ISSN: 2347-7431
EPRA International Journal of Climate and Resource Economic Review
-Peer Reviewed Journal
Volume: 12 | Issue: 9 | December 2024 || SJIF Impact Factor (2024): 8.298 || Journal DOI: 10.36713/epra1213

AGBOWA-IKOSI DEVELOPMENT MASTER PLAN REPORT

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Article DOI: https://doi.org/10.36713/epra19600
DOI No: 10.36713/epra19600

ABSTRACT----------
This paper aims to use the establishment of the master plan to provide an overall development strategy for the emerging area of Agbowa-Ikosi in Lagos State, Nigeria. The plan is to help develop Agbowa-Ikosi into a sustainable city that will be economically viable owing to the city's strategic geographical location and the industrial and tourism opportunities inherent in the city. The plan contains comprehensive information on the territory's climate, geography, land usage, traffic conditions, and other peculiarities. Core constraining factors including infrastructural development, drainage systems, and generic necessities are recognized. These are the challenges that this plan seeks to overcome to unlock the potential of the Region. These include the proposals for a new CBD, growing areas of the industrial estates, accessibility of transport systems, and establishment of open green space/recreational grounds. According to the principle of sustainable development, the plan proposes the utilization of renewable energy sources and the promotion of the ecological approach in construction. Therefore, the usage of the aforementioned authorities can make Agbowa-Ikosi an example of creating a sustainable city in Nigeria.
KEYWORDS: *Agowa-Ikosi, Master Plan, Sustainable development, Infrastructure, Tourism.----------*

INTRODUCTION

1.1 Background

Generally, a successful city development or a single project entails a good framework to support and coordinate the actions as well as to guarantee sustainability. This framework is important as it separates interaction and relationships between diverse activities rather than strictly physical construction. As it will be clear from the forthcoming discussion, depending on the type of project or even community of practice, documents, maps, and policies, as well as document maps or map policies, may well be at the core of this framework. Called Master Plan, this tool has been used to influence the development of many cities and projects throughout the world.

According to Kent (1984), the master plan has been best described with an emphasis on its political aspect. He depicts it as a general instrument of a city council, to deliberate, argue out, and eventually, approve a well-coordinated and integrated set of strategic plans for the physical development of a society. However, Kent also illustrates a major problem in many developing nations in which master plans collapse in the implementation phase due to political bias and the absence of functional mechanisms for enforcement.

A master plan's main purpose is to stimulate development alongside moderating current and future development. The work aims to identify the appropriate strategies for the deployment of land concerning diverse uses to fashion integration and sustainable development of cities. The master plan is then a statutory tool used in the planning and control of development in any given area. Selected cities comprise Abuja (Nigeria), Chicago, Washington DC (USA), Chandigarh, Bhopal (India), and Brasilia (Brazil) demonstrate the implication of urban master planning in their development plan.

Unlike a regulatory document, a master plan provides information on the condition and trends of a community, which is very essential. It offers an overview of key background characteristics concerning a town's development; it coordinates policies in such essential areas as growth management, transportation, environmental protection,

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community facilities, and fiscal management. Thus, it endows officials with techniques for managing change and thereby unleashing constructive, rather than disruptive, development (NH OSP, 2004). Therefore, the master plan is a vision, a working guideline, and an encyclopedia of local actions and policies.

While a master plan is primarily an index of a community's social and economic character, it concerns itself with the physical side of a community. These values get operationalized in a strategic plan showing where, when, why, and how to construct, reconstruct, or maintain urban and rural areas. Often master plans are incorporated with long-range capital improvements that encompass overall areas and embrace life support systems for operations of a community, such as transportation, shelter, land use, water, and play. The relationships between these functions are also an important factor, in the master plan will deliver a supportive and integrated community.

Further, while a master plan enunciates the values, wants needs, and, in general, dreams of a community or society, the plan transforms them into principles of land use and development directing future growth. It gives other bodies of government a policy framework for decision-making on matters affecting the public (Hollander et al., 1988). Thus, it provides specific guidance to help the planning authorities, governing boards, and managers establish and maintain relevant short-term and long-term actions in terms of the common goal of the community.

Master planning is a different concept from physical planning solutions since it addresses a much wider need. It entails setting of community vision and objectives in one process and producing a master plan to govern and coordinate policies in areas such as transport, water, recreation, power, housing, and land. These are also known as strategic plans or vision documents that cover broad geographic regions encompass many subjects and have long time horizons.

Another major focal point of extensive planning is the consultative process involving the public in the preparation of the document in question. The official designation of this document is the Official Community Plan or a developed plan, which also functions as a policy in such internal cooperation with local governments concerning the sustainable development of urban spaces. Comprehensive master planning is then a highly effective and societally inclusive process where technical planning expertise is also combined with public participation into a living planning system that is futuristic planning that prepares society for future change while at the same time building the resilience of the society for future change.

1.2 Objective of a Master Plan

A master plan therefore is a medium for orderly growth and sustainable development of a community or an institution. Its key objectives include:

1. On the Development of an Operational Scheme for the Further Evolution of a Community or an Institution: A master plan acts as a long-term development blueprint that charts only the most appropriate and feasible development trends for the future. It aligns the development vision and plan to a long-term strategic framework with short-term management challenges hence offering a coherent motivating development model.
2. Building Planning Aid to Planning Agencies in Developing Ordinances: Finally the role played by the master plan is identified and seen to be a basic tool for the planning authorities hence the outlining of clear guidelines and priorities. It helps the formulation of ordinances and policies dealing with the use of land and other important dimensions of development concerning the vision of the community.
3. Guidance to planning authorities in the performance of their duties: The master plan is therefore useful as a working document for the planning authorities to facilitate the exercise of their duties. High priority is given to the use of smart growth principles, the best planning practices, and the reasonable use of resources to achieve sustainable and reasonable development.
4. Setting out Statements of Land Use and Development Principles: A master plan provides clear visions and policies on how the physical environment shall be used and developed. These expressions give a framework for decision-making to keep the growth managed and most importantly in line with the long-term vision and plans for the community.
5. Providing legal standing for implementation measures: A consistent and comprehensive key objective is one that proactively addresses a wide range of stakeholders' concerns.

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1.3 Master Plan Process

Master planning is a very conscious, dynamic, multicourse, and interpersonal process that may take several decades from preparation through design to implementation. The process in view entails the mobilization of a range of partners and opinions and the different yet interrelated phases. The key stages in master planning are preparation, design, and implementation.

i. Prepare

The preparation phase provides a tactical compass because the theoretical foundation stems from physical, social, and/or economic and political conditions. The practitioner identifies goal setting, mission and vision, team creation, and stakeholder management. This stage often involves choosing a master planning team to offer direction, perspective, and tangible tools to the project.

ii. Design

During the design stage, a spatial master plan is conceptualized by analysis, consultation, and refinement. The end product is thus a three-dimensional plan providing proposals for buildings, streets, public spaces, and landscapes in diagrams, models, and explanatory visuals. This stage helps link the master plan to its implementation plan.

iii. Implementation

Implementation contemplates delivery means including funding, risk, and procurement among others. There is also an element of recycling of social, economic, and political factors from prior phases so that reference can be made to the master plan and adjusted as required. To realize the ambition of this master plan, clients need to enable and scrutinize this process.

Master planning is a complex process and to be effective, several crucial stages are always considered. Rounded with the community development process that involves the process of identifying the vision, aim, and objectives of the community. This is succeeded by the collection and documentation of information on existing land use to establish a good base for planning. Following this, data analysis becomes an important component of development schemes that shape future development scenarios, which are in turn evaluated and ranked to determine the optimal development scheme.

When one preference scheme is selected, the master plan is produced, reviewed, and even put into practice. Supervision moves to the centre to assess the outcome and manage the problems that have occurred. As important as the issue of developing the plan is the issue of being able to adapt it to suit the current need and situation by changing it when needed. Often, it is a nonlinear process and one that requires frequent readjustment and reevaluation. It has to be ready for unexpected problems while its basic idea of masterplan should remain sound and feasible.

1.4 Study Area

The Self-development of Agbowa-Ikosi can be traced back to a settlement known as Egunbesawo which has now developed into a township with Aledo, Oriwu, Agbowa, Kosomi (no water), and Ehindi districts. Every district has its supervising personnel known as the Olori Itun while the central administration of the town was controlled by moonlighting leaders, the Olu-Ilu. The old leadership progressed several times from the Baleeship to Kingship over a certain period.

Amidst one of those rolling hills thirty-five kilometres north of EPEG, Ikosi-Agboyi occupies a landscape on the right bank of a creek stretching from the sea fronting both Lagos and Ikorodu. It was and remains to be inhabited by citizens of native and immigrant ancestry. Other neighbouring communities are; Ota-Ikosi, Ikosi Beach, Orugbo-Iddo, Igbalu, Igbene, Oke-Olisa, Gberigbe, Oko-Ito, Imope, Imota, Odo Ayandelu and Ado-Ikosi.

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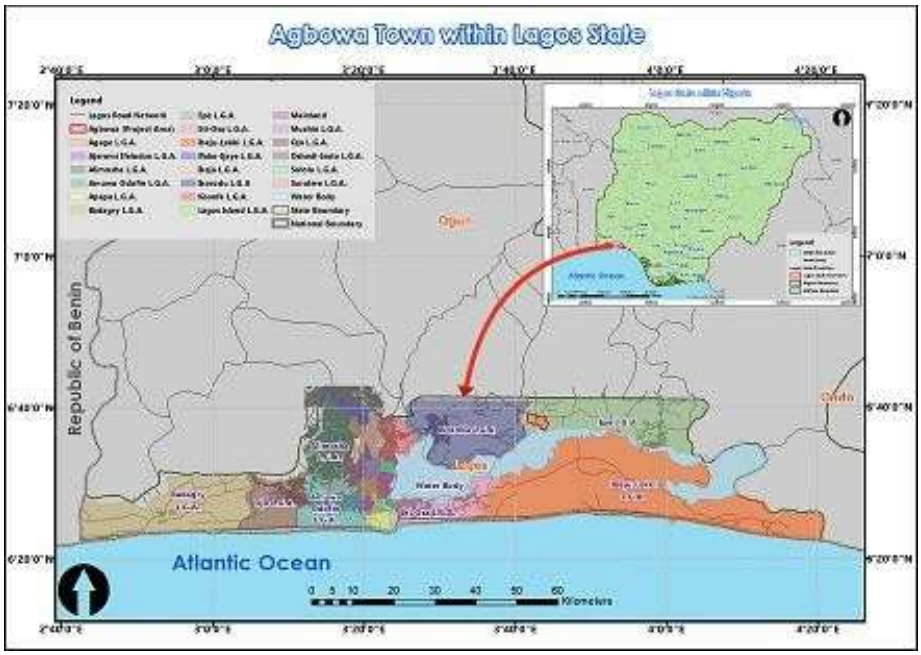
Fig 1: Locational Map of Lagos on Nigeria's Map

Fig 2: Locational Map of Agbowa on Lagos State Map (Modified by the Author)



The main source of income of the residents is agriculture especially growing crops and also fishing and other businesses. Also, craft manufacturing has become another contemporary viable economic sector among the people. The population of Agbowa-Ikosi was put at 107,283 by the 2006 Population Census and was expected to be 161,572 in 2006 at a growth rate of 3.2% per annum. The town has been economically stable due to the support from agriculture farming, fishing, and commercialism as well as the dynamism in craftsmanship.

THE PROJECT

2.1 The Brief

Significant data obtained from the brief are:

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1. Development of a master plan to centre around Agbowa Town in the Ikosi Ejirin Local Council Development Area of Epe Division of Lagos State, South Western Nigeria. This zone is within the Eastern Senatorial District and has a development potential for major activities.
2. Among the mega-project proposed projects expected to benefit Agbowa Town and its environs are; Lekki-Epe International Airport, Lekki Free Trade Zone, Dangote Refinery, and the Fertilizer Plant. Also, proposals on the movement of core industries – the lumbering industry and the oil & gas industry – serve to sort the area's economic significance.
3. Particularly to support this development, areas surrounding the Ikorodu local government area of Lagos state and the Ijebu-Ode local government area of Ogun state will be relevant. Among notable infrastructural projects are the Odua High-Speed Sagamu/Asaba Concourse and the Ijebu-Ode/Benin Expressway – the projects that will improve the region's accessibility.
4. Some important places are Epe and Itoikin which are located within or around the study area and represent an attractive research interest. Agbowa Town is set to accommodate the multi-billion naira lumbering industry, whilst Itoikin is equally planned for the movement of oil and gas activities out of the area of Apapa tank farm. Itoikin also holds another exploitable form of resources such as promising and proven bitumen deposits.
5. In addition, the Epe Graduate Agricultural Scheme has an integrated food industry that would spur change in agriculture and food production. The area is also seen as a player in the huge Olokola Seaport and Atlantic Tourism Hub, a multibillion-dollar project that is expected to place the region on the map of the global economy.

SITE ANALYSIS OF THE SUBJECT AREA

3.1 Climatic Site Analysis

i. Climatic Elements and Vegetation

Climate can be defined as the long-term meteorological conditions of a region for more than 35 years. Climate and weather at the project site in Epe put the land in a different position as to whether it is suited for development due to its vegetation. From the total 103 hectares area of the site, vegetation in the form of trees, shrubs, grasses, and laws occupies 29.3 hectares. Of this, 26.7 contains the lagoon frontage while 1.6 ha is distributed across the lagoon.

ii. Hydrology

Hydrological analysis helps in analyzing the movement and quality of water. The site descends towards the south side to drain the water to the lagoons, which show commercial and cultural potentialities and cover the opportunity for waterway transport. Major areas where the knowledge of flood is applied encompasses water balance calculation, flood forecasting, irrigation planning as well as establishing urban water drainage systems.

iii. Climate

The locale at the site is characterized by a humid tropical climate that is a result of proximity to the equator and oceanic winds. The two strong winds namely the dry, dusty North-East Trade Wind (harmattan) blowing from November to February and the wettest South-West Trade Wind blowing from March to October give rise to a clear dry, and rainy season.

iv. Temperature and Humidity

The mean average ambient temperatures for Lagos State are 25°C in September, during the rainy season and 33°C in February during the dry season. Air humidity is 88% and this is high in the mornings with areas close to the Atlantic Ocean being most affected.

v. Rainfall and Wind

The rainfall is heavily concentrated between May and July, as well as between September and October; the annual rainfall is approximately 1,900mm. Air, mainly from the south-west, has medium velocities (2-5 m/s) and changes direction with the seasons.

vi. Sunshine

Sunshine hours mean is defined as rainfall to have an inverse relationship with sunshine hours, the highest being in January and the lowest in July.

vii. Geology and Soil

The site consists of the Coastal Plain Sands overlays Recent Deposits where landform vegetation is mangroves accompanied by fertile clay soils suitable for farming. Urbanization has reduced several portions of the natural vegetation cover, but some of the plants such as coconut, and mango trees are likely to be found.

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viii. Planning Implications

Climate knowledge is vital in the creation of efficient cities now and in the future. In planning, it affects housing, infrastructure, drainage, and transport planning for example in preventing disasters such as flooding.

3.2 Topography Analysis

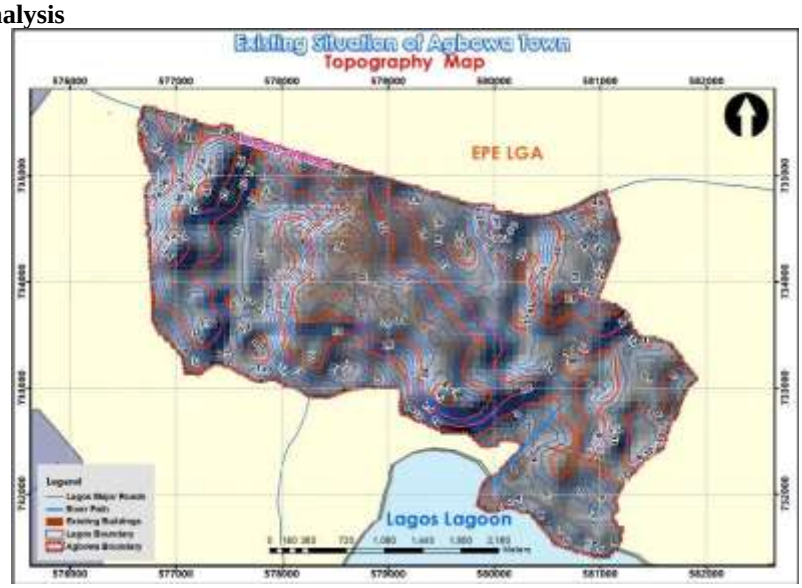

Fig. 3: Source: Agbowa Master Plan Design Team

Site access is one of the essential indicators that involve the topography of a site to determine its development potentiality. There is also a topographical map that shows the contours of the land: it may be even, hilly, or rocky. These attributes require an appreciation of the landform to assess drainage patterns, slope orientation, site elevation, and views. Slope analysis also reveals areas that should be developed or not developed at all. In this site, contour analysis reveals that there are parallel hilly features particularly along Shade Street as a result of the sloping structure which directs the flowing water directly to the lagoon hence other sections of the site appear relatively flat.

3.3 Land Use Analysis

Fig 4: Source: Agbowa Master Plan Design Team

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This revealed that the activity of man is natural and anthropogenic, that is, the type of activities that take place in Agbowa. Eradicating such concepts from dealing with land is nearly impossible due to man's activities being mostly associated with land hence one needs to know what particular use the land is put into, its suitability, and the future potential for development. This would further prove how the human activities impacted on the land. In Agbowa the existing land use is depicted below:

From our reconnaissance survey data, most of the land units are under the residential land use type followed by open spaces, institutional, commercial, and industrial land units. The presence of open land permits future improvements, for instance, an extension of industrial zones and commercial stages for improving the economy. The open spaces could also be employed for specifically tourism development reasons and additional institutional supportive framework elements.

3.4 Urban Theory Analysis

Urban design theories relate to the ways the space is developed and how the land is utilized. Figure-Ground Theory, Linkage Theory, and Place Theory are three theories explained here in the context of creating unique urban spaces.

Figure-Ground Theory focuses on the masses, or solids, and provides the ground by exploring how they are positioned, to understand spatial organization. In Agbowa-Ikosi, the spatial solid/void ratio is 57.2/42.8 respectively while the natural appearance of the site is fragmented due to sporadic development.

Fig. 5: Source: Agbowa Master Plan Design Team

Another theory is Linkage Theory as the author Fumihiko Maki underlines the interrelationships within city areas. It coordinates large horizontal systems, which connect different areas of a city, making structures and places interdependent. At the center, it functions as the mortar that holds elements of urban construction.

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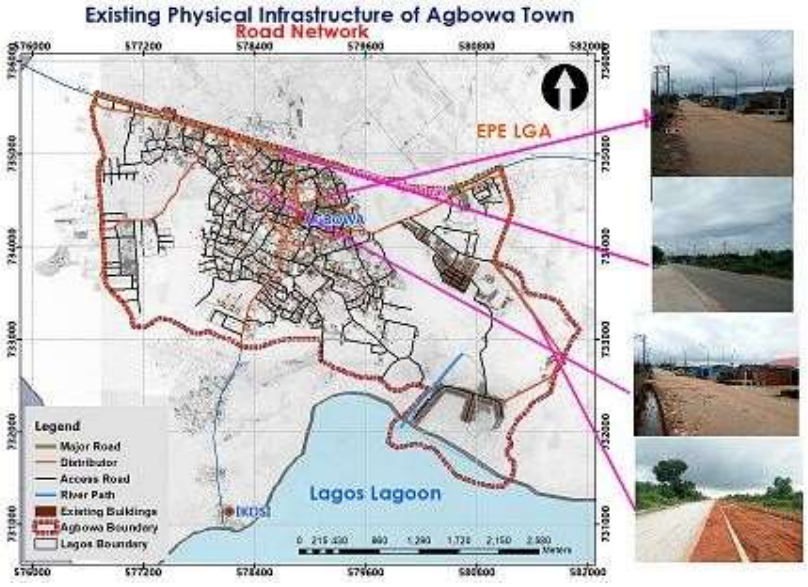

Fig 6: Source: Agbowa Master Plan Design Team

Place Theory is concentrated on meaning and attachment that endow space or territory with cultural and human characteristics and become what is called a place. Some of the Important built environments in Agbowa are the Oba's Palace, schools, markets, and hospitals for governance, learning, business, and health respectively.

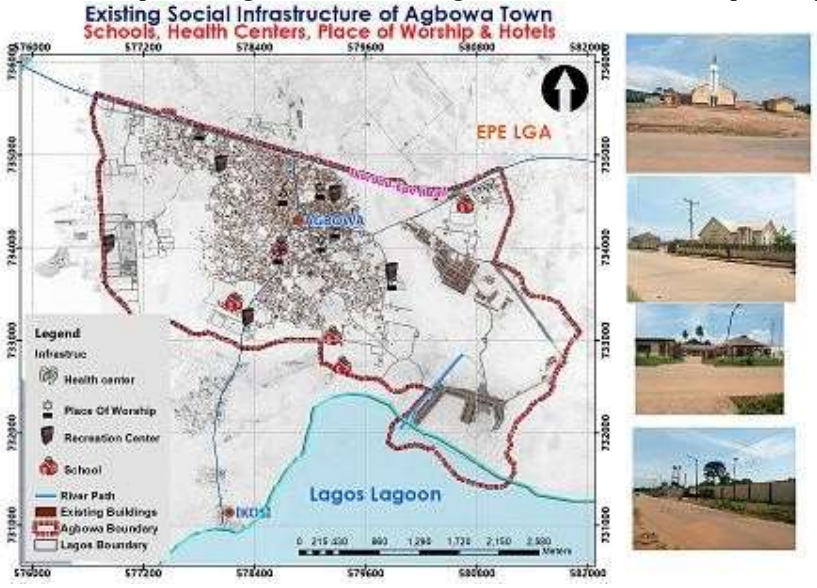

Fig 7: Source: Agbowa Master Plan Design Team

3.5 Traffic Mobility Analysis

This is a basic probe into human life since people have to move from one place to another in search of necessities such as food, clothes, and shelter. Hence, a good network of both car-freight and pedestrians, especially the disabled is important to improve accessibility. Data corridors are a part of the overall movement network; therefore they offer ways-in/entries and diversify opportunities for the movement in the community.

i. Road Networks in Agbowa

The principal route running through Agbowa is the Ikorodu/Ijebu-Ode road; an 18-meter-wide, Lagos/Ogun expressway. However, the road itself presents various general difficulties for linkage. But for Agbowa only

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comparatively few by-roads are available and construction is still in progress to connect them to a planned lumbering industry.

ii. Major Mobility and Infrastructure Issues

Parking

i. Lack of exclusive car spaces; most have to park alongside the road.
ii. Living areas depend on untarred open spaces which may not attract the eye.

Road Hierarchy

i. The flow of roads is not clearly defined and structured.
ii. Inner residential streets are narrow and cannot be used for car movement since they are enclosed.

Pedestrian Infrastructure

i. Most of the cities are not connected by pedestrian walkways and the traffic signs like zebra crossings are all missing.
ii. Lack of directions, and pedestrian facilities in the shopping centers area.

Public Transport

i. Lack of proper bus stops, signs, and formally designated passenger transportation such as buses.
ii. Most of these areas have inadequate parking bays for public service vehicles.

Gateways and Aesthetics

i. The neighborhood entrance in Agbowa is not aesthetically appealing and well painted.
ii. Streetscape has no landscapes, parks, and footpaths reducing chances of social gathering and curbside utility.

3.6 Anthropogenic Site Analysis

Additional site concerns include:

i. Poor drainage systems.
ii. Inadequate water facilities.
iii. Inadequate supply of electricity and power.

As outlined above, filling these mobility and infrastructural blank spots can greatly improve accessibility and the feel of Agbowa as an urban environment.

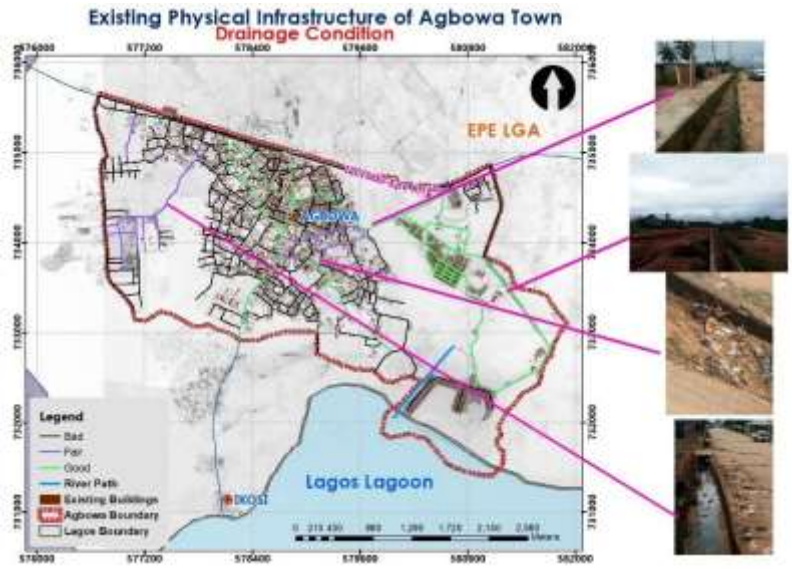

Fig.8: Source: Agbowa Master Plan Design

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3.7 Analysis of Data Obtained from People on Site

The traffic prints of Agbowa are cabs, bicycles, private cars, and people walking. The residents that were interviewed stated that motorbikes are the most popular by far and preferred mode of transport, closely followed by cabs or napep. The use of walking and private cars remains very low. For the majority of the residents, they move from home to their workplaces within 20 minutes to 1 hour and expenses do not exceed ₦250.

i. Leisure and Local Awareness

a. Most people have no specific attractions to visit, just remaining at home, or moving around to visit relations. A small fraction goes to the fast-food joints just for relaxation.
b. It would be difficult to get residents of Agbowa to tell its history as almost none can and those that know do so in parts: Agbowa is a refuge town namely for individuals from Imota, Ibefun, Ota, and Owu.

Fig 9: Source: Field Trip

ii. Challenges in Agbowa

The town faces several physical and socio-economic issues, as observed during site visits:
Physical Problems

i. Untarred Roads: Several streets thus retain their untreated state and commuting becomes a challenge for most people.
ii. Waste Management: This means that due to scarcity or absence of trucks for carrying off the refuse, it is dumped anyhow and even burnt thereby polluting the environment.
iii. Drainage Facilities: Current drainage systems are substantially deficient – they are shallow, blocked, or nonexistent as floods threaten to inundate villages and, thus, increase the occurrence of water-borne illnesses.
iv. Inadequate Infrastructure: Primary physical structures including basic infrastructural facilities are poorly developed and poorly maintained thus drawing the ire of a majority of users.

These points are important for the enhancement of the quality and further development of Agbowa.

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Fig 10: Source: Field Trip

PROPOSAL AND DESIGN

4.1 Borrowed Ideas

To inform a successful master plan for building a livable and resilient city or urban center we have researched and analyzed plans from the following cities; Abuja, Chicago, and Washington D.C. of America, Chandigarh of India, Bhopal of India, and Brasília of Brazil. These plans enabled us to include commerce, industry, and tourism in our strategy. Other elements that have been applied in the design include stakeholders' visibility features like landmarks, technology business enablers and hosts, entertainment centers and fashion outlets, museum and gallery spaces, sporting facilities, and recreational parks.

4.2 Philosophy, Vision, Mission Statement, Aim & Objectives, Strategies

Philosophy

The objective of the project is to bring transient lumbering activities to Agbowa and promote its social and cultural tourism as well as economic growth.

Vision

Digital and sustainable ways must be adopted in order to transform Agbowa as a city of resilience; and as the hub for lumbering/furniture activities.

Mission

Suggest that lumbering should be encouraged for the growth of tourism within the country and funnel it into the UN's seven17 SDGs with emphasis being placed on economic, human, and environmental capital.

Objectives

i. Creating an Industrial and commercial dynamic city.
ii. Propose centers for entertainment as well as for leisure time activities.
iii. Ensure total accessibility.
iv. Design an attractive Urban facility.
v. Implement a high quality, long life span, environmentally sensitive urban design.

Strategies

i. Industrial and Commercial Dynamism: Incubators for technological and innovative startups, maritime higher learning institutions, and technology entrepreneurship centers.
ii. Entertainment and Leisure: Sights, sports areas, cultural and other facilities, and night recreational territories.

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iii. Social Integration: Partnerships with other organizations, private companies, and the community.
iv. Aesthetics: Conserve the environment with parks, gardens, and trees.
v. Accessibility: Integrated transport systems, disabled-friendly infrastructure, and commercial areas accessible for pedestrian movement only.

Stakeholder Engagement
There are residents, community groups, authorities, financiers, and special interest groups. Consultations, meetings, and questionnaires were conducted to assess early on their views, areas of mutual interest, and concerns at that stage. Introducing open lines of communication and staying engaged guarantees a synchronization with project objectives.

According to this master plan, Agbowa should be a sustainable and economically fast-growing city open to local or international guests by 2029 for economic opportunities.

4.3 Diagram/ Program/ Concept
The proposed Central Business District (CBD) concept ensures sustainable development, economic improvement and improvements to the general public hence correlates with stipulated Sustainable Development Goals (SDGs). It comprises various elements to come up with a sustainable progressive and diverse city centre.

i. Key Features

a. Multi-Modal Transport Hub: Encourages the right mix of road and rail transport, eases traffic and transport congestion as well as improves transport.
b. Commercial and Hospitality Zones: Integrates banks, hotels, malls, boutiques, markets, and guest houses to enhance trade, tourism, and economy.
c. Sports and Recreation: It encompasses a miniature stadium, basketball court, tennis court, boxing arena, swimming pool, and rich and colorful bay areas for leisure.
d. Cultural and Entertainment Facilities:
i. Nocturnal Zone: Cinemas, clubs, and restaurants that are businesses at night.
ii. Arts and Culture Centre: Includes an opera house and amphitheater for events and carnivals.
iii. Resort and Park: These are the concept technology-themed parks, featuring fictional worlds, aquatic parks, and centers devoted to marine life and their preservation.
e. Educational and Vocational Institutes: Kitchens, harbors, and technology industries for training and employment of young people pursuing careers in these fields.
f. Healthcare and Safety: Contemporary hospitals, local police departments, and security checkpoints are yielding health and security to inhabitants and tourists.
g. Industries and Innovation Hubs: Agro-allied industries, plywood industries, and incubation centers for cosmetology, fashion, and furniture industries are economic activities.
h. Green Spaces and Sustainability: Rec is a recreational park, green land which includes the waste recycling center to help maintain the environment.
i. Residential and Support Infrastructure: Single lofts house residents and the displaced beneficiaries, well-lit schools, and low-cost commercial structures such as multi-story car parks.

ii. Adherence of the project with Sustainable Development Goals (SDGs)

a. Goals 1 & 8: With the development and enhancement of complex sectors, vocational training, and employment opportunities, the world can efficiently eliminate the trend of extreme poverty and moderately control general poverty rates.
b. Goals 2 & 14: Stop world hunger and sustain the ocean's fish and sea foods by promoting Tilapia, Catfish, and other fish farming along with sustainable farming methods through establishing industries related to Agro-allied, and a Maritime museum to display its relevance.
c. Goal 4: Quality Education through Vocational training centers and Fitz and the start of the art teaching institutions.
d. Goal 9: Develop a robust transport network, ICT cities, and state-of-the-art weather stations to counter natural disasters.
e. Goal 11: Integrate equal, protected, and resilient cities with mobility means & affordable housing, Greens & safe walkways.

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This project-led vision is an aspiration to build the CBD as an economic, cultural, and sustainable city by the year 2029.

4.4 Conceptual Design

Conceptual design is an important stage since it establishes a framework for developing multiple directions for the subsequent visualization of the final design. It plays the role of an outline; it gives the planner's plan a structure and context and prepares for the layout plan. This stage makes sure that all the stakeholders can recognize the representations used in the design correctly.

For this project, three design concepts: A, B, and C were created for choice according to the following criteria:

i. Concept A

This one is based on the linear model that Arturo Soria y Mata proposed: it includes a compact commercial zone on Lagos Road in Epe. Circulation is within Epe CBS by facilitating tourist movement from a transport hub to nodes that are energy-driven and back.

iii. Concept B (Chosen)

The biomimicry concept borrowed from nature by Janine Benyus realized in the fish form connected with the fishing culture of Epe. This sustainable design is a combination of linear and sector models to build a fish-like structure as a new commercial activity center. It has curved roads within the design to manage the speed of visitors and test out or enjoy various attractions within the Jade commercial city center. This also gives one way to link from transport facility to industry and tourism sector which are principals of business.

iv. Concept C

Incorporating the ideas of the multi-nuclei BFT model, it consists of the core commercial district and several energy-supportive activity zones. These centres depend on industrial and leisure tourism, drawing investors, and burgeoning the central business district.

4.5 Preliminary Design/ Land Use Plan

After the assessment of the conceptual designs, Concept B (Biomimicry) was chosen. The first step of functional design is called the preliminary design or post-conceptual design to lay out the functions and uses of the land as forecasted in the conceptual design stage. It seeks to make sure all requirements have been fulfilled although dealing with environmental issues and design interfaces. This phase also entails clarification and harmonization of all design-related issues, that may have arisen and were not well understood.

Fig.11: Source: Agbowa Master Plan Design

ISSN: 2347-7431
EPRA International Journal of Climate and Resource Economic Review
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Volume: 12 | Issue: 9 | December 2024 || SJIF Impact Factor (2024): 8.298 || Journal DOI: 10.36713/epra1213

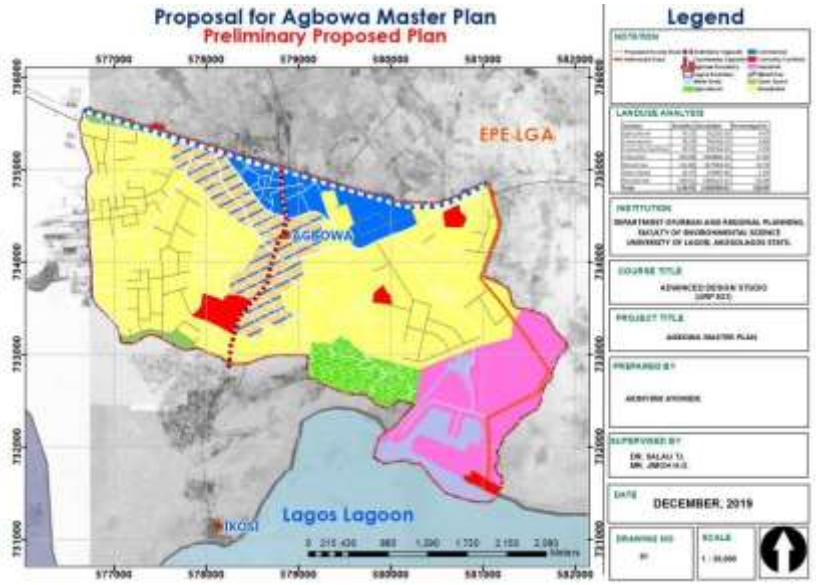

Fig.12: Source: Agbowa Master Plan Design

4.6 Final Detailed Plan

The last scheme is based on the preliminary design, which forms a detailed concept that would implement all the stipulated characteristics accurately and efficiently as per the goals of the project.

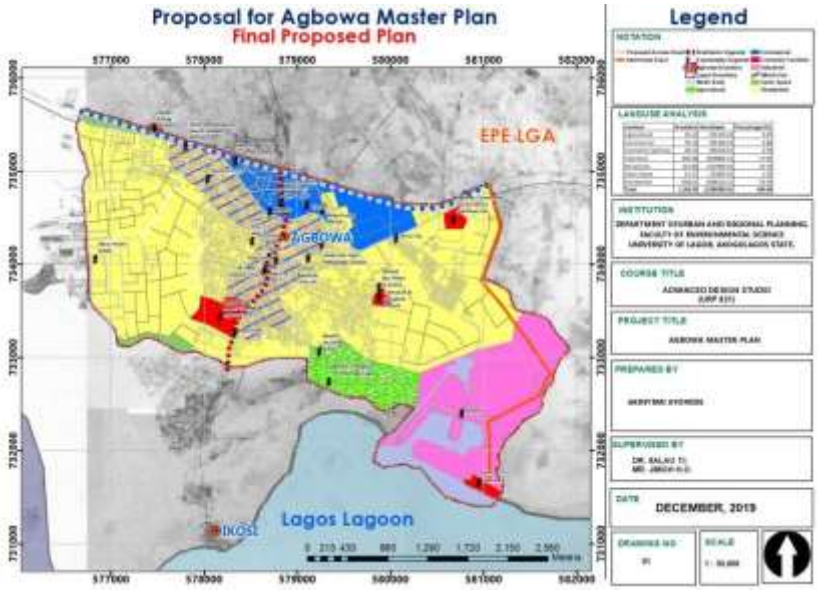

Fig.13: Source: Agbowa Master Plan Design

4.7 Perspective/ Sectioning

Some of the sections of our suggested Agbowa are shown below in the plan.

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Fig. 14: Source: Agbowa Master Plan Design

DEVELOPMENTAL STRATEGIES/ IMPLEMENTATION OF THE DESIGN

Key implementation measures make up the proposed design's development strategy regarding addressing sustainable growth throughout the site, except for the limited areas intended for future development or planned as-ordered open space.

Sustainable Implementation Plan

The design prioritizes environmental and social accountability, aiming to:

i. Encourage green throughout development processes.
ii. Save as much energy as possible and emit less to the environment.
iii. Reduce wastage amongst the employees and water consumption.
iv. Discussed strategy and its executive summary: tourism and economic growth

There are three major objectives of sustainable tourism, these include Economic uplift, improvement of the finances of the municipal, and encouraging the development of the community. Objectives include:

i. Providing the necessary conditions for economic investment and as such putting in place measures that would catalyse employment opportunities.
ii. The third area covers the retention of existing firms, their development, and the entrance of other investment ventures.

The development of Environmental Cohesion Strategy

Focused on environmental protection and resource management, this strategy involves:

i. Water supply and sanitation and more particularly water, sewerage, and waste disposal services.
ii. Advertisement plays a significant role in; Encouraging ecological behavior and environmental conservation through sustainable transport systems.
iii. Now that is the promotion of culture and conservation of cultural heritage and the promotion of education and literacy alongside health.
iv. Setting up residents without polluting their environment by implementing energy infrastructure.

The strategy for the development of leisure and sports

It envisages the development of a multi-benefit sports and recreation complex for local and district sports and recreation services. Key features include:

i. A swimming pool and appropriate football and athletics play fields.
iii. Exercise facilities, playgrounds, BBQ facilities, numerous paths for bicycles and pedestrians, and artworks.

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iv. Those areas generally referred to as Parking, Traffic, and Landscaping can also be viewed from the same perspective as above.

v. The position of parks, resorts, and cultural tangible assets like maritime museums is strategically placed to have functionality and beautification. These linkages optimize the availability and capacities of this site and further enrich the cultural and environmental value.

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