

# Mapping and Classification of Potential Tourist Sites in Borgu Local Government Area

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**Abstract:** *This case study aims to map and classify potential tourism sites in Borgu Local Government Area, which could be used as baseline data by decision-makers for future tourism development to develop, promote, and market the area. Additionally, it uses evaluation criteria to identify potential tourism resources, in order to determine suitability and likelihood of success if development does take place. The study findings are primarily based on quantitative and qualitative methodology. Qualitative method was used in the form of interviews and field observations. Quantitative methodology was used to extract map from the potential tourist sites using Geographic Information System (GIS) to get the coordinate of this locations. The finding identified Kainji water resort, Konkweeso iron ore and smiting site, Kabe cave and Pissa cave, were the four potential tourist sites identified and mapped out. The potential tourist attractions in the local governmental area of Borgu have both historical value and esthetic value. The esthetic value makes up the beauty of the place, the economic value, and the social value which is concerned with a feeling of affiliation, belonging and pride amongst the local people where these attractions is located. Borgu Local Government Area is suitable for tourism development, due to its diverse range of attractions, one of the major factors relating to successful tourism. Diversity of attractions is a key motivation for tourists to visit a destination. Without attractions, there is no need to supply facilities and services. Potential facilities and services provided for tourist related activities could also be used by the local population, thus significantly improving quality of life in the area, which currently lacks such infrastructure.*

**Keywords:** Mapping, Classification, Potentials, Tourist Sites, GIS

## 1.0 Introduction

Tourism is the totality of the phenomenon arising from the travel and stay of strangers, as long as the stay does not imply the establishment of a permanent residence for the Purpose of Leisure, Business and entertainment (Bhatia, 2002). Tourism is a very potent driver of economic growth and employment creation all over the world. The Sector of Tourism is accountable for 8.8 percent of the world's Jobs (258 million jobs); 9.1 percent of the World's GDP (US\$6 trillion); 5.8 percent of the world's export (US\$1.1 trillion); and 4.5 percent of the World's investment (US\$652 billion) (Iain, *et al.*, 2013). In Nigeria, Tourism is centered mainly on events as a result of the Country's large number of various ethnic groups, however also include rainforests, waterfalls, savannah and various natural attractions, however, the industry suffers unfortunately due to the country's poor infrastructure such as; roads, electricity, and potable water (Maurice, 2004).

Tourism can provide significant economic benefits in developing countries because it creates a competitive advantage easily comparable to other economic sectors. It does not require high import content, leads to a high growth rate, has a steadying influence on exports, and is a labour-intensive sector which increases employment (Scheyvens and Momsen, 2008). Although tourism represents a major economic activity, it is necessary to invest in required infrastructure and to meet the needs of tourists, so that the national economy of a developing country can benefit from it (Gupta and Bansal, 2001). Although tourism is a strong driver for accelerated growth in socio-economic development and safeguards biodiversity, ecosystems, and cultural heritage (Cobbinah *et al.*, 2013) there are obstacles which prevent tourism from achieving objectives, and which pose threats to sustainable development (Cobbinah *et al.*, 2013). This necessitates caution in planning, construction of infrastructure, and consideration of carrying capacity for individual zones in relation to visitor use and the development of services (Ajayi *et al.*, 2010).

Borgu Local Government Area is richly endowed with a wide range of natural and cultural resources relative to other Local Government Area in Nigeria and on a global level most of which are largely untapped. These resources fall into protected ecosystems (game reserves and recreational parks), protected landscapes or natural sceneries, cultural sites, coastline, traditional festival and historic relics and monuments (Nze, 2004).

The availability of these potentials has made the development of tourism industry to undergo a gradual evolution, which each phase reflecting its growing importance in the economy. Despite the vast endowment of tourist sites in Borgu Local Government, some of this tourist sites have not been largely explored. This study will therefore map and categorize the tourism potentials for sustainable development in Borgu Local Government Area.

## 2.0 Literature Review

### 2.1 Classification of Tourism Potentials

The determination of what is tourism potential is a central question that must be answered. Before model development can occur. It is not an easy concept to define because tourism potential, like the industry itself, is quite subjective and open to personal preferences. Site-based potential was derived from the digital data itself, the Integrated Resource Management data in particular; the potential to draw tourists can be directly linked to natural resources such as scenic beauty that an area offers. The potential model was meant to integrate or mesh with the existing Integrate Resource Management land classification system of the Nova Scotia

Department of Natural Resources. The “Integrated resource management (IRM) is a planning and decision-making process that coordinates resource use so that the long-term sustainable benefits are optimized and conflicts among users are minimized, (National Resource agency, 2010). IRM brings together all resource groups rather than each working in isolation to balance the economic, environmental, and social requirements of society. IRM includes planning for minerals, forests, recreation, wilderness, energy, wildlife, and parks.” The important question to consider in defining tourism potential is: “do the natural resources of the study area provide the necessary elements required for the preferred tourist activity.

Tourists are more likely to visit destinations that possess a wide variety of interesting facilities and services which they can enjoy. We can often find different kinds of potentials in a destination providing visitors with different types of experience. Some of these potentials are natural while the others are man-made. They can be broadly divided into four main types: • Natural features

- i. Man-made buildings, structures and sites that were originally designed for a purpose other than attracting visitors.
- ii. Man-made buildings, structures and sites those are purposely-built to attract visitors and cater for their needs.
- iii. Special events

**Examples of each type of attractions are presented in Table 2.1.**

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**Table 2.1 - The four categories of potentials**

| Natural features   | Man-made, but not originally designed to attract visitors  | Man-made and purpose-built to attract visitors   | Special events  |
|--|--|--|---|
| <ul style="list-style-type: none"> <li>• Beaches</li> <li>• Caves</li> <li>• Forests</li> <li>• Harbours</li> <li>• Mountains</li> <li>• Natural heritage sites</li> <li>• Rivers and lakes</li> <li>• Rock faces</li> <li>• Wildlife – flora and fauna</li> </ul> | <ul style="list-style-type: none"> <li>• Archaeological sites and ancient monuments</li> <li>• Cathedrals, churches and temples</li> <li>• Cultural heritage sites</li> <li>• Historic gardens</li> <li>• Industrial Archaeology sites</li> <li>• Stately homes and historic houses</li> <li>• Steam railways</li> <li>• Reservoirs</li> </ul> | <ul style="list-style-type: none"> <li>Amusement parks</li> <li>Art galleries</li> <li>Casinos</li> <li>Country parks</li> <li>Craft centre’s</li> <li>•Educational institutions</li> <li>Exhibition centre’s</li> <li>Factory outlets</li> <li>Garden centre’s</li> <li>Health spas</li> <li>Heritage centre’s</li> <li>Leisure centre’s</li> <li>Marinas</li> <li>Museums</li> <li>Picnic grounds</li> <li>Safari parks</li> <li>Theme parks</li> <li>•Waterfront developments</li> <li>•Working farms open to the public</li> </ul> | <ul style="list-style-type: none"> <li>• Arts festivals</li> <li>• Fairs and expositions</li> <li>•Historical Anniversaries</li> <li>• Markets</li> <li>• Religious festivals and events</li> <li>• Sporting events – watching and participating</li> <li>•Traditional customs and folklore events</li> </ul> |

Source: Adapted from Swarbrooke, J, (2005)

### 1. Natural features

Physical features and natural scenery, collectively termed “landscapes”, are major potentials for tourists who love nature. With the growing concern about conservation, environmental protection, landforms, natural vegetation and wildlife, natural features provide valuable resources for the development of nature-based travel and/or eco-tourism. A landscape will be typically composed of three major geographical elements:

- i. The landform and geology
- ii. The natural vegetation (flora) and the animals (fauna) which depend upon it
- iii. The presence of man which may modify both landforms and vegetation Landforms are classified into seven main categories:
  - a) Hills b) Mountains c) Plains d) Plateaus e) Coastlines
  - f) The water systems which drain the various landforms g) Geological determinants of landforms such as rivers, oceans and volcanic activity

### 2. Man-made attractions that were not originally designed to attract visitors

Potentials that were built to serve purposes other than attracting visitors may either be deliberately converted into an attraction or have spontaneously evolved into an attraction over time. Some of the commonly visited potentials are:

- a) Ancient monuments and historic buildings
- b) Gardens
- c) Archaeological sites
- d) Cathedrals and temples
- e) Cultural heritage sites
- f) Industrial heritage

### 3. Man-made attractions purpose-built to attract visitors

The aim of purpose-built attractions is to attract visitors and increase visitor numbers. Satisfying visitors' needs is essential in the daily operations of these attractions. You can usually find the following types of attractions included in a tour itinerary:

- a) Amusement and theme parks
- b) Zoos and aquariums
- c) Museums and art galleries
- d) Retail shops

### 4. Special events

Festivals and events are one of the fastest-growing segments in tourism. Events are temporary attractions which provide opportunity for leisure, social or cultural experiences outside the normal range of daily activities. Destinations compete vigorously for mega events such as the Olympic Games and the Soccer World Cup.

These special events may generate economic benefits for the community including job opportunities and foreign exchange income. They can also add variety to the attraction profile and enhance the image of a destination. There are three basic types: sports events, arts and culture, and commercial events.

### 2.2 GIS Techniques and Tourism

Often a prime consideration of GIS applications in tourism development in environmental and cultural contexts was to enhance tourism sustainability (MacAdam 1999). Discussion above on GIS applications in tourism studies has showed a number of useful techniques used. In summary these are: developing a spatial database for tourist resources (often taken as a first step); the use of three-dimensional visualization in tourism studies dealing with identifying natural resources or tourism impacts; the calculation of buffer zone or straight-line distances often used in all applications to represent the catchment areas or accessibility level to tourist sites or services; network analysis technique widely used with multimedia applications focus on find shortest path to help decision-making for developing tourist tour; map overlay is a helpful method used in tourism applications to identify suitable locations for tourism development, measure tourism impact and assess potential impact applications.

In fact, map overlay method allows overlay layers produced for subjected variables such as accessibility, catchment area of services and population distribution by different GIS techniques. In addition, it was shown that the use of the buffer zone or straight-line was not accurate in tourism studies specially to measure the accessibility. In support of this, the findings of MacAdam (1999) declared that tourism studies suggest a limited use of the technology of GIS functionality.

However, MacAdam (1999) recognized GIS's contribution to decision-making in providing value-added information. This value-added information is a product of GIS's ability to identify patterns or relationships of tourism elements based on particular criteria thanks to its graphical display, data manipulation and spatial analysis and modelling functions.

### 2.3 Theoretical Framework

The relevant theory upon which this research is anchored is the theory of Development and functionalist theory.

#### 2.3.1 Theory of Development

Development is said to be a social change, a process of change in human, society, a Nation or an economy. According to Doswell (1997) "All development bring change; it brings entirely new values and ways of life". There is political development, economic development, social development, community development, rural development, and of course Tourism development among others. The term 'development' often connotes positive change, expansion, growth and transformation. However, the concept of growth in relation to development is subject to questioning. For instance, a Nation's economy can be growing without corresponding improvement in the social and economic lives of the people. Society may be studied in terms of different but mutually dependent sub-systems. These have various special foundations and domain of influence. Does economic growth automatically mean positive development in the social and ecological system as well? It is clear that this cannot be taken for granted. Development is also a question of scale. Positive development at the macro level is, for instance not automatically positive for households and individuals at the micro levels. Hence the term 'development' may not always mean growth, but it always implies change. This change can be sudden or revolutionary; it can be gradual or evolutionary. In as much as

development is often associated with positive change, it must be noted that it can have negative or positive connotation. Negative development portends retrogression, while positive development results to progress.

There are different opinions about how best to measure development and about what the measurement in fact says. According to Mabogunje (1980) "Several schools have emerged since the second world war, such as the school of Growth and Modernization, Marxism, and the Dependency school and development from above or below". Most intentions from above may have unexpected and unplanned effects. Do these unexpected effects result from the facts that all too often social planning is seen from a functional perspective?

**Sustainable Development:** The concept of sustainable development has gained real meaning since the publication of the report 'our common future', by the World Commission on Environment and Development, also known as Brunt land Commission (McIntyre 1994). The United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992 took the discussion on Sustainable Development further. The Rio de Janeiro declaration states that: the human being is at the heart of our concern for sustainable development, and that each has the right to a healthy and productive life in contact with nature. There are two seemingly paradoxical aspects to sustainable development, namely; Conservation and Development. Thus it is a matter of preserving for instance, the wealth of species in a natural area and at same time striving for development in a society in order to attain the goal of greater welfare for the people. The condition for sustainable development in essence amount to each generation leaving the next generation a stock of productive capacity, in the form of capital assets and technology, that is capable of sustaining utility or well-being per capital than that enjoyed by the current generation. In order words, sustainable development requires that the stock of natural, man-made, social and human capital should not decline, or depreciate.

**Tourism development:** The Environmentalists see tourism development as a function of the natural Environment, the quality of which must not be destroyed. To them, sustainability is guaranteed so long as there is no further deterioration of the environment resulting from the use of natural resources for tourism development. According to Doswell (1997), "In most countries, Tourism is only one part of development. However, in major resorts areas, tourism itself may become the principal cause of rapid change. Here it is predominantly tourism not industrialization that brings jobs and boosts income". Igbo and Okpoko (2006) see Tourism Development as "A positive change resulting in the improvement of tourism product for the enjoyment of Tourists, good return of investment to the developer and socio-economic benefit to the host Community". Hence, tourism development can be sustainable if it is environmentally compatible, socially acceptable and economically beneficial to the host community.

### 3.0 Methodology

The descriptive survey design was adopted for this study. The chief techniques applied in the collection of data are determined by their effectiveness in addressing the aim and objectives of the study: to map and categorize potential tourist sites in Borgu Local government.

GIS techniques was used to map the distribution of tourist sites, identify the services and population within the region, and to analyse the relationship between them based on their accessibility through the road network. While also identifying touring packages for tourists (one-day trips) through the road network. To achieve these research objectives different GIS techniques will be used which included catchment area construction, accessibility, and map overlay. The required data were gathered as described above. Data structuring is the most important stage of building any GIS system because it is the real method of organising and storing data in the database (Meaden & Chi 1996). How the data are structured for GIS application will be demonstrated in the next section before describing the analysis techniques.

#### 4.0 Findings

Data was presented based on four potential tourist sites identified in Borgu Local Government area of Niger state. The GPS was used to collect data and interview was conducted with key informants in the study area. The four-location identified were Kabe cave, Pissa cave, Konkesso smiting sites and Kainji water resort. These locations were displayed in Figure 1. The swot analysis will be used to analyse the strength, weaknesses, threats and opportunities of this tourist sites.

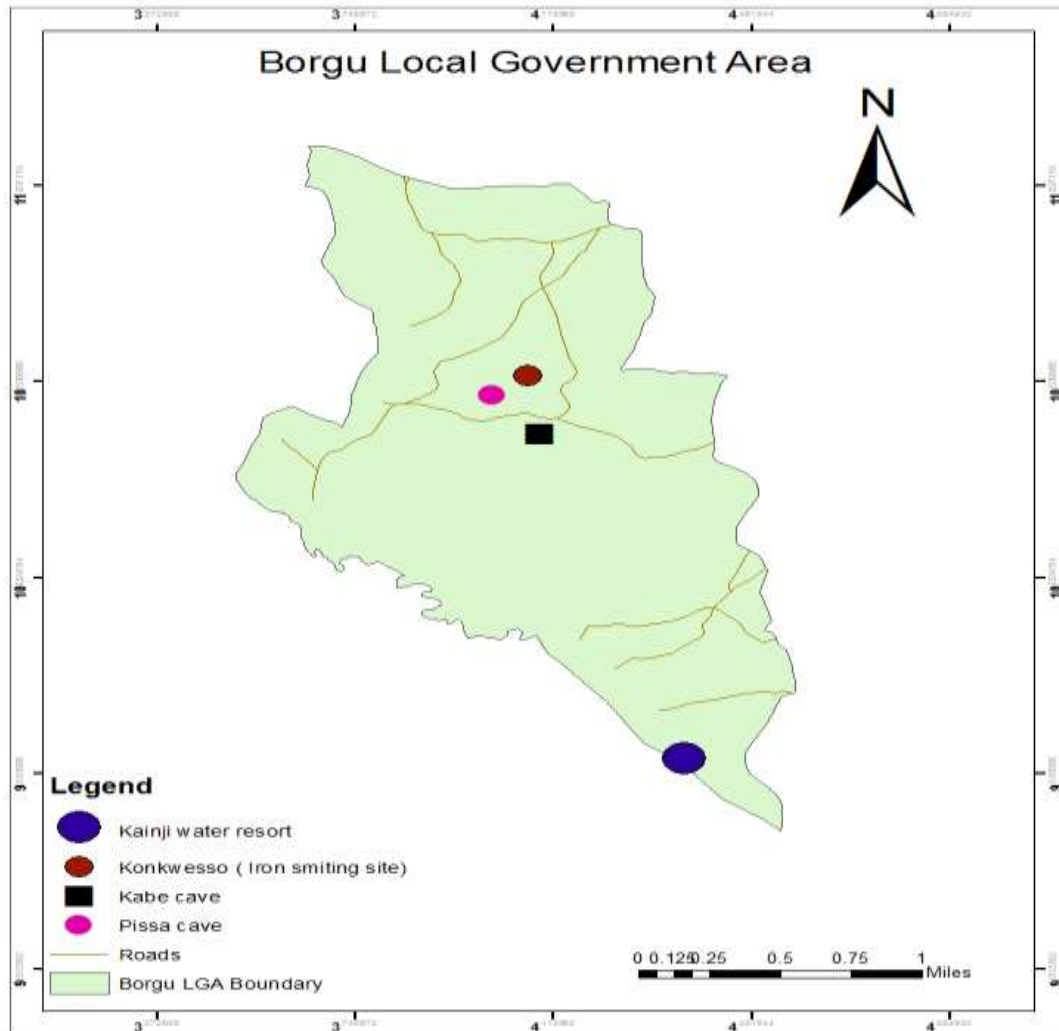


Figure 4.1: Map of Borgu Local Government Area (Source: AracGIS, 2019)

Classification of Potential Tourism Sites

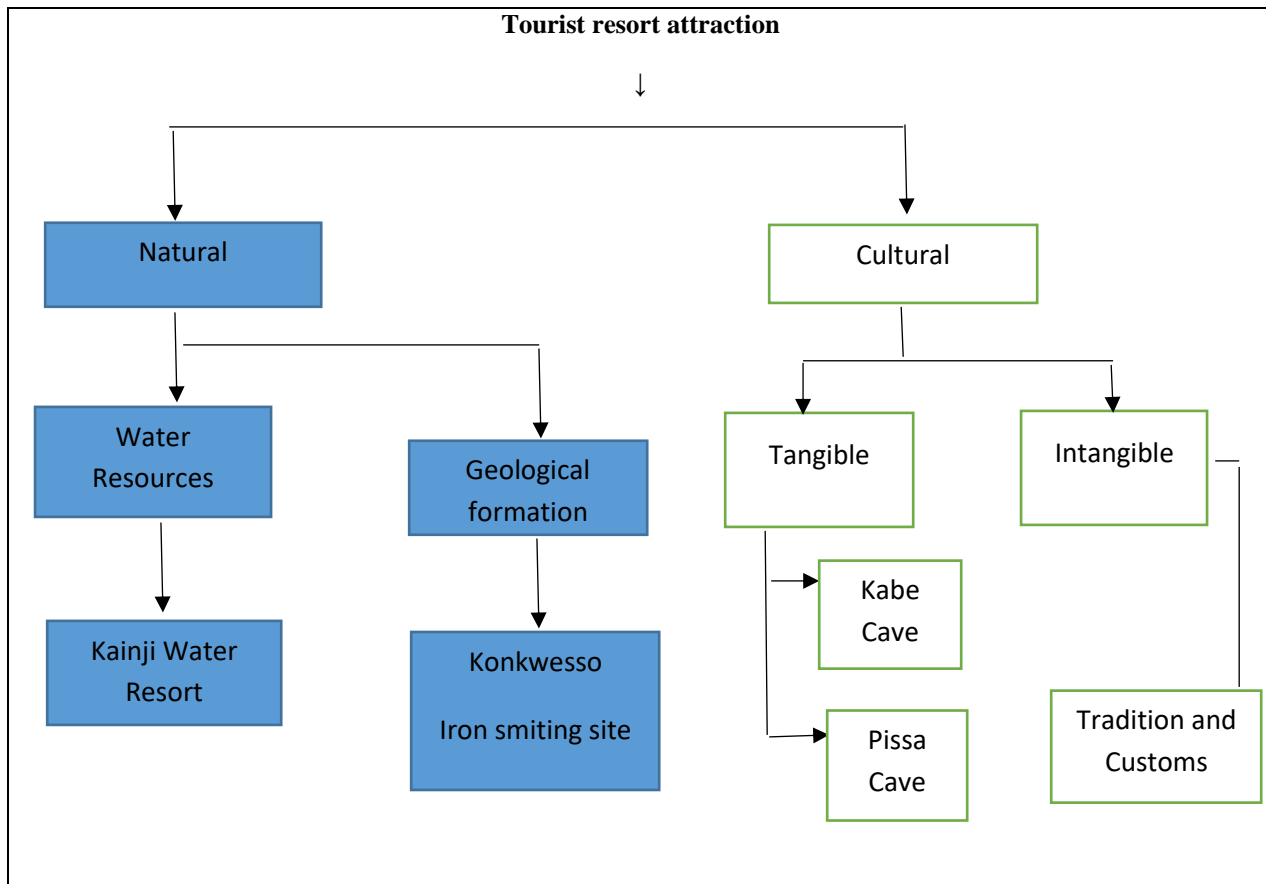


Fig 4.2: Classification of potential tourism attraction in Borgu Local Government Area

Potentials in Borgu Local Government Area were classified into two groups which were natural and cultural attraction. The natural resources were divided into water resources and geological formation. The water resources were Kainji water resort and the geological formation was Konkwesso iron smiting site.

Cultural attributes were classified into tangible and intangible resources. The tangible cultural resort was Kabe cave and Pissa Cave while the intangible are tradition and customs attached these caves.

4.1.1 Kainji water resort

Elevation: 100m

Location

N = 09°51.677'

E=004°34.039'

The Kainji water resort is an extension of river Niger. The water is encroached with a plain Greenland which can be develop into a tourism site. The water resort is behind Dongogari and attempt has been made by the emirate council to develop this site by organizing festivals at the river bank.



**Figure 4.3: Kainji Water Resort**

**Source: Image captured by Researcher (2019)**

#### **4.1.2 Konkwesso iron ore and smiting site**

Elevation: 301 km

##### **Location**

N = 10°50.446'

E=004°07.192'

Konkwesso hill has imbedded in it Iron ore which is locally called “Sabi Buturu Gbe”, that is hill stuffed with mineral resources. From the report, the site of iron smelting workshops covering an area of 2sqkm over 1000 mounds of iron slaq which extends to Old Oyo.

Relics of iron ore walls were dug around the place indicating that the ancient people in Konkwesso had knowledge of advanced iron working, which may be as a result of contact with people from iron civilizations like Nok.

Konkwesso is a tourism potential that have the ability to compete with world class iron sites. The objects retrieved or seen at the site probably suggested that Konkwesso site came into existence when iron working skill had advanced. The area cover by iron site was about 23km and lastly, there are indications that valuable mineral resources are lying untapped within Konkwesso hill.





**Figure 4.4: Konkwesso Iron Ore and iron smelting site**

#### **4.1.3 Kabe cave**

**Elevation:** 259m

**Location:**

**N:** 09°51.677'

**E:** 004°34.039'

Kiniyan cave in Kabe was used as rock shelter, it has two distinct chambers, and each chambers have the ability to accommodate more than 100 people. Evidence of the residential use of this caves had relies of storage barns numbering about five. One of the barns was still standing.

The second cave was more of a palace, it is big, and the relics of clay and pot used for cooking were found. There were many apartments seen. They were used for reception, stores, kitchen purposes and bedrooms. They were probably used as reception, stores, kitchen purposes and bedrooms. The entrance to the cave provided protection and sanctuary for the people of Kabe in the eras of slave trade. The stone was to cover the entrance to the cave was shielded by a large stone boulder. It was believed that these caves provided protection and sanctuary for the people of Kabe in eras of slave trade. The stone was used to cover the entrance of the cave during attacks.



**Figure 4.5: Entrance into Kabe cave**



**Figure 4.6: View from the top of Kabe cave**



**Figure 4.7: Food barns inside Kabe cave.**

#### **4.1.4 Pissa Cave**

Elevation: 331m

**Location:**

N: 10°45.232'

E: 004°08.410'

The first entrance leads to the first chamber where the end of the passage above could not be determined. It is believed that the passage ended with two holes which one leads to the pool of water and the other was believed to have no end.

The cave is linked with the culture of the community because they do sacrifice there when there is spiritual problems like lack of rain, people who were barren and when seeking political offices. At the entrance of the cave were particles of sacrifice done at the cave.

There were two chambers in the cave interlinking by a tunnel. Each of the chambers could accommodate more than hundred people at a time. They were used as hiding place during war.

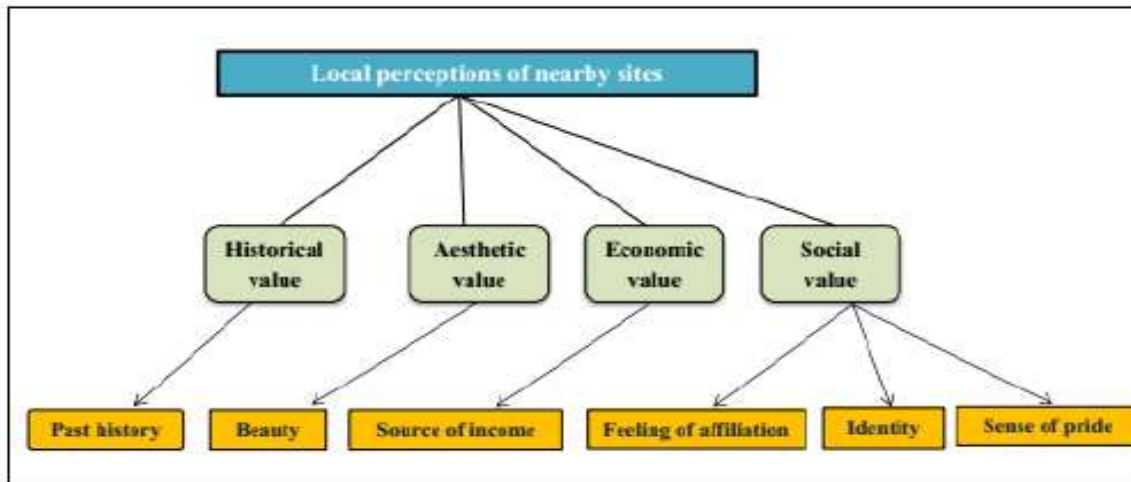
The traditional belief of the cave is religious and cultural. It is religious in the sense that believers in traditional religion setting do go there to worship and there is the belief that when there is draught, all the community will cook and go to the cave to worship. The cave also help during war where women and children where hidden from the vanity of Fulanis.



**Figure 4.8: Entrance to Kabe Cave**



**Figure 4.9: View of Pissa cave from Distance**



**Figure 4.10 Local perception of the sites based on data from respondents**

The potential tourist sites in Borgu Local Government Area had historical value from the past history attached to the site, the aesthetic value was the beauty of the site in the location, the economic value is the ability of the sites to generate income to the Locals and the social value deals with feeling of affiliation, identity and sense of pride among the locals were this sites were located.

## 5.0 Conclusion and Recommendations

This study on mapping and categorization of tourist potential in Borgu Local Government has allowed us to raise the characteristic elements of potentials in the area. This territory presents assets connected as well to its natural and physical environment as patrimonial and cultural. The development opportunities of a tourist activity are existing and capable of being seized.

Any time the diagnosis that we have also demonstrated the brakes and threats which can oppose to this development. Strategic tracks of orientation appeared following this analysis. The setting-up of the tourism in the locality will pass certainly by the valuation of the present assets, the creation of infrastructures, the commitment and the mobilization of actors. This development can of this fact take support on functions as the welcome, the animation, the leisure activities and the promotion, all this in a sustainable optics.

From the findings, it is therefore recommended that the development of the tourist activity will be made only in harmony with the development of agriculture, handicrafts and any recreational activity. The task seems big but not impossible.

The work ahead will require the involvement of all stakeholders in the field. It is obvious that the Borgu emirate council remains the leading player to boost local dynamics in this sector. Therefore, it is very important to bring to its attention the results of this study. It would thus be appropriate to convene as soon as the good internal appropriation of the document is achieved, one or more meetings (according to the report to be realized) with the various local stakeholders. These meetings will be reporting to the work done.

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