

Disaster management thinking and practice: the state of statutory framework for urban planning involvement in Nigeria

Abstract

Urban planning and disaster management are two different fields of study. The former is based on the principles of land use planning and management while the latter deals with elimination or reduction of risk and mitigation of disaster impacts. Proffering solutions to challenges posed by disasters requires multidisciplinary approaches and actions to which urban planning is significant. Meanwhile, the way at which emergency experts allied built professionals and the public perceive urban planning profession and practice still falls within its traditional principles and practices. The essence of urban planning in disaster management has much been downplayed in Nigeria. This paper however serves the purpose of emphasising the importance of urban planning to disaster management and the links between them as established in literature. It provides explanations on the existence of the legislation that spells out the participation of urban planning professionals in disaster management in Nigeria. It further explained the challenges with the statutory framework in ensuring efficient and effective collaboration between the two fields or professions.

Keywords: physical planning, town planning, disaster risk management, disaster resilience, urban planning law

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Introduction

The perspective of emergency experts, allied built professionals and the public on urban planning profession and practice still falls within its traditional principles and practices. This perspective is described in the legendary definition which is “the art and science of ordering land/land uses and siting buildings and communication routes so as to secure the maximum level of economy, convenience and beauty.”¹ A similar definition is that which described urban planning as “the process of guiding the use and development of land with the aim of making the city a better place to live and work.”² It thus seems that urban planning only concerns itself with the physical layout of human settlements in order to specify lands for housing, infrastructure and industries. This could be true for its evolutionary stage but not at this contemporary stage in practice.

At contemporary time, urban planning has evolved beyond planning and allocation of land uses to include the multidimensional and multidisciplinary aspects of social, economic, environmental and political studies.^{3,4} It is then defined in its regional context to deal with economic issues and challenges as uneven development or spatial disparity in city growth and development.⁵⁻⁷ It also encompasses the ‘technical and political process concerned with the welfare of people, control of the use of land, design of the urban environment including transportation and communication networks, and protection and enhancement of the natural environment.’⁸ Urban planning is therefore viewed and presented in this paper as the concept, process and practice concerned with ordering land uses in urban environment considering the physical, social, cultural, economic, ecological, political and technical dimensions of the environment.

Going by the multidisciplinary aspect of urban planning drawn for this paper, is the link with allied professions as architecture, engineering, social and natural sciences.⁴ The multidimensional aspect of the discipline stands to concern itself with subject matters as

housing, transport planning and management, infrastructure planning and management, regional planning, social and cultural management, tourism and management planning. Other areas of inclusion are environmental health, environmental resources and management, waste management and disaster management. With focus on disaster management, the interventions or contributions of urban planning have been critical in mitigating disaster impact in many countries with the adoption of planning and engineering concepts alongside legislative frameworks.⁹⁻¹¹ Coastal areas have been built to withstand and or mitigate flood disaster impacts using technological and engineering processes; flood disasters in towns and cities as well as infernos in buildings and structures have been avoided by use of planning laws and regulations, among others. All of these are pointers to the fact that there are links between urban planning and disaster management as emphasised in this paper.

Rationales for urban planning involvement in disaster management

How can urban planning function within the ambit of disaster management? This is a thought-provoking question that has been answered in literature.¹²⁻¹⁵ The answers can simply be placed looking at the objectives of urban planning including human and environmental protection as well as public health and safety improvement. A primary concern in this paper is *the protection of humans and their habitat from urban environmental changes such as land degradation, loss of biodiversity, urban heat, global warming and climate change; all being prime consequences of urbanisation and industrialisation.*¹⁶⁻¹⁹ This is because rapid and uncontrolled growth in urban areas always requires high demand for urban land and spaces to accommodate the ever-growing need of urban population for settling and trading.²⁰ Natural buffers which are forests areas in urban space thereby undergo deforestation to allow for developments such as housing, industries, infrastructure and paved areas; sometimes with incursion on rural lands when urban space is exhausted or scarce.

Environmental changes often result into various environmental disasters such as typhoon, hurricane and flood in varying degrees.^{21,22} While combating the challenges posed by these disasters have been from emergency management standpoint which involves providing means of protecting and supporting lives and livelihoods during and after disaster occurrences. These measures are however very reactive. On the other hand, disaster risk management perspective has evolved to ensure proactive measures. According to Mitchell et al.,²³ disaster risk management is solely directed at actions that can strengthen capacities and resilience at household and community levels by providing means of preventing and mitigating risks to lives and livelihoods. It involves planning with a wide-ranging involvement of all stakeholders as affected individuals or groups and concerned institutions in disaster risk management practice.

Disaster management thinking and urban planning regulations

Prevention, preparedness, responses and recovery are phases that evolved in contemporary disaster risk management thinking. This thinking in concept has been tagged the Disaster Management Cycle (DMC).²⁴⁻²⁸ DMC also refers to “a series of expected actions in stages, to prevent, mitigate or prepare and respond to disaster. These actions are usually presented as requirements before, during and after a disaster occurrence.”²⁹ Sakalasoorya²⁸ presented the DMC as a

continuous process whereby the governments, businesses and civil societies are planning for reduction of disaster impact; responding to mitigate the impact of disasters during and immediately after as well as taking steps towards recovery from such impact. According to this same author,²⁸ the goal of the cycle is stated as to (1) reduce or avoid losses from hazards; (2) ensure prompt assistance to victims; and (3) achieve rapid and effective recovery (Figure 1).

Analysing each phase of the DMC, Atmanand⁹ stated that the disaster prevention phase deals with the mitigation measures (either structural which involves engineering and technological solutions or non-structural as legislations) put in place to ensure elimination or reduction of disaster risks. More so, the disaster preparedness stage comprises ongoing measures (early warning signs, financial security, etc.) and series of activities involving planning, organising, training, equipping, exercising, evaluation and improvement activities in ensuring effective management and improvement of capabilities to prevent, mitigate and/or recover from disaster impact. Furthermore, the disaster response phase deals with deployment of the necessary emergency actions and services to mitigate impact and reduce vulnerability during disasters. Lastly, the disaster response phase is a resilient state that deals with recovery of affected areas by ensuring the restoration of damages in order for the areas to bounce back to return to their functional state.



Figure 1 Disaster management cycle.²⁶

The four phases of the DMC are further classified into pre-disaster risk reduction and post disaster recovery phases with the former comprising the prevention and preparedness phases while the latter comprising the response and recovery phases.³⁰ Writing on the DMC, Ijewere³¹ stated that the disaster preparedness and response phases are not to be the sole role of experts and emergency responders from government disaster organisations, but there should be participation by citizens, local volunteers, businesses and private organisations, as well as non-governmental organisations (NGOs). More so, in ensuring the objectives of the DMC, there must be collaboration between the government agencies and private organisations such as NGOs that takes the form of multi-disciplinary and multi-sectorial approaches.²⁹

Within the ambit of urban planning also is a thinking that is fundamental in preventing or mitigating disaster occurrences. This is to ensure that urban environment adhere to logical arrangement of developmental activities through physical planning regulations.³² Clarke³³ described physical planning regulations as statutory procedures for the control of land use development within a spatial jurisdiction. These regulations are diverse consisting of planning law, development plan, zoning code, planning standards, sub-division regulations and planning schemes.³² Looking at the challenges posed by disasters, the involvement of urban planning institutions as stakeholders therefore owes to the fact that ‘environmental impact of the settlement development are on one hand mainly effected by the converse of open spaces to sealed building areas and on the other hand also caused by the specific location of new settlement areas.’³¹ Enforcement of physical planning regulations could help prevent or mitigate the menace of disasters by avoiding root causes.

Numerous urban planning strategies are available in the literature^{13–15,34,35} for the prevention of environmental disasters. Only Kotter¹³ explicitly spelt out nine strategies. The first comprises strengthening of decentralised urban development using multiple centre structure. The second entails availability of site suitability and selection assessment framework in determining future settlement development aside river valleys, natural retention areas and unstable slopes. The third is creating priority for interior urban development which encompasses reactivating brownfield sites, mobilising gap sites as well as reusing urban wasteland and vacant buildings. The fourth strategy entails using mixed use and increased density approach for new developments in order to maximise space. The fifth is to ensure that urban and rural areas cooperate in matters of settlement, infrastructure and protection of the environment. The sixth entails the ability to reduce soil sealing. The seventh is protection and efficient realisation of urban concepts. The eighth is to ensure that in the course of town, infrastructure and traffic planning, there should be integration of planning strategies with social and environmental aspects. The ninth is to enhance the natural vegetation and protect the open spaces within the urban environment.

Statutory framework for disaster management in Nigeria: a synopsis

Drawing from history, the establishment of the disaster management bodies was in the 1970s. In 1976, the National Emergency Relief Agency (NERA) was established to address disaster relief operations in Nigeria. This was in a response to the drought which ravaged parts of Northern Nigeria from 1972 to 1973.³⁶ Owing to the limitations of NERA which had only the mandate to distribute relief materials, it had to be restructured in the 1990s to encompass all aspects of disaster

management; backed up by Degree 119 and was made an independent institution under the Presidency.^{36–38}

The Federal government of Nigeria created an amendment of Act 50 of 1991 by the Act 12 of 1999 to establish a new institution.³⁷ According to the framework, the institution is called National Emergency Management Agency (NEMA), State Emergency Management Agency (SEMA) and Local Emergency Management Authority (LEMA) at the Federal, State and Local Government levels, respectively. The institution at the national level, has since its establishment been responsible for the coordination of relevant stakeholders to ensure efficient disaster risk management and control.³⁹

The institution at the national level likewise constituted an in-house committee that developed a “zero document” which is holistic in nature and adhere to global best practices in disaster management.³⁷ This means that the draft document contains proactive and reactive measures for the prevention, preparedness, response and recovery phases of disaster management. It is therefore prepared to serve as “baseline for inputs from stakeholders across the country, to ensure participation, ownership and sustainability.”³⁷ There has therefore been a long walk of over four decades in establishing a holistic national disaster framework in Nigeria.

State of statutory framework for urban planning involvement in disaster management in Nigeria

Urban planning institutions are recognised as stakeholders at the State Government level in the Nigeria’s Statutory Framework for Disaster Management as stipulated in Article C of Section 2:

‘c. There shall also be established for the management of SEMA, a Governing Council, hereinafter referred to as “the Council”. The Council shall consist of –

- i. The Deputy Governor of the State, who shall be the Chairman,
- ii. The Secretary to the State Government,
- iii. One representative each from: -
- iv. The State Ministry of Agriculture,
- v. The State Ministry of Women Affairs and Social Development,
- vi. The State Ministry of Health,
- vii. The State Ministry of Information,
- viii. The State Ministry of Education,
- ix. The State Ministry of Works,
- x. The State Ministry of Water Resources,
- xi. The State Fire Service,
- xii. The Federal Airport Authority of Nigeria in the State,
- xiii. The State Ministry of Environment,
- xiv. The State Ministry of Urban and Regional Planning/ Lands and Survey,
- xv. The State Ministry of Justice
- xvi. The State Ministry of Local Government and Chieftancy Affairs
- xvii. The Disaster Response Unit (DRU) within the State/geo political zone,

- xvi. The Nigeria Police Force,
- xvii. The Federal Road Safety Corps,
- xviii. Directorate of Road Traffic Services,
- xix. The Nigeria Security and Civil Defence Corps,
- xx. The Nigerian Red Cross Society, xxii. The State Ministry of Finance,
- xxi. The Nigerian Maritime Administration and Safety Agency in coastal States,
- xxii. National Oil Spill Detection and Response Agency (NOSDRA),
- xxiii. Such institutions/voluntary organization as may be determined from time to time by the Council, and
- xxiv. The Head of the State Emergency Management Agency as Member/Secretary.”

From the same statutory framework, urban planning institutions are also reckoned with at the Local Government level as provided in the first part of subsection 2.2.3, stated as follows:

‘2.2.3 The Roles of Local Governments in Disaster Management

The Local Government shall put in place a legislation establishing a disaster management body to be known as the Local Emergency Management Authority, hereinafter referred to as LEMA.

LEMA:-

- (a) Shall be a body corporate with perpetual succession
- (b) May sue and be sued in its corporate name.

There shall also be established for the management of LEMA, a Local Emergency Management Committee hereinafter referred to as “the Committee”.

The Committee shall consist of: –

- i. The Vice - Chairman of the Local Government Council, who shall be the Chairman,
- ii. The Secretary to the Local Government,
- iii. Department of Works,
- iv. Department of Agriculture,
- v. Local Government Education Authority,
- vi. Department of Health,
- vii. Local Government Traditional Council,
- viii. Local Government Information Unit,
- ix. Department of Social Development and Mobilisation,
- x. Department of Physical Planning,
- xi. A representative of the Disaster Response Unit (DRU), responsible for the Local Government.
- xii. The Divisional Police Officer
- xiii. The Medical Director in charge of any government hospital within the local government or his equivalent;

One representative each from: -

- xiv. The Federal Road Safety Corps,
- xv. The Nigeria Security and Civil Defence Corps 15,
- xvi. The Nigerian Red Cross Society,
- xvii. The Fire Service,
- xviii. National Orientation Agency
- xix. Any such voluntary organization as may be determined from time to time; and
- xx. The Head of the Local Government Emergency Management Agency (LEMA) as Member/ Secretary.”

On critically examining this statutory framework, it neither established the Ministry of Urban and Regional Planning at State level nor the Department of Physical Planning as participatory bodies in disaster management in the country. It only specified that a representative should emerge from the Ministry to be part of the Governing Council for the management of SEMA while also a representative should emerge from the Department of Physical Planning as part of the Local Emergency Management Committee at the Local Government level. In essence, the SEMA and LEMA as the sole disaster management bodies in the country are to constitute members based on representation from various political classes and professions, especially those in civil service, for the governance of the bodies.

The place that it seems the urban planning professionals are mentioned in the statutory framework is in Section 5, subsection 5.4.1., stated as follows:

“NEMA, SEMA, LEMA and other stakeholders, shall ensure the inclusion of spatial planners, Geographic Information System (GIS) experts in all phases of disaster risk reduction plans and programmes.”³⁷

As it now stands, there are provisions for the inclusion of urban planning professionals in the national disaster management framework. This gives a kind of charge to urban planning institutions and professionals to be part of or intervene in disaster management matters. However, going by the law, the question is ‘As stipulated in the framework, what are the areas of intervention for urban planning institutions and professionals and to what extent can they contribute?’ Evidently, there are no provisions according to the framework. This is likely to create a kind of gap in participation and collaboration between urban planning and disaster management bodies in Nigeria. This might have been the reason for minimal relations between the two bodies.

The mechanisms of urban planning in disaster management are however well spelt out in the framework. These are both the structural and non-structural mechanisms that reflect planning, engineering and legislative actions as stated by Atmanand⁹ and are provided for in section 5.5 of the framework:

‘5.5 Disaster Risk Reduction Mechanism

The critical components of effective disaster risk reductions shall be the various regulations, standards, by-laws and other legal enforcement instruments. The Federal, State and Local Governments shall ensure adherence to the legal enforcement instruments, some of which include:

- i. Land use regulations.

- ii. Urban planning and development standards.
- iii. Standard for Environmental Impact Assessments.
- iv. Building codes.
- v. Fire codes vi. Enabling Acts/Laws/Bye-Laws of the Legislature on Health and Environmental issues
- vi. Relevant International Conventions and Treaties signed by the Government of Nigeria etc.”

Conclusion

Prevention, preparedness, responses and recovery are the phases evolved in contemporary disaster risk management thinking. This paper emphasised the fact that the phases can be achieved through urban planning strategies focused on physical, social and economic structures of settlements. Meanwhile, the statutory framework for disaster management in Nigeria posed some kind of challenges. One, there has been no concrete evidence by law for the direct involvement of urban planning agencies and bodies in disaster management. What existed are sections that provided for a kind of representation in governance system and those that indicated the participation of urban planning professionals without specifying their functions. Probably, it is this gap that is limiting the direct and active participation of the urban planning agencies and practitioners in disaster management in Nigeria. There is therefore the need for a comprehensive disaster management framework that involves urban planning professionals, bodies and agencies as well as provides their statutory functions.

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Conflicts of interest

The authors declare there are no conflicts of interest.

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