

# **SPATIAL DISTRIBUTION OF TOURIST ATTRACTION SITES IN SOUTHERN GEO-POLITICAL ZONE OF ADAMAWA STATE, NIGERIA**

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## **ABSTRACT**

*Tourism is mainly seen as a growth industry since the flow of tourists to different tourist destinations contributes to economic growth. The importance of an area as a tourist delight is a function of three major factors; accessibility, natural and cultural attraction and social amenities. Southern Adamawa Geo-Political Zone has a wide range of such attractions, and is easily accessible to the state capital, Yola, where social amenities are concentrated, a common characteristic of Nigerian urban centers. The research therefore, assess the spatial distribution of tourist attraction sites using Global Positioning System (GPS) to establish the coordinates of the sites, and the tourist attraction sites were identified on the Google Earth. Notable tourist attraction site identified are the Farai festival, Lamurde warm spring, Kiri dam and resort, Gumti park and Vunom wrestling festival among others. These sites are easily accessible by a motor able road over a short distance to the state capital Yola, which houses most social amenities most importantly are the hospitality and catering service. The study recommend among others, the upgrading of facilities and infrastructures in and around these attraction sites, creation of tourism database to be linked to a website to showcase these sites to the rest of the world.*

**Keywords:** Spatial, Distribution, Tourist, Attraction site.

## **INTRODUCTION**

Among the world's largest and most rapidly expanding industries is tourism, one of the major items of international trade. It is mainly seen as a growth industry since the flow of tourists to different tourist destinations contributes to economic growth (Ghosh, 1998; Medlik and Jinkins, 1991). Tourism contributes over 10% to global GDP and generates employment for over twenty million people worldwide (Ake, 2000).

Given the definition of tourism by the World Tourism Organization (WTO) as an activity involving the travels of persons to places outside their usual environment for not more than once for leisure, it is indicative of how such activities may benefit host and local economies and communities. Indeed, tourism has a wide range of benefits both to the individual tourist, tourism organizations, and the local economies and communities in terms of employment, income, and enhancement to the quality of life (Besculides et

al, 2002). For some major tourist destinations, tourism has become a major alternative form of commodity export and a significant source of foreign exchange that allows internal and external trade balances to be reconciled.

Africa has the lowest number of arrivals of all regions in the world but has the potential to top world's tourism chart, but these potentials have not been brought under the right eye and the benefits not fully understood by governments and individuals as dependency is pushed to other resources (Ghosh, 1998). This study tries to incorporate the use of spatial data in identifying tourist site in the study area with a view to assessing the potentials that abounds.

Spatial data can be linked to other data sets thereby potentially increasing explanatory power of GIS (Goodchild, 2010). Nevertheless, different traditions in tourism studies have different understandings of space and how it should be studied. For example, even though Nepal (2008:138) concludes that a spatial approach is one of the hallmarks of contemporary tourism in geography research, the full potential of spatial technologies "in examining form and processes of touristic development, travel flows and tourist's movement and tourism impacts, has not been realized yet.

Adamawa State is called "The Land of Beauty", with 58 ethnic groups is essentially made up of a picturesque mountainous land, transverse by river valleys of Benue, Gongola and Yedsaram. The state is noted for its rich cultural heritage reflected in its history, craftsmanship, music, dance, dress pattern and hospitality. It is regrettable that those in charge of tourism publicity and management in the state are less mindful of this fact; senses are beclouded by oil revenue, where each state in the nation goes to the headquarters to collect pay cheques on monthly basis or are ignorant of the potentialities of certain geographic locations. Geospatial analyses of locations entails identifying, acquiring, inputting, storing, organizing, manipulating and out-putting data in a fashion that is understandable and useful so as to enable development of these area(s) tourist havens.

Adamawa State, like most parts of Nigeria has a wide range of potential tourist attractions. However, some of them are yet to be fully developed and mapped to showcase such sites. A realization of the under usage of geo spatial information and activities by state Government with regards to tourism necessitates the need for this study and proves it timely, as world's economies today are turning to tourism. The study thus provides geospatial data on natural, cultural and other attractions to be found in the southern geopolitical zone of the state.

### **The Study Area "The Land of Beauty".**

Adamawa state as it is known today was carved out of the defunct Gongola State on the 27th August, 1991. The State is located in the North Eastern part of Nigeria, and it lies between latitude  $7^{\circ}$  and  $11^{\circ}$  North of the equator, and longitude  $11^{\circ}$  and  $14^{\circ}$ E of the Greenwich Meridian. It shares common boundaries with Taraba State in the South and the West, Gombe State in its Northwest, and Borno to the North. Adamawa State has an international boundary with the Cameroun Republic along its eastern border. Adamawa State consists of 21 Local Government Areas and covers the total area of about 38,741 Km<sup>2</sup> (Adebayo, 1999). It is on this land that exists a population of about 3,168,101 persons (2006, National Census). This gives the population density of about 82 persons per sq Km. (Adebayo, 1999). The southern senatorial zone of

Adamawa state consists of nine local governments; Jada, Ganye, Numan, Lamurde, Guyuk, Shelleng, Mayo Belwa, Toungo and Demsa local as shown in figure 1.

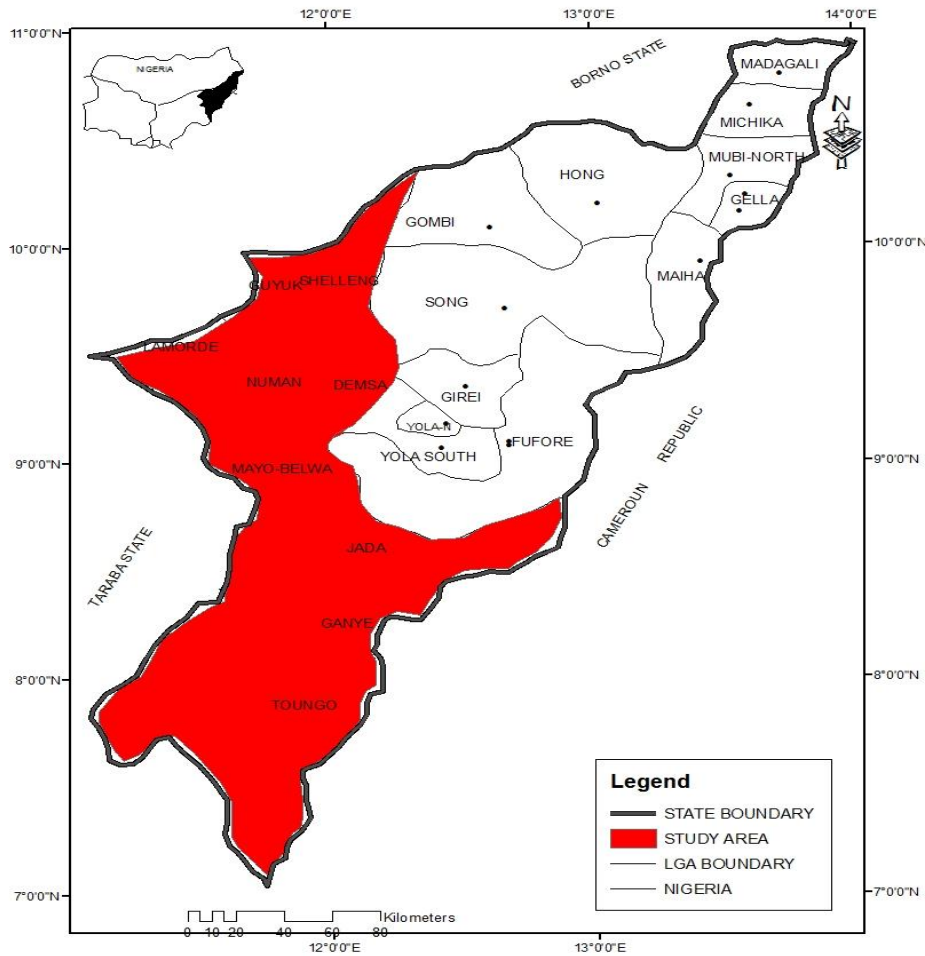


FIGURE 1. The Study Area.

The climate of the study area is characterized by rainy and dry seasons. The rainy period last for 7 (seven) months, beginning from April to November, with rain fall peak in august. The main annual rainfall is 900 to 1100mm per annum, the dry season is however accompanied by dust as a result of the north-east trade winds blowing from the Sahara desert. These winds are commonly known as the harmattan winds, these harmattan winds has dehydrating effects on human skin. The driest months during the period are January, and February with the average annual relative humidity of 27%. The temperature is relatively high throughout the year with the mean yearly maximum temperature of 39.6 degree Celsius and the minimum of 27v degree Celsius, while the average daily hours of sunshine are between 6 and 8 hours (Adebayo,1999).

Most part of the study area falls into the vegetation zone of the sub-Sudan zone and guinea savannah zone which covers the greater part of the south of Adamawa state. The vegetation in the guinea savannah is thick with tall grasses and medium height trees and shrubs. The Sudan savanna is characterized by short grasses and trees. This type of vegetation covers a greater part of Adamawa state (Akosin, Tella and Jatau 1999).

The vegetation of the study area is the secondary type of savanna vegetation due to man's activities through construction, farming, gathering, livestock grazing, etc. as a result the trees found are the economic trees planted by man. This shrubs and grasses are obtained close to the town while outstretch of the town has woodland. This shows the extent of human interference with the vegetation around the study area. (Akosin, Tella, and Jatau, 1999).

## **MATERIALS AND METHODS**

Two basic types of data were collected for this study, primary data: these are geo-spatial data and attribute data of the tourist attractions. Field work using handheld GPS to acquire the coordinates of the various attractive sites in the different local government areas also forms part of the primary data collected. Sources of econdary data collected includes; Google Earth image, internet, published brochures, magazines, leaflets and books.

### **Hardware**

A HP 530 Laptop, HP colour printer and hand held GPS (Garmin 72) were the main hardware used in collecting and processing some off the data that was used in assessing the spatial distribution of tourism potential sites.

### **Software**

The software packages that were used are of two categories: the GIS and non-GIS packages. Arcgis 10.1 was the GIS software packages used to digitize and performs feature identification, recognition and visualization. The non-GIS packages used were corel Draw 12 for map conversion to Tagged Image File Format (TIFF) and Microsoft Word for word processing.

The Global Positioning System (GPS) was used to pick the coordinates of the identified tourist site in the state which was inserted in the search interface of Google Earth software. Each of the sites was accurately captured and displayed in Google earth. A network of roads linking all tourist sites in the study area including the state capital were then overlaid onto an existing map of Adamawa state in which the distance from the state capital to each of the identified tourists site were measured in kilometer as attribute data. The roads were directly digitized on the interface of the Google Earth software.

## **RESULTS AND DISCUSSION**

Table 1 shows a variety of festivals in the study area but they are mostly small, clan based or ethnically inclined. The Farai or Vunon Wrestling Festival is the most popular in the study area and allows for participation from wider sources than other smaller festivals that occur within the study area. The travel distance is 48.9 kilometers from the state capital Yola which is bestowed with an International Air Port, palatial hotel accommodation, notably among them are Homtel Derivatives and Suites, Yukoben, Duragi, Lelewal Hotels that serve both International and local cuisine would be a tourist delight.

Warm and Hot Water Springs occur in two different locations where they all last through the rainy and dry seasons. The Lamurde Hot Spring (Ruwan Zafi) is above 50<sup>0</sup> C at its hottest spot which makes it the hottest within the study area. . The place was designated as UNESCO World Heritage Site in 1999. The Lamurde Hot Spring empties into a stream making it a tributary to the drainage system of the area unlike the other springs within the study area which do not flow but occur as tiny pits in groups and relatively warm.

Sightings of Hippopotamus in and around the Kiri Dam during early hours of the day are frequent. The Kiri Dam is the largest artificial Hippo habitat in Africa and called “Hippo Sanctuary” by the Adamawa Travel Journal. The spatial location of all the sites is clearly indicated for each of the tourist attraction. There coordinates of the tourist site are clearly seen and roads leading to each of the site were as shown (figure 2).

**Table 1: Tourist Attractions sites in the Study Area**

S/N	TOURIST SITE	OTHER NAME	LGA	DISTANCE FROM ADAMAWA STATE CAPITAL, YOLA (km)	LOCATION COORDINATES
1	Kiri Dam	Nil	Shelleng	83.70	9 <sup>0</sup> 40' 46.04"N 12 <sup>0</sup> 00' 52.36"E
2	Lamurde hot spring	Ruwan Zafi	Lamurde	103.00	9 <sup>0</sup> 32' 56.74"N 11 <sup>0</sup> 49' 37.05"E
3	Gumti park	Nil	Toungo	209.00	7 <sup>0</sup> 54' 56.38"N 11 <sup>0</sup> 52' 47.14"E
4	Jada warm Springs	Nil	Jada	96.50	
5	Vunon wrestling festival	Farai	Demsa	48.90	9 <sup>0</sup> 27' 44.26"N 12 <sup>0</sup> 05' 21.87"E

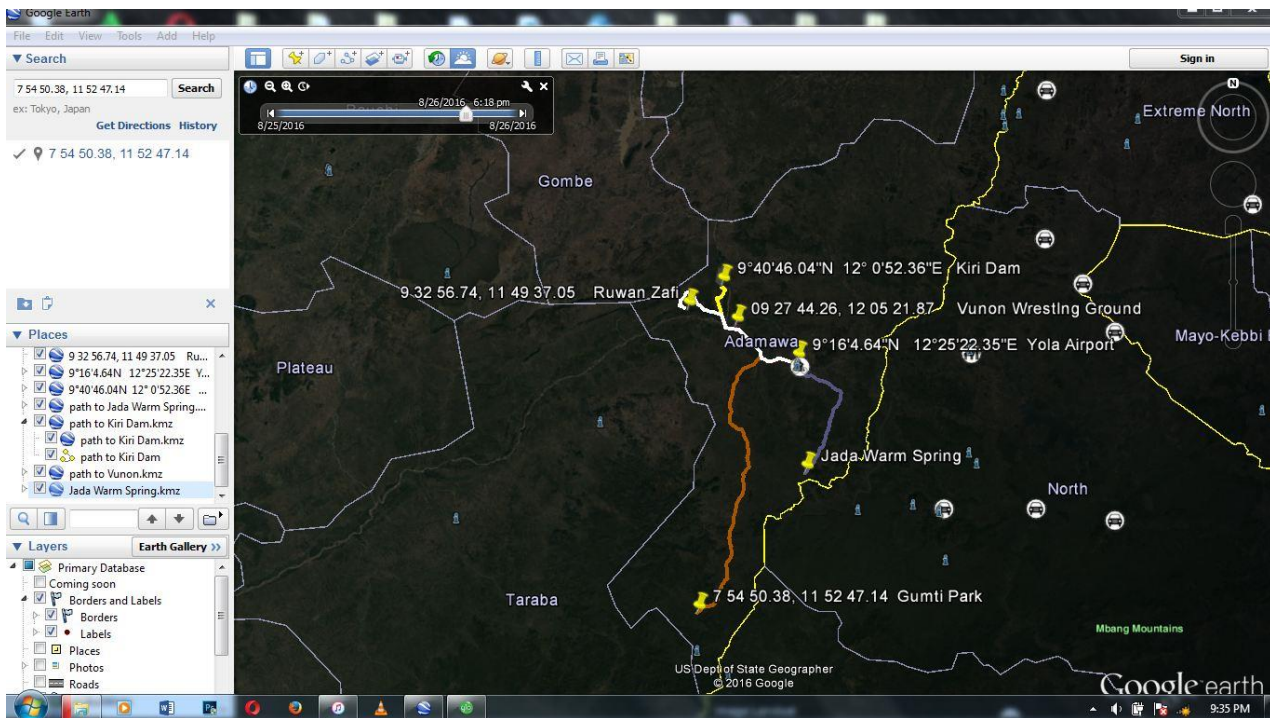


Figure 2: Tourist Attraction Sites, their Locations and Connecting Road.

Table 2 shows that all the sites in this study are under developed as there is little or no efforts by government or private enterprises to harness these potentials through infrastructural development or preservation measures to secure these resources except for Gumti park which is part of the Gashaka Gumti National Park and the Vunon Wrestling Festival which receives support from the government through the Ministry of Culture and Tourism.

All roads leading to these sites of attraction within the study area are dirt roads but motor able, and are off the various federal roads connecting through the entire state linking towns and cities.

**Table 2: Level of Development of Tourist Site**

S/N	TOURIST SITE	OTHER NAME	LGA	LEVEL OF DEVELOPMENT	DISTANCE FROM STATE CAPITAL/km	LOCATION COORDINATES
1	Kiri Dam	Nil	Shelleng	Underdeveloped	83.70	9° 40' 46.04"N 12° 00' 52.36"E
2	Lamurde hot spring	Ruwan Zafi	Lamurde	Underdeveloped	103.00	9° 32' 56.74"N 11° 49' 37.05"E
3	Gumti park	Nil	Toungo	Developed	209.00	7° 54' 56.38"N 11° 52' 47.14"E
4	Jada warm Springs	Nil	Jada	Underdeveloped	96.50	

5	Vunon wrestling festival	Farai	Demsa	Underdeveloped	48.90	9 <sup>0</sup> 27' 44.26"N 12 <sup>0</sup> 05' 21.87"E
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## **CONCLUSION**

The study reveals the spatial features of tourism attraction sites in Adamawa South showcasing the socio economic potentials for sustainable development among communities in the region. These sites are veritable tools that can be used to attract indigenous and foreign investors to Adamawa state if properly developed, and in turn change the revenue base of the state and the nation, whose economies are fuelled by dwindling fortunes from petroleum resources (hydrocarbon), a product the world is aggressively shifting away from because it is environmentally not benign.

## **RECOMMENDATION**

- Private enterprises and the State Government should make concerted effort for further development of these tourist havens
- Creation of the tourist attraction sites database and linked to a website to create awareness among tourists across the globe.
- Transportation infrastructure such as good road linkage, travel agencies and facilities to be improved upon to uplift the standard of facilities available for tourist delight by the state government and by private enterprises.
- Hospitality industries which is about accommodation and catering services be improved to meet international standards like what is obtained in South and East Africa

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