



Ecotourism Potentials on the Jos-Plateau, Nigeria

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Abstract

Endowment with natural attractive features is one of the important indicators of a successful development of ecotourism, as simulation of ecotourism potentials can significantly affect patronage by making experience unnatural. This survey was conducted using oral interviews, group discussions, a reconnaissance survey and information obtained from administrative records of tourism institutions. The results obtained were analysed using descriptive presentation in the form of a table and some photographs. The study revealed that Jos Plateau region is endowed with great, outstanding, spectacular and unique ecotourism potentials. These ecotourism potentials, if properly and fully harnessed, could make the region a buoyant tourism industry. However lack of inventory and socio-economic problems have hampered ecotourism development in the region. The ecotourism potentials of Jos Plateau region was therefore investigated to assess, locate and determine potential ecotourism features of the region. The study also reveals that the major problems affecting ecotourism development on the Jos Plateau include improper funding, social disturbance and inadequate infrastructural facilities. It is therefore important that the potentials of the region as tourist destination be explored and widely publicized so as to attract tourists, while

drastic steps should be taken to curtail the obstacles that may limit their development.

Keywords: Ecotourism, Potentials, Endowment, Plateau, Leisure

Introduction

Ecotourism's perceived potential as an effective tool for sustainable development is the main reason why developing countries are now embracing it and including it in their economic development and conservation strategies. Ecotourism, as an alternative tourism, involves visiting natural areas in order to learn, to study, or to carry out activities environmentally friendly, that is, a tourism based on the nature experience, which enables the economic and social development of local communities (Godwin, 2001). It focuses primarily on experiencing and learning about nature, its landscape, flora, fauna and their habitats, as well as cultural artifacts from the locality. A symbiotic and complex relationship between the environment and tourist activities is possible when this philosophy can be translated into appropriate policy, careful planning and tactful practicum. Carefully planned and operated ecotourism sites, especially if it is village-based and includes local participation, is

able to provide direct benefits that might offset pressure from other less sustainable activities that make use of natural and cultural resources. Ecotourism in natural and cultural areas was carried out with a number of elements in their natural landscape and cultural landscape (water, vista, topography, vegetation, clean air), as well as in the variety of recreational activities suitable for all kinds of environments. Therefore, ecotourism and its natural assets and raw materials to create, as well as directing people to travel is an attractive force (Scheyvens, 2002).

Ecotourism helps in community development by providing the alternate source of livelihood to local community which is more sustainable. Its aim is to conserve resources, especially biological diversity, and maintain sustainable use of resources, which can bring ecological experience to travellers, conserve the ecological environment and gain economic benefit (Potter, 2006). However, achieving the aims in ecotourism

depends on whether they are environmentally and ecologically sustainable and economically applicable. Ecotourism helps in involving local community for the conservation of the ecology and biodiversity of the area that biodiversity in return provides the economic incentives to the local community (Potter, 2006). Eco-tourism contributes to conservation of biodiversity; sustains the well-being of local people; involves responsible action on the part of tourist and the tourism industry; promotes small and medium tourism enterprises; requires lowest possible consumption of natural resources; stresses local participation, ownership, and business opportunities, particularly for rural people; and above all includes the learning experiences.

In order for ecotourism to encourage patterns of sustainability, which can benefit local communities, protect the environment, and be economically viable, it must be comprehensive and account for the complexity of issues that have been mentioned in this paper.

There is a need for sustainable development in ecotourism, and the connection between tourism and environment is much stronger than in other sectors. Ecotourism must account for social, economic and environmental implications, in order to succeed. The purpose of this study look at ways in which ecotourism and sustainable development can be evaluated, and suggest ways to improve current ecotourism practices. In parallel with this purpose, it was aimed at looking for an answer to questions of: What is Ecotourism? “What might be the effects of ecotourism?” What are the impacts and challenges of ecotourism? What are the possible benefits that ecotourism can bring? Within this scope, we focused on ecotourism’s definition, its objectives, and the reasons of its emergence and development, its principles, its types, its environmental, social and economic impacts; ecotourism and sustainable development and on the examination of approaches to ecotourism in Turkey and Europe.

Ecotourism represents an excellent way to help both, the local communities and the protected areas involved. It is an ideal component in a sustainable development strategy in which natural resources can be used as tourism attractions without damaging the nature of the area. As an important tool for protected areas management and for development, ecotourism must be developed adapting to circumstances (Hall, 2003).

Honey (1999) defined ecotourism as, “the travel to fragile and pristine areas, usually protected, with the objective of causing low impact and at a low scale. It helps educate the visitor, it provides funds for environmental conservation, it

directly benefits economic development and sovereignty of local communities, and it promotes respect for different cultures and for human rights”.

For sustainability of ecotourism potentials to triumph, Sustainable use of resources should be seen as the function of its conservatives and preservative use. Thus the concept of sustainability is the main goal of conservation. An area can be highly blessed with certain resources such as tourism attractions, but if not rationally used, they can be quickly depleted, wasted or destroyed (Hall, 2003). This is of course most applicable to resources that are perishable and prone to wasting and spoliation if not wisely used. The present generation can thus have and use resources without any preservation for future generations due to un-conservative practice. Most tourism attractions are fragile and susceptible to spoliation, extinction and depletion if not wisely used and preserved.

The Jos – Plateau region of Plateau State is richly endowed with ecotourism potentials. But all scenic natural and cultural features ought to be properly conserved to guarantee their sustainability. According to Gontul (2009) conservation of ecotourism potentials is the cornerstone of their sustainability. Conservation of all the rich ecotourism attractions on the Jos – Plateau is therefore very key to the development of the region as the hub of the natural scenic tourism zone in Nigeria. Sadly noted however is the fact that many of the ecotourism potentials of the region have come under various forms of abuses. This study was thus conceived to investigate how the rich ecotourism potentials on the Jos – Plateau are being conserved.

The beauty of nature is made manifest by identification, rational exploitation and conservation of nature. There are a number of notable outstanding ecotourism potentials on the Jos – Plateau which if adequately harnessed is therefore very key can boost the development of the region. The region can develop as the hub of the natural scenic tourism zone in Nigeria. Sadly noted, however, is the fact that many of the ecotourism potentials of the region have come under various forms of abuses. This study was thus conceived to investigate how the rich ecotourism potentials on the Jos – Plateau are being conserved.

The Study Area

The Jos Plateau is a plateau located near the centre of Nigeria. It covers 9,400 km² and is bounded by 300-600 meter escarpments around much of its circumference. The plateau has given its name to the State, Plateau State in

which it is found and is itself named for the state's capital, Jos. Jos – Plateau region is located in the middle belt zone of Nigeria and lies between latitudes 9⁰3⁰' North and 10⁰3⁰' North and longitudes 7⁰3⁰' East and 8⁰37' East. The state shares common boundaries with Bauchi State in the North, Kanke LGA in the East, Nasarawa State in the South and Kaduna State in the West. The state has an area of landmass covering 26,899 square Kilometers.

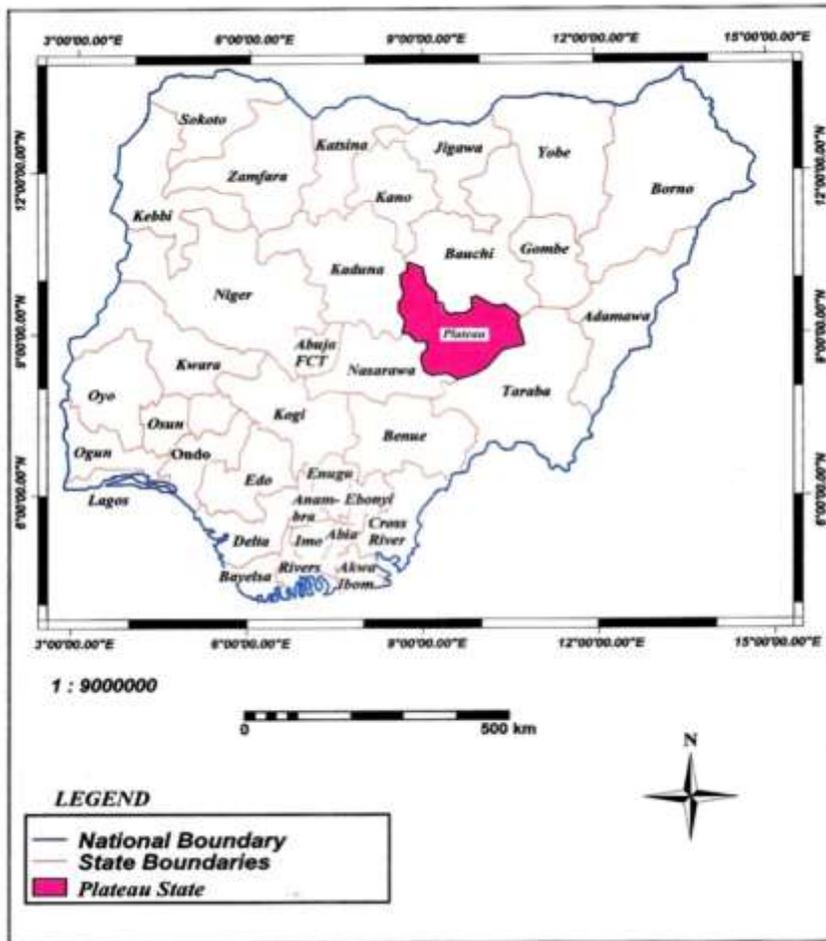


Figure 1: Nigeria Showing Plateau State
Source:AGIS, 2019

Materials and Methods

Data were collected from primary and secondary sources to analyze the perceived tourism destination image of Plateau State as a tourist destination in Nigeria the target groups from which the information is obtained.

The primary sources of data collected for this study included mainly the information directly obtained from the sampled ecotourism sites (the field) through field observation/inspection and oral interviews with the local communities or staff of designated resorts, questionnaire administration.

The secondary sources of data for the study were obtained from an already existing or documented source on the tourism industry of Plateau State. Such data were obtained to supplement the primary data for the study. These included tourism promotion materials such as brochures, pamphlets, lists of tourist attractions and a list of infrastructural (support) facilities from Plateau State Ministry of Culture and Tourism as well as Plateau State Tourism Corporation. Some information was drawn from the internet and other documentaries on Plateau State from the Department of Geography and Planning and the University Library, University of Jos.

Reconnaissance visits

The authors made several preliminary visits to Plateau State Tourism Corporation and Ministry of Tourism and Culture and interacted with their managements and key officers of these establishments to:

1. Obtain information on the list of all ecotourism resources of the Jos Plateau region of Plateau State and
2. Access the characteristics of the ecotourism potentials identified of the region.

The authors also visited some of the ecotourism attractions to include namely: Jos Wildlife Park, Assop Falls, Shere Hills, Kura Falls, Riyom rock and Ampidong Crater Lake during the reconnaissance surveys. At these sites the researcher interacted with management staff for developed resorts and the local communities.

The study population

This study comprised of population of all the ecotourism potentials on the Jos Plateau. At first, the researcher sought and obtained the list of all the important ecotourism resources on the Jos Plateau from Plateau State Tourism Corporation. Nineteen (19) outstanding natural tourism sites identified.

Furthermore, with the aid of the Staff of the Plateau State Corporation, some pictures (photographs) of the attractions, pamphlets (throwaways), brochures

and personal knowledge of most of the attractions by the researchers through frequent visits to them, the researcher was able to establish the main characteristics of each attraction compiled. The researcher also found out from the Plateau State Tourism Corporation how the numerous attractions of the State were being conserved, advertised, promoted, publicized and marketed. A wide range of promotion materials showcasing the various tourist attractions of the State were made available to the researcher by the Corporation. These materials serve as the image projection tools which are used in advertising and marketing the tourism attractions of Plateau State in Nigeria and beyond.

Sampling Design

Types of Sampling

Two standard categories of sampling method exist. They are probability sampling and non-probability sampling. Probability sampling is sometimes called random sampling while the non-probability sampling is called non-random sampling. The choice to use probability or non-probability sampling depends on the goal of the research and the main characteristics of the study population. Frey, et al. (2000) indicates that the two sampling methods “differ in terms of how confident we are about the ability of the selected sample to represent the population from which it is drawn”. Probability samples can be “rigorously analyzed to determine possible bias and likely error” (Henry 1990). Non-probability sampling does not provide this advantage but is useful for researchers “to achieve particular objectives of the research at hand” (Henry, 1990). Thus both probability and non-probability sampling have advantages and disadvantages and the use of each is determined by the researcher’s goals in relation to data collection and validity. Each sampling category includes various methods for the selection process.

In probability-based sampling, the first step is to decide on the population of interest, that is, the population we want the results about. This could be, for example, all tourists found in Plateau State that are of the age 18 years or over who are domestic tourists. We then establish a frame - a listing, at least in principle - of all the units of that population. For this case our example the researcher use religion, gender, age, place of origin, income and educational status of the sampled tourists were used as the units for the study population. If the researcher had known the population of tourists in each unit of the study population then selected sample from this frame would have been based on

probabilistic algorithm. It is important that every element of the frame has a known chance of being selected, and the calculate probability of selecting tourists within each unit would have been made. In saying that a probabilistic algorithm would have been used to select the sample, one important feature is that interviewers will have no choice about who they are to interview as the algorithm specifies who is to be in the sample. The aim in the probability algorithm is that, if the sampling were to be repeated many times, the expected value of the results from the repeated samples would be the same as the result we would get if we surveyed the whole population. And because we know the probability of getting each sample we select, we can also calculate a sampling error for the results.

Limitations of Samplings

Sampling can be a powerful tool for accurately measuring opinions and characteristics of a population. However, there is a genuine potential for misuse of this tool by researchers who do not understand the limitations of various sampling procedures. The differences between non probability and probability sampling procedures are often difficult to discern but are extremely important for determining how the results of the research can be used. Non probability sampling techniques can provide valuable information but the results cannot be generalized to a larger population nor can statistics indicating the reliability of the results is calculated. Well conducted probability samples provide the researcher with the ability to gather information from a relatively small number of members of a large population and accurately generalize the results to the entire population. In addition, probability samples enable the authors to calculate statistics that indicate the precision of the data.

Recent Trends in Sampling

To summarize Sarndal and Swensson (2009) pointed out that no existing survey exactly matches the ideal picture of probability-based sampling painted in the classical textbooks. In real world surveys there are problems, like non-response, which can only be dealt with by assuming some kind of model. For example, we typically handle non-response by identifying "similar" respondents whose data we can borrow. None the less, the practitioners of classical sampling theory are not misguided in their endeavours to establish good frames, monitor and control non-response, etc. A compromise position is

possible. Sarndal and Swensson (2011) embody this compromise in the title of their text, “Model Assisted Survey Sampling.”, that is, use models to assist us in developing a near to probability-based designs, a methods we can use to produce a more reliable estimates. In this more relaxed climate, two author’s sympathetic to model-based ideas have recently published important papers on quota sampling (Smith and Deville 2011). Smith's paper uses a model-based approach and gives technical conditions for drawing conclusions from a sample selected by non-random methods. He argues that the model-based approach is appropriate in situations like the following:

- i. There is a single client and
- ii. The client agrees that the required assumptions hold, at least approximately.

Deville (2011) on the other hand takes a fresh and detailed look at the forms of modeling which underlie quota sampling. In terms of his theory, he lays some emphasis on the size of the sample in determining the choice between a probability-based and a quota sample. He considers that for a small sample, "the bias of a quota sample will be more tolerable than the lack of precision of a probabilistic survey." However, he reaches the same conclusions as previous authorities about the place of quota samples in official surveys. His final conclusions are: "In a survey, the use of any speculative model represents methodological risk-taking. This may be perfectly reasonable if the users are aware of it, and if they have ratified the speculations leading to the specification of the model.

Sampling Ecotourism Sites on the Jos Plateau for the Study

For the social science tradition, generalizing from the sample to the population is very important. This study comprised of two populations as shown in the preceding sub section 3.6. These are population of tourist sites in Plateau State and the population of tourists that visited the State as at the time of the study. And as it was practically impossible to cover these two populations in the study, samplings became inevitable in the two situations respectively. Firstly was the sampling of tourist sites for the administration of the study questionnaire. In the choice of which tourist sites were to be selected for the selection of tourists to administer the study questionnaire, the researcher adopted the purposive sampling method.

In purposive sampling, we sample with a purpose in mind. We usually would have specific predefined groups we are seeking. One of the first things to do was to verify that the respondent met the criteria for being selected as a sample. Purposive sampling can be very useful for situations where you need to reach a targeted sample quickly and where sampling for proportionality is not the primary concern. With a purposive sample, you are likely to get the opinions of your target population, but you are also likely to overweight subgroups in your population that are more readily accessible.

Furthermore, with the advice of the staff of the Plateau State Tourism Corporation, the researcher purposely selected the tourist sites used for the survey. The sites selected were identified as the most important ecotourism attractions on the Jos Plateau. Nine (9) tourist sites selected for the exercise included: Assop Falls, Riyom Rock Formation, Shere Hills, Kurra Falls, Kerang Volcanic domes, Ampidong Crater Lake, and Cool Temperate like weather and Climate of Jos – Plateau.

Data collection

The research investigated the conservation practices strictly at the sampled ecotourism sites for the study. At each selected site, the researchers visited the site and assessed the types of conservation measures in operation as well as the type of abuses that are common at site. For resources that are under protection, the researcher interacted with their managements, while for the unprotected attractions, the local communities within which the resource are found were interviewed.

The interviews were orally conducted using guided set of questions that sought for information on the conservation of the samples tourism resources and abuse that can result in the spoliation, depreciation or depletion of each resource. The potential perpetrators of the various abuses on tourism resource who are mostly local communities were also asked to give reasons for their various actions. In most cases, communities' leaders and opinion leaders were selected for the interviews with very few representations from the general public.

The researcher also made physical observation of the sampled sites taking photographs of some of the abuses as observed at site.

The researcher also collected information orally on the stake and benefits that the local communities derive from the tourism resources within their domains.

The selected conservation areas included Wase Rock resort and Jos

wildlife Park while the unprotected resources included Shere Hills, Riyom rocks and Ampidong Crater Lake.

Data handling techniques

As wide ranges of data were gathered for this study, the researcher employed also a wide range of appropriate techniques to handle the presentation and analyses of the resulting data. First, the data were edited and then coded for the ease of computer analyses. Analyses involved summarization of information using charts, frequency distribution tables and other descriptive statistical manipulations and percentages. Each mode of presentation captured the brief highlights of the main features. The researcher also used photographs of features which are considered, as the stereotype galleries.

Results and Discussion

Table 4.1: Characteristics of Major Eco (Natural) Tourism Potentials on the Jos Plateau

S/n	Name of attraction	Location	Distance from Jos	Characteristics	Accessibility
1	Shere Hills	Sub urban	5km	Rocky And hilly	Accessible
2	Riyom Rock	Rural	52km	Weathered rock outcrop	Accessible
3	Kwahwang Basaltic Rock	Rural	70km	Rectangular rock parents	Accessible
4	Cool temperate like weather and climate	All the Jos Plateau region (9400km ²)	All the Jos plateau area including Jos town	Cool-clement weather/climate annual average temperature of 22°C	Accessible
5	Assop Falls	Rural	60km	Cascading water fall, thick forest around the fall	Highly accessible

Source: Author Field work, 2018

Geomorphology of Jos plateau

The land surface of the Jos Plateau consists of plains, hills and depressions some of which represent the ecotourism potentials. The plain are dotted by isolated hills and occasionally dissected by river valleys formed towards the end of the Tertiary period, during the Miocene and Pliocene and immediately after the extrusion of the Older Basalts, probably between 5 and 2 million years ago. It was a swampy lowland, probably elevated not more than 100 to 200 meters above sea level, with isolated rocky hills called “inselbergs” rising up to 1 00m above the plain. Rivers meandered between swamps leaving alluvium up to 50m thick in places. In the upper part of this clayey alluvium a duricrust was formed (also called laterite)



Plate 1: Assop Falls

Source: Authors field work, 2018

About two million years ago the whole area of the present Jos Plateau was uplifted and the Jos Plateau came into existence. This occurred shortly before the end of the Tertiary. The uplift was accompanied by vulcanism and denudation. There are still several well preserved volcanic cones on the Jos Plateau, from 0.5 to 2 million years old (potassium-argon analysis by Burke and Durotoye, 1970; quoted Morgan et al., 1979). Basaltic lava flows, the Newer Basalt, fill the earlier eroded valleys, often modifying pre-existing drainage networks. During and after extrusion of Newer Basalt, rivers dissected the depositional plain of the Jos Plateau which is called “the Lateritic Surface” or

“the Lateritic Summit Surface”. The rate of erosion was low and valleys which are located on the plain are characterized by broad, shallow, saucer-shaped cross-sections. Only in the more recent centuries, probably due to man-made deforestation, has the process of river erosion accelerated, resulting in rejuvenation of many river valleys. Valleys cut in outcropping crystalline rocks are mostly v-shaped. Wherever a river eroded its channel in a tectonically fractured zone, river valleys are mostly “box-shape”.

Above the plain rise hills of three types, the first type are volcanoes, about 0.5 to 2 million years old, all located on the Older Granites or Precambrian metamorphic rocks. It is interesting that no single volcano is located on the Younger Granites. The other hills are of mesa type. They are relics of the late Tertiary depositional surface, so called (‘lateritic summit surface’). They are formed of clayey ‘soft overburden’ which is partly a product of weathering in situ of crystalline rocks and partly alluvium and diluvium deposited in the Pliocene at the same time as the formation of the depositional lateritic surface. All mesa hills are capped by laterite (also known as duricrust or curirasse). Mesa hills are located almost exclusively on Precambrian rocks where the soft overburden is thickest, and only very few of them can be found on the Younger Granites where the overburden is normally thinner. It is unlikely that the mesas owe their existence to protection of laterite cap – the laterite cap was almost continuous. It is therefore reasonable to assume that mesas represent remnants of the duricrust depositional surface, preserved from denudation due to their location on the watershed. Nevertheless, the characteristic flat topped shape of mesas is caused by the presence of the lateritic protective cap. Otherwise mesas would be dome-shaped.

The last one of the three types of hills on the Jos Plateau is the inselberg. Inselbergs are exclusively granitic hills formed either from the Younger or the Older granite. No inselberg on the Jos Plateau is formed of metamorphic rocks. The origin of inselbergs is not yet clear, but there are two main theories. According to the erosional theory the top of the crystalline complex is undergoing deep, differential chemical weathering. In some places the weathered clayey material “saprolite”, is deeper than in others. The denudation removes the clayey material and exposes elevations of non-weathered hard rock in the form of an inselberg (a German term meaning “Island hill”). Several erosional theories are shown. Whilst “three types of Hills present on the Jos Plateau” represents the isostatic theory, it emphasizes the difference in densities

between lighter granite forming the inselberg, and heavier metamorphic rock in which the inselberg is embedded. Light granite is “floating” in the heavier metamorphic rocks like an iceberg floats on water. The inselberg is aerodynamically shaped due to the process of protruding upwards through more dense rocks.

In addition to the isolated inselbergs there are also inselberg-type granitic hills which are located exclusively on the Younger granite Complexes. The question of their origin is not yet answered. They could result from erosion – in this case Younger Granite should be less weather able than Precambrian metamorphic and granitic rocks. According to this theory, Younger Granites form a ‘hard core’ etched by weathering from the more weatherable metamorphic and granitic Precambrian rocks. But there is also another non-erosional possibility, namely that lighter Younger granites were “squeezed” isostatically from heavier Precambrian rocks. (Ajaegbu et al, 1992).

Other important eco-tourist sites/features on the jos plateau

Some outstanding geographical features have been specifically noted as eco-tourism potentials on the Jos Plateau. These include the followings:

Delimi Gorge

Most rivers of the Jos Plateau follow tectonic fractures. They are called “geologically or tectonically controlled rivers”. This is the case of Delimu River which forms an impressive gorge in the tectonically fractured older granite. The delimit river rises from rayfield area of Jos town flowing towards north east direction and ending in the Lake Chad.

Kuru hills

These are the young granitic hills on the Jos Plateau which are Inselbergs. Inselbergs mainly comprises of granitic rocks which have been exhumed or exposed as a result of degradational forces. The Kuru hills represent the younger granites which are found on the Jos Plateau.

Gully Erosion at Heipang and Kuru

There are more than 35 gullies documented on the Jos Plateau resulting from high readability of the soils due to mining activities, deforestation, over cultivation and over grazing.

Mesa Landform (behind NTA, Jakatai, Kwi)

The mesa is a depositional surface formed before the tectonic upliftment of the Jos Plateau. Its flat top is protected by duricrust (iron pan, laterite) which represents the deposited materials by water in a swampy lowland. Note in the duricrust on the top of the Hill and immediately below the rounded gravels which are evidence of deposition. After the upliftment of the Jos Plateau, denudational processes were initiated which dissected this initial depositional surface leaving behind the relics of landform that forms the mesa. According to King (1962) the mesa surface represents the Gondwana surface because it is considered to be the ground surface of the Gondwana continent.

Edge of the Jos Plateau (Any Chosen Vantage Point)

The Jos Plateau descends into the adjoining lowlands in precipitous steep escarpments except the northern to north western escarpments which are gentler slopes descending into Bauchi and Kaduna lowlands. The escarpments on all sides are consequently marked by steep route gradients. Eg. Kwanan Machiji, Hawan Kibo

Climate

Though situated in the tropical zone, a higher altitude means that Plateau State has a near temperate climate with an average temperature of between 18 and 22°C. Harmattan winds cause the coldest weather between December and February. The warmest temperatures usually occur in the dry season months of March and April. The mean annual rainfall varies from 131.75 cm (52 in) in the southern part to 146 cm (57 in) on the Plateau. The highest rainfall is recorded during the wet season months of July and August. The average lower temperatures Plateau State has led to a reduced incidence of some tropical diseases such as malaria. The Jos Plateau, makes it the source of many rivers in northern Nigeria including the Kaduna, Gongola, Hadejia and Yobe rivers.

Geology

The Jos Plateau is thought to be an area of younger granite which was intruded through an area of older granite rock, making up the surrounding states. These "younger" granites are thought to be about 160 million years old. This creates the unusual scenery of the Jos Plateau. There are numerous hillocks with gentle slopes emerging from the ground like mushrooms scattered with huge boulders.

Also volcanic activity 50 million years ago created numerous volcanoes and vast basaltic plateaus created from lava flows. This also produces regions of mainly narrow and deep valleys and pediments (surfaces made smooth by erosion) from the middle of rounded hills with sheer rock faces. The phases of volcanic activities involved in the formation of Plateau State have made it one of the mineral rich states in the country. Tin is still mined and processed on the Plateau.

Kahwang rock formation

It is a set of beautiful basalt rocks, second to one of its kind found in Switzerland. Located in Bangai village of Bachi District in Riyom Local Government of the state, the Kahwang rocks have received tourists from different parts of the state, the country at large and on occasions, from outside Nigeria, who visit the site to see for themselves the wonders of nature. This site is however, still awaiting the attention of the Plateau State Tourism Corporation to meet modern standards and to serve as another source of revenue generation to the state.

General attractions

These are attractions that are not cite specific, but are rather general environmental situation which could be an attraction to visitors. A good example is the climate of a place.

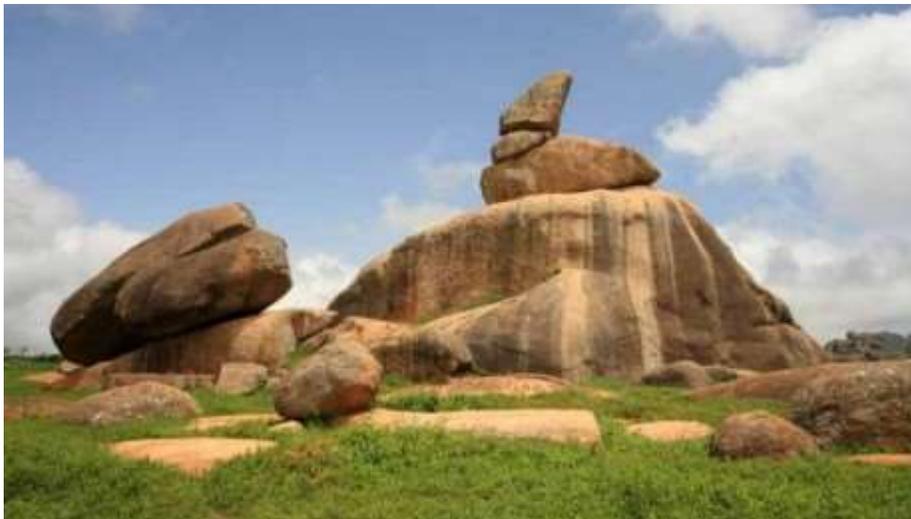


Plate 2: Riyom Rock Pedestal, Riyom LGA.

Source: Authors field work, 2018

The climate of an area is the general average weather condition, which can be inviting or repulsive. Plateau state in this context has generally very cool temperate like climate, which has been noted as her unique attraction to many tourists (both domestic and international). Most tourists are thus attracted to Jos-Plateau for its climate among other things.



Plate 3: Ampidong Crater Lake
Source: Authors field work, 2018

Other general attractions are security and hospitality. An environment that is peaceful and accommodating will surely lure tourist to come. No matter how rich a destination with tourist attractions if the local people are not peaceful and accommodating, visitors will be scared. The serenity and climatic conditions of a place must therefore be seen as attributes of attractions and image-makers.

Discussion of findings

Foremost the authors found that most of the eco tourist attractions found on the Jos Plateau is undeveloped and only a few of them are under any “formal” conservation. For instance, the spectacular Ampidong Crater lake, Riyom Rocks and the Shere Hill are yet to be designated as protected areas. No wonder the rich eco-tourism treasury of the Jos Plateau region Of Plateau State Has made the state the “hub” of the scenic tourism zone of Nigeria. These great and unique potential attractions are however, left at the mercy of the local communities who use and abuse them at will.

The Ampidong Crater Lake, which is one of the three of its kind found in Africa, is a very unique volcanic feature. Its attractiveness has drawn geographers, geologist, admirers, adventures and tourists from far and wide. The feature can serve various tourist values such as film shooting, photographing, picnicking, educational visit, mountaineering, sightseeing and nature appreciation among others. Unfortunately, this unique feature has come under the abuse of mainly farming activities around the lake. The loosening of the soil particles round the lake can speed up the silting process in the lake. The use of chemical fertilizers can also introduce eutrophication of the lake thus affecting the aquatic life within the lake. Thus if farming activities are not checked, the lake will silt up in the very near future while the aquatic life will completely be destroyed.

The Shere Hills are the highest peak on the Jos Plateau and are well known sites for rock climbing or mountaineering, picnicking, training, film shooting, photography and nature watch among other uses, unfortunately the beautiful rock formations have come under the main abuse of quarrying and indiscriminate inscriptions. More so, the hills are not under any protection and as such any individuals and corporate construction companies quarry the rocks for construction purposes without minding their sustenance as tourist resource. The Riyom rock formation is another spectacular and unique attraction that has been used as a background in most television programmes to show case the tourism attractiveness of Jos-Plateau. This beautiful rock castle has not been designated as protected resources. Fears are being raised that the thirst for indiscriminate quarrying of rocks for construction purposes will soon be extended this spectacular rare feature. To the politicians, almost every rock found along access road in the entire Plateau State is monument for inscribing names of their political parties and aspirants. This indiscriminate inscription on rocks is defacing the beauty of the unique rock features that are found all over the state.

The survey of the local communities around all the sampled tourism resource reveals that the local communities have had long outstanding relationship with these tourism attractions found in their domains. The local people claimed that these resources have since the historical time been their sources of livelihood and that they now find it quite difficult to handoff the exploitation of these resources without being provided with alternatives or adequate compensation. For instance, the wood fetchers, farm encroachers and illegal grazers all claimed

that they had no other sources of livelihood than to tap from these tourism resources.

These local communities claimed that they are quite aware of the regulations and laws, but that they are constrained by the economic hardship to indulge in the various activities tagged as “illegal”. To them these resources are theirs and failure on the side of government or private investors to provide them with alternative resources or adequate compensation will always call for their stiff resistance to the conservation laws. They also complained of low recruitment of the local people by the management as well as non-benefit from the tourism receipts. They expect government to provide them with basic amenities such as electricity, good roads, water and schools among others needs in order to have a sense of belonging in the sharing of the benefits derivable from the tourism resources.

Conclusion

The study concludes that there is vast ecotourism resources on the Jos Plateau region of Plateau State, but most of the attractions are yet to be designated as protected resources even though the ones that are so designated are still contending with rampant and indiscriminate various abuses. The situation calls for a speedy action to save the tourist attraction from irrational exploitation and outright destruction.

REFERENCES

- Abifarin, R.A (2001), The hazards of park protection: Kamuku National Park. National Park Service goes paramilitary. Nigeria Parks Magazine, Volume 1, Number 1, Pp 14.
- Agbelusi, E.A., Owolabi O.O., Haruna, Z. S. (2000), Large Mammals of Kamuku National Park Birnin Gwari,
- Ajayi, S.S. (1986), Wildlife in crisis-conservation An Antidote. University of Ibadan Inaugural Lecture: Thursday, February 27, 1986, University of Ibadan, Nigeria. Pp. 67
- Asobang, R.N. (1990): Museums and African Identify: the museum in Cameroun: A Critique cultural resources management: An African dimension WAJA, Volume 20
- Ayodele, A.I. (2001). Management of Tourism potentials in Nigerian National Parks. In cultural and Eco-tourism Development in Nigeria, David A. Aremu (Ed.), Hope Publications, Pp. 136 143.
- Ayodele, A.I. (2001). Wildlife Based Tourism in Nigeria. In cultural and Ecotourism Development in Nigeria, David Aremu (Ed), Hope Publications, Pp. 118 127.
- Barbour, K.M., et al., editors. (1982), Nigeria in Maps. Hodder and Stoughton, London.
- Bushnell, S.M. (1994). The Ecotourism Planning Kit. A business Planning Guide for Ecotourism Operators in the Pacific Islands. The Pacific Business Center Program, University of Hawaii, Pp. 209.

- Dasmann, R. F. (1981). *Wildlife Biology* 2nd Edition. John Wiley and Sons Inc. New York Pp. 75 100,166 179.
- Eltringham, S.K. (1994), Can wildlife pay its way? *Oryx*, 28: 163 168.
- Falade, O. (2001). The Economic implication of Developing Tourism in the three tiers of Government of Nigeria. In *cultural and Ecotourism Development in Nigeria*, David .A. Aremu (Ed.), Hope Publications, Pp. 62.
- Zangabadt L.G. (2010), History of Jos and political development of Nigeria.
- Isichei, (1982). Introduction. In *Studies in the History of Plateau State*, Nigeria, ed. By Elizabeth Isichei, pp 1–57. Macmillan, London.
- Kaduna State. The Bioprospector Vol. 2 Sept. 2000. www.bioprospector.org Pp. 27 - 35
- Koch E. (1994), Reality or Rhetoric? Ecotourism and rural reconstruction in South Africa. UNRISD, Discussion Paper. No. 54, Pp. 58.
- Marguba, B.L. (2001), The relevance of tourism (Cultural and Ecotourism) in Nigeria towards our 21st century National Economic Development. In *Cultural and Ecotourism Development in Nigeria*, David .A. Aremu (Ed.), Hope Publications, Pp. 13 19.
- Morgan, W.T.W. (1983) *Nigeria*. Longman, London. MSN maps reference: "[Encarta on MSN Map](#)". *Encarta on MSN Map*. Retrieved 2009-01-24.
- Muir, K. (1989), The potential role of indigenous resources in the Economic Development of Arid Environment in sub-Saharan Africa: The case of Wildlife utilization in Zimbabwe *Society and National Resources*, 2: 307 318.
- Ntiamoa Baidu, Y. (1997), Wildlife and food security in Africa. Food and Agriculture Organization, Conservation Guide. The FAO Forest Resources Division, Rome. Italy.