CONSTRAINTS TOWARDS TOURISM DEVELOPMENT IN COASTAL AREAS OF LAGOS: A CASE FOR BADAGRY

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Abstract

The need for new experience and search for sun, sand and sea activities is increasing globally; this suggests the increasing human activities around the coastal areas and the need for proper planning. This research therefore defined the pattern of impact of tourism development on the vegetation cover of the study area on a temporal scale, and detected the constraints to coastal tourism development in the study areas (Badagry). Three times series (1999, 2009, and 2019) of Landsat imagery with a spatial resolution of 10 meters were acquired. The satellite datasets are pre-processed and subjected to supervised image classification, and field survey to identify the prevailing land use pattern/land cover classes and the collected training samples for the image classification were carried out using ArcGIS software (ARGIS10.4). Qualitative and quantitative methods including interview of key leaders and administration of question were employed respectively. The correlation analysis was used to show the strength of the relationship between land use pattern and vegetation cover using SPSS 23.0. Analysis of variance was used to test whether there is difference in the identified constraints among the three locations studied, such as long distance to the bus stop, long distance to the hotel, etc. The results of this research show that there is a significant correlation between tourism development and vegetation cover of the environment. In Badagry vegetation decreases, water body decreases just slightly, but built-up area increases significantly. Although, the effect may be negative on the biodiversity, but it is very positive on socio-economic dynamics of the local community. Also, the study identified the major constraints to coastal tourism development in Badagry coastal area.

Keywords: *Tourism Development, Ecological Changes, Coastal Areas, Constraints, Vegetation Cover*

INTRODUCTION

Coastal area as a transitional area between the sea and land, in the direction of land covering areas that are still affected by seawater or tidal sparks, and in the direction of the sea covering continental shelf areas (Rotich et al., 2016). Creel (2003), Tzatzanis et al. (2003) stated that the resources of coastal regions are being threatened by developments associated with tourism activitiesand the process of urbanization, where this may continue to lead to further degradation of the coastal habitat.

There is a drastic increase in Tourism development globally, due to the uniqueness in its varieties of product that is primarily based on land and sea. However, continuous exploration of coastal tourism provides opportunities for a diversity of activities that takes place around the coastal area which brings about development for the community (Rotch et al., 2016; Oladele et al., 2018).

The increasing rate of human activities on ecosystems without proper management measures comes with negative multiple effects (Cianga & Sorocovschi, 2017). Cianga & Sorocovschi (2017) opined that the increasing rate of human activities on ecosystems without proper management measures comes with negative multiple effects which eventually lead to ecosystem degradation; a threat to human health, loss of biodiversity, new diseases among organisms, harmful algal blooms, siltation, and reduced water quality. Current trends in the coastal area keep subjecting many of the rich

coastal ecosystems to degradation beyond restoration. Proper management systems are relevant now to keep resilient and productive ecosystems.

In the Lagos State Government Development Plan 2012-2015, the tourism industry is viewed as wide and complex and can provide a significant number of jobs, earn foreign currency and add value to GDP. This suggests why the Lagos State Government intends to explore the tourism industry as it has a major international airport and seaports as well as good and improving road connections to West Africa Sub-region (Lagos State Government, 2013). Towns and cities along the West African coastline have become prominent as important contributors to Gross Domestic Product (GDP). The attractiveness of the coastline is resulting in population concentration along the coastline with a rate of urbanization slightly higher than the interior (African Development Bank Group, 2018). With an increasing population and aspirations for greater economic development, there is a strong need to provide additional, strategically planned urban areas within Lagos.

However, space for this within the central areas of Lagos is heavily restricted. In respond to the need for land for future development and the necessity for a long-term solution to the erosion problems of Victoria Island, SEDFZE developed the proposal for the Eko Atlantic Development Project. It is therefore imperative for this study to measure and evaluate the amount and extent of ecological changes on vegetation and biodiversity as a result of tourism development in coastal areas of Lagos State in Nigeria.

The need for specific studies on the coastal areas of Lagos state is considered one of paramount interest as the region has evolved over the years as a major tourist attraction and development focus with critical impact issues. The direct effect of tourism development on the habitat in a specified area may lead to the loss of a particular species from a region depending on the extent or intensity of land-use (Cianga & Sorocovschi, 2017). The coastal areas of Lagos require attention to harness the full potential for economic, social, and environmental benefits. These environmental benefits might not be fully harnessed due to some constraints. These observed constraints are likely to jeopardise coastal tourism development in the study area. This therefore necessitate a prompt action by Government and other stakeholders. This research is therefore aimed at evaluating tourism development and ecological changes in coastal areas of Badagry as case study, in order to detect the constraints to coastal tourism development in the study area. It is on this note that the researcher will analyse and study the amount and extent of ecological changes on vegetation and biodiversity as a result of tourism development in coastal areas of Lagos State in Nigeria.

MATERIALS AND METHOD

Study Area

The study was conducted in Badagry coastal area. This is one of the coastal areas in Lagos State.
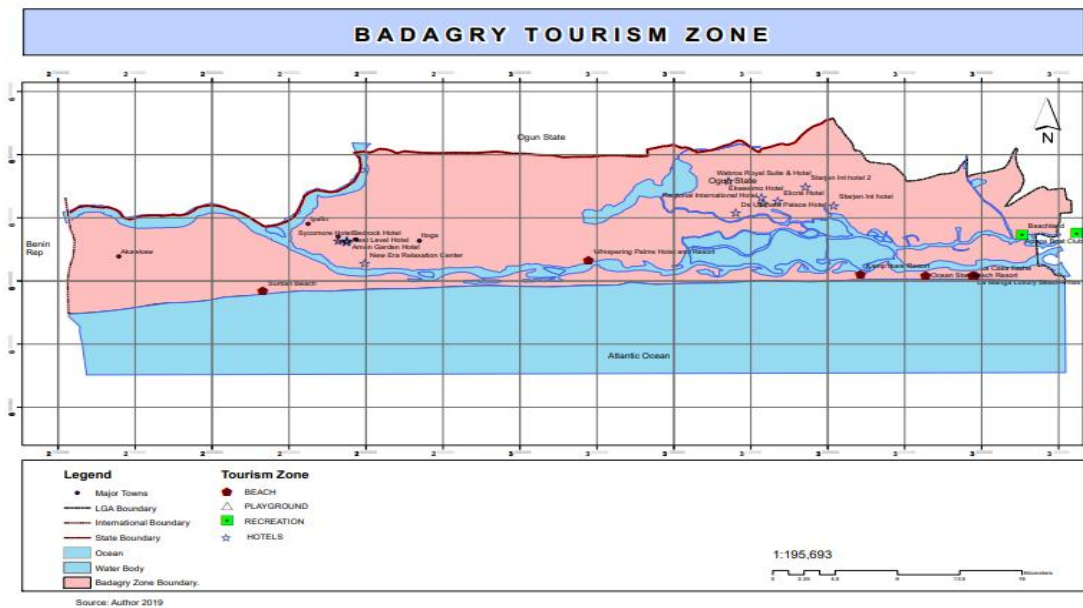
Figure 1: Badagry Tourism Zone

Badagry tourism zone occupies 441km2 area. The Lagos - Badagry corridor is a major transport axis consisting four-lane dual carriage expressway and adjoining land uses. It is approximately 60km with a shoulder of varying width and a median of between 2-6m. The expressway lies within Latitude 600241 to 600301N and within Longitude 200431 to 200221 E of the Greenwich Meridian. The corridor stretches from Eric Moore interchange in Surulere in the east to Badagry town in the west. The expressway is crossed by the North-South section of Apapa - Oworonsoki Expressway, which acts as a bypass or outer ring road linking northern Mainland Area with Apapa. Figure 1 depicts the extent of Badagry tourism zone with large inland waterways, creeks, the Atlantic Ocean and beach. The zone is bounded to the north by Ogun State, in the west by stretch of international border with Benin Republic, in the south by south by international water (the Atlantic Ocean and to the west by Surulere and Amuwo-Odofin LGA. It has some important recreational centres and Historic tourism sites.

Climate of the study area
i. Badagry: In Badagry, the wet season is overcast, the dry season is partly cloudy, and it is hot and oppressive year-round. Over the course of the year, the temperature typically varies from 75°F to 90°F and is rarely below 71°F or above 92°F.

ii. Fauna and Flora of Badagry - In the coastal waters of Badagry, the eight most predominant fish families were sciandae. The species diversity, nature, distribution and relative abundance of fauna, thus making it difficult to assess the immense potential of the coastal water. Due to the nearness of Badagry to industrial areas of Lagos metropolitan to ascertain the water quality of the aquatic ecosystem as this could affect aquatic flora and fauna. Some flora and fauna in Badagry tourism zone includes Chrysichthys auratus, Chrysichthys nigrodigitatus, Chrysichthys walker, Clarotes laticeps, Caranx carangus, Caranx sp. Chloroscombrus chrysurus, Chloroscombrus latus, Hemichromis fasciatus, Sarotherodon melanotheron, etc.

Methods for Data Collection
i. Population and Sampling
In this research, a total sample population of 500 respondents, which comprises the tourist, tourism operators, host communities and Government agencies. The 500 samples are collected from the study area. The respondents were purposively selected based on the purpose

of the study. Thus, a purposive sampling technique is used.

ii. Instrument for Data Collection

The GIS technology was used to obtain spatial data on vegetation, and map associated data. The study explored ArcGIS 10.5 which was used for the spatial data analysis and taking coordinates of the study area. A structured questionnaire was used to collect vital responses about the major constraints to coastal tourism development, and a schedule was used to collect qualitative data through personal interview from the sampled population. A schedule is a set of questions used in personal interview to collect data through personal interview and it is filled by the interviewer and not the respondents. It is better than questionnaire if the population of interest has high level of illiterates. A level of literacy is required to be attained by the respondents for questionnaire to be administered to them. The study used a mixed method of both qualitative and quantitative techniques. Interviews and focus group discussion were used to collect the qualitative data. The quantitative data were generated through secondary and primary sources. The secondary data, such LandSat images were gathered from published sources on coastal areas and tourism development. However, additional data were sourced through the use of a drone to elicit specific information on Tourism Development and Ecological Changes in coastal areas of Lagos.

iii. Measured Variables

Five Likert scale of agreement are used: Strongly Disagree (SD), Disagree (D), Neutral (N), Agree (A), and Strongly Agree (SA). The weighted mean scores greater than or equal to 3.5 is accepted as significant positive response, while less than 3.5 is a negative and non-significant

The weighted mean constraint is given by:

Weighted Mean
$$= \frac{(SD \times 1) + (D \times 2) + (N \times 3) + (A \times 4) + (SA \times 5)}{SD + D + N + A + SA}$$

where $1 \leq$ Weighted Mean ≤ 5, measured on 5 Likert scale.

RESULTS AND DISCUSSION

In this study, both descriptive statistics and inferential statistics are used. The results of the descriptive analysis are presented in frequency, simple percentage, charts and weighted mean.

Table 1: Coastal Tourist Attractions Distributed by Type of Classification

	Frequency	Percent (%)	Cumulative Percent (%)
Beaches	18	51.4	51.4
Recreational Park	13	37.1	88.6
Children Playground	4	11.4	100
Total	35	100	

Source: Researcher's Field work

Table 1 shows that 51.4% of the coastal tourist attractions are beaches, 37.1% are recreational parks, while 11.4% are children's playgrounds. The satellite datasets were pre-processed and subjected to supervised image classification. The field surveys identified the prevailing land use/land cover classes and collection of training samples for the image classification was carried out. The spatial information of the identified tourist attractions and support facilities employed to determine their spatial pattern of the three (3) sampled tourism zones. The pattern and impact of tourism development on the vegetation cover of the study area and its effect on the socio-economic dynamics of the local community are discussed.
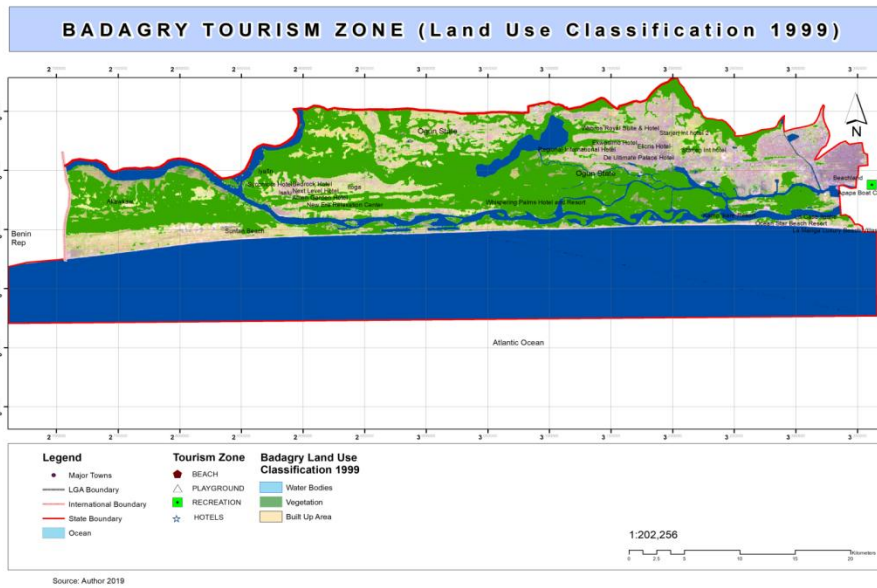
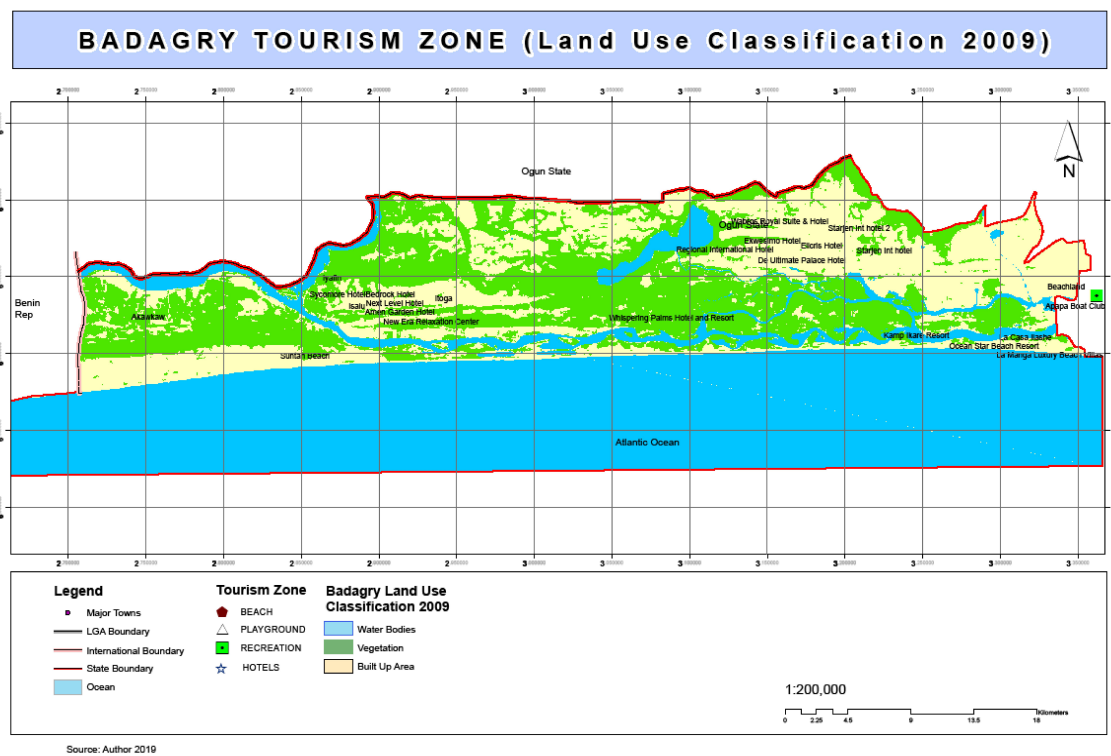Figure 2: Badagry Coastal Area Land Use Classification (1999)

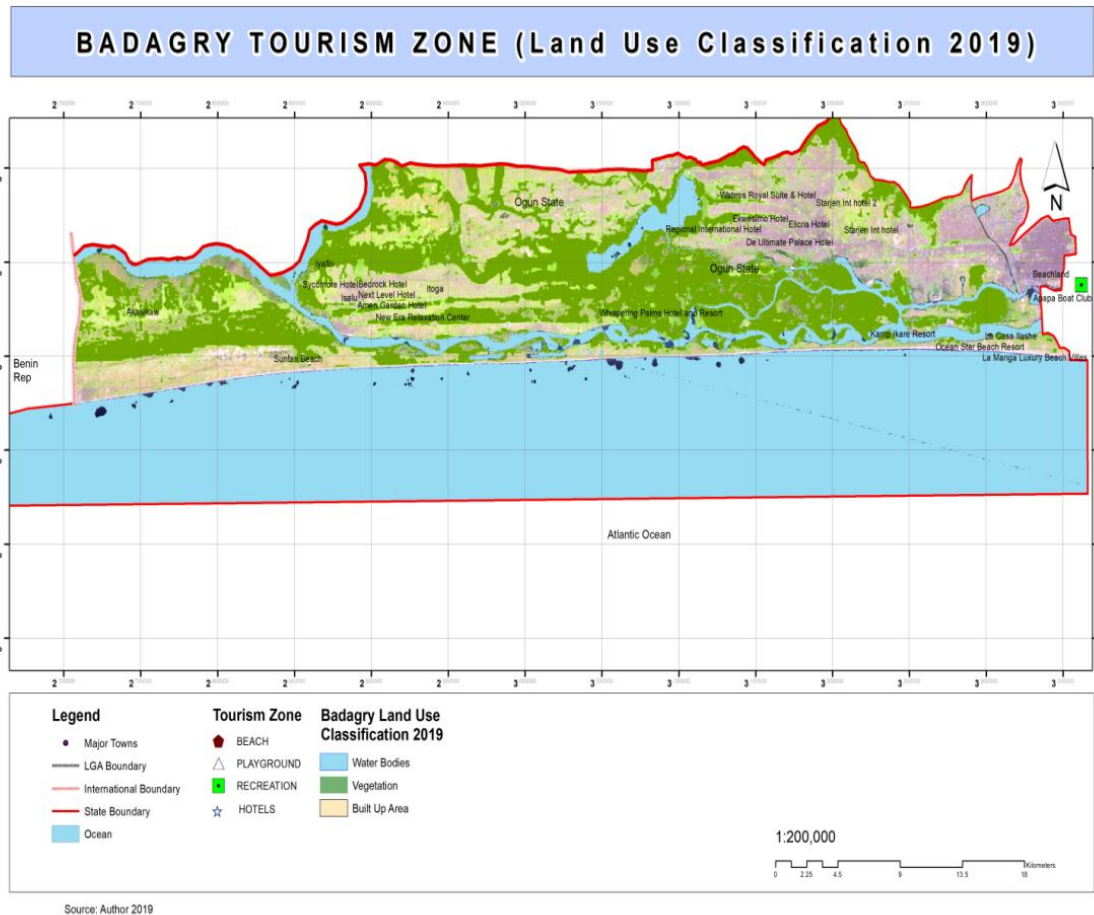Figure 3: Badagry Coastal Area Land Use Classification (2009)

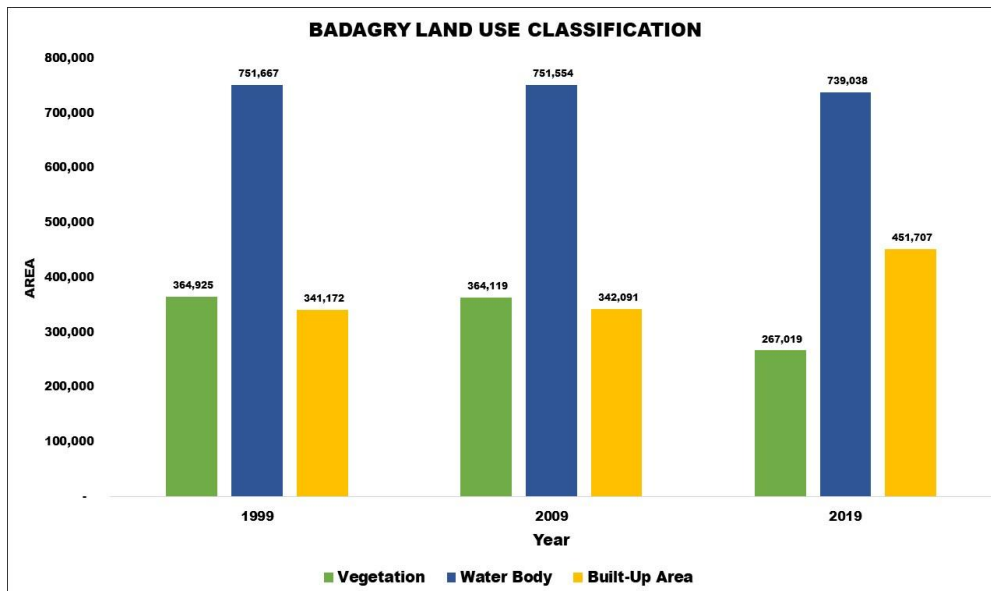Figure 4: Badagry Coastal Area Land Use Classification (2019)

Figure 5: Multiple Bar Chart of Badagry Land Use Classification (1999, 2009, 2019)

Figures 2 – 4: Badagry Tourism Zone (Land Use Classification 1999 – 2019)

The Maps below shows that the vegetation in Badagry decreases from 364,925m2 in 1999 to 267,019m2 in 2019. The vegetation decreased by 26.83%. The water body in Badagry also decreased from 751,667m2 in 1999 to 739,038m2 in 2019. The water body decreased

by 1.68%. The built-up area in Badagry increased from 341,172m2 in 1999 to 451,707m2 in 2019. The built-up area increased by 32.40%.
Figure 5 depicts that vegetation decreased from 1999 to 2019, water bodies also decreased for

the same period, while built-up area increased significantly, especially from 2009 to 2019. This shows that most of the land for vegetation and waterbodies have been claimed by tourist activities and other commercial use.

Table 2: Constraints to Tourism Development

Identified Constraints	SD (%)	D (%)	N (%)	A (%)	SA (%)	Weighted Sum	Weighted Mean
Poor government policy	168 (36.9)	53 (11.6)	55 (12.1)	67 (14.7)	112 (24.6)	1267	2.8
Poor tourist centres management policy	92 (20.2)	89 (19.6)	79 (17.4)	100 (22.0)	95 (20.9)	1382	3.0
Low patronage	96 (21.1)	80 (17.6)	108 (23.7)	96 (21.1)	75 (16.5)	1339	2.9
Poor sanitation	94 (20.7)	68 (14.9)	92 (20.2)	108 (23.7)	93 (20.4)	1403	3.1
Lack of security	122 (26.8)	73 (16.0)	76 (16.7)	87 (19.1)	97 (21.3)	1329	2.9
Far proximity of the tourist attractions to the road and hotels	89 (19.6)	71 (15.6)	117 (25.7)	88 (19.3)	90 (19.8)	1384	3.0
Poor facility maintenance	83 (18.2)	85 (18.7)	93 (20.4)	83 (18.2)	111 (24.4)	1419	3.1
Increase in residential buildings in the area is a constraint to the development of the facility	112 (24.6)	42 (9.2)	89 (19.6)	90 (19.8)	122 (26.8)	1433	3.1
Aggregate							3.0

Source: Researcher's output

Table 2 shows that all the weighted mean scores are less than 3.5. The table reveals that most of the respondents did not agree that the listed identified constraints are significant.

CONCLUSION AND POLICY IMPLICATION

The study determined the pattern and impact of tourism development on the vegetation cover of the study area on a temporal scale. In Badagry, some water bodies and vegetation have been claimed for buildings and recreational activities. This implies that tourism development has significant effect on vegetation cover of the coastal area of Badgry. The research identified some of the constraints to coastal tourism development in the study area as poor government policy, poor tourist centres management policy, low patronage, poor sanitation, lack of security, far proximity of the

tourist attractions to the road and hotels, poor facility maintenance, and increase in residential buildings in the area. The outcome of this research, therefore, aligns with the findings of Magdalena D. (2015), who identifies constraint to tourism development as a relatively limited possibility for exploiting the tourism resources in an integrated and efficient manner.

This supports the work of Khan et al. (2020) who mentioned that to accommodate for the increasing tourism demand, large stretches of coast have been developed for tourism activities, leading to concerns about their aesthetic and environmental condition and potential reductions in both quality of life for residents and economic potential for tourism". Similar studies have explored the effects of land-cover changes on the surrounding environment in densely populated and urban areas using remote sensing techniques and spatial modelling

(Ohana-Levi et al. 2019; Ghosh, 2011; Ghosh, 2012; Ghosh & Datta, 2012; Goliath, 2018), the influence of humans on the coastal environment is not a modern phenomenon. In fact, it has occurred since prehistoric times (Heslenfeld et al., 2008; Arens, 2001; Doody, 2000).

It is therefore recommended that Lagos State Government through LASEPA should ensure that designated tourism zones in general and Badagry in particular are strictly preserved and utilized for tourism purpose. Government at the local and state level, through its relevant agency, should ensure that the identified constraints, namely: poor government policy, poor tourist centres management policy, low patronage, poor sanitation, lack of security, poor accessibility, poor facility maintenance, increase in built-up areas, and loss of biodiversity, should be given priority attention in order to enhance the development of tourism in the study area for the benefit of government and the host community.

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