

# Developing the Badagry Masterplan

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## 1.0 Introduction

The Badagry sub-region forms a major part of Lagos State in Nigeria, which is estimated to be growing in population at a rate of 3.5% per annum. The city is as a result sprawling in all directions in an uncontrolled manner to accommodate this growth.

The Badagry sub-region extends over an 80km length, running from the Republic of Benin border in the west to Lagos' port facilities at Apapa to the east, West-Africa's busiest. The sub-region contains some vastly different characters and activities ranging from fishing and agriculture to universities and military barracks.

Significant developer interest has recently emerged right across the Badagry sub-region which contains vast tracts of undeveloped land, right on the doorstep of the Mega City. This level of interest is a response to the upgrading of the Badagry Expressway that runs across the sub-region connecting Nigeria to the Republic of Benin and which will also accommodate Lagos' first fixed public transport system.

The sub-region's economy is still largely rural in the west, with agriculture and fishing functioning as the main economic drivers. Its urban setting is very diverse and ranges from the historic town of Badagry which served as a slave port until the 19<sup>th</sup> century, the bustling market of Alaba International Market (Electronics), one of the largest in West Africa, to the slums of Ajegunle close to the city's port in the east. However, within its 700 sq km area lie some important natural environments unspoilt by Lagos' fast expansion. This includes vast acres of swamp forest, intersected by lagoons and creeks, with the sub-region functioning effectively as a large water basin for the wider region, through which it passes before entering the Atlantic



Ocean. Its location and close proximity to the urban centre of Lagos represents an untapped and underutilised escape away from the bustling metropolis.

### *The Badagry sub-region within the context of Lagos State*

Fronting onto the Atlantic Ocean, the sub-region contains an 80km stretch of largely unspoilt and attractive sandy beaches, palm coves and a string of riverine islands. Much of this natural setting is inaccessible by land, which means that it has to date been preserved, providing the city of Lagos with a unique natural asset in its immediate hinterland.

The consultant Dar Al-Handasah, who was commissioned by the Lagos State Government to produce a 20 year vision Masterplan for the Badagry sub-region, has sought to demonstrate the value of these assets for the Lagos State Government. A balance has had to be reached between accommodating the future development needs of the sub-region against the preservation of its natural environmental assets.

This paper explains the approaches that were adopted to inform the development of the Badagry Masterplan, which is currently at draft stage and is due to be adopted in late 2010. The Masterplan shows that sustainability must be addressed at the forefront of any masterplanning strategy and should not be seen as an added extra.

## **2.0 Purpose of the Masterplan**

The Lagos State Government in Nigeria seeks to implement a series of Masterplans and Model City Plans to inform the development of the city up to 2030. The Badagry Masterplan is one of the newly emerging planning policy documents for Lagos State, and gives a clear vision for growth and development for the State's western-most sub-region over the identified plan period.

The sub-region is currently experiencing unchecked sprawl, leading to a situation where peripheral developments are developing without a consideration for their wider impact or needs. This pattern of urbanisation serves to reinforce the position of Lagos as the sole employment centre in the city. This is resulting in ever increasing travel distances to reach places of work, which creates increased congestion on scarce road space. The absence of a clear guide to development results in uncoordinated and unstructured urban development, ultimately reinforcing the need for a development vision.

The Masterplan has a role to provide a more balanced and equitable form of development that minimises travel need which concurrently reduces both the time spent travelling as well as the burden of its cost.

Once adopted by the Lagos State Government, the Badagry Masterplan will give certainty as to where development is desired, encouraged or not permitted. It also provides clear policy directions as to the form of development, including providing policy guidance on density, land use distribution, public transport, etc.

## **3.0 Proposed Masterplan**

The Badagry Masterplan has not addressed sustainability as an added extra. Instead, sustainability principles are embedded into the masterplan from the earliest opportunity to deliver a comprehensive plan supported by strong aims and objectives.

A series of principles were set out to ensure that the future development of the sub-region was undertaken in a considered manner. These are as follows:

### ***3.1 Integrated development***

The Masterplan seeks for development in the Badagry Sub-Region to be carried out in a balanced manner, ensuring it is integrated. This means that not only does it ensure that all areas are fully interconnected with a choice of accessible road links, but also ensure there is choice in travel needs, providing an accessible and comprehensive public transport network. It also means that established activities and communities should be considered fully in the plans.

The sub-region has developed in an unplanned and ad-hoc manner. New developments have located close to main roads, and in particular the Badagry Expressway, which provides the structural transport backbone. Settlements have as a result been established in remote locations and often lack access to simple services and basic infrastructure including clean water and healthcare. There is evidence of overcrowding in parts of the sub-region, such as in Ajegunle and Amukoko, potentially leading to unsanitary conditions.

Providing a choice or better accessibility of urban areas will promote a reduction in travel needs as it will mean shorter trips. It has been estimated that around 20% of a Lagosian's income is spent on travel. Removing the need to travel or minimising distances travelled will therefore significantly increase family livelihoods, with the money saved likely to be spent within the local economy.

In addition to this, the Masterplan has established a hierarchy of centres, in order to ensure that central functions and facilities are accessible to all. An even distribution of these centres across all urban areas is intended to ensure that all residents have equal access to all services and functions. These centres have been defined into three main categories: Major (Metropolitan) Centres, District and Local. The policy recommendation is that certain uses are permitted within each centre's catchment area. For example, where a hospital is to be developed, it would be preferable for it to be located within a centre identified as Major, as this is where it will benefit from the widest catchment and would have the best connected transport infrastructure.

Integrated development also means taking into consideration the sub-region's wider regional context. The Masterplan has recognised and seeks to build on the sub-region's assets. The aim is to encourage certain activities to develop, such as tourism or industry in certain areas, and therefore, by looking at the wider market and context, allow for the development of further infrastructure to support these activities. The potential is that the economic linkages between the city of Lagos and the Republic of Benin brings to the Badagry sub-region can be harnessed. Industrial development will be promoted to locate across the sub-region to take advantage of the resulting trade that will be developed further with better east-west links.

### ***3.2 The economic value of the natural environment***

The Badagry sub-region contains some largely untouched natural environments that are right on the doorstep of the Lagos Mega-City. This character is unique to Lagos State, and in particular as it is so close to the urban intensity of Lagos. These areas are by-passed from the developed east-west routes that cross the sub-region, and to date have been difficult to develop, largely because of the swampy ground conditions.

Whilst this value of the natural environment is worthy of preservation to balance the intensity of the urban setting of Lagos, natural environments will only realistically be retained if they are attached to some form of economic value. If the benefits of the environment are not demonstrated, urban development would take precedence.

The Masterplan identifies a number of non-urbanised areas of important environmental value, and for which protection is recommended. Their value is not only ascertained by their physical attributes as natural flood defences, but also through the real scope for the development of low-impact recreation, sport and leisure tourism. The Badagry Masterplan recommends protecting and utilising the natural environment as a resource for Lagos State by preserving the fragile ecosystems.

This asset is easily accessible to the tourist market (both local and international), with the waterways providing a rapid route for travel to reach the core of the Lagos Metropolitan area. The Badagry sub-region contains numerous assets that are specific to the sub-region, including tourist destinations such as the museums or historic legacy within the town of Badagry. The Masterplan takes these fully into consideration and further supports them – for example promoting Badagry Town for tourism development, or recognising the beaches as major assets to develop the tourist industry in the region further. Low-impact resorts can be encouraged within the natural environment using sensitive development techniques. The success of this type of development depends on the quality of their surrounding environment, which must therefore be further preserved, but in doing so also provides economic opportunities for local communities.

Eco tourism is already a successful industry benefitting many local communities all over Africa. It was reported by the World Tourism Organisation that Africa was the fastest growing region for international Tourism with 25 million tourist visiting African countries, with an annual growth rate of 7.5%. Eco-tourism is a developing market, and with growing concerns for reducing ecological footprints, in particular for holidays, the Badagry sub-region has a unique opportunity to develop the market.

Simultaneously, it is also important to encourage activities such as agriculture and fishing activities, all of which sustain the needs of the local communities. These established economic activities are to be protected and encouraged to develop.

### ***3.3 Compact Urban Form***

Protection of these environmentally sensitive areas can also be facilitated through the development of more focused, compact urban development.

Compact towns and cities rely on the close proximity of services to residential and employment areas, creating urban areas of integrated mixed uses. This ensures they are viable as they are then supported by greater patronage. Businesses, services, or even public transport systems, rely on a minimal level of population to use them. The more condensed the catchment population, the greater the use of these facilities; the more spread out they are, the more people have to travel to reach them – and the more costly they are to run. Targeting higher densities at key transport nodes removes the pressure on expanding more peripheral or remote locations even further.

Compact towns and cities promote urban regeneration, the revitalisation of town centres, and restrain sprawling development in rural areas. Redevelopment of brownfield or previously developed land is also encouraged alongside the preservation of green spaces.

Providing a greater catchment of local facilities and services reinforces communities and at the same time discourages car usage, resulting in less pollution, as well as reduced energy consumption. At the same time, increased demand for public transport increases the number of routes provided, which in turn improves overall accessibility.

Sprawling and unstructured development create urban environments that are land demanding and are reliant on road transport, leading to the inefficient use of land.

The Badagry Masterplan provides clear recommendations on the application of minimum density requirements which ensures that greater numbers of people are housed within smaller areas. A minimum density of 150 people per hectare has been recommended for new development proposals. This is the minimum required to ensure that the most basic urban services, including localised bus services, remain viable.

Compact urban environments do not necessarily require the uniform application of this minimum, and in the more central locations promoted through the Masterplan, greater densities are recommended, with a top range of 1,200 people per hectare.

These upper recommended limits to residential density are to be found in the proposed Major Centres that are intended to become the new centres of employment activity. However, whilst these Major Centres are intended to attract employment functions, they must also act as a marker of urban intensity, and help create a hierarchy of urban development. Compact forms seek to enhance diversity, and higher intensity is to be promoted at more central locations which benefit from the best public transport access, but with peripheral areas that themselves are compact and apply the minimal density range of 150 people per hectare. These peaks of intensity help shape the image of the Badagry sub-region as comprising a series of major centres in their own right as opposed to a continued sprawl to Lagos.

The introduction of new major centres in the Badagry sub-region will mitigate the region's over reliance on the core of the Lagos Metropolitan Area as the sole area of employment. Major Centres are intended to function as new market towns which provide localised services to the population living within those catchments.

The Badagry Masterplan promotes the development of the Major Centres based upon walking distances as the primary consideration, alongside cycling, as essential modes of transport that must be encouraged. The cores are estimated as comprising a radius of 500m (1km diameter), considered the maximum distance someone is prepared to walk under normal climatic conditions before resorting to using an alternative mode of transport. Not only is walking one of the primary modes of transport in Nigeria for a significant number of people, but planning urban areas with walking as the primary consideration means that the need to use alternative modes of transport, and hence the car, is minimised, and therefore largely unnecessary.

This walking distance from new public transport interchanges was also used to estimate catchments around the new Blue Line fixed track rapid transit system stations, which the Badagry Masterplan has recommended extending right across the sub-region.

The Masterplan seeks to recognise these aspirations by improving quality of life, but also promotes a more balanced and less land-demanding form of development.

### ***3.4 Flexibility and adaptability***

Any Masterplan that projects a 20 year vision will evolve, as investment priorities and governments change, as well as developer intentions, or even demographics. Rigid masterplans that offer single solutions can often be those that are least successful.

The Badagry Masterplan has therefore been designed with flexibility in mind and offers a vision that can be adapted to changing circumstances. Each element of the Badagry Masterplan can function independently from one another: for example, if a proposed road project identified in the Masterplan is removed, this will not affect the overall direction the Masterplan is to take. The vision of the Masterplan should instead be seen as a tool that seeks to achieve certain aspirations.

The Masterplan will inevitably change in the longer term as circumstances and priorities change. It therefore seeks to provide a clear policy framework for shaping its environment – for example recommending minimum density standards, identifying building heights in relation to their location, relating densities to distances from public transport nodes, etc.

The Masterplan is purposely broad, or strategic, and avoids detail where possible, as these will be addressed individually at the project stage for each component part of the Masterplan. This was an issue that was discussed between the Consultant and the Lagos State Ministry of Physical Planning (the client), who felt that greater detail (requesting mapping at scales of 1:5,000) gave them better certainty and feasibility as to the form of development on the ground. As a result, certain aspects were provided at a detailed level while others were retained at a more strategic scale.

### ***3.5 Integrating infrastructure needs at the forefront***

One key approach promoted by the Masterplan is relating anticipated populations against their infrastructure needs: relating for example numbers of people against the capacity of potable water needs, energy needs, sewerage infrastructure, etc.

In the Nigerian context, it is essential that a planning vision is supported by an understanding of these basic infrastructure needs as their delivery will accompany the economic viability and thereby long term success of the Masterplan in achieving its aims. Without the required per capita infrastructure needs being met, investors will not be interested in settling in the sub-region and support the Masterplan, instead preferring to develop as self-sustained and enclosed projects that work for the sole benefit of the developer and do not support local communities – with resulting polluting impacts as energy is produced through the cheapest means possible.

However, addressing infrastructure needs also means ensuring that the development of the infrastructure is adapted to the locality. At the strategic level which applies to the Badagry Masterplan, infrastructure needs address the overall population requirements for energy, water, sewerage, etc. However, the Masterplan seeks to promote solutions to provide these infrastructure needs at a more localised level.

### **3.6 Responding to local needs and aspirations**

Any Masterplan must respond to and integrate the needs of established residents living within the sub-region. They should not feel isolated by the approach being promoted and must be supportive of the overarching and strategic aims of the Masterplan.

The needs of the local people are the fundamentals of the recommendations that are being made in the Masterplan. The community already established in the Badagry sub-region is also best placed to advise on the situation on the ground and comment on the emerging proposals.

In order to ensure that the Masterplan reflected the views of established communities, a series of consultation exercises took place at different stages of its development throughout 2010, meeting local representatives, and presenting the emerging findings and proposals to a representative audience. These events were advertised so that a wide range of attendees could view the proposals, and was an opportunity to meet the consultant and express concerns and be informed of the findings and proposals.

Achieving community support for the proposals is a very important step in achieving acceptability of the plans, and also for the consultant to clearly understand the needs of the local population. The Masterplan was subsequently amended to reflect the desire for better east-west links that were seen as essential to promote better economic opportunities.

In taking a strategic view across the Badagry sub-region, however, some local aspirations were addressed more strongly. For example, it was advised that a new road running along the Atlantic Ocean coastline would create significant damage to the environment which the Masterplan was keen to preserve. A new road, it was felt, would naturally encourage urbanisation along its length as new settlers would be attracted to newly accessible undeveloped land. Alternative road and ferry proposals were therefore put forward as an alternative to ensure the retention for better road connections, but also to demonstrate that alternative transport modes could achieve the aims requested whilst providing better links.

Whilst seeking to provide opportunities for and bring in private sector investments, the Masterplan also addresses community needs. There are vast opportunities for the private sector to get involved, but it was essential that the Masterplan minimise displacement of established communities.

The Badagry Masterplan therefore sought to provide better transport links and improve accessibility, thereby reducing the potential for congestion. However, a very important aspect was to reduce the actual need to travel to reach places of employment. The development of new Major Centres has therefore been promoted in order to give a structure to and reinforce these existing communities.

The Badagry masterplan recognises that the way to address the problems within the identified slums is not to clear them, but to actually integrate them better into the urban environment, giving the residents better access to infrastructure as well as economic prospects by bringing employment opportunities closer to established residential areas.

Slum communities are often in the most inaccessible and isolated environments. Trade and markets that supply them tend to therefore focus internally. Providing greater opportunity for these communities to trade more easily with the outside and therefore open up will gradually change the profile of slum areas by increasing their wealth.

Providing equal access to social infrastructure is also integral to the sustainable development of communities. Where inequality in the provision of social infrastructure such as schools or health is noted, the Masterplan seeks to address this and recommend areas where new social infrastructure must be implemented. It has recommended that these be provided in newly identified central areas, including Major, District and Local centres, which are distributed across the urban areas to ensure that all have reasonable access to these facilities and services.

Markets are also integral to the livelihoods of many communities. They are the foundations of the urban and rural communities in Lagos State. They provide goods which serve the local populations as well as some regional, national and international communities. The Masterplan understands the importance of established markets as a founding structure to the economy and promotes their protection in sustaining not only the existing communities but also for future generations.

#### **4.0 Conclusion**

The Badagry Masterplan provides a vision for the development and conservation of the sub-region over a 20 year period. It has been produced as a flexible and adaptable framework avoiding unnecessary detail and remaining broad, whilst promoting a number of key underlying sustainability principles. These are not considered as added extras, which can be removed in a potential drive for efficiency, but are embedded as approaches undertaken to guide the Masterplan from its very concept.

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