

BUILDING Community RESILIENCE

TO MITIGATE DISEASES' OUTBREAKS IN NIGERIA Nucleocapsid protein Membrane glycoprotein

Kyauta Bulus Tanyigna

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Dedication

I dedicate this book to my late mother Liyatu Nzeebe Nayi who died from complications arising from breast cancer, but not until she had made me what I am today – an educated man.

To the ones Nigeria lost to the cold hands of death due to COVID-19 and to all other disease endemics and pandemics, but whose death would have probably been reversed had Community Resilience been entrenched in our country.

Table of Contents

Dedic	cation	iii			
Table	ofCont	t ents iv			
List o	fTables	s vi			
List o	fFigure	esvii			
Forev	vord	viii			
Prefa	ce	xi			
Ackn	owledg	ment xiii			
Chap	ter One				
1.0	Introduction to Resilience				
	1.1	Introduction 1			
	1.2	Resilience in Nigeria 4			
	1.3	Security and Defense in Nigeria 5			
Chap	ter Two				
2.0	Resilience and Disaster Management				
	2.1	Introduction			
	2.2	Disasters in Nigeria 11			
	2.3	Disaster Management in Nigeria 13			
Chap	ter Thre	ee			
3.0	Community Resilience				
	3.1	Introduction 17			
	3.2	Community Resilience and Disaster Management			
		in Nigeria 18			
Chap	ter Fou	r			
4.0	Resili	Resilience and Disease Outbreak 21			

	4.1 4.2 4.3	Introduction Some Epidemics and Pandemics in History Outbreak of COVID-19 in Nigeria	21 23 30		
	4.4	Management of COVID-19 in Nigeria	31		
Chapter Five					
5.0	Comm	unity Resilience at the Ward Levels	35		
	5.1	Introduction	35		
	5.2	Structure of National Resilience Index at			
		Community Levels	38		
	5.3	National Resilience at Community Levels	42		
	5.4	Culture of Resilience	44		
	5.5	Strategies to Mitigate Disease Outbreaks			
		using Community Resilience at Ward Levels	46		
Bibliog	Bibliography				

v

List of Tables

Table 1: Categories of Fragility Status 41

List of Figures

Figure 1: Categories of National Resilience 40

Foreword

The author has worked the National Institute for Policy and Strategic Studies (also called The National Institute or NIPSS) since 2008. The National Institute was established by Decree number 20 of 1979, now Cap N-51 Laws of the Federation of Nigeria, 2004. The Institute was conceived as a high-level institution with the primary objectives of serving as the nation's foremost policy think-tank to develop a crop of top-class technocrats of high intellectual capacity, who will conceptualize and anchor the implementation of innovative and dynamic policy initiatives and strategies, critical for national development. The Institute therefore serves as a high-level Centre for reflection, research and dialogue where, academics of excellence, seasoned policy initiators and executors and other citizens of mature experience and wisdom drawn from all walks of life, meet to reflect and exchange ideas on the great issues of society, particularly as they relate to Nigeria and Africa within the context of a constantly changing world.

NIPSS has as its objectives the following:

- Conducts courses for top-level policymakers and executors drawn from different sectors of the country, with a view to expanding their outlook and perspectives and stretching their conceptual capacity and qualities of discernment and analyses, thereby helping to improve their overall performance in their different fields.
- Organizes and carries out on an interdisciplinary basis, indebt research into the social, economic, political, security, scientific, cultural, and other problems facing Nigeria, with a view to contributing to the search for their solutions.

- Conducts seminars, workshops, and other actionoriented programs for leaders and potential leaders in the public service, the private sector, political organizations, professional bodies, and other groups, with a view to promoting, defining, and enhancing the appreciation for long-range national plans and objectives.
- Publishes books, journals, monographs, and other materials in the interest of the nation, as a contribution to knowledge and for a better national and international understanding.

It was for the National Institute, that the author went for sabbatical leave in the year 2021 at the National Defence College (NDC), Nigeria and particularly at the Centre for Strategic Research and Studies (CSRS) which has the mission to "engage in rigorous research and training in the areas of international security, defence and peace support operations (PSO), strengthen the academic programmes of the NDC, as well as serve as Economic Community of West African States' (ECOWAS) Centre of Excellence for strategic level PSO training." The Centre also has as one of its objectives to among others "support NDC in the conduct of research, documentation and publication of research findings in the broad area of strategic studies.

It was while on the sabbatical that the concept of this book was conceived by the author. This was also the period that COVID-19 had ravished our country and indeed the entire world.

Nigeria as it were, had come to its wits-end in taking all the measures required to combat COVID-19, such as by advising that its citizenry follow all the guidelines and protocols of the outbreak that included social distancing, regular handwashing, good hygiene, and sanitation, yet without a seeming appreciable significant level of a downturn spread of the disease. This failure could partly be attributable to apathy and mistrust by the citizenry to Government policies and directives.

The author has attempted to look at other means of not mitigating the spread of COVID-19 outbreak and ostensibly other epidemics of other diseases outbreaks currently and, in the future, using Community Resilience as a source of internal strength by the citizenry. This according to the author appears more sustainable and could nip the

spread of any disease in the board, so as to avoid the usual fire brigade approach by the State.

Professor Tanyigna is coming with a lot of experience as the first Nigerian alumnus of the prestigious Republic of Indonesia's Institute of Resilience (Lembaga Ketahanan Nasional, Republik Indonesia). Therefore, reading from Professor Tanyigna about Resilience is as if you are hearing from the horse's mouth.

The author sets out at the beginning to delineate the differences between Security, Defence and Resilience in the sense that while security and defence is often viewed as a commodity to be given by the government and therefore the business of government, resilience on the other hand in-cooperates the government, its security apparatuses, and the people themselves. In the light of this therefore, he concludes that the time is ripe for Nigeria to look closely at establishing National Resilience Policies and Standards and key into them starting at community levels.

I cannot agree with him less on Nigeria having a closer look at issues of National Resilience Policy and Standards. This has become pertinent considering that policies on National Defence and National Security are already replete. Power therefore needs to be taken to the people themselves to fight their own battles. However, this must be with the active support and participation of the State at all the levels of governance.

This piece of work is relevant for participants at strategic institutions such as National Institute for Policy and Strategic Studies (NIPSS), Kuru, Jos; National Defence College (NDC), Abuja; National Institute for Security Studies (NISS), Bwari and such other strategic institutes. Students of Policy, Strategy, Leadership and Resilience Studies at tertiary levels will find this a must read too. The work is also recommended to the policy makers and implementors at the Federal, State and Local Government levels.

Professor Ayo Omotayo

Director-General

National Institute for Policy and Strategic Studies, Kuru, Nigeria

Preface

The inadequacies of the Nigeria State in handling outbreak of diseases have probably never been made manifest like during the Corona Virus Disease 2019 (COVID-19) outbreak in 2020. This is because neither the drug against the disease nor the vaccination for the disease had been found more than one year after the outbreak, both preventive and curative measures against COVID-19 included social distancing by staying at home and personal hygiene by regular washing of hands. Staying at home also meant government must provide palliatives for the most vulnerable and the very poor of the Nigeria society whose livelihoods depended on daily jobs. This again become a herculean task, first of all because of paucity of funds and secondly because the distribution was replete with accusations of corruption based on the fact that Nigerians hardly trusted their governments at all levels.

The government initially declared five weeks' total lockdown made up of two weeks at first instance, two weeks after the first instance and one week after the second instance respectively in two states and the Federal Capital Territory (FCT) out of the total number of thirty-six (36) states. This was because they were the epicentres of the disease. During the lockdown, government demonstrated its political will by releasing tones of assorted grains from its strategic grain reserves across the country as well as providing cash donations in billions of Naira to the States. The States also took the challenge of providing these same incentives for citizens so that they could remain at home to observe social distancing.

However, after 5 weeks of total lockdown following the footsteps of developed countries in handling COVID-19, the Nigeria state realized that, not because of medical reasons but for reasons of the economy, it could not sustain its responsibilities to the citizens by the continous provision of palliatives. Although, the government in giving reasons for

the partial lifting of the total restrictions in the movement of citizens, cited economic and medical reasons. However, the empirical evidence among others showed that the "spikes" in the spread of the disease were inversely proportional to the relaxation of the lockdowns. This simply meant it was not for medical reasons, if it was, then the time to have relaxed lockdowns would have been when the curve for the spread of the disease was flattening rather than when it was at the logarithmic or exponential stage.

Had the communities been enabled through building resilience capabilities, longer sustenance of lockdowns could have been achieved which would have mitigated faster the fight against COVID-19. Building resilience capabilities in communities is also apt to scaling down the effect of other diseases' outbreaks, not only in Nigeria but also in Africa. This is because the economies of Africa and indeed Nigeria can better be sustained to handle natural and indeed man-made disasters in an atmosphere where community resilience are optimized.

Emerging and re-emerging diseases such as Lassa Fever, Ebola Fever, Malaria, Leprosy, Typhoid/Paratyphoid Fevers have remained endemic in Nigeria and indeed developing countries for reasons attributable to poverty and un-optimized resilience mounted by communities. So also, natural disasters have had more devastating effects on developing countries compared to developed countries for the same reasons of inadequate resilience capabilities at the community levels. In Nigeria and other developing countries, communities tend to rely mostly on government to solve their problems. This reliance on government would not have been an issue but over the years, the Nigeria State for obvious reasons has not been able to meet these expectations of its citizens.

The summary is that the tactics of Nigerian citizens of over dependence on government must change and with the support of the Nigeria state begin to imbibe community resilience. This appears to be the bane to fight with success not only COVID-19 but also other diseases and disasters, whether natural or man-made.

Brigadier General UFJ Udaya (rtd), plsc (+), mni.

Secretary/Director of Administration National Institute for Policy and Strategic Studies, Kuru, Nigeria

Acknowledgment

I acknowledge God's mercy, grace, and faithfulness to me and all that is mine.

My acknowledgement goes to the one that accepted the love of a village boy with all his short comings. A very homely person to the extent that when she wants him around the most, he is nowhere to be found. Either he has travelled and gone on study tours, gone to other institutions on study leave, to supervise exams or disseminate knowledge, carry out research or on sabbatical. Most times she wishes we could just stay together at home going nowhere and nothing mattered anymore. Joyce Ladi Guful is her name, but she later agreed to be named Joyce Kyauta Tanyigna. The next person is her son Shekwowobami, who shows a lot of understanding whether his father is present or not. In any case you must not take him for granted. I acknowledge you both for the love you both showered on me otherwise this book would not have been a possibility.

I do not take the opportunity given to me to undertake sabbatical fellowship at the National Defence College (NDC), Nigeria, during the 2020/2021 academic session for granted. This was during the tail end of the tenure of Rear Admiral MM Kadiri before his retirement from the Nigerian Navy. The sabbatical continued during the tenure of Rear Admiral OB Daji who took over from him. I am most grateful to these gallant Naval officers for providing this opportunity. This is because, it was during this period that I considered putting ink to paper the "preaching" of resilience which I had begun since my return from "Lembaga Ketahanan Nasional, Republik Indonesia" (Lemhannas, RI) in 2018.

Lemhannas RI is the equivalent of National Defence College (NDC) in Nigeria. As an alumnus of this prestigious Institute (IKAL- Ikatan Keluarga Alumni Lemhannas), this write-up on looking at Resilience to mitigate disease outbreak in our clime was the least, I could do.

The immense encouragements that came from the former and current Deputy Commandant/Director of Studies, Major General A.E Attu and Major General EV Onumajuru respectively; the former Provost and Acting Provost of the Centre for Strategic Research and Studies (CSRS), Ambassador Dr. C.W Wigwe and Ms J.G Sanda, respectively as well as other principal officers of the NDC including the Head of the Department, Science and Technology at the Centre, Navy Commodore A.C Unoneme (Rtd) are worthy of mention. So also, is acknowledgement given to those I met on ground at the College which includes both the military and civilian Directing Staff, Research Fellows, all academic and non-academic staff alike.

My colleagues and other Sabbatical Fellows chipped in one form of advice or the other on this book project. Mentioned must be made of personalities such as Dr. J.S Tsado, Professors R.O Dode; A.A Alao; O.I Ndububa; Drs M. Shauibu; G.K Ezekoka and D.E Sabo. Some of these personalities did some free editorial work that cost me no financial commitment but for whom I owe friendship and look forward to an opportunity to reciprocate the kind gesture.

Back to my base at the National Institute for Policy and Strategic Studies (NIPSS), Kuru, I would like to acknowledge Mr. J.M Juma, the former Acting Director General of NIPSS. It was during his tenure and a result of his academic foresight that I was granted the scholarship to undertake the study at LEMHANNAS RI. The late Director General of NIPSS Professor H.S Galadima, who was at the time of my release to embark on the study, the Director of Research (DOR), was instrumental in advising the Acting DG of NIPSS to let me proceed on the study at the time the Directorate of Research was short-staffed. Unfortunately, death did not allow that we work for a long period of time after my return before his passage to eternal glory on 20 December, 2020.

xiv



1.1 Introduction

The patriarchs of the Bible and Quran were ordained by God to embark on resilience journeys for survival both they, their families, and their possessions, from Middle East to Africa to Asia. So also, were the missionaries as exemplified by Saul of Tarsus who later became Paul. The missionaries embark on journeys that covered the entire globe on foot, camels and by means of other animals. By God's standard, while others gave way and died during the journeys, those that were resilient, again by God's standard weathered through the storms and survived to hand over to the next resilient stock. This way tangible and intangible assets have been handed over from one generation to another.

The whole concept of present-day resilience is a mimic of the olden days. In cases of diseases' outbreaks certain measures were taken and, in some cases, patients were taken out of the camp. Leprosy for example was not allowed within the camp so as not to get others infected. The patients were kept permanently outside the city until they were completely healed. This is considered a resilience method which has been well documented and cherished. Traditional, social cultural and spiritual method of healing of diseases and other palsies was an Angel-troubled pool Bethesda in Jerusalem and the first to enter got healed (John 5). There was also the case of Na'aman the Syrian soldier who got healed of leprosy when he washed himself seven times in River Jordan in Israel as directed by prophet Elisha (2 Kings 5).

Although resilience can be seen in different perspectives. There is the individual resilience. It appears first of all, as inert or inherent, as seen in inert immunity in the skin, gastrointestinal linings furnished with salina,

enzymes, sweat and tears. This form of immunity is taken for granted as the immunity provided here comes into play to wade off would-be threats and antigens without prior notice.

Before the advent of governments and governance, and during the medieval periods when wars were paramount, nations had diverse ways of mounting resilience to ensure they were not annihilated. This is collective resilience. Some of the nations lived on mountain tops, some lived in caves while others lived in forests. This resilience methods were imbibed by whole communities, socio-cultural and ethnic groups. There have even been stories of spiritual methods of individual and community resilience, such as, where even at wars when a gallant war-load is killed at battle field, on coming back home from the battle of other soldiers, the family of the deceased war front who did not come back home with others, and the entire village were never to cry for the dead for some days, because it was taken that the war-load was still able to come back after some days only if there was no cry that he has been killed.

Gregor Medel's law of inheritance is made up of three laws:

- 1. Law of segregation.
- 2. law of independent assortment and
- 3. law of dominance.

The law of dominance is particularly a law of resilience. The law states that in heterozygous individuals or hybrids, the character is represented by two contrasting factors called alleles. The dominant alleles suppress the effect of the recessive unless both the factors are recessive.

It is also the same concept of resilience that is applied in Charles Darwin's published work titled the "Origin of Species" in 1869. He was a British naturalist who propounded that, organisms best adjusted to their environment are the most successful in surviving and reproducing. Taken from Darwin's theory of evolution, survival of the fittest is often conceptualized as the advantage that accrues with certain traits, allowing an individual to both thrive and survive in their environment by outcompeting for limited resources. These traits mentioned can be seen in the light of resilience capabilities and/or cultures.

The need for the society to pay more attention to issues of resilience must come to the fore front of national discourse, particularly against the current realities of emerging and re-emerging diseases' outbreaks which have assumed global dimensions especially in developing countries. This is so, considering that governments in Africa at the national and state levels have had to grapple with lots of challenges which have made them to be overwhelmed. Waiting for governments therefore to solve all problems, may therefore amount to waiting in vain.

Security has often been confused with Resilience, it therefore becomes pertinent at this early stage to focus attention on what security is, so as to delineate it from what resilience is or is not. Security is related to the presence of peace, safety, happiness and the protection of human and physical resources or the absence of crisis and threats to human injury, among others. Security is also said to be a key concern of government. That is why at the inception of every government, the President or Governor swears to an oath to among other things provide security for the citizens. In order words to protect lives and properties of citizens and those that dwell therein.

However, one of the core questions to ask in establishing the difference or the correspondence between national resilience strategy with the state's responsibility to manage national security is; can resilience be an integrated component of national security, or is it an alternative to it? If it is an integrated component, what value addition can resilience bring to the table of national security? But if resilience is complementary to national security, what then is the balance between the two of them?

The main differences between security and resilience appear very clear, in that in both scope and objectives, the two are interrelated, but separate in concepts. In the first instance, security is essentially preventive and proactive in nature, aimed at protecting the state and the citizens against threats, identified, and assessed through the means of intelligence and law enforcement, or risk assessments based on past actual events. In terms of its scope, security as a strategy aims to stop the threat before it materializes or escalates, or in the worst case to defeat it as soon as possible. Security is usually relatively specific, focusing on persons, organisation's facilities, and territory. If the object of security is destroyed, disrupted, or compromised, this constitutes a failure. Security is thus relatively specific in terms of its objectives, and its rate of success is generally verifiable.

Resilience, on the other hand, is a combination of proactive and reactive measures aimed at reducing the impact but not at preventing threats as such. On the contrary, resilience as a concept suggests that preventive measures have not had a full effect, and it consequently focuses on minimizing disruption to critical services to the society once an event has nonetheless happened.

Perhaps because of this logic, most of the resilience strategies would also appear to subscribe to an 'all hazards approach', meaning ability to account for all forms of human, technical and natural threats, ranging from terrorism and sabotage to technical system failures and natural disasters. Resilience also, unlike security, suggests an ability to adapt to disruptions and recover from them to the state of normalcy within an acceptable timeframe, rather than attempting to 'defeat' the disruption or its source. Consequently, resilient systems are often described as selflearning, self-organizing and innovative, a combination of which provides them with the capability to continue functioning, rather than to be safeguarded against disruption or being compromised in another manner.

The critical question again is "how do resilience and security relate to each other and how to balance between the two in terms of objectives and the optimal use of resources? This is not entirely straightforward, but doable, nonetheless. On the one hand, security is an essential element of resilience, with a specific aim to reduce the likelihood of a major event and limit its impact to avoid irreparable damage and loss of life, as well as to facilitate efficient recovery by maintaining the most essential structures and resources as intact as possible. On the other hand, resilience could be seen as an integrated element of national security, with a specific aim to provide a solution for preparedness against unforeseen and sudden threats, against which it is not possible, or at least not cost-effective to use a preventive security approach. In any case, the strategic objective should be lowering the risk of disruption in the most essential functions to an acceptable level, whilst ensuring that the essential functions of the society as a whole can be recovered in a reasonable time and at reasonable cost.

1.2 Resilience in Nigeria

The term 'National Resilience' has not been a familiar term in Nigeria's lexicon. The familiar terms have been "National Security" and "National Defence". There are specific strategic documents in favour of Security and Defence in Nigeria and hardly on National Resilience. However,

because the endorsement of resilience is now the cornerstone for bouncing back in the aftermath of a shock, disaster or a collective trauma, this should change Nigeria's concept to watch out for proactive responses to issues such as outbreak of diseases rather than the usual scenario of only being reactive which makes Nigerian citizens go through avoidable traumas.

Nigeria's official policy frameworks on national resilience called the National Security Strategy reviewed and launched in 2019 only places the responsibility of managing natural disasters on the shoulders of National Emergency Management Agency (NEMA), and without being specific, it mentioned in Chapter 4 that:

"...the objectives of the national crisis and management system seek to prevent crises; establish an effective management structure to respond to a threatened or actual crisis; apply a multi-sectoral approach to crisis management; and lastly, build national resilience".

The policy also stated that

"...to build public resilience, it will promote continuous education, orientation, mobilization as well as emergency preparedness and drills".

This means that the idea of building national resilience in Nigeria can only take place on an ad-hoc basis and only in the event of a crisis will the government institutionalize the establishment of a case-specific strategic level crisis management team. This approach appears too generalized because no Training Institution is given the responsibility of building national resilience. The assumption by government is that crises are an abnormality in our society. This again has defeated the idea found in the conceptualization of national resilience, which believes that crises are bound to happen and so adequate preparedness at all times must be put in place as against the ad-hoc preparations when crises occur.

1.3 Security and Defence in Nigeria

National Security or National Defence from the perspective of the United States of America is a collective term encompassing both national defense and foreign relations, specifically, the condition provided by:

- a. a military or defense advantage over any foreign nation or group of nations.
- b. a favorable foreign relations position or
- c. a defense posture capable of successfully resisting hostile or destructive action from within or without, overt or covert.

While National Defence is the action of defending, of protecting from attack and danger, Security is the condition of not being threatened, especially physically, psychologically, emotionally, or financially.

This means that National Security or National Defence is the security and defence of a nation-state, including its citizens, economy, and institutions, which is regarded as a duty of government. Although originally conceived as protection against military attack, National Security or Defence is now widely understood to include also non-military dimensions, including the security from terrorism, minimization of crime, economic security, energy security, environmental security, food security, cyber-security etc. Similarly, national security risks include, in addition to the actions of other nation-states, action by violent non-state actors, by narcotic cartels, and by multinational corporations, and also the effects of natural disasters.

Governments rely on a range of measures, including political, economic, and military power, as well as diplomacy, to safeguard the security of a nation-state. They may also act to build the conditions of security regionally and internationally by reducing transnational causes of insecurity, such as climate change, economic inequality, political exclusion, and nuclear proliferation.

National Security of a state or nation is a term that has, over the years been closely associated with war situations and elements that impinge on external aggression. The earliest definitions of national security was a situation whereby a nation or state does not have to sacrifice its legitimate interests to avoid a war situation, and was also able to maintain such interests by war, when challenged.

However, with the advent of democracy and its attendant modifications of governance and leadership, the definition and scope of national security has come to embrace other facets of the subject which were not hitherto on the fore. It has also sprung up newer dimensions to an allround appreciation of the subject. It has thus become the requirement to maintain the survival of a state through the use of economic, diplomacy, power projection and also political power.

Security and/or Defence in Nigeria appears to have been given adequate attention. This is clearly seen with the establishment of training institutions and organizations at strategic and lower levels given mandates to strengthen security and defence of the country. The 1999 Constitution as amended serves as the first legal framework in this regard in the sense that it spells out the establishment of the Armed Forces and the Police. Other para-military organizations are also put in place. The military, the Police and the Paramilitary are better equipped to handle the kinetic aspects of warfare. This leaves out substantially the non-kinetic warfare and this appears to be the place where resilience would have served as the buffer.



2.1 Introduction

The interconnectivity between Resilience studies, disaster management and security/defence studies are not disputable. For example, the Nigeria's National Security Strategy (NSS) reviewed and launched in 2019 placed partially the responsibility of what is considered resilience or security of managing natural disasters on the shoulders of National Emergency Management Agency (NEMA). However, the same NSS without being specific, mentioned in Chapter 4 that:

"...the objectives of the national crisis and management system seek to prevent crises; establish an effective management structure to respond to a threatened or actual crisis; apply a multi-sectoral approach to crisis management; and lastly, build national resilience".

The policy also stated that:

"...to build public resilience, it will promote continuous education, orientation, mobilization as well as emergency preparedness and drills".

This means that the idea of building national resilience in Nigeria can only take place on an ad-hoc basis and only in the event of crisis will the government institutionalize the establishment of case-specific strategic level crisis management team.

This approach appears too generalized because no training institution/agency is given the responsibility of building national resilience. The assumption by government is that crises are an abnormality in our society. This again has defeated the idea in conceptualizing national resilience which believes that crises are bound to happen and so adequate preparedness at all times must be put in place as against the ad-hoc preparations when crises occur.

Disasters represent the inability or the unwillingness of human beings to protect themselves from hazards and associated risks. This inability at first is a consequence of the nature and complexity of hazards. It also results from the lack of knowledge on how to reduce or eliminate physical, social, economic, and environmental factors or process, which increase the susceptibility of a community to the impact of hazards. On the other hand, the unwillingness to protect against the impacts of hazards may be political, caused by discrimination or lack of proper management of 'development' by government to reduce the occurrence of disasters in developing nations.

Disasters continue to be of concern in all the countries of the world. Evidence shows that over the last one and half decade (1999-2015), disasters triggered by natural and human-induced hazards have claimed more than 600,000 lives and affected more than 2.4 billion people, the majority of them in developing countries like Nigeria.

According to International Disaster Data Base of United Nations Development Programme (UNDP), Disaster is a sudden catastrophic situation that causes loss of lives, properties, and damage to the environment. It can also be defined as a rapid disruption of natural situations and normal human activities causing damage to property and/or injury to people.

Disasters can be classed into three levels made up of level 1 to level 3 disasters as follows:

- Level 1 also known as minor disaster is the one that could be handled within the available resources of the immediate community. In such a situation, the local community is usually responsible for the decision-making process to resolve the incident. Examples of minor disasters are small market fires, collapsed buildings and road accidents.
- 2. Level 2 are Major disasters whose impact overwhelms the capacity of the local community and require response or assistance from the state or external agencies. An event like this usually requires coordinated efforts and commitment of personnel, equipment, and resources from the assisting agencies. Examples of major disasters are windstorm, air or rail crashes, dam collapse and disease epidemics such as COVID-19.

3. Level 3 known as Catastrophic disasters are disasters that occur without warning and whose magnitude is so large to have the president of a country declare it a national disaster. In such a case all agencies of government, stakeholders and in most cases the international community are involved in the mitigation activities. Resources for intervention in this case, is requested from all known sources, be it national or international. For instance, earthquakes, tsunamis, terrorist attacks, civil disturbances, bomb explosions, toxic gas emissions, nuclear accidents.

Causes of disasters are classified into natural and human induced disaster. The natural disasters include for example extreme weather conditions, windstorms, floods, rainstorms, droughts, desertification, diseases, epidemics, volcanic eruptions, earthquakes, landslides, and tsunamis. The man-made disasters (whether intended or by error) include air crashes, road and train accidents, boat mishaps, collapsed building/structures, toxic chemical accidents, bomb explosions, civil disturbances, terrorism, banditry, militancy, and war.

Nigeria, like the rest of the world, is exposed to a wide range of natural or human-induced disasters resulting in catastrophic situations leading to loss of lives and properties as well as degradation of the environment. These disasters occur in the forms of droughts, desertification, floods, epidemics, coastal erosions, dam failure, building collapse, oil spillage, maritime collision or accidents, act of terrorism, communal clashes, fires, air crashes and boat mishaps, amongst others.

The vulnerability of Nigerians to hazards is a function of several factors; these include the level of poverty; population growth and distribution; and the condition of human settlements and their infrastructure. Other causative factors include the level of environmental degradation, level of public awareness, the dynamics of public policy and environment on Disaster Management.

2.2 Disasters in Nigeria

As mentioned earlier, Nigeria, like other countries in Africa, has had its own share of disasters, from both natural hazards and human induced incidences and all with their debilitating consequences. Indeed, the occurrence of numerous forms of disasters in Nigeria has increased in the last decade, especially in recent times. The range of these disasters includes: frequent oil spills as in the case of Niger Delta, increasing levels of industrial pollution and waste in cities, rise in the number and severity of floods due to climate change, increasing threat of desertification and pest infestations, outbreak of dreaded avian influenza H5N1 (bird flu), droughts and general land use degradation, gully erosions with humanitarian consequences in the South-East, plane crashes and rampant cases of fire disasters across the country, oil pipe-line vandalization in diverse communities, increased urban risks like floodings, collapsed buildings, ethno-religious conflicts and threat to oil and gas installations.

The challenges of disasters' management necessitated the establishment of the National Emergency Relief Agency (NERA) in 1976. Specifically, it is recorded historically that, the drought in the Sudan-Sahel zone of Nigeria between 1972 - 1973, led to the establishment NERA by the then military government through Decree No 12. Act No 5 of 1999. The decree was amended to become the National Emergency Management Agency (NEMA). NEMA was among other things, designated to effectively coordinate the management of emergencies and disaster efforts of all the stakeholders.

National Emergency Management Agency (NEMA) report shows the agency has responded to various disasters including the flood disasters in Ogunpa (Oyo State) in 1982; Lagos Bar Beach in 2001; Shiroro in Niger State and Kaduna in 2003; Gombe in 2004; Jalingo in 2005. Other disasters it responded to include, the 2008 landslide in Agwu LGA (Enugu state); and 2005, 2006 & 2009 landslide in Agwagune (Cross River State).

Nigeria also experienced numerous ethnic, political and religious violent conflicts in Kaduna, Lagos, Kano, Plateau, Bauchi, Borno, Taraba, Benue, Delta, Anambra, Ondo, Osun, Ogun. In addition, there were technological disasters ranging from, the 2002 Ikeja bomb explosion (Lagos State); the 2002 West African Rubber Product Company fire in Ikorodu (Lagos State); the 1992 Hercules C-130 military air-crash at Itokin (Lagos State); the 2002 ADC air-crash at Ejirin (Lagos State); the 2005 Sosoliso air crash in Port Harcourt (Rivers State); the ADC air crash in Abuja. Other technological disasters include the

several pipeline explosions and vandalization in the Niger Delta, series of road traffic crashes and the outbreak of Ebola in 2014, killings by Boko Haram among others, threats posed by frequent oil spills and irreparable damage to environmental and coastal biospheres, increasing levels of industrial pollution, waste and unprecedented climatic changes, and its negative consequences.

Other man-induced disasters in Nigeria in the past include the Jos Terminus Main Market inferno of 12 February 2002 which destroyed over 56 million Naira worth of goods, the Ikeja Military Cantonment Ammunition Transit Depot (ATD) explosion on 27 January 2002 resulting in massive damage to the cantonment with about 1,100 people reportedly killed. Other forms of man-made disaster are those emanating from internal crises such as ethno-religious, quest for resource control and arts of terrorism. These are threats that have occurred recently and are becoming frequent resulting in massive loss of human lives and properties in large proportions.

2.3 Disaster Management in Nigeria

Disaster Management is the organization, management of resources and the responsibility for dealing with all aspect of emergencies (involving disaster prevention and mitigation), especially disaster preparedness, response, and rehabilitation. There is a heightened interest in disaster management worldwide signifying that the world has become a more dangerous place for its inhabitants who are becoming more vulnerable to disasters. Data gathered worldwide over the last three decades suggest that the number of people killed by disasters and the associated economic losses have increased. In the 1990s, an annual average of about 200 million people were affected by natural disasters nearly three times higher than during the 1970s. This has translated to economic losses from such disasters to an average of US\$ 63 billion per year.

Disaster Management, therefore, refers to the process of dealing with disasters, whether before, during or after they might have occurred. In operational terms, it involves the combined efforts of various organizations towards preventing them, preparing for them, responding to them, and recovering from their effects. Disaster Management therefore, is a process or strategy that is implemented when any type of catastrophic event takes place. Sometimes, it is referred to as disaster recovery management, the process may be initiated when anything

14 Building Community Resilience to Mitigate Diseases' Outbreaks in Nigeria

threatens to disrupt normal operations or puts the lives of human beings at risk. Governments at all levels as well as many businesses create some sort of disaster plan that makes it possible to overcome the catastrophe and return to normal function as quickly as possible. One of the essential elements of Disaster Management involves defining the types of catastrophes that could possibly disrupt the day-to-day operation of a city, town, business, or a nation and creating contingency plans, procedures and assembling supplies that can be needed when and if a given disaster does happen. This plan must be comprehensive to encompass a wide range of possibilities that can easily be adapted in the event one disaster sets off a chain reaction of other types of disasters in its wake. Because of the need to continue functioning in emergency situations, Disaster Management plans are often multi-layered and can address such issues as floods, hurricanes, fires, bombings, and even mass failures of utilities or the rapid spread of diseases. The disaster plan is likely to address important matters such as evacuating people from an impacted region, arranging temporary housing, food, and medical care. It is not unusual for the plan to also work towards containing and possibly neutralizing the root causes of the disaster if possible. In recent years, many government agencies stretching from the local to the national level have taken steps to revisit the structure of their disaster plans and run computer simulations to identify weaknesses in the plans and refine them so they can operate with more speed and efficiency.

The National Emergency Management Agency (NEMA) in Nigeria has a specific mandate for the management of disasters. However, since the NEMA document fails to mention the word "resilience", its activities seem to be limited to reaction to disasters with little attention focused on prevention or preparedness in cases of disasters. This has made the function of NEMA fall short of what resilience stands for. On the contrary, resilience is both proactive and reactive but NEMA appears to have concentrated on only the latter.

National Emergency Management Agency's mission is to coordinate resources towards efficient and effective disaster prevention, preparedness, mitigation and response in Nigeria. It acts in the areas of Coordination, Disaster Risk Reduction, search and rescue; policy and strategy; Geographic Information Systems, Advocacy, education, administration, finance and logistics; relief and rehabilitation; planning, research and forecasting. While governments at all levels attempt to provide security as a fundamental prerequisite for a stable social order and for sustainable human development and because it is a priority in all human societies provided as the responsibility of governments to ensure peace and security within the society; tragedies on the other hand, occur naturally or are man-made and can disrupt peace and security within a society.

Tragedies have been with man for as long as civilization and their occurrences have been attributed to numerous factors that are both preventable and non- preventable. Tragedies usually come with destructive occurrences that leave man with a great sense of loss and despair. Any such incidence that leaves man helpless could be referred to as an emergency. Other crises that constitute to national emergencies include civil strife, sabotage, floods, outbreak of epidemics and aggression.

An emergency can sometimes turn out to be a disaster or crisis requiring urgent action to mitigate the effect of such an occurrence. Disaster, hazard, crisis, catastrophe, and upheaval are commonly used to describe such an occurrence. A disaster means, "greater or sudden misfortune". It is an event or hazard; natural or man-made, sudden and or progressive, which impacts with such severity that leaves a community helpless and miserable.

It was in recognition of the increasing toll from disasters in terms of human suffering, death, infrastructural damage, loss of income and the attendant psychological trauma that NEMA was set up to see to the management, mitigation, and prevention of such disasters. The establishment of NEMA was also in the full awareness that some of the disasters could be avoided through better planning, control measures, warning systems, community development and preparedness. Because disasters and emergencies impact negatively on sustainable national development, the need to manage them more effectively have made most developed and some developing nations to adopt proactive measure by forecasting hazard-prone areas in order to prevent or mitigate the impact of disasters.

In Nigeria, there are many stakeholders both domestic and international in the management of emergencies and disasters. These include the Nigerian Armed Forces, Nigeria Police (NP), Federal Road Maintenance Agency (FERMA), Federal Road Safety Corps (FRSC), and the Nigeria Fire Service (NFS). Others are the National Security and Civil Defence Corps (NSCDC), the Red Cross and United Nations High Commission for Refugees (UNHCR) and some individuals among others. However, the extent to which the various activities of these stakeholders are harmonized, coordinated, and synchronized in situations of national emergencies and disasters leaves much to be desired.

The recurrent and increasing occurrences of disasters have presented the critical need for a more effective, holistic, and proactive approach to disaster management in Nigeria. This approach ought to be community-based and federally funded and coordinated. There is the need therefore, to focus on disaster risks and the vulnerability of communities with emphasis on multi-levels and multi-dimensional coordination. More collaboration between all stakeholders and the private sectors particularly the insurance companies would also be necessary as mitigation measures. The disaster plan ought to include preparation for terrorist threats, which poses new and hitherto unimaginable concerns in Nigeria.

However, despite the NEMA's establishment, response to disasters in Nigeria has fallen short of expectation. This has largely been attributed to inadequate capacity building and integration of effort. Moreover, NEMA's intervention has continued to be focused largely on relief efforts as against proactive approaches.

In the case of Nigeria, it does appear that the setting up of the disaster management agency – NEMA, was with the intention of addressing natural disasters only if and when they occur. This explains among several other reasons, NEMA has over the years become an organization that waits to react to issues. It has become reactive and non-proactive instead of both. The preparedness for disasters is almost zero in the sense that it has no replete of abundant infrastructures for will-be-victims of disasters in any part of the country. This makes it rely only on make-shift structures for the accommodation of victims of disasters. So also, is the near absence of an after-crises or post-crises management. The pro-active, reactive and post-crises management are ideally and essentially all embedded in resilience building.



Most theories on resilience incorporate the notion that resilience is a dynamic process that changes over time and that the interaction of a wide range of factors determine whether there is a demonstration of resilience. In the end however, resilience is the most desirable outcome in the majority of these theories.

Theory as expanded by Richardson is relevant, it is the metatheory of resilience that includes a range of theoretical ideas from different fields of study and can be categorized into three sub-areas described as 'waves'. The first wave is identified as qualities (i.e., positive protective factors against difficult conditions). The second wave is in the context of coping with stressors, adversity, change, or opportunity. The third wave is the identification of motivational forces toward self-actualization.

Resilience concerns continue to grow in the national consciousness, due in large part to the expanding understanding that many disasters and disturbances are no longer isolated once-in-a-lifetime events, but part of a longer ongoing pattern already set in motion.

A new mindset has emerged to accommodate a spectrum of social, environmental, and technological change while considering the people, landscape, or economies at stake. Preparations must be made not only for natural disasters like hurricanes, earthquakes, and floods, but also for the many weaknesses and threats that impact individual communities such as the accusations of marginalization and others. According to Doctrine and the United Kingdom, resilience is achieved when systems remain adaptable and functioning when faced with major disruptions. This resilience becomes relevant when applied to a nation to become National Resilience. However, Community resilience is the ability to prepare for anticipated hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions. Activities, such as disaster preparedness—which includes prevention, protection, mitigation, response, and recovery—are key steps to resilience. The meaning here is that resilient communities can minimize disasters and make return to normal life as effortless as possible. This is done by implementing a community resilience plan put together to overcome any disaster, while rebuilding physically and economically. Here, adaptability is a key attribute and lays the foundation that prevention can occur in response or before any disaster strikes. The scope of community resilience includes both natural and man-made disasters.

As far as mitigating disease outbreaks using community resilience (CR) is concerned, Community Health Resilience (CHR) will have to be part of the CR. CHR is the ability of a community to use its assets to strengthen public health and healthcare systems and to improve the community's physical, behavioural, and social health to withstand, adapt to, and recover from adversity. Herein is the justification that "Health" meaning physical, behavioural, social, and environmental health and wellbeing is necessarily a large part of the overall community resilience in the sense that it is done to prepare for disaster and protect infrastructure, it is ultimately in the interest of preserving human health and welfare. And this part of overall community resilience, that involves health is called Community Health Resilience.

3.2 Community Resilience and Disaster Management in Nigeria

Communities in Nigeria have been noticed to have put up resilience to their anticipated disasters but the federal and state governments will need to come to the assistance of the Communities by similarly putting up official Resilience frameworks and institutions. This is what appears to be lacking. Resiliencies put up by communities in the wake of disturbances in order to continue with their lives as if un-interrupted include the issues around cultural, psychic and spatial resources which locals mobilized to withstand disturbances that are both natural or manmade.

If concerns, such as issues of accusations of marginalization, natural or man-made disasters which could lead to disturbances in Nigeria could be

addressed by diffusing or deescalating the tensions for life to return to normalcy at the community levels, it means that Nigeria to that extent would have achieved an increase in National Resilience.

If nothing else, disaster management in Nigeria has recorded some successes probably because Nigeria has a clear mandate for disaster management. It equally has clear mandates for ensuring security, defence and gathering Intelligence, training in Policy and Strategy, International Affairs, Public Complaints and National Orientation as enshrined in various acts establishing some agencies/commissions and institutions. Nigeria also has clear mandates and frameworks for all its institutions but a similar clear mandate for National Resilience is yet to be articulated and this is the bane of the issue of National Resilience in Nigeria. This appears to be the right moment to have a clear mandate for National Resilience, beginning at community/ward levels as different from Disaster Management and/or National Security/Defence.


4.1 Introduction

There have been several outbreaks of diseases worldwide, some with endemic proportions and others with pandemic proportions. The most recent disease outbreak that assumed a pandemic status is the Corona Virus Disease 2019 (COVID-19). COVID-19 is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The earliest known infection occurred on 17th November, 2019, in –Wuhan, the capital of Hubei province in China and has since spread globally, resulting in the ––201920 coronavirus pandemic.

The World Health Organization (WHO) announced in February 2020 that COVID-19 is the official name of the disease. It explained that CO stands for corona, VI for virus and D for disease, while 19 is for the year that the outbreak was first identified, that is 31 December 2019. While the disease is named COVID-19, the virus that causes it is named Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). The virus was initially referred to as the 2019 novel coronavirus (2019-nCoV). The WHO equally declared COVID-19 outbreak a Public Health Emergency of International Concern (PHEIC) on 30th January 2020 and a pandemic on 11th March 2020. The first appearance of Coronaviruses in 1968 in electron micrographs was reminiscent of the solar corona, corona meaning crown in Latin.

Nigeria is particularly worst placed for disease outbreaks because it is the most populous country in Africa and characterized by a high degree of population movement across her borders. This high level of travel promotes the easy spread of infectious diseases, therefore, containing diseases' outbreaks should imbibe home-grown approaches.

Approaches to dealing with disease outbreaks in Nigeria have been by the state and the private sector involvement usually through their hospitals and clinics. This has made the individuals, or the families of the individuals affected incur high out of pocket expenses (OPE) to foot the bills to access the health care. However, mounting resilience to disease outbreaks by community efforts have been noticed to be minimal and often without government support or encouragement.

The word resilience itself according to National Research Council is the capacity of vulnerable households, families, communities, and systems to face uncertainty and the risk of shocks, to withstand and respond effectively to shocks, as well as to recover and adapt in a sustainable manner.

This definition calls for concerted humanitarian and development efforts to increase the resilience of vulnerable households, families and communities and to break the cycle of recurrent crises. It addresses, by means of a unified approach, the causes of acute and chronic crises (including food or nutritional crises), while helping vulnerable households to increase their incomes, gain access to basic infrastructures and social services, and create wealth by sustainably strengthening their livelihoods. In simple terms, resilience is "this" ability to carry on despite the trauma suffered, yet is inseparable from the trauma itself.

This approach requires the concurrent implementation of long-term, structural programs and short-term actions aimed at addressing the immediate needs of the most vulnerable populations. Long-term programs that include human capacity building at all levels, and support for communities in their efforts to build resilience through building/strengthening community governance, social service systems (water, education, health, etc.), community food storage systems and other infrastructures, community early warning and prevention mechanisms and so on.

Lassa and Ebola fevers are two good examples of viral diseases that have caused and continue to cause regular outbreaks in Nigeria.

Lassa fever is an acute viral heamorrhagic fever that is caused by a rodent borne Arenavirus which is endemic in West Africa. It was first discovered in Sierra Leone in the 1950s but was first described/identified in 1969 in the Yedseram river valley in Lassa town near Lake Chad of Borno State, Nigeria. The man behind this discovery was John Davidson Frame, a missionary doctor who died on 16th January 2008. Dr. Frame who was born in Iran in 1917 died at the age of 90 years. His father John Frame was also a protestant missionary and chief physician at the American Hospital.

The Ebola Virus Disease (EVD) just like COVID-19, was imported into Nigeria by a Liberian diplomat who arrived via Murtala Mohammed Airport Lagos on July 20, 2014. The Federal Ministry of Health in collaboration with the Nigeria Centre for Disease Control (NCDC), declared an Ebola emergency in Nigeria. The World Health Organization (WHO) further declared EVD a Public Health Emergency of International Concern (PHEIC). However, 3 months after the index case was identified in Nigeria, on October 20, 2014, precisely, Nigeria was declared free of EVD by the World Health Organization.

The emergence/re-emergence of these highly virulent and contagious viral diseases as well as others in many communities in Nigeria and the increasing sporadic cases even outside areas hitherto known for the diseases due to inter-border traffic and travels, highlights the need for stakeholders and indeed the entire Nigeria to build resilience against infections. It is however of note that the defeat of EVD in Nigeria implied that the reasons for its containment may not be unconnected to community resilience in Lagos State through massive information dissemination that was accepted by the people.

4.2 Some Epidemics and Pandemics in History

According to Jarus, plaques and epidemics have ravaged humanity throughout its existence, often changing the course of history and at times, signalling the end of entire civilizations. According to the same author, some of the worst 20 epidemics and pandemics, dating from prehistoric to modern times are as follows:

4.2.1 Prehistoric epidemic: Circa 3000 B.C.

It is said that about 5,000 years ago, an epidemic wiped out a prehistoric epidemic in China, where the bodies of the dead were stuffed inside a house that was later burned down. All age groups were affected, as the skeletons of juveniles, young adults and middle-aged people were found inside the house. The archaeological site is now called "Hamin Mangha"

and is one of the best-preserved prehistoric sites in north-eastern China. Archaeological and anthropological study indicates that the epidemic happened quickly enough that there was no time for proper burials, and the site was not inhabited again. However, before the discovery of Hamin Mangha, there had been another prehistoric mass burial that dates to roughly the same period at a site called Miaozigou, also in north-eastern China.

4.2.2 Plague of Athens: 430 B.C.

This occurred around 430 B.C., not long after a war between Athens and Sparta began. The epidemic ravaged the people of Athens and lasted for five years. Death toll estimate was put to as high as 100,000 people. The Greek historian Thucydides (460-400 B.C.) wrote that "people in good health were all of a sudden attacked by violent heats in the head, and redness and inflammation in the eyes, the inward parts, such as the throat or tongue, becoming bloody and emitting an unnatural and fetid breath" (translation by Richard Crawley from the book "The History of the Peloponnesian War," London Dent, 1914). A number of disease have been put forward as possibilities for this plague including typhoid fever and Ebola. Many scholars believe that overcrowding caused by the war exacerbated the epidemic. Sparta's army was stronger, forcing the Athenians to take refuge behind a series of fortifications called the "long walls" that protected their city.

4.2.3 Antonine Plague: A.D. 165-180

This is when soldiers returned to the Roman Empire from campaigning, it is believed they brought back more than the spoils of victory. One of the "items" brought back was the Antonine Plague, which may have been smallpox. According to April Pudsey, a senior lecturer of Roman History at Manchester Metropolitan University, (in a paper published in the book "Disability in Antiquity," Routledge, 2017), this plague laid waste the army and may have killed over 5 million people in the Roman empire. Many historians believe that the epidemic was first brought into the Roman Empire by soldiers returning home after a war against Parthia. Christianity is said to have become increasingly popular at that time after the plague occurred.

4.2.4 Plague of Cyprian: A.D. 250-271

The disease is named after St. Cyprian, a bishop of Carthage (a city in Tunisia) who described the epidemic as signalling the end of the world, the Plague of Cyprian is estimated to have killed 5,000 people a day in Rome alone. In 2014, archaeologists in Luxor found what appears to be a mass burial site of plague victims. Their bodies were covered with a thick layer of lime (historically used as a disinfectant). Archaeologists found three kilns used to manufacture lime and the remains of plague victims burnt in a giant bonfire. Experts aren't sure what disease caused the epidemic, but Cyprian reported in Latin in a work called "De mortalitate" (translation by Philip Schaff from the book "Fathers of the Third Century: Hippolytus, Cyprian, Caius, Novatian, Appendix," Christian Classics Ethereal Library, 1885) that "the bowels, relaxed into a constant flux, discharge the bodily strength [and] a fire originated in the marrow ferments into wounds of the fauces (an area of the mouth)."

4.2.5 Plague of Justinian: A.D. 541-542

This was when the Byzantine Empire was ravaged by the bubonic plague, which marked the start of its decline. The plague reoccurred periodically afterward. Some estimates suggest that up to 10% of the world's population died as a result of the plgue. The plague is named after the Byzantine Empirer Justinian (reigned A.D. 527-565). Under his reign, the Byzantine Empire reached its greatest extent, controlling territory that stretched from the Middle East to Western Europe. Justinian constructed a great cathedral known as Hagia Sophia ("Holy Wisdom") in Constantinople (modern-day Istanbul in Turkey). Justinian also got sick with the plague and survived, but his empire gradually lost territory in the time after the plague struck.

4.2.6 The Black Death: 1346-1353

The Black Death travelled from Asia to Europe, leaving devastation in its wake. It is said to have wiped out over half of Europe's population. It was caused by a strain of the bacterium *Yersinia pestis* and was spread by fleas on infected rodents. The bodies of victims were buried in mass graves. The plague changed the course of Europe's history in that with so many dead, labour became harder to find, bringing about better pay for workers and the end of Europe's system of serfdom. The surviving workers had better access to meat and higher-quality bread. The lack of

cheap labour is also said to have contributed to technological innovation.

4.2.7 Cocoliztli epidemic: 1545-1548

The infection that caused the cocoliztli epidemic was a form of viral haemorrhagic fever that killed 15 million inhabitants of Mexico and Central America. "Cocoliztli" is the Aztec word for "pest." A study that examined DNA from the skeletons of victims found that they were infected with a subspecies of *Salmonella* that is *S. paratyphi C*, which causes enteric fever, a category of fever that includes typhoid. Enteric fever has symptoms such as high fever, dehydration and gastrointestinal problems, is still a major health threat today.

4.2.8 American Plagues: 16th century

These are a cluster of Eurasian diseases brought to the Americans by European explorers. These illnesses, including smallpox, contributed to the collapse of the Inca and Aztec civilizations. Some estimates suggest that 90% of the indigenous population in the Western Hemisphere was killed off. The diseases helped a Spanish force led by Hernán Cortés conquer the Aztec capital of Tenochtitlán in 1519 and another Spanish force led by Francisco Pizarro conquer the Incas in 1532. The Spanish took over the territories of both empires. In both cases, the Aztec and Incan armies had been ravaged by disease and were unable to withstand the Spanish forces. When citizens of Britain, France, Portugal and the Netherlands began exploring, conquering and settling the Western Hemisphere, they were also helped by the fact that disease had vastly reduced the size of any indigenous groups that opposed them.

4.2.9 Great Plague of London: 1665-1666

The last major outbreak in Great Britain that caused a mass exodus led by King Charles II from London was the Black Death. The plague started in April 1665 and spread rapidly through the hot summer months. Fleas from plague-infected rodents were one of the main causes of transmission. By the time the plague ended, about 100,000 people, including 15% of the population of London, had died.

4.2.10 Great Plague of Marseille: 1720-1723

Records show that the Great Plague of Marseille started when a ship called Grand-Saint-Antoine docked in Marseille, France, carrying a cargo of goods from the eastern Mediterranean. Although the ship was

quarantined, plague still got into the city, likely through fleas on plagueinfected rodents. As the Plague spread over the next three years, as many as 100,000 people may have died in Marseille and surrounding areas. It's estimated that up to 30% of the population of Marseille may have perished.

4.2.11. Russian plague: 1770-1772

In a plague-ravaged Moscow, riots spread through the city that culminated in the murder of Archbishop Ambrosius, who was encouraging crowds not to gather for worship. The empress of Russia, Catherine II (also called Catherine the Great), was so desperate to contain the plague and restore public order that she issued a hasty decree ordering that all factories be moved from Moscow. By the time the plague ended, as many as 100,000 people may have died. Even after the plague ended, Catherine struggled to restore order. In 1773, Yemelyan Pugachev, a man who claimed to be Peter III (Catherine's executed husband), led an insurrection that resulted in the deaths of thousands more.

4.2.12 Philadelphia yellow fever epidemic: 1793

This was a case of yellow fever when it seized Philadelphia, the United States' capital at the time and officials wrongly believed that slaves were immune. As a result, abolitionists called for people of African origin to be recruited to nurse the sick. The disease is carried and transmitted by mosquitoes, which experienced a population boom during the particularly hot and humid summer weather in Philadelphia that year. It wasn't until winter arrived — and the mosquitoes died out — that the epidemic finally stopped. By then, more than 5,000 people had died.

4.2.13 Flu pandemic: 1889-1890

The then transport link system made it easier for influenza viruses to wreak havoc and in just a few months, the disease spanned the globe, killing 1 million people. It took five weeks for the epidemic to reach peak mortality. The earliest cases were reported in Russia where the virus spread rapidly throughout St. Petersburg before it quickly made its way throughout Europe and the rest of the world, even though air travel didn't exist yet.

4.2.14 American polio epidemic: 1916

A polio epidemic that started in New York City caused 27,000 cases and 6,000 deaths in the United States. The disease mainly affects children and sometimes leaves survivors with permanent disabilities. Polio epidemics occurred sporadically in the United States until the Salk vaccine was developed in 1954. As the vaccine became widely available, cases in the United States declined. The last polio case in the United States and Nigeria were reported in 1979 and 2020, respectively. Worldwide vaccination efforts have greatly reduced the disease, although it is not yet completely eradicated in the world as there are still cases in only Afghanistan and Pakistan.

4.2.15 Spanish Flu: 1918-1920

It is estimated that 500 million people from the South Seas to the North Pole fell victim to Spanish Flu. One-fifth of those died, with some indigenous communities pushed to the brink of extinction. The flu's spread and lethality were enhanced by the cramped conditions of soldiers and poor wartime nutrition that many people were experiencing during World War I. Despite the name "Spanish Flu", the disease likely did not start in Spain because Spain was a neutral nation during the war and did not enforce strict censorship of its press, which could therefore freely publish early accounts of the illness. As a result, people falsely believed the illness was specific to Spain, and the name Spanish Flu stock.

4.2.16 Asian Flu: 1957-1958

This pandemic was another global showing for influenza. With its roots in China, the disease claimed more than 1 million lives. The virus that caused the pandemic was a blend of avian flu viruses. The Centers for Disease Control and Prevention notes that, the disease spread rapidly and was reported in Singapore in February 1957, Hong Kong in April, 1957, and the coastal cities of the United States in the summer of 1957. The total death toll was more than 1.1 million worldwide, with 116,000 deaths occurring in the United States.

4.2.17 AIDS pandemic and epidemic: From 1981

Acquired Immunodeficiency Syndrome (AIDS) has claimed an estimated 35 million lives since it was first identified. Human Immunodeficiency Virus (HIV), which is the virus that causes AIDS, likely developed from a

chimpanzee virus that transferred to humans. The virus made its way around the world, and AIDS was a pandemic by the late 20th century. Now, about 64% of the estimated 40 million living with Human Immunodeficiency Virus (HIV), live in sub-Saharan Africa. For decades, the disease had no known cure, but medication developed in the 1990s now allows people with the disease to experience a normal life span with regular treatment. Even more encouraging, two people have been cured of HIV as at early 2020.

4.2.18 H1N1 Swine Flu pandemic: 2009-2010

This is the 2009 swine flu pandemic caused by a new strain of H1N1 that originated in Mexico in the spring of 2009 before spreading to the rest of the world. In one year, the virus infected as many as 1.4 billion people across the globe and killed between 151,700 and 575,400 people, according to the CDC. The 2009 flu pandemic primarily affected children and young adults, and 80% of the deaths were in people younger than 65. That was unusual, considering that most strains of flu viruses, including those that cause seasonal flu, cause the highest percentage of deaths in people ages 65 and older. But in the case of the swine flu, older people seemed to have already built up enough immunity to the group of viruses that H1N1 belongs to. A vaccine for the H1N1 virus that caused the swine flu is now included in the annual flu vaccine.

4.2.19 West African Ebola epidemic: 2014-2016

The Ebola epidemic ravaged West Africa between 2014 and 2016, with 28,600 reported cases and 11,325 deaths. The first case to be reported was in Guinea in December 2013, then the disease quickly spread to Liberia and Sierra Leone. The bulk of the cases and deaths occurred in those three countries. A smaller number of cases occurred in Nigeria, Mali, Senegal, the United States and Europe and reported by the Centres for Disease Control and Prevention. There is no cure for Ebola, although efforts at finding a vaccine are ongoing. The first known cases of Ebola occurred in Sudan and the Democratic Republic of Congo in 1976, and the virus may have originated in bats.

4.2.20 Zika Virus epidemic: From 2015

The impact of the recent Zika epidemic in South America and Central America is so much. The Zika virus is usually spread through mosquitoes of the *Aedes* genus, although it can also be sexually transmitted in

humans. While Zika is usually not harmful to adults or children, it can attack infants who are still in the womb and cause birth defects. The type of mosquitoes that carry Zika flourish best in warm, humid climates, making South America, Central America and parts of the Southern United States prime areas for the virus.

4.3 Outbreak of COVID-19 in Nigeria

The first COVID-19 case occurred in China in November 2019. In response to that, the Government of Nigeria on 28th January, 2020 assured citizens of the country of its readiness to strengthen surveillance at five international airports in the country to prevent the spread of coronavirus. The airports were the ones located at Enugu, Lagos, Rivers, Kano and the FCT. As part of collaboration efforts with the Government, the Nigeria Centre for Disease Control (NCDC) also announced that it had already set up a Coronavirus Preparedness Group and was ready to activate its incident system if any case emerged in Nigeria. The aim of the Coronavirus Preparedness Group as announced on 31st January, 2020, was to mitigate the impact of the virus if it eventually spreads to the country.

Despite these assurances, on February 27, 2020, the first official index case of COVID-19 in Nigeria was announced as an Italian citizen, who had recently arrived Lagos from Europe. This was followed by another patient who was identified in Ogun State and was discovered to have been in contact with the index case. Since then, more cases occurred to the extent that the spikes became a matter of community transmissions. This was regardless of measures initiated by the state and federal government to combat the virus and return to normalcy.

As at 13 March, 2020 it was confirmed that the second case no longer had the virus in his system because he tested negative. The third case was confirmed in Lagos State on 17 March, 2020 of a Nigerian female citizen that returned from the United Kingdom. Three months less than when the first index case was reported, precisely on 4 May, 2020 there were already 245 (two hundred and forty five) new cases reported in a day and a total of almost 3000 (three thousand) confirmed cases had spread across the thirty four states and the Federal Capital Territory (FCT) out of the total of thirty six states in the country. The rest is now history as the country subsequently became engulfed with the disease.

4.4 Management of COVID-19 in Nigeria

Despite the assurances given by the Government and the Nigeria Centre for Disease Control, reports showed the lack of preparedness at the airports which was the possible reason the index case of COVID-19 came into Nigeria in the first place. The speed of the spread of COVID-19 across the country within less than 3 months from the first case of importation also revealed that because Nigeria's health system was tailored more towards curative rather than preventive medicine was unprepared and vulnerable.

Any wonder then that establishment of isolation and test centres for COVID-19 were not done early enough, and when done, they were established with all the slowness not desirable of an outbreak such as COVID-19.

From the time of the first outbreak in Wuhan, China in November 2019, until the first official index case in Nigeria in February, 2020, there appeared not to have been a single standard isolation Centre in waiting. The test centres/laboratories with the capacity to carry out diagnosis were also not more than four. None of the four test centres were located in the South-south, North-east, North-west, and North-central geopolitical zones of Nigeria. Those available were in the Abuja, South-west and South-east geopolitical zones. However, by the end of April, 2020 a total of about 15 test centres had been activated which could not handle up to 2,500 test specimens in a day.

There were only few ventilators, probably not more than ten in a country with an estimated population of 200 million people. Many available ventilators were in a state of disrepair. Nigeria had to rely on the benevolence of China that donated 50 ventilators. Not a single Extracorporeal Membrane Oxygenation (ECMO) machine, used in worst case scenarios of COVID-19 treatment when a ventilator is no longer effective was available in Nigeria. Again, China was able to donate one ECMO machine as at early May 2020, when the confirmed cases spread across the country were already getting to 3000. Apart from the shortage of ventilators in the country, there were also limited supply of consumables in the market due to the increased global demand and decreased production due to public health crisis.

A coordinated response across the federation was a missing link, to the

extent that the Federal Ministry of Health (FMoH) and the Nigeria Centre for Disease Control (NCDC), that were supposed to be the national coordinators appeared not to have control on states who seemed to make individual decisions. For example, while some states locked down because of rising number of confirmed cases, other states merely looked on or in some instances asked their workers to resume at workplaces. Locking down only parts of a country had been observed to be ineffective and only a synchronized response to COVID-19 with the full participation of community engagement can tame the tide as witnessed in other The strength for community engagement and therefore countries. community resilience is drawn for the fact that Nigerians are resilient people. Therefore, because COVID-19 is also a psychological warfare judging from the face of fear, socio-economic depression, and lock downs, community resilience in containing the outbreak becomes paramount.

Nigeria decided to use the drug Remdesivir to manage COVID-19 as early as in the Month of May 2020. The drug although originally developed as a potential treatment for Ebola became one of the options adopted in treating COVID-19 patients because it was said to interfere with the virus's genome, disrupting its ability to replicate and shorten the recovery time for people seriously ill.

Management of COVID-19 in Nigeria like elsewhere was a matter of treating the symptoms as no cure had been found, but it also included keeping hygiene as well as social distance, restrictions of movements, lockdowns and wearing of protective gadgets such as face masks and so on. The compliance level in all these were abysmal by most Nigerians because of poverty, disbelief, illiteracy, and distrust by Nigerians to their government.

The lack of compliance by Nigerians to the preventive and curative measures put in place by the Presidential Task Force (PTF) on COVID-19 and the Federal Ministry of Health led to the exponential increase in the spikes on a steady basis rather than flattening the curve. There was also increased frustrations on the part of Nigerians who mostly depended on daily earnings for their livelihoods, especially that the so-called palliatives in millions of Naira doled out as claimed by the government appeared to be a mirage. The economy of the country had also taken a downward drive in almost all areas such as Hotel and Tourism, Hospitality,

Transportation and Small and Medium Enterprises (SMEs).

As a result of these reasons, government against all medical reasons, because the spikes were in the increased as at the first week of the month of July 2020, had to relax all restrictions and lockdowns to open up the economy. Restrictions in inter-state boundary movements were removed and domestic flights began on 8 July, 2020.

As the year 2021 rolled by, vaccines against the pandemic started to be produced by different companies such as AstraZeneca, Pfizer-BioNTech, Johnson & Johnson as well as a few others. However, the one readily available in Nigeria was the one produced by AstraZeneca from India. This vaccine happened to be the cheapest. Other vaccines produced by western countries were alleged to have been hoarded for consumption by their citizens, a situation said to have further contributed to the vaccine's scarcity. As new vaccines emerged so also was the emergence of new variants of the disease virus as well as new spikes in the disease outbreaks, giving rise to fresh sanctions and travel bans as earlier done when the disease newly emerged. This led to the second and third waves. A variant is explained to mean an evolvement over time when a virus makes copies of itself to change a little bit. This change is called mutation. The implication is that the virus then possesses the ability to behave and respond differently spread, infection and responses to drugs/vaccinations.

The new variants such as the Indian "Delta" was said to be 60 per cent more transmissible and deadlier had been detected in Nigeria by the middle of the year 2021. Another new variant was detected in South Africa on November 25, 2021, and was named Omicron. Omicron was said to be a variant with a high number of thirty mutations making it more easily transmissible than the Delta variant. The Omicron variant also known as B.1.1.529 designated as a variant of concern by WHO had agitated the minds of Civil Society Organizations (CSOs) in Nigeria to begin asking the Federal Government to ban flight from South Africa like the United State of America had done.

With increase in the emergence of new variants and increased attempts to vaccinate, the world began to be hopeful that herd immunity may arise in the sense that a large proportion of a population will gradually become protected against or immune to the infection, when this happens, it will significantly reduce the spread of the infection even in the unprotected groups. With vaccination and natural infection, antibodies acquired by vaccination and built up naturally were going to protect against serious infection as well as against the infection in the future respectively.

The problem with herd immunity however was that no one seem to be sure what was the percentage of vaccination in the population to be achieved that could bring herd immunity. More so, no one was also sure of how long protection from vaccine-induced antibodies was going to last. Then, there was the problem of hesitancy to take the vaccine by Nigerians, especially among the poor coupled with the uneven distribution of vaccines across the world in favour of the richer countries against the poorer ones. As of July 11, 2021, Nigeria had recorded a total of 168, 540 confirmed cases, with 2, 122 deaths and 164, 431 patients discharged. Towards the end of the year 2021, less than 10% of the population in Nigeria had agreed to be vaccinated and there were plans to make vaccination against the disease mandatory throughout the country starting from 1 December, 2021.



5.1 Introduction

It has been noted on a general note that, National health security is fundamentally weak around the world with no country fully prepared for epidemics or pandemics, and every country has important gaps to address. However, Nigeria's ranking in the Global Health Security Index for 2019 as 67 out of 195 countries in the world in terms of emergency preparedness and response plan is abysmal. Since there is evidence that preparedness saves costs and lives, there is the need to ensure that capacity is in place to detect the outbreak and respond. This means governments must invest strongly in the epidemiology units to have adequate resources for outbreak preparedness, prevention, detection, and response. The need to have annual budget for epidemics to assist in disease surveillance and strengthening health information system to provide accurate, reliable, timely and complete data cannot be over emphasized.

Looking at the concept of National Resilience from the viewpoint of Indonesia (Lemhannas RI, 2018) is of interest. It asserts that National Resilience (TANNAS) is

> "...the dynamic condition of Indonesia as a nation, which covers all aspects of integrated national life filled with tenacity, toughness and capacity to still develop strongly in the midst of challenges, threats, hindrances and disturbances; both internally and externally; and to ensure national identity, integrity and sustainability as well as struggle to achieve national purpose".

National Resilience from this viewpoint is seen as development through arrangements and actualization of welfare and resistance in a balanced, harmonious, and compatible manner in all aspects of life. This equally means National Resilience must take route from the community levels, and if not community levels, then there is no better level of community in Nigeria than the ward level.

The concept of National Resilience as different from National Security/Defence again presupposes that the latter does not seem to be limited to government and military actions alone while the former appears to. Again this is because the concept of National Security hinges on the assumed fact especially in Nigeria that, it is the security of a nation-state, including its citizens, economy, and institutions, and is regarded as a duty of government.

Conceptualizing and understanding the National Security choices and challenges of African States as against National Resilience has become a difficult task. The policies and practices of many African states sees National Security as being synonymous with state security and even more narrowly- regime security. The problem here is that a number of African states have been unable to govern their security in meaningful ways. Often failing to be able to claim the monopoly of force in their territories. A hybridity of security 'governance' or 'providers' thus exists.

States that have not been able to capture this reality in official National Security strategies and policies often find their claim over having the monopoly of force and sovereignty often challenged. Therefore, it does appear the idea of National Security or its misunderstanding has failed the African continent and in particular the Nigeria nation-state.

This often leads to the weakening of the state. Examples of such states are South Sudan and Somalia. This situation unfortunately is becoming true of Nigeria. This equally means that while attention needs to be on National Security, greater attention needs to be placed on National Resilience which involves the participation of not only the government or military but all communities that make up the nation.

Building National Resilience at the community and indeed ward levels in Nigeria is pertinent to mitigate the often-devastating effect of diseases' outbreaks. National Resilience at the ward levels appears to have been activated during the outbreak of Ebola Virus in Nigeria and the disease was curtailed to a large extent. On the contrary, the National Resilience was abysmal during COVID-19 pandemic, which therefore led to its widespread within a short time despite the fact that the outbreak started in Wuhan, China and not in Nigeria. This outbreak gave Nigeria enough notice to adequately prepare to handle the disease in case it broke out, but National Resilience to COVID-19 was lacking.

In a nation characterized by fragile populations with competing health and developmental challenges such as in Nigeria, policy options in the face of outbreaks such as Ebola, COVID-19 and so on becomes pertinent. Every response mechanism must be enacted and anchored within a humanitarian basis such as welfare, contributory schemes, information, and national orientation centres at the community/ward levels. All other existing and ongoing humanitarian programmes will need to be enhanced, sustained, and scaled up and as soon as the outbreaks wind down, recovery programmes need to be launched.

However, the prospect of an outbreak in a context like the North-East exposes' new frontier risks because of insurgency and most probably change the face of conflict altogether. It will call on all stakeholders, including State and humanitarian actors, to reevaluate and reconsider approaches in the face of new unknown variables.

In the meantime, key policy options include:

- Setting up testing, quarantine, and isolation centres in all the 774 Local Government Areas to ensure full capacity for clinical management of confirmed and suspected cases.
- Setting up information/orientation centres in all the Local Government Wards and embarking on tailored sensitization programmes for citizens which emphasizes key hygiene messages.
- Establish proper surveillance of the entry of people performing essential services including active case finding, case investigation, contact tracing and surveillance at Points of Entry (PoE) will be essential to achieve the desired objectives of border control/entry restrictions at PoEs.
- Keeping Supply Chains Intact to disrupt impacts of the spread of any disease outbreak; this will include essential food and medicines to all the isolation/quarantine centres in all the wards. This should include early preparedness in planning and

coordination of supply of these essential commodities.

- Assessing scenarios and planning accordingly to ensure continued humanitarian support presence including alternate options in the event of a scaling down.
- Setting up Resource Mobilization. Any outbreak at the level of a pandemic such as in the case of COVID-19 has the potential to impact the donor countries with constrained and stretched fiscal spaces, therefore the Nigerian Government need to give formal as well as mandatorily garner support of the private sector, philanthropic organizations and foundations who have already shown readiness to support the fight against disease outbreaks to the well-established National Resilience Centres at the ward levels.
- In urban areas, where many people may lose their income sources and may need assistance, distribution sites need to be set up as quickly as possible for quick registration and on-the-spot handover of a 2-month emergency food and nutrition assistance package. Targeting criteria will need to be more inclusive than in current humanitarian assistance programmes, in order to prevent possible unrest and preserve order in the distribution sites.

5.2 Structure of National Resilience Index at Community levels

The challenges, Threats, Hindrances and Disturbances (CTHD's) that Nigeria has and continues to have as a nation are also usually considered as pillars or National Resilience index. These CTHD's that Nigeria faces as a nation are many but not different from those of other countries. However, the capability to withstand them is what makes the difference between success and failure.

The National Resilience index which are both static and dynamic are used by the Indonesian Institute of Resilience to determine the resilience status of their country shown as follows:

- Geography
- Demography
- Natural Resources

Static

- Defence and Security
- Economy
- Social Cultural
- Political
- Ideology

Dynamic

However, as far as the Fund for Peace is concerned, it uses the following 3 indexes with 12 indicators to ascertain the fragility or resilience of a country. They are as follows:

- i. Social
- Mounting demographic pressures and tribal, ethnic and/or religious conflicts.
- Massive widespread vengeance-seeking group grievances.
- Chronic and sustained human flight.
- ii. Economic
- Widespread corruption.
- High economic inequality.
- Uneven economic development along group lines.
- Severe economic decline.
- iii. Political
- De-legitimization of the state.
- Deterioration of public services.
- Suspension or arbitrary application of law, widespread human rights abuses.
- Security forces operating as a "state within a state" often with impunity.
- Rise of factionalized elites.
- Intervention of external political agents and foreign states.

For Nigeria, the challenges border on the Economy, Agriculture, Security, Education and Environment, among others. On the other hand, the threats that impinge the national development of Nigeria and therefore sub-optimise National Resilience are numerous among which includes ethnicity, religious inclinations, bribery and corruption, poverty, the teaming population etc. Equally, Nigeria has a myriad of hindrances in its existence such as lack of adequate access to potable water, inadequate electricity, inadequate transportation systems, housing deficits and infrastructures, insufficient employment and so on. These 'forces' have come together to give rise to disturbances such as clashes, militancy and acts of terrorism to mention a few that Nigeria faces today. The ability and capability or lack of it as a nation, to deal with these myriads of problems determines the resilience status of any nation.

The Fragile States Index (FSI), produced by The Fund for Peace, is a critical tool in highlighting not only the normal pressures that all states experience, but also in identifying when these pressures are pushing a state towards the brink of failure in terms of National Resilience. By highlighting pertinent issues in weak and failing states, the FSI makes political risk assessment and early warning of conflict accessible to policymakers and the public at large.

Currently, Nigeria's status in the Fragile States Index (FSI) is abysmal, it takes one of the earliest positions of 14th and described as one of the most fragile states out of 178 countries and therefore is categorized to have an "Alert" or "Vulnerable" status. The analysis drown from here shows that Nigeria has a low status as far as National Resilience is concerned.



Figure 1: Categories of National Resilience

Category	FSI score*	Brackets (2018)	Color	
Alert	90.0-120.0	Very high: 110+ High: 100-109.9 Alert: 90-99.9	Red	
Warning	60.0-89.9	High: 80–89.9 Warning: 70–79.9 Low: 60–69.9		
Stable	30.0-59.9	Less stable: 50–59.9 Stable: 40–49.9 More stable: 30–39.9	Green	
Sustainable Very sustainable	2.0-29.9 0.0-19.9	Sustainable: 20–29.9 Very sustainable: 0-19.9	Blue Purple	

Table 1: Categories of Fragility Status

Considered together in the index, the indicators are a way of assessing a state's vulnerability to collapse or fall into conflict, in other words, the states' resilience and therefore, ranking states on a spectrum of categories labelled sustainable, stable, warning, and alert (Table 1).

This position of Nigeria is no good news. It portrays the fact that Nigeria must do everything possible to strengthen its National Resilience Capabilities in other to be able to continuously exist as one strong, prosperous, and indivisible nation.

Another reason for justifying focus on National Resilience especially during outbreak of diseases as noticed during COVID-19 which required lockdowns is that, Nigeria in 2018, was announced by the World Poverty Clock to be the poverty capital of the world, with over 40% of its citizens living below the poverty line. This implies that, a large proportion of the population of Nigerians, especially those in the commercial hubs live on daily income with no savings to act as a financial buffer during the lockdowns. Therefore, the prospect of staying at home could portend hunger and thereby making lockdowns not sustainable.

5.3 National Resilience Capabilities at Community Levels

Capabilities are abilities, qualities, powers and or weapons to do something (Chambers Dictionary, 20). It means that to achieve National Resilience in communities, the wards must possess within itself the where withal of these abilities to strengthen resilience. Again, as the African subcontinent recovers from the onslaught of EVD, it is time to reposition her health system to be able to effectively contain future disease outbreaks. The Nigeria EVD experience provides valuable insights to guide these vital reforms.

The Resilience Capabilities Programme should therefore aim to increase the capability to respond to and recover from civil emergencies and provide advice on preparing for a crisis through warning, information, evacuation, and provision of shelter/guidance at community levels. This is done by understanding what capabilities are needed to deal with the consequences of emergencies, regardless of whether those emergencies are caused by accidents, natural hazards, or man-made threats. Response to and recovery from any emergency will call upon several different capabilities, which have to be able to work effectively together. Each capability is the responsibility of a lead government department either at the federal, state, or local level.

According to the National Security Strategy, the basic policies/initiatives for building national resilience have been categorized according to Article 8 of the Initiatives for building National Resilience as follows:

- i. Initiatives should aim to ensure the protection of human lives from Large scale Disturbances to the extent, if possible to securing a system that will contribute to swift evacuation and rescue of people, support victims but prioritizing the viewpoints of women, elderly people, children and people with disabilities, fostering and securing personnel with specialized knowledge and technology concerning disaster prevention and mitigation, promoting disaster prevention education, facilitating activities to hand down lessons and knowledge obtained through previous disasters, and strengthening the system to promote disaster prevention measures in local communities.
- ii. Initiatives should aim to avoid fatal damage to important functions of the nation and society and to ensure that such

functions are maintained even in the event of Large-scale Disturbances through such means as securing the substitutability of said functions and ensuring a stable supply of daily necessities, thereby enabling the political, economic, and social activities to remain sustainable.

- iii. Initiatives should aim to minimize damage to the property of the citizenry and public facilities due to Disturbances through such means as promoting countermeasures against collapse of facilities, addressing the issue of the aging of public facilities, promoting the building of safe communities that can effectively prevent or mitigate Natural and man-made Disturbances and where people can live in peace into the future, and maintaining social order even in the event of these disturbances.
- iv. Initiatives should aim to contribute to swift recovery and reconstruction from Disturbances through such means as strengthening collaboration among regions and reconsidering the ideal use of national land.
- v. Considering the possibility that unpredictable Disturbances may occur, a system should be developed immediately for the purpose of promoting initiatives for building National Resilience by combining measures that relate to the development of facilities.
- vi. Efforts for disaster prevention and mitigation should be basically made through an appropriate combination of self-help efforts, mutual assistance, and public help, but the national government should play a central role in particularly serious or urgent situations.
- vii. Measures to be implemented for the purpose of ensuring the safety and health and protecting the property of citizens and maintaining the lives of the citizenry and the national economy in light of expected changes in citizens' demand, while giving due consideration to ensuring the implementation of relevant measures on an ongoing basis through effective use of financial funds.

From the foregoing, it means that National Resilience Capabilities have the aim of creating safe and secure national lands, regions, and an economic society that have the strength and flexibility, even in the event of any disasters with the basic principles as follows:

- a. Prevent human loss by any means.
- b. Avoid fatal damage to important functions for maintaining administration as well as social and economic systems.
- c. Mitigate damage to property of the citizenry and public facilities.
- d. Achieve swift recovery and reconstruction.

5.4 Culture of Resilience

According to Block there are five factors that are bases for resilience. These factors which can be considered as the 5Cs include the following, connection to others, communication, confidence, competence & commitment, and control. This means that any nation or community for that matter that is resilient should have as evidence these key elements of culture of resilience. These five factors can be summarized as follows:

5.4.1 Connection

- Good relationship with others
- Involvement in community, cultural, school, charitable or faith-based groups
- Internalizing a sense of connectedness

5.4.2 Communication

- Ability to share, explain, explore, and understand
- Ability to reframe what has happened
- Development of insight and good judgement

5.4.3 Confidence

- Positive yet realistic view of self
- Accurate sense of self abilities
- Recognition of what has been learned after a problem has been resolved
- Ability to visualize goals and what is wanted
- Believing in ability to influence how things will turn out

5.4.4 Competence and Commitment

• Ability to look at the big picture

- Ability to solve problems
- Following through and not giving up
- Daily working towards the goals

5.4.5 Control

- Managing strong feeling to enhance relationship and productivity
- Developing coping skills and not just quick fixes
- Keeping things in perspective
- Understand the role thoughts can play in the way one feels.

Added to these factors of the culture of resilience at community levelsis the fact that:

- Individuals and communities ought to realize that they provide their own first line of defense against disturbances
- National leadership in resilience is implemented by policy decisions, funding, and actions throughout all federal, state, and local agencies but this time at community levels
- Investment whether at federal, state, local and community levels must be in and/or support community-led efforts in such a persistent manner.
- There must be a readily available site-specific information that is transparent and effective. This information should trigger dialogue within the communities regarding the risks they are likely to face and how best to actively prepare for and manage the said risks.
- As a result of this site-specific information also, zoning ordinances are enacted and enforced that protect critical functions and help communities reap the benefit of natural defenses to natural hazards.
- Codes and standards for infrastructures such as roads, drainages, building and others must be widely adopted and strictly enforced.
- A significant proportion of the post-disaster or post crisis recovery ought to be funded through private capital and insurance payouts.
- To enhance recovery from crisis, community coalitions must

have developed contingency plans for governance and business continuity as well as for providing services, particularly for the most vulnerable populations.

- Post-crisis recovery must be greatly accelerated by sufficient redundancy in infrastructure upgraded.
- Vibrant and diverse economy of the community and citizenry who have safer, healthier, and who are better educated than previous generations

Finally, community resilience requires efforts and actions by individuals, families, and all levels of government made of federal, state or local governments in the case of Nigeria. It also requires the actions the private sector, academia, and community-based organizations including the non-profit and faith-based groups at community levels. It goes beyond overemphasis to say that the processw of improving resilience is dynamic, adaptive, transparent and acknowledges the existence of interconnected and interdependent sets of social, economic, natural and manmade systems that support communities. The process must also recognize that crisis events and their consequences do not adhere to geopolitical borders. Added to this is the realization that embedded in the recommendation must be the need to continue not only a short-term but long-term, prudent science and technology resilience research innovations.

It must be acknowledged that, while physical resilience is a foundation, human resilience is the engine that drives the ability to absorb, recover from, and adapt to crisis or adverse events. This means that no single sector or entity has the ultimate responsibility for creating the foundation and driving the engine of resilience. These responsibilities are and must be shared if community resilience must be achieve

5.5 Strategies to Mitigate Diseases Outbreaks using Community Resilience at Ward Levels

Community resilience entails that preparedness should include community participation and citizens' involvement. A resilient community is socially connected and has accessible health systems that can withstand disaster and foster community recovery. The community on its own can take a collective action after an adverse event because it has developed resources that reduce the impact of major disturbances and help protect people's health. Resilient communities, therefore, should promote individuals and the community's physical, behavioral, and social health to strengthen their communities for daily, as well as extreme challenges.

According to records of Public Health Emergency, some of the suggested strategies to be considered for community resilience to mitigate disease outbreaks include the following:

- Strengthen and promote access to public healthcare and social services: This is because strong day-to-day systems will be better leveraged in supporting health resilience during disasters and emergencies.
- Promote health and wellness during disaster preparedness: There should be Information and education that involve public health, behavioral health, emergency preparedness, and community health resilience interventions that will help people face everyday challenges as well as major disruptions or disasters.
- Expand communication and collaboration: This is the aspect of building networks that include social services, behavioural health, community organizations, businesses, academia, atrisk individuals, and faith-based stakeholders in addition to traditional public health, healthcare, and emergency management partners.
- Engage at-risk individuals and the programs that serve them: Engaging individuals with potential vulnerabilities to take an active part in protecting their health and aiding their community's resilience strengthens the community. Assist programs that serve at-risk individuals to develop robust disaster and continuity of operations plans.
- Build social connectedness: People are more empowered to help one another after a major disturbance in communities in which members are regularly involved in each other's lives. Building social connectedness can be an important emergency preparedness action.

In the case of Nigeria, Federal, State and Local Governments will need to double up their efforts in facilitating and monitoring all communities and stakeholders at ward/community levels to establish community resilience groups for regular meetings and decision making on matters of resilience as it affects them particularly on matters of disease outbreaks. During their meetings the resilience groups would have to take decision on what activities/projects of health care delivery to partake in within the community as well as decide on the amount of levies to be meted on individuals, groups, and stakeholders including business outfits, and other organizations that make up the fulcrum of the community. In practical terms, it means that Federal, States and Local Governments should establish transparent and accountable Resilience Groups at all community/ward levels in Nigeria with operational mandates, and all households at ward levels would make mandatory contributions to the Resilience Group of the ward they belong. Federal, State and Local Governments to also make counterpart contributions to the Resilience Groups where projects/interventions of the Resilience Groups on healthcare matters must be determined through bottom-up approach devoid of influence from Governments.

Healthcare delivery in Nigeria has been in comatose for ages long and since independence. The worst-case scenarios are noticed at the wards/community levels. Yet, these are where Primary Health Clinic (PHC) facilities are supposed to be sited. Had this occurred, the minimum standard for the operationalization of PHCs would have been adequate to mitigate any disease outbreaks. But standards have been noticed to be often compromised with lack of basic facilities as well and inadequate number of PHCs even if established in communities.

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