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The Impact of Planning on Land Uses on Livable Environment in Imo State.

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Abstract

Planning is the active process of organizing the physical activities and land uses in order to ensure orderly and effective siting and coordination of land uses. Land use denotes how humans use the biophysical or ecological properties of land. This study investigates the impact of planning on land uses on livable environment in Imo State, Nigeria. The objectives are to: examine how planning plays its roles on land uses on livable environment in Imo State, identify the challenges of planning on land uses, and recommend key strategies to improve planning in Imo State. Questionnaire survey was the main instrument for data collection. Simple random sampling and purposive sampling techniques were used. Sample size is 420. The study revealed that, there are positive effects of planning on livable environment, by playing an integral role in the social, environment and economic development of a particular place, reducing and preventing land use conflicts. The study recommends use of planning laws, monitoring and law enforcement on land uses to prevent developers from illegal land uses and use of remote sensing and geographic information system [GIS] techniques.

Keywords: Impact of Planning, Land Use, Livable Environment, Monitoring and Law Enforcement, Geographical Information System

1.0 Introduction

Planning ensures responsible use of resources, protects natural habitats, and manages environmental impacts, contributing to a more sustainable environment. Planning, as a dynamic area of enquiry, needs to respond to the changing philosophy in favour of cultural turn, and in line with postmodern planning thought. Planning, therefore, ought to incorporate the mix of people within their area and how that mix is changing, if it is to deliver the development planning and development control functions properly (Weje, 2017). Effective planning and management are the antidotes to the monitoring of land use and environmental challenges to the informal sector (Adedibu and Ogunkan, 2017).

Land use is the spatial distribution of city functions. It denotes how human use the biophysical or ecological properties of land. Land use is the modification and/or management of land for agricultural, residential, commercial, industrial, transportation, institutional,

recreational, and open space (Ellis, 2010; Balogun and Orimoogurife, 2015).

Effective land use planning can significantly enhance the livability of an environment by minimizing conflicts between different land uses, promoting sustainability, and ensuring access to amenities and services. This is achieved through various planning tools like zoning regulations and building permits, which help control development and protect the environment.

The fundamental challenges in Imo State is that some developers in the course of development refused to build according to the plan approval given to them, while some do not obtain building approval before construction. The study aims to investigate the impact of planning on land uses and livable environment in Imo State. The objectives to attain the aim are to:

i. examine how planning plays its roles on land uses on livable environment in Imo State;
ii. identify the challenges of planning on land uses on livable environment in the study area; and
iii. recommend key strategies to improve on planning in Imo State.

2.1 The Concept of Planning

Although planning has different definitions, there is a consensus that it is a highly formalized activity through which a society induces change. Planning is the process of systematic thinking about and organizing activities which encompasses setting objectives, identifying tasks, allocating resources, and establishing times. Essentially, planning bridges the gap between where an organization is and want to be.

Planning is the active process of organizing the physical activities and land uses in order to ensure orderly and effective setting and coordination of land uses. Onokerhoraye and Omuta (1994) described planning as applying scientific knowledge to solve problems and achieve the goals of a social system. Moore (2017) described planning as a system of regulatory and zoning restrictions on the general rights of the landowner to use and develop his land the way he likes based on the preconceived socio-economic patterns of a given society so that a purposeful utilization of land may be achieved in the interest of the general welfare of the community to which it relates. Planning is also described as encompassing deliberate determination of spatial plans with an aim of achieving optimum level of land utilization in a sustainable manner.

2.2 Planning Laws

Planning laws are a system of rules and regulations to guide the orderly arrangement of physical development activities in accordance

with acceptable planning norms and standards, providing the legal basis for directing and controlling the present and future actions of the built environment in any locality (Oyesiku, 2019). Planning laws are laws that authorize government agencies to apply a set of instruments to steer or control urban and rural development. Such instruments include statutory plans, zoning bylaws, submission, powers to secure land or financing for public services, and the control of development by means of permits, building and housing codes (Alterman, 2013). Planning laws aim to secure orderliness in the use for today's development and that of the future (Okongwu and Imoisi, 2021). Planning law, therefore, is an instrument for directing, promoting, and securing orderly development at various physical planning and development levels. The current planning law in Nigeria is the Urban and Regional Planning Law of 1992. The law covers all aspects of planning including administration, responsibilities of the federal, state, and local governments, plan preparation, types of plans, development control, enforcement, legal right, compensation, approval, and the bodies that should issue approval of plans; land acquisition and compensation. All the states in the country are expected to fashion their own laws in line with the 1992 Law (Aluko, 2011).

2.3 Land Use/Land Use Planning

Ellis (2010) described land use as the modification and/or management of land for agricultural, residential, commercial, industrial, transportation, institutional, recreational, and open spaces. Kent, Wood and Harrington (2022) described land use as the function or functions for which humans use an area of land. Different types of lands are used for different purposes. How land is used can change as human habits, population change and people move. Since land is a finite space needed and used by everyone, some laws and regulations protect and ensure it is used safely and fairly.

For Bako, Raheem and Abdulyekeen (2017), land use planning refers to the ordering and regulating of land in an efficient and ethical way, thus, preventing land use conflicts. Huang, Tian, Li, Yongfu, Yu, Gao and Xia (2023) described land use planning as a key tool to guide the spatial layout and time sequence of land use and to minimize the negative externality of land use.

2.4 Land Use Regulations

Land use regulations are rules which indicate how land in particular areas can be developed and applied (Goodfellow, 2013). Land use regulations serve the purpose of restricting development in order to give effect to urban plans.

Zoning refers to the process of dividing a municipality or area into different zones, each

with specific regulations for land use, building heights, and other aspects of development. These regulations are typically enacted by local governments to promote orderly development, prevent land use conflicts, and ensure the efficient delivery of services (Kent, Wood and Harrington, 2022).

2.5 Concept of Development Control

Daramola (2021) reveals that the entirety of human activities on land constitute development, which is capable of having a significant impact on the physical environment, whether negatively or positively, and for which permission must be obtained before embarking on such an activity. Development control aims at promoting residents' good health and general welfare through harmonious location of land uses and orderly development that meets the requirements for ideal living (Daramola, 2021). Tang and Tang (1999) described development control as a significant part of urban land use policy, noted for promoting public interests, eliminating negative externalities, improving the information base for decision-making, and redistributing public costs and benefits.

3.0 Literature Review

3.1 Planning

Planning is a process of organizing and managing the use of land resources within a specific area to create a functional, aesthetically pleasing, and sustainable environment for living, working, and recreation (Litman, 2020). It involves making decisions about the spatial organization of activities and infrastructure to achieve desired social, economic, and environmental outcomes (Moore, 2017).

3.2 Physical Planning

Physical planning is the active process of organizing the physical aspects of an area, including infrastructure and land use, to achieve desired social and economic outcomes (Oluwadare, Adedotun, Ibrahim, Oparemi, and Oyeleye, 2024). It involves the deliberate arrangement of physical elements, for instance, buildings, roads, and open spaces to optimize land use, enhance functionality, and improve the overall quality of life within a community (Litman, 2020). Physical planning involves a number of activities which take place on natural resources like land, lakes, rivers, and rocks. These resources must be conserved while implementing physical planning activities sustainably. The state of the physical environment, particularly the urban centres today, is a major source of global concern (Litman, 2020; Kweezi and Barakagira, 2023). The purpose of physical planning is to organize and develop certain areas (regions) according to the elementary facets of human existence, such as housing, work, education, supplies, leisure, and

transport, so as to ensure optimum social and economic conditions and sustain the natural foundations of life (Kweezi and Barakagira, 2023).

3.3 Urban Planning

Urban planning involves designing and managing the physical environment of cities and towns, encompassing aspects like land use, transportation, housing, and infrastructure, to improve quality of life and promote sustainability. Its challenges, like population growth, climate change, and social equity (Emmanuel and Loconsole, 2015). Urban planning answers questions about how people will live, work, and play in a given area and thus, guides orderly development in urban, suburban, and rural areas (Manghnani and Bajaj, 2014).

3.4 Land Use Planning

Land use planning is the ordering and regulating of land use in an efficient and ethical way, thus, preventing land use conflicts. The fundamental principles of land use planning include: to encourage agricultural operations and ensure the preservation of the productivity, availability, and use of agricultural products; to preserve the natural, historic, recreational, and scenic values, along with the healthy economy of the forested land and resource preservation districts, so as to ensure that development in those areas is in conformance with their natural resources, including soil, water, air, view sheds, scenery, and fragile ecosystems; and to encourage residential development in designed growth areas (Gamus, 2003; UN-Habitat, 2009; Bako, Raheem, and Abdulyekeen, 2017; Okeahialam and Osuji, 2019; Kent, Wood, and Harmington, 2022).

Land use planning, in essence, is a systematic approach to organizing and regulating how land is utilized within a specific area. It involves assessing current land conditions, forecasting future needs, and developing strategies for efficient land resource management. This often includes considering economic, environmental, and social factors to achieve sustainable development (Regunay, 2015). Land use planning involves the allocation of land to different uses across a landscape in a way that balances economic, social, and environmental values. Its purpose is to identify, in a given landscape, the combination of land uses that is best able to meet the needs of stakeholders while safeguarding resources for the future (Bako, Raheem, and Abdulyekeen, 2017; Huang, Tian, Li, Yongfu, Gao, and Xia, 2023).

3.5 Master Plan

According to Harrison and Croese (2022) and Croese, Harrison, Owusu and Amedzzro (2023), master plan, also known as comprehensive plan, provides a long-term vision for community

development. It assists in guiding people on how to use lands appropriately within municipal orders and helps protects public health, safety, and general welfare. Master plan guides the growth and development of cities. The situation in Imo State is such that new houses, parks, shops, among others spring up on daily basis, especially in the open spaces. Master plan typically encompasses various subject areas, indicating land use, housing facilities, among others (Olukesusi, 2015; Johnbull and Nwokaeze, 2021).

3.5 Livable Environment

Livable environment encompasses the qualities and characteristics of a place that contribute to residents' well-being and quality of life (Grabowska, Antczak, Zwierzchowski, and Panet, 2021). A livable environment supports human life and well-being, providing necessary resources, safety, and opportunities for a good quality of life. It encompasses both the natural and built environments, considering factors like access to fresh water, food, housing, healthcare, education, and a safe, stable environment. It also includes social and psychological aspects, such as sense of community, safety, and access to amenities (Stephens, Szabo, Allen, and Alpass, 2019; Ritus and Anshu, 2019; Grabowska et al., 2021).

3.6 Land Policy

Land policy is a piece of the national policy on promoting objectives, for instance, economic development, social justice, and political security (Aribigbola, 2008). It is a constant balancing of the interests of the government, the land-owning class, as well as the landless class (Eze, 2014).

3.7 Land Use Management

Land use management focuses on the planning, allocation, and regulation of land resources to achieve specific goals, often involving balancing competing interests and promoting sustainability (Johnbull and Nwokaeze, 2021). Land use management helps control the allocation of land for specific uses. This ensures resources are available for future generations. It minimizes the effects of economic activities and development on the environment (Eze and Alozie, 2016).

Land management is the activities associated with the management of land as a resource from both an environmental and economic perspective towards sustainable development (Kweezi and Barakagira, 2023). It is the process by which the resources of land are put to good effect. Land management is focused on implementing decisions that have been made on the use of land resources geared towards ensuring regulatory

and supervisory role between land administration and land policy (Cagda, Gur, and Kurt, 2003).

3.8 Land Administration

Land administration is a coordinated framework for tackling land related issues. It is the process whereby the resources of land are put to good effect (Eze and Alozie, 2016). That it entails decision making as well as the implementation of decision about land. The key components of land administration are land ownership, land use, land valuation, and land information management. In appraising the important role of land administration, a critical look has to be taken of the components of land administration, which are the human element and the physical element (Emoh, 2017).

3.9 Remote Sensing/Geographic Information System (GIS)

The remote sensing and GIS-based monitoring strategy can be used in any environmental research as well as in physical or regional geography across the state and the entire country (Iro, 2024). Remote sensing and GIS technology helps to classify land use and land cover to understand the extent of human-induced changes. Remote sensing and geographic information system (GIS) techniques are cost-effective tools that are used to monitor and assess land uses. These techniques provide accurate, consistent, real-time information on the ground and urban land increase. It also helps to know the level of recovery of vegetation if government intervenes.

In as much as there are studies in the literature on planning and land uses in some parts of Nigeria, these studies did not consider the impact of planning on land uses on livable environment, especially in Imo State. This study, therefore, is designed to investigate the impact of planning on livable environment in Imo State, suggesting using geospatial techniques (remote sensing and GIS) as well as field surveys for faster, consistent, more accurate evaluation, and real-time information on the ground.

3.10 The Study Area

Imo State lies within latitude 4^0 45^1 N and 7^0 15^1 N and longitude 6^0 50^1E and 7^0 25^1 E. It is bounded in the North by Anambra State, in the East by Abia State, in the West by Delta State and in the South by Rivers and Bayelsa States with a total land area of 5,100km^2. It comprises 27 Local Government Areas and is divided into three senatorial zones namely; Orlu, Owerri and Okigwe Zones.

Imo State was created during the military regime of General Murtala Mohammed on the 3rd of February, 1976. Owerri became the capital of Imo State. Imo State has 306 autonomous communities. The population of Imo State was projected to 2025 which is 6.7 million and the people are predominantly Igbo speaking people.

Imo State is rich in natural resources which include crude oil and natural gas. The annual rainfall is over 2250 mm (90 inches) with a mean temperature above 26.7°C (Udo, 1978). The relative humidity is between 80 percent and 90 percent in the rainy season (April to October) and about 65 percent in the dry season (November to March). Imo State lies within the rainforest belt of Nigeria. The forest belt is characterized by trees that exist in different layers – low, middle and upper layers. The assemblage of infrastructure makes Imo State hub of economic, administrative, institutional, industrial, and commercial activities which attracts investors to the state. Imo State has six major roads namely: Orlu, Okigwe, Aba, Umuahia, Onitsha, and Port Harcourt Roads, also Douglas and Wetheral Roads, access roads and Sam Mbakwe International Cargo Airport along Owerri – Aba Road.

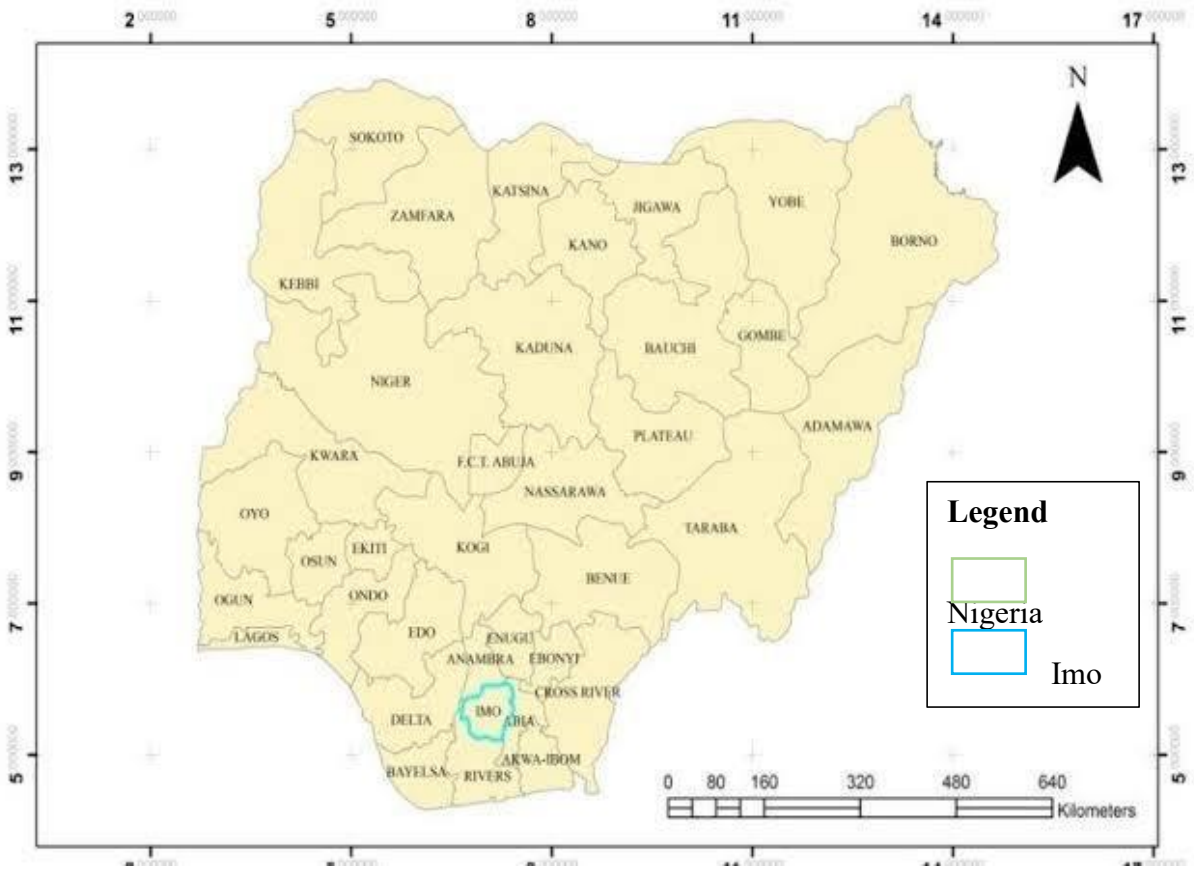


Fig. 1.1: Nigeria showing Imo State

Source: Ministry of Lands, Survey, and Physical Planning, 2023.

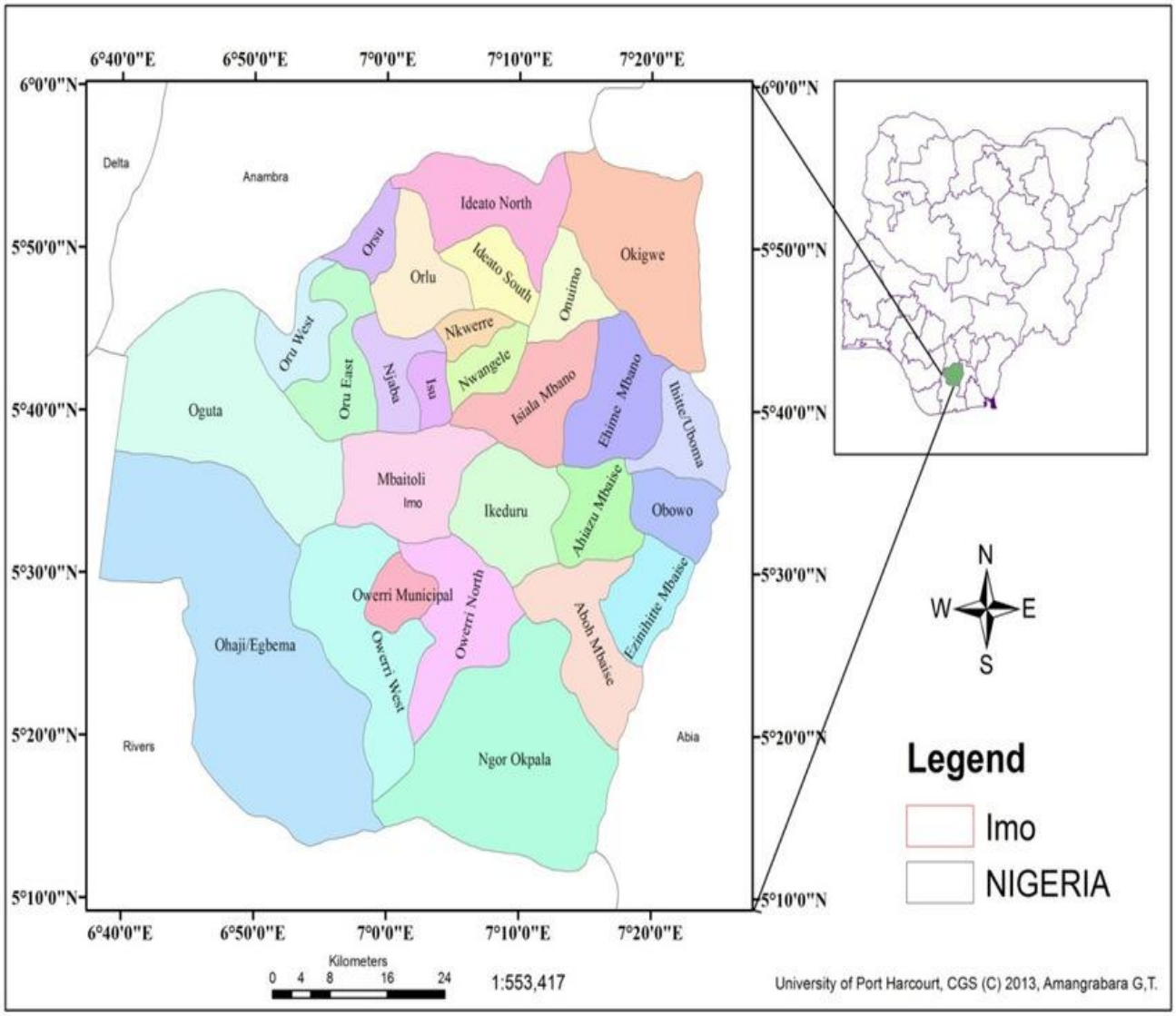


Fig. 1.2: An insert map of Nigeria, showing Imo State

Source: Ministry of Lands, Survey and Physical Planning (2023)

4.0 Methodology

The study design is the survey research design. Both primary and secondary sources of data were used. Questionnaire survey was the main instrument for data collection. Oral interview was conducted. Simple random sampling and purposive sampling techniques were used. The total population of 960 forms the target population. A total of 446 copies of the questionnaire were distributed to the 21 communities selected from 27 Local Government Areas of the three senatorial zones of Imo State namely: Okpala, Umuoba, Orji, Umuororonjo, Amawom, Umuonyeche, Umuoyima, Aladinma, Ikenegbu, Amakohia, World Bank Housing Estate, New Owerri,

Nekede, Umudagu, Nworieubi, Awa Omamma, Mgbidi, Awo Idemili, Anara, Okwele, Ubahu, and Uhube. This was arrived using the Taro Yamene formula:

$$\frac{n = N}{1 + N (e)^2} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

The sample size of the study is 446 including 10% attrition. Of this number, 420 copies of questionnaire were returned representing a response rate of 96%. In all, 70% of the copies of questionnaire were distributed to Town Planners, 20% to experienced professionals in the built environment and 10% to the residents in the study area. Descriptive statistics was the method used to analyze data collected for the study.

5.0 Findings

The study found that planning plays an integral role in the social, environmental, and economic development of a particular community or place by reducing and preventing land use conflict, protecting the environment, reducing or limiting urban sprawl, facilitating structure and development area that supports public health and safety, enabling compatible usage of a particular area, reducing and controlling transportation cost.

The challenges of planning in Imo State found from the study are:

i. Rapid increase in urban population and demand for development has put pressure on urban areas. These pressures are evident in rapid urbanization, population explosion, housing shortage, increasing unemployment and poverty, traffic congestion, environmental pollution and degradation, flooding, increasing insecurity, waste management problems, increasing proliferation of informal settlement, and inadequacy in the provision of social infrastructure and services.

ii. The fundamental challenges faced by planning in Imo State is the crippling weakness of institutions of urban planning and management. This is where town planners, city authorities, urban managers and other stakeholders have failed to effectively deal with the challenges of planning/illegal land use.

iii. Some property developers in the course of development who secured planning approvals refused to build according to the approval given to them, while some do not actually obtain building approval before construction. Non-compliance to building regulations relating to open spaces, rights-of-way, access roads, building setback, building density,

habitability of rooms, location and site plan, lot sizes and parking.

iv. Improper monitoring of development to ensure compliance, especially when a development permit/approval is granted. There is no use of land use imagery through the use of remote sensing and geographic information system (GIS) techniques to monitor the study area.

v. Planning faces numerous challenges which include balancing development with conservation, addressing climate change, engaging diverse stakeholders, ensuring regulatory compliance, and managing limited resources.

Recommendations

Based on the findings of this paper, recommendations are proffered.

1. The government should plan for more livable environment where residents or people can enjoy high quality of life. This includes access to clean air and water services, affordable houses, good public transport, health facilities among others.
2. Government authorities should ensure that management of public land is the sole and maximum responsibility of the government through its relevant agencies.
3. Planning laws should be adhered to. Developers should build according to the zoning regulations as these will serve as blueprint for long-term development and growth of the entire city or region. These provide a framework for guiding future development and decision-making processes and ensuring that growth occurs in a coordinated and sustainable manners.
4. Permitting and approval processes granted to developers should be monitored before the commencement of building construction activities and during construction activities.
5. Law enforcement, monitoring and development control should be put in place to guide against illegal land uses.
6. The study recommends use of technology, which comprises remote sensing and geographic information system (GIS) techniques as a source of environmental information for land uses.
7. There is need to create more Local Planning Authorities to implement lower-level plans.
8. There is a need also for more public awareness and education on the benefits of planning regulations.
9. Community involvement and stakeholder engagement, which comprises Town

Planners and Stakeholder collaboration during planning and community development.

Conclusion

This paper investigated the impact of planning on land uses on livable environment in Imo State. The impact of planning and challenges in Imo State were identified. If not planning, the area would have been taken by human activities. It is a critical aspect in guiding land use decisions to optimize the efficiency and development of urban and rural development. Planning is an important tool for development in that it helps to reduce incidence of negative use of land and it helps to reduce unnecessary pressure on land. It can be used as a tool for National Development through Development Plans and Master Plans; Setting Building Standards; and Zoning.

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