THE DYNAMICS OF ENVIRONMENTAL INSECURITY IN NIGERIA: EXPLORING BEHAVIOUR CHANGE COMMUNICATION/ADVOCACY STRATEGIES FOR RISKS MITIGATION & ECO-FRIENDLY LIFESTYLES

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ABSTRACT

Environmental insecurity- unsafe, insecure, vulnerable or unprotected environment can be described as the absence, dearth, deficit or lack of environmental security for humans, animals and plants. It also defines an ambience of threats, danger, fear and lack of confidence, as a result of the distending volume of disease outbreaks emanating from the environment, and other environmental imbroglios that do not guarantee the safety of biotic and abiotic elements in an ecosystem. Research evidence has shown that human factors, invariably codenamed 'anthropogenic activities', by environmental communication scholars and experts, are the most causative agents of environmental insecurity in Nigerian rural and urban centers. Among the unhealthy anthropogenic actions include, but not limited to: poor drainage systems, incessant bush burning, illegal excavation of mineral resources, wildlife poaching and trafficking, deforestation, improper waste disposal, open defecation, etc. There could be a tendency to perpetuate these unwholesome acts; thereby, increasingly, endangering humans, plants and animals' survival, if strategic activisms cum engagements are not sustained. Therefore, anchored on *Persuasion theory* of behaviour change, this position paper examines the option of mitigating environmental risks and ensuring eco-friendly behaviour among Nigerians, for a safe environment, though Behaviour Change Communication (BCC) and Advocacy strategies. Indeed, the environment provides shelter and raw materials for human survival; thus, participatory environmental advocacy (public-private information campaigns) and constant exposure to relevant behaviour change information, among others, are recommended for inculcation of positive attitude, which will in turn beget positive change in behaviour and human activities on the environment.

Keywords: Environment, Insecurity, Risks Mitigation, Eco-Friendly, Behaviour Change Communication, Advocacy Strategies.

Introduction

The environment encompasses not only human beings, but also other living things (biotic species of the earth), as well as, the non-living or the abiotic components the ecosystem. It is the totality of the

surroundings of organisms, or any natural or geographic and synthetic, non-natural, simulated, artificial or man-made cosmos or space occupied by human beings, plants and animals. The natural environment comprises: the sky, cloud, sea, water, caves, rock, the sun, the moon, the star, air, soil, tree, among others, while the man-made environment includes: ponds, residential houses, roads, hostels, stadia, office buildings, shops, and other constructions, designs and structures that are products of man's potentials and creative abilities.

According to Shashi (2020), environment is defined as "The totality of the physical and biotic conditions influencing organisms; more specifically, the sum of those portions of the hydrosphere, lithosphere and atmosphere". A significant feature of the environment is that it provides shelter and raw materials for the survival of both the living and non-living constituents; hence, without the environment, living and non-living things will become extinct; this is because the environment offers them the avenue for mutual existence, interaction, habitation and cohabitation; the environment provides the space in which living organisms (micro and macro) exist and occupy.

Obviously, the environment is systemic, an interface of both living and non-living things. The state of the environment, as a physical habitat, determines the state of its inhabitants and vice versa; implying that what affects a fragment of an environment, affects the other fragment. No wonder Orisakwe (2019), cited in Pona, Xiaoli, Ayantobo and Tetteh (2021), argued that if the environment is not healthy or protected, then, everything in the environment is at risk. The World Health Organization's report (WHO, 2017), also cited in Pona, et al (2021) indicated thus:

> Globally, 23 percent of death occurrences and 26 percent of children deaths, ranging up to 4 million children, under five, every year, are due to environmental insecurity. Also, 85 out of 102 categories of diseases and injuries emerging across the world are influenced by environmental factors. Making the environment healthier, safe and secure can prevent about 13 million deaths yearly and avoid 13 percent to 37 percent of the world's disease burden, such as 40 percent of deaths from malaria, 41 percent from lower respiratory infections, and 94 percent of deaths from diarrheal disease.

In recent times, Nigeria's environment has been witnessing far-reaching changes, with flurry of environmental bogs and trends that cause environmental insecurity- destruction of lives and property and general fear among the people. Among these environmental factors that precipitate insecurity and unsafe environment are: population explosion, climate-change, volcanic eruptions, fire outbreaks, flood, erosion, pollution (air, noise, and water), and desertification, among others.

Moreover, there are several ongoing unfettered attempts for oil explorations and industrialization in different sites across Nigeria's northern and southern regions, by the Federal, State Governments, individuals, such as the Dangote Groups, and the multinational oil companies, the Shell Petroleum Development Company (SPDC), Chevron, Texaco, Elf, Agip and ExxonMobil, etc. Also, there is abundance of manufacturing industries, legal and illegal oil refineries and factories across Nigeria, all of these, advertently or inadvertently, produce environmental vulnerabilities on land, air

and water bodies, especially, in the Niger-Delta region of the South- South Nigeria; thereby, enhancing environmental insecurity.

Besides, as a result of lack of development in rural areas, there is high population migration to urban areas, leading to more environmental-related problems. Air pollution, water pollution, poor solid wastes management, urban poverty, desertification, wind erosion, and flooding, have continued to cause more risks to the environment and the population in highly industrialized cities in Nigeria, and climate change has been evident in almost all parts of Nigeria, through excess flooding in the south-east and north-central regions, a decline in rainfall in the north-eastern and southern regions, and temperature increase in all regions of the country (Pona et al, 2021).

However, scholars (Pona et al, 2021) further stated that human activities and behaviour contribute heavily to an unsafe and awful environment in Nigeria; adding that, anthropogenic activities on the environment endanger biotic and abiotic phenomena and escalate the degradation of natural resources and the entire ecosystems. Some of these harmful and unhealthy human activities include: oil spillage, gas flaring, poor adherence to population control mechanisms/ and family planning techniques, incessant bush burning, illegal excavation of mineral resources, wildlife trafficking, deforestation, improper wastes disposal, open defecation and open grazing by herdsmen, etc. These unwholesome anthropogenic acts could be perpetuated ad infinitum; thus, further compromising the safety, mutual co-existence and security of humans, plants and animals in the ecosystem.

Against this background, it becomes imperative to examine how best to establish a secure and healthy environment in Nigeria, enhance environmental risks mitigation and promote eco-friendly lifestyles among residents of rural and urban communities in Nigeria. This paper, therefore, seeks to review extant literature on the dynamics of environmental insecurity in Nigeria and the option of adopting behaviour change communication cum advocacy strategies to achieve environmental risks mitigation and encourage eco-friendly lifestyles among rural and urban dwellers in Nigeria.

Conceptual Review of Literature

Environmental Insecurity Defined
Whenever environmental insecurity is mentioned, what, probably, comes to mind are: the threats of bandits in North-West and North-Central Nigeria, kidnapping, militancy and unknown gunmen syndrome in South-East, South-South and South-West of Nigeria, Boko Haram terrorists' activities in North-East Nigeria and other felonious-life-threatening onslaughts bedeviling Nigeria, at the moment, or the recent military invasion of Ukraine by the Vladimir Putin-led Russian Army, through land, air and sea precincts. Unarguably, the prevalence of the aforementioned skirmishes and imbroglio, mainly, as a result of political power and economic interests, also leads to hazards in the ecosystem; since they, in addition, bring about the release of pollutants into the air, land and water, provide circumstances for global warming and a rapid increase in the average temperature of the earth's atmosphere, as well as, biodiversity loss and ozone layer depletion.

The Encyclopedia of world problems and human potential of the Union of International Association (*UIA*, 2019) argued that conflicts and tensions (environmental insecurity) may arise, not

only because of political and military threats to national sovereignty; they may also result from environmental degradation; the problem of water supply provides the most acute example of insecurity due to environmental factors, especially, in the case of semi-arid countries. Environmental insecurity can, therefore, be defined as any negative, solicited and unsolicited, expected and unforeseen, natural and man-made changes that disrupt or distress the safety, protection or security of human beings, animals and plants in the environment. It comprises all occurrences, whether engineered by man or natural forces, which threaten the safety of living and non-living organism in the environment.

Environmental insecurity, problems or crises also underscore "A deliberate or uncaring destruction of the natural environment, termed *ecocide*" (see Obioha & Udeh, 2022, p. 90).

Environmental Insecurity in Nigeria: Emerging issues, Causes and Implications

No doubt, environmental insecurity is ubiquitous; it is, however, becoming a primary concern in Nigeria, following its humungous threats to lives and property across the country. Among the commonly emerging environmental issues that lead to environmental insecurity in Nigeria, as highlighted in Obioha and Udeh (2022, pp. 90-116) are:

Environmental Issues	Possible anthropogenic Causes
Population explosion	Poor or no adherence to population control measures/poor family planning, rural-urban migration, etc.
Air pollution	Gas flaring, release of pollutants in the air, solid and liquid particles, burning of garbage, chemical explosions and other carbon emissions, etc.
Water pollution	Oil and industrial chemical spillage, release of pollutants, such as pesticides and contaminated liquid into the water, ocean acidification, etc.
Communicable and non-communicable disease outbreaks	Poor wastes management or indiscriminate dumping of refuse, poor sanitation and hygiene maintenance, open defecation, poor wildlife management/ trafficking etc.
Desertification/Arid land with little or no vegetation	Bush-burning, illegal excavation of natural resources, deforestation, overgrazing, excess use of fertilizer in farming practices, urbanization, estate development, etc.
Erosion/Soil degradation	Construction and mining activities, deforestation, mechanical agricultural activities, etc.
Flooding	Blockage of water canals with wastes, poor construction of drainages, building on water ways, deforestation, etc.
Climate-change	Construction and mining activities, electricity generation via burning of fossil fuel, gas flaring and carbon emissions from manufacturing industries, deforestation which prevents absorption of carbon dioxide, etc.

In addition to the above-mentioned environmental issues, there exist, in other climes: drought, wildfire, earthquake, ozone layer depletion, greenhouse effect, snowfalls, tsunami, typhoon or hurricane, among others. The effects of these environmental problems on human lives and property, as well as, on plants and animals cannot be downplayed.

For instance, population explosion causes depletion of natural resources to satisfy insatiable human wants; thereby, putting more pressure on the environment, increasing consumption and bringing about scarcity of food, water, housing accommodation, as well as, spread of different diseases. The issue of climate change is the single biggest health threat facing humanity. The impacts are already harming through air pollution, disease, extreme weather events, forced displacement of persons, food insecurity and pressure on mental health. Every year, environmental factors take the lives of around 13 million people (see *WHO Fast-Facts* on climate action, 2022). Moreover, Haider (2019) opined that Nigeria's climate has been changing, with evidences in: rise in body and atmospheric temperature, variable rainfall, rise in sea level and flooding, drought and desertification, land degradation, more frequent extreme weather events, affecting fresh water resources and loss of biodiversity.

Similarly, Adeleke (1978), cited by Onwuka, Ikekpeazu and Muo (2015), stated that floods cause almost 90 percent of damages resulting from natural hazards; it is fast becoming a serious environmental problem, resulting in huge loss of lives, property and priceless arable land. Floods have rendered many people homeless and disrupted a lot of socio-economic activities in rural and urban cities (Onwuka et al., 2015).

The WHO's data report, cited in Pona et al (2021) also underscored that most of the highest-ranked causes of health problems, codenamed Death and Disability-adjusted Life Years (DALYs), which invariably occur in Nigeria, are related to environmental risk factors; they added that the lower respiratory infection associated with air pollution, has advanced from the 4th in 2007 to the highest-ranked cause of death in 2017. According to the scholars, other predominant causes of death associated with environmental risk factors include: chronic respiratory diseases, cardiovascular diseases, enteric infections, diarrheal diseases, communicable, maternal, neonatal, and nutritional diseases, which have resulted in approximately 800 thousand deaths and 26 million people living with DALYs per annum in Nigeria.

Generally, the Encyclopedia of World Problems and Human Potential (2019) emphasized that the continuing alternation of the global atmosphere threatens global security, the world economy and the natural environment through: (a) climate warming, rising sea-level, altered precipitation patterns and changed frequencies of climatic extremes induced by the "heat trap" effects of greenhouse gases; (b) depletion of the ozone layer; and (c) long-range transport of toxic chemical and acidifying substances. It added that these changes will: (a) imperil human health and well-being; (b) diminish global good security, through increases in soil erosion and greater shifts and uncertainties in agricultural production, particularly for many vulnerable regions; (c) change the distribution and seasonal availability of freshwater resource; (d) increase political instability and the potential for international conflict; (e) jeopardize prospects for sustainable development and the reduction of poverty; (f) accelerate the extinction of animal and plant species upon which human survival depends; and (g) alter yield, productivity and biological diversity of natural and managed ecosystems, particularly forests.

Understanding the Concept of Behaviour Change Communication

Behaviour Change Communication (BCC), also called Development Communication is communication strategy that aims at inspiring individuals, group of people or community to accept change and adopt positive behaviour. Edeani (1993), cited in Obioha and Udeh (2020, p. 69), explains that "Behaviour Change Communication or development is concerned with communicating the development messages, and the use of all forms of communication in reporting, publicizing and promotion of development in all levels of a society"; this development, Okunna (2002, p. 294) argued, should bring change, this change should be for the better, the change should be for the benefit of the majority of the people and the process of change should be participatory, that is, involve the people as closely as possible. It is a research-based consultative process for addressing knowledge, attitudes and practices, including harmful human practices on the environment.

UNICEF Report (2016) defined Behaviour Change Communication as a collaborative and transformative action that emphasizes public and private dialogue to change behaviour on a large scale, including norms and structural inequalities; and provides the following forms of social behaviour change or development programmes: HIV awareness and eradication campaign, hand washing campaign to fight Ebola and Cholera diseases, use of treated mosquito net to control mosquito bite and malaria spread and exclusive breastfeeding campaign.

Other behaviour change programmes supported by UNICEF are: child right and eradication of child marriages, campaign against wicked widowhood practices, female genital mutilation, as well as, campaign for adoption of eco-friendly behaviour for a safe and protected environment, etc. Behaviour Change Communication may resemble advocacy in aim; but, it is broader than advocacy, which is rather, a desideratum, technique or one of the toolkits for enhancing positive social behaviour change in the society.

Advocacy Defined

Advocacy is part of human nature and incorporates many activities, such as: interpersonal relationship construction, sustained media campaign in support of a person, group of persons, a policy, an idea or course, product or services, and systemic issues. It also involves public speeches, discussions and debates to propel actions for or against emerging situations; it entails media relations, community relations, public relations, social mobilization, as well as, sponsored marketing and promotional communications. Explaining the term advocacy, Uzochukwu and Udeh (2019, p. 296) posited thus, "Marketing a project or change programme through advocacy, simply means that a change agent ought to meet the power brokers, opinion leaders, or those that matter in the community, to convince them to accept a change programme, as well as, get them mobilize their people to accept change".

Tersely, advocacy refers to any activity by a person, group of persons, organization or government's institutions, that aims at influencing decisions, improving relationships, or canvassing supports for a course, policy, idea, as well as, positive attitudinal change within a political forum, economic organization, social institutions, etc. It can also be defined as any activity undertaken, sponsored or managed by a person or group of persons, to make something acceptable or rejected, or any active support for an idea or cause, especially, an act of pleading or arguing for something. A person who employs advocacy for an action is called an *advocate*. Gupta (2015), while making a case for what he described as *new paradigm* of social behaviour change or development communication,

stated that "Advocacy involves influencing key policy makers to support development programmes". Moreover, advocacy is a democratic process of presenting one's viewpoints, listening to other people's views and concerns, promoting rights, offering good reasons, pushing for convictions, using effective persuasive communications, exploring options and seeking supports of the people for a cause or idea, right of persons or groups, policy or positive social behaviour change, without coercion or bullying.

Doing a good or strategic advocacy, succinctly, requires an advocate to do proper research about a cause or idea being advocated, engage in a whole lot of public education, organizing, mobilizing and lobbying the target audience, especially, 'those that matter', to achieve some set objectives. Examples of advocacy may include: a house-to-house campaign, in which residents of a given community are called to adopt positive behaviour change and sustained positive actions for a safe environment; a person, group of volunteers or Non-Governmental Organizations working to make road users and drivers follow road-safety guidelines, awareness campaign about condom use and prevention of HIV/Aids, Sexually Transmitted Diseases (STDs), eradication of tuberculosis and other viral diseases, discourage rural residents from improper waste disposal, and urge people to keep sustainable environmental sanitation, as well as, sensitizing people to cause adherence to and adoption of Covid-19 pandemic mitigation measures, etc.

Types or Levels of Advocacy

There are different types or levels of advocacy in existing literature. However, it is the view of this paper to make case for three types of advocacy, namely:

1. **Self-Advocacy.** Succinctly put, self-advocacy refers to a person's ability to effectively canvass, drum supports for, negotiate or communicate his or her own interests, concerns, desires, needs, opinions, pains, rights, thoughts or feelings and ask that what he or she wants, be done according to his or her desires. This can be described as self-activism. This level of advocacy further involves an individual speaking out for himself or herself about what matters to him or her. Self-advocacy involves the ability of one to identify what one wants (self-goal) and how to realize what one wants (action, plan, blueprint or strategy)), without necessarily engaging in the use of force, but dialogic communications.

2. **Group/Individual Advocacy.** Group or individual advocacy involves group of people or individuals with common values or experiences (blind people, women's group, nursing mothers, family members, staff and student union members asking for salary improvement and reduction in school fees respectively, religious or faith-based groups, etc.) coming together to influence policy-makers, public opinion, services and products offered, canvass supports and speak out about an issue or issues affecting them.

   This type of advocacy could also involve other group of individuals coming together to rally supports for other groups believed to be marginalized or treated unfairly. Group advocacy may involve: age group, disability group, race group, among others.

3. **System Advocacy.** System advocacy is the type of advocacy that involves actions and campaigns directed towards establishing societal, structural and overall institutional change for better and for the good all. System advocacy refers to influencing decisions, policies, legislations, as well as causing general positive attitudinal change in the entire society or

polity. System advocacy includes environmental advocacy- a general campaign for positive actions and social behavioural change that promotes safe environment.

Advocacy Skills

Doing a good advocacy requires an advocate and media professionals to possess certain qualities. Some of these skills are identified by Davis (2006) thus:

i. **Communication**. This skill requires that an advocate and media professionals on environmental advocacy or any other form of advocacy, must be able to read and write, as well as, have the ability to clearly define a problem, cause or issue being advocated.

ii. **Collaboration**. No man is an island. This means that a good advocate must be ready to work as a team or partner with others, so as to successfully canvass support for a cause.

iii. **Presentation.** It is not enough to identify a cause or problem; a good advocate must have the ability to demonstrate how a cause affect those it concerns by providing facts and figures, examples and evidence that are capable of influencing decisions for a cause being advocated. He or she must be able to debate and challenge decisions.

iv. **Maintaining professional relationship.** This refers to the ability of an advocate to meet people of diverse views, making new friends, connections and maintaining such relationship in favour of a cause or issue being advocated. Besides, a good advocate must have analytical mind and ability to think logically; he or she must also be a good negotiator, researcher and one who pays attention to details.

Doing Advocacy Campaigns: Key Steps

Before engaging in any form of advocacy for a cause, a good advocate must, first, identify advocacy opportunity that is very passionate to him or her, such as, poor wastes management in XYZ community. It is upon the identified problem that fact-findings and creation of positive sentiments could be based. Thus, Jaramillo (2021) highlights five steps to effective advocacy for effective behaviour change, as follows:

1. **Know Your Facts**. After you have identified an issue that you are passionate about, do your research. Look at both sides of the arguments and make sure that you have concrete information. It is really easy to come across misinformation, so be sure to fact checks.

2. **Listen to the People You Want to Help**. Be an attentive listener and talk to the people who have been personally impacted by the issue for which you are advocating. Bring their stories to light in a way that other people will become aware and understand the problem.

3. **Engage with the Community**. Besides being informed, you must create grip. And to do so, you need a group of people who support your issue and will help you create a movement. Social media is a huge factor to help you get supporters, so is speaking to influential individuals including your professors, local representatives and community leaders.

4. **Build Relationships**. Foster relationships within your community. Get to know your mayor, commissioner and local policymakers. You can help them become aware of a need or problem. Sometimes, the only bit of information they would ever get about the issue is what you provide.

5. **Be Persistent in Advocacy**. Remember, it takes some time for attitudinal change to occur. You cannot just show up once or twice to canvass support for a cause or an issue and expect change. You have to be patient and consistent. Being tenacious also requires an advocate to do continual

evaluation of actions and do a repeat of the procedure, where necessary. In addition to the above steps, an advocate must:

6. Identify, analyze and know his or her audience or campaign targets,
7. Design effective advocacy campaign strategies or messages that would elicit popular supports or acceptance among the audience, and
8. Determine both available and accessible media of communication for advocacy.

Environmental Advocacy

Environmental advocacy can be categorized under system advocacy. Having explained the term advocacy, environmental advocacy, therefore, refers to creating awareness among the people, organizations and government about the environment and environmental problems, as well as, educating, encouraging and mobilizing the people to adopt eco-friendly behaviour. Simply put, environmental advocacy aims at identifying environmental problems that affect both living and non-living things in an ecosystem, framing messages around these problems, mobilizing supports and encouraging the people to embrace positive attitudes or environmentally sensitive behaviour towards a better and safe environment. Some examples of environmental advocacy programmes, include, but not limited to:

    i.   Tree planting campaign to solve the nagging problems of erosion and desertification,

    ii.   Encouraging government, individuals and organizations to build sewage systems and public toilets with water facilities to forestall open defecation,

    iii.   Campaign on proper wastes disposal and management to curb spread of diseases and breeding of pests,

    iv.   Encouraging regular environmental sanitation for a cleaner and healthier environment,

    v.   Promoting use of family planning methods to discourage overpopulation, which also affect the environment and nature resources, in an effort to feed the teeming population,

Media Advocacy Explained

With a view to reaching a wide-range of heterogeneous audience scattered across the world, within the shortest possible time, especially, in this era of media technology, doing advocacy behooves an advocate and media professionals to employ different forms of communication channels to canvass supports for such cause, reach out and mobilize people for positive actions; hence, the term *media advocacy*. Media advocacy can be defined as the effective use of communication media channels, mass media and currently, social media, to influence public opinion, decision-making processes and mobilize supports for a cause, system issues, public policy, idea, products, services, a person, group of persons or an organization. The major aims of media advocacy are:

    i.   To inform, make aware or notify the public about an issue, cause or system issues that require attention for a positive social behaviour, as well as, give reasons why such issues, policy or cause should be attended to or rejected,

    ii.   To influence or sway decision making processes and mount pressure on key decision-makers to support a cause or idea and make decision in favour of such cause or idea,

iii.   To confer 'status', make or mar (status conferral) on a person, group of persons, a cause, product, service, etc. This is done, either by reporting in support or against such a person, group, policy or cause.

iv.   To investigate issues, crimes, societal decadence, environmental quagmires and the vulnerable groups or causes around the society that are unreported, bring them to limelight and mobilize supports for positive social change towards these issues or causes, etc.

Uwakwe (2005) described media advocacy as 'activism or advocacy journalism' and another alternative to objective journalism. "With this style, a journalist can take a point of view, take a position or support a cause in the story" (Uwakwe (2005, p. 93). Also, Itule and Anderson (2007, p. 420) adopted the term 'advocacy journalism' and define it thus, "News writing in which a reporter defends or maintains a proposal or a cause". Besides, Wallack (1994, p. 1) stressed that media advocacy is "the strategic use of mass media to advance public policy initiatives".

Media-Environmental Advocacy (MEA)
Across the world, advocacy is gradually shifting its focus from the personal level advocacy and politics to vulnerable groups (gender inequality, women and children, the elderly, etc.) and system advocacy on barrage of issues pertaining to the environment; thereby, increasingly paying due attention to environmental insecurity and issues arising from nature and their implications on humans, plants and animals' safety. This could be termed *media-environmental advocacy.*

Media-Environmental Advocacy (MEA) refers to the use of media- all available and accessible communication media channels, to investigate environmental insecurity, risks involved, possible causes and create awareness among the people, organizations and government, about the emergence of environmental problems, as well as, educate and mobilize the public to adopt eco-friendly behaviour towards risks mitigations.

In other words, media-environmental advocacy is identifying environmental problems that affect both living and non-living things in an ecosystem and using the media to frame messages around these problems, mobilize supports and encourage members of the public or a community to embrace positive attitudes and environmentally sensitive behaviour aimed at a better and safe environment.

Communication Channels/Tools for Effective Media-Environmental Advocacy
In doing media-environmental advocacy, communication media can be explored, based on certain factors: the demographic characteristics of your target audience or group (age and sex homogeneity or heterogeneity, educational qualification, etc.), audience location, media availability and accessibility, nature of the cause, idea or issue being canvassed, etc. This paper, therefore, proposes the following communication channels or tools for effective media-environmental advocacy regarding environmental insecurity, namely:
i.   Interpersonal communication,
ii.   Chain Short Message Services (bulk SMS), e-mails,
iii.   Letters to the editor in newspapers, newspaper editorials, articles, columns, advertorials,

iv.   Radio commentaries, discussions and debates, audience-participatory shows, action-line columns or call-in programmes, radio documentary,

v.   Magazine features and article writings,

vi.   Television audience-participatory programmes, Guest interviews, analysis, TV documentary,

vii.   Organizational newsletters, bulletins or circulars,

viii.   Organizing public events, town-hall meetings, public shows, demonstrations,

ix.   Use of celebrity endorsements,

x.   Media partnerships with film-makers and other journalists,

xi.   Outdoor advertising and marketing publications, flyers, car announcements, billboards and posters at strategic public locations,

xii.   Social media (Facebook, WhatsApp, Telegram, Instagram, LinkedIn, etc.), among others.

Communicating Environmental Risks Mitigation and Eco-Friendly Lifestyles: The Behaviour Change Communication Strategies

Okunna (2002, p.295) outlines certain steps or tactics which a change agent, including environmental reporters and communicators can adopt, while canvassing for positive social behaviour change in any choice community, thus:

❖ Start with pre-project research (community profiling);

❖ Design relevant messages;

❖ Carry out information campaign;

❖ 'Market' the project through advocacy;

❖ Elicit popular participation;

❖ Achieve attitude and behaviour change.

UNICEF (2008, p.42) further states that as much as possible, communication and programme should be working together through these steps:

a. Use community dialogue to assess the situation; use participatory rapid assessment techniques to draw out the community's own views. Make sure marginalized groups are participating. Participatory research should become an integral and ongoing part of the communication programming process;

b. Revitalize community structures which will share community views with higher authorities (e.g. advocacy meetings of local organizations);

c. Organize meetings to develop community action plans;

d. Involve community structures in implementing activities;

e. Design and implement ways that the community can monitor their own activities (including inputs, outputs and outcomes); and

f. Carve out time and resources in the communication strategy (especially if the programme has not done this sufficiently) to support the community's role in the steps cited above.

Mitigating the Risks of Environmental Insecurity: BCC Practical Example

In practical terms, this paper develops behaviour change communication approaches for achieving eco-friendly lifestyles and mitigating the risks of environmental insecurity (e.g. **Flood Menace in Awka Metropolis, Anambra State)**, in line with the new paradigm philosophies of development communication, as follows:

1.   **Identify Community Problem through Participatory Pre-Project Study**

Both the change agent and the target community should work together to identify and discuss the environmental problem facing the community (e.g. erosion menace, flooding, poor wastes management, desertification, pollution, etc.), in this case, Flood Menace in Awka Metropolis, Anambra State, so as to appreciate what the people suffer (through the community's own eyes), their activities that contribute to the problem and how to properly communicate risks mitigations to get the people adopt eco-friendly lifestyles.

This community-based pre-project approach adopts *'talking with' and not 'talking to'*, between the change agent and the people, at the community level.

2.   **Set SMART Objectives**

Behaviour change objective must be specific, measurable, achievable, realistic and time-bound. A professional change agent ought to establish clear-cut development goals or objectives. Having a smart objective drives focus in doing behaviour change communication. Here, the objectives could be: to curb Flood Menace in Awka Metropolis, Anambra State, encourage eco-friendly lifestyles among the residents of Awka urban towards a secure environment and establish a healthier environment, within one year.

3.   **Conduct Audience Analysis/ KYA (Know Your Audience)**

Demographic and psychographic audience analyses enable the change agent to discern the community's environment, population spread, meet the people face-to-face and understand their main problems, attitude, mindset and behaviour towards flood menace in the metropolis. It affords the opportunity to understand the language, available and accessible channel of communication, as well as cultures of the people etc. Akpofure and Ogbiten (2007, p. 244) explained that, "This involves the identification of those you want to reach. Those you want to persuade to do what you want. In this case, every citizen, but most especially; market women and those dwelling in slums/squatter settlement".

4.   **Design campaign Message for Social Mobilization**

This is the stage where the change agent elicits popular supports. In designing messages for behaviour change and eco-friendly lifestyles, such as curbing flood menace in Awka urban, the change agent must consider the people's culture, dominant attitudes and behaviour in their environment. The language and messages for behaviour change or development must edify, create awareness, build confidence and have the ability to permeate the people's consciousness towards adopting eco-friendly behaviour.

Campaign messages should, as much as, possible emphasize the negative effects of the various human activities that trigger environmental insecurity, as well as, risks posed to human health, plants, animals and the environment.

5.   Do Media Selection/Analysis and Execute Campaign

Excellent development programmes or behaviour change campaigns have often failed, because development or behaviour change agents have continued to use inappropriate communication channels to communicate behaviour change messages to the target audience. Media choice for sustainable development and effective behaviour change, must be strategic (the media must be available, accessible, credible and acceptable to the residents of Awka metropolis). The use of **multi-channel** approach (including interpersonal and traditional communication media) is germane to effectively mobilize the people. "For channel selection to be effective, the change agent needs to know the strengths and weaknesses of the various channels or media of communication- whether mass media, interpersonal media, or small personal media…. However, if attitude and behaviour changes are required, interpersonal media are more appropriate. The change agent should also know the media that are available in the environment and those accessible to the target audience. Again, pre-project research is the best way to find out the available and accessible channels of communication in any community" (Okunna, 2002, pp.298 -299). Other approaches are:

5.Participatory implementation and monitoring of acceptance; and

6. Participatory evaluation and re-evaluation of behaviour change campaign. That is, after behaviour change campaign has been completed, both the change agent and the people should come together to critique the outcomes, so as to measure failure or success.

Stages of Social Behaviour Change Communication

Participant Stage	Role of Change Agent
Unaware stage	Change agent using communication should raise awareness, provide information and recommend solution.
Aware, concerned and knowledgeable stage	Identify perceived barriers and benefits to behaviour change, promote social norm, and recommend action.
Motivated to change stage	Use action messages: when, where, how. Use community groups, social networks to counsel and motivate.
Try new behaviour stage	Provide information on correct use. Encourage continued use by emphasizing benefits.
Repeat behaviour short term	At this stage, reduce barriers through problem solving. Build skills through practice. Assure participants of their ability to sustain new behaviour.
Use adapted behaviour over long term	Encourage testimonials from satisfied participants and customers.

Adapted from UNICEF Report, 2008, p.30 (Writing a Communication Strategy for Development Programmes; A Guideline for Programmes Mangers and Officers).

Theoretical Foundation: Persuasion Theory

Persuasion theory is a form of attitude-change theory in Mass Communication. Propounded by a Psychologist, **Carl I. Hovland**, in 1940s, the theory is concerned with using communications (messages) that are aimed at subtly changing the attitudes of receivers. In other words, persuasive messages are used to activate attitude change (negative or positive) that can modify behaviour of people, consumers, voters, and the general public on matters of public importance.

Example of persuasion theory can be found in environmental risks mitigation campaigns, urging for instance, residents of Awka metropolis to adopt eco-friendly behaviour for a flood-free environment. Baran and Davis (2006, p. 153) outlined the strengths of persuasion theory as a form of attitude-change theory, thus:

i.   Pays deep attention to process in which messages can and cannot have effects;

ii.   Provides insight into influence of individual differences and group affiliations in shaping media influence; and

iii. Attention to selective processes helps clarify how individuals process information.

However, among the weaknesses of this theory are:

a. Experimental manipulation of variables, overestimates their power and underestimate media;

b. Focus on information in media messages, not on more contemporary symbolic media; and

c. Uses attitude change as only measure of effects, ignoring reinforcement and subtler forms of media influence.

According to this theory, the communication process consists of a three-phase model: **Communication-Attitude-Behaviour**. This simply implies that, in conducting media-environmental advocacy for a flood-free Awka metropolis, the residents should be constantly communicated with relevant information and continuous education on environmental insecurity, using persuasive communications, especially, information relating to the negative effects of human activities that trigger environmental insecurity, as well as, risks posed to human health, plants, animals and the environment, with a view to effectively inculcating positive attitude, which will in turn beget positive change in behaviour on the environment.

Conclusion

If the environment is not healthy or protected, then, everything in the environment is at risk (Orisakwe, 2019), cited in Pona et al (2021). The environment provides shelter and raw materials for humans, animals and plants' survival; there is, therefore, need to protect the ecosystem. As a result, environmental advocacy is incredibly important; human beings should show supports for the environment through positive attitudinal change and adherence to eco-friendly activities; that is, the public is required to become aware of their environment and take responsibility towards maintaining a safe environment for the benefit of mankind and other elements in the ecosystem.

One way to mitigate environmental risks, promote and sustain a healthy, nontoxic, protected and secure environment for both living and non-living organisms is through effective behaviour change communication and advocacy- responsive engagements and strategic information campaigns for positive social behaviour renewal.

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Recommendations

Based on the conclusion, this paper recommends as follows:

a. There should be participatory environmental advocacy, involving the people, as closely as possible, as well as, sustained public-private information campaigns, using dialogic, persuasive and strategic communications, against the various human activities that trigger environmental insecurity;

b. The people should be constantly communicated with relevant information and continuous education on environmental insecurity, using persuasive communications, especially, information relating to the negative effects of human activities that trigger environmental insecurity, as well as, risks posed to human health, plants, animals and the environment, with a view to effectively inculcating positive attitude, which will in turn beget positive change in behaviour on the environment;

c. The various government regulatory agencies on the environment, volunteer groups and Non-Governmental organizations should explore *multi-channel approach-* using all available, accessible and acceptable media channels in their media-environmental advocacy, for effective behaviour change communication, environmental risks mitigation and enforcement of eco-friendly lifestyles among the rural and urban dwellers, across Nigeria.

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