in the clusters had equal chance of being sampled, a simple random sampling technique adopted, using a "**Statistical Random Numbers Table**". Randomly, each group in the population of study was assigned a number. From the numbers in the random numbers table, two groups, made up of 10 (ten) villages were randomly chosen.

Group	**Villages**
Ifite-Oka	Enu-Ifite, Ezinato-Ifite, Agbana-Ifite
Agulu	Umuogbu, Umubele, Umuanaga, Umuike, Umujagwo, Umuenechi, Umuoruka.

In distributing the questionnaire the researcher used aNon- Probability Convenience Sampling, whereby copies of questionnaire were served only on respondents who were available at the time and showed willingness to be sampled, when the researcher visited each of the chosen villages. Questionnaire (open-ended and closed-ended) was used as the instrument for data collection. This means that out of the 400 copies of questionnaires structured and distributed, each of the 10 villages in the two groups chosen, got 40 questionnaires for 40 respondents. Data gathered were presented and analyzed using SPSS 19 data analysis software.

DATA PRESENTATION AND ANALYSIS

Findings from this study were drawn from data obtained from 400 residents of Awka Urban.

Demographic Data

In terms of Sex of the respondents, results from the study indicated that 173 of the respondents sampled representing 45% are male while 211 representing 55% are females. This goes to prove that at the time of filling the questionnaires, more women were available and willing to respond to questions. On the age of the respondents,about 134 representing 35% of the entire 384 respondents, between the ages of 26-33, attempted the questionnaire. 96 respondents or 25% were in the ages of 18-25, 100 respondents about 26% of the entire respondents were within the ages of 34-41. Respondents between the ages of 42-49 were 35 about 9% of the entire respondents, while only 19 respondents or 5% of the entire respondents were those from 50 years and above. From the data, it can be deduced that the respondents were more of young people, who do not only witness flood menace, but are also aware of flood risks in streets, and perhaps, indulge in certain human activities that expose

them to flood risks. However, respondents around 42-49 and 50-above may have witnessed flood risks and now contribute less in exacerbating the risk. On Occupational distribution of Respondents,out of the total 384 respondents surveyed, 69respondents representing 18% were drivers, civil servants were 115 or 30% of the entire respondents; 54 students about 14% of the entire respondents attempted the questionnaire, while 146 respondents representing 38% of the overall respondents were traders. From the foregoing analysis, a large number of traders and civil servants responded to the questionnaire, possibly, because of their more exposure and frequent witnessing of flood risks during business hours and closing of work respectively, during which rain often falls

Research Question One: What are the sources of flood risk control messages available to Awka Urban residents

Table 1: Respondents major source of flood risk control messages

Response	**Frequency**	**Percentage**
Radio/TV news/Public Service announcements (PSAs)	96	25
Radio/TV documentaries	19	5
Mobile Public Address Systems/Town crier	14	3.7
Social Media	10	2.5
Newspaper/magazine news, advertorial	10	2.5
Don't have access	235	61.3
Total	**384**	**100**

Responses to table 1 show that the majority of Awka Urban Residents do not have access to any of the sources; while Radio/TV/Public services announcements (PSAs) are mostly their source of flood risk control messages (25%). This correlates with the findings in Table 2 that there are still low flood risk control campaigns in Awka Urban.

What this means is that, in line with the tenets of Mental Noise theory, there should be an increased and sustained aggressive flood risks communicative campaigns in AwkaUrban with risk communication materials made more comprehensible. And in doing flood risks communications, all available channels of communication- mass media, social media, interpersonal communication channels/mouth-to-mouth, folk media, billboards, flyers and posters should be explored frequently in order to effectively communicate flood risks control messagesto the target audience who are perceived to be under stress due to threats of flood. Also, according to the principles of the Public Sphere theory, all these communication channels should be used to create a platform where people especially Awka Urban residents can come together and exchange opinion on better ways tomitigate the Flood menace in their area.

Research Question Two: What number of Awka Urban Residents that are exposed to flood risk control messages

Table 2:Respondents' exposure to flood risk control messages

Variables	**Frequency**	**Percent**

Yes	149	38.7
No	235	61.3
Total	**384**	**100**

Responses from Table 2 showed that majority of the respondents have not come across flood risk control messages. Hence, flood risk control messages could be seen as something which the Awka Urban Residents are not commonly exposed to. This implies that there are still very low flood risk control campaigns in Awka Urban. If public sphere flatforms are created in areas especially in Awka Urban where there are flood risks, it will help increase the flood risk control campaigns.

Table 3: Frequency of Exposure to flood risk control messages

Variables	**Frequency**	**Percent**
Always	53	13.7
Sometimes	96	25
Not at all	235	61.3
Total	384	100

The Data above shows how often the Awka urban residents are exposed to flood risk messages. The result shows that 61.3% of the respondents are not yet exposed to any flood risk messages; 25% are sometimes exposed while 13.7% are always exposed. This clearly implies that Awka urban residents are not frequently exposed to flood risk control messages.

Research Question Three

Respondents level of response to flood risks control communicative interventions messages

Response	**Frequency**	**Percentage**
Adequately	42	11
Not adequately	134	35
Very adequately	23	6
Not very adequately	185	48
Total	**384**	**100**

According to data in Table 8 above, out of the total 384 respondents sampled on the level of residents'response to flood risks control communicative interventions messages, 42 or 11% said the level of response was *Adequately,* 134 or 35% indicated *Not adequately,* 23 or 6% stated *Very adequately,* while a large of number of respondents, 185 about 48% of the total respondents indicated that the level of response was *Not very adequately.*

From all indications, there are flood control communicative interventions in Awka urban. But, succinctly, Awka urban residents do not respond very adequately to such communicative

intervention messages. The reason cannot be unconnected to the principles of the mental noise theory that people under stress due to threat are not likely to process and respond efficiently and effectively to risk messages. Also, it agrees with the finding in table 1 that there still very low flood risk control campaigns in Awka Urban. As a result, most residents still indulge in human activities that induce flood in their areas.

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

Flood is a natural disaster that poses a threat to lives and property. One way to mitigate the incidents of flooding is through effective risk communication (Demeritt& Nobert 2014)

Findings from the study shows that Awka Urban Residents are not commonly exposed to flood risk control messages. In this case, the mass media have not been effectively used to disseminate flood risk control messages. Allen (2007,p.324) "provides that to be effective, communication (flood risk communication) must be a two way process in which the receiver of the original message responds or reacts to the message; a response (in desired manner) from the audience becomes the appropriate way to determine whether the intended message has been received and understood by the audience".

The majority of Awka Urban Residents do not have access to any source of risk communication messages, therefore to achieve effective communication messages on flood risk control; all available channels of communication should be explored frequently to make people have access to flood risk messages and boost the awareness of the audience.

The study concludes that it is imperative for effective communication messages on flood risk control and different mass media sources tobe used to disseminatedangers of flood to the audience to be aware on how to face this ecological factor. Application of various channels of communication should be used to address the risk of flooding, which if neglected will be a huge threat to entire natural habitat just as Uwakwe (2016) suggested that the use of radio and television drama, documentaries, talk-shows, posters, billboards, adverts, participatory interpersonal communication and development news, as **dialogical instruments for change**, should be paramount.

Thus, the study recommend as follows

- There should be an increased and sustained aggressive flood risks communicative campaign in Awka urban. Hence, in doing flood risks communications, all available channels of communication- mass media, social media, interpersonal communication channels/mouth-to-mouth, folk media, billboards, flyers and posters, should be explored frequently to make more people have access to flood risks control messages, for effective coverage of all the communities in Awka urban, for increased public awareness, sensitization and mobilization towards positive behaviour change cum response to flood risks communicative messages.
- Forum for public discussions should be created to enable the people come together and discuss their common problems with the authorities and risk communicators. This will also increase trust and credibility of sources of flood risk control messages.
- There should be a strict enforcement of necessary environmental laws by government of Anambra State through its agencies (State Emergency Management Agency and Ministry of Environment) such as the monthly environmental sanitation law, to ensure that residents of Awka urban, especially traders in various streets and markets, clean their environment often, as well as shun blockage of drainage systems with wastes. The AwkaSouth Local Government Authorities should also enforce a weekly monthly sanitation exercise within the metropolis.

- Effective town planning should be carried out to create spaces for free flow of flood water; building residential houses and shops along water-ways ought to be disapproved.
- The Anambra State House of Assembly, in conjunction with the State Judiciary should create Mobile Courts to prosecute residents whose unfair activities in any way exacerbate flood menace in Awka urban.
- The government should not only ensure that competent and quality contractors handle the construction of drainage systems in the metropolis and other flood prone zones in the state, but also monitor the ongoing works, so as to ensure construction of solid water channels for easy flow of water during and after heavy rainfall.
- Residents should shun any activities that expose them to flood risks by adopting simple environmental safeguards, such as opening of water-ways. Thus, random refuse disposals inside gutters, along major roads and streets in Awka urban should be discouraged. Also, the culture of tree planting in strategic flood prone zones should be imbibed to wage flood war against the ecosystem.

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