

# REVITALIZATION AND SUSTAINABILITY OF ECOTOURISM IN NIGERIA THROUGH CONSERVATION, MASS EDUCATION AND PARTICIPATION

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## **Abstract**

Reviews on the state of tourism globally, and in Nigeria revealed the existence of large socio-economic gap between some countries of the world and Nigeria in terms of dearth of tourism development. In view of the fact that Nigeria is blessed with abundant tourism, natural reserves and sites; Nigeria is not ranked among the list of top tourism destinations worldwide. Data base on Nigerian's yearly domestic and international tourism is not readily available or in existence. Tourist sites in Nigeria are poorly maintained and those maintained and equipped are bereft of patronage as regards visits. In this regard, the dwindling nature of this sector called for concern with a view to ameliorating the situation through research findings. A period of five years of research was conducted by the authors using experimental method in form of pedagogical approaches on post graduate students offering the course: Tourism and the Built Environment in the Department of Architecture, University of Nigeria, Enugu Campus. Other methods of public awareness and education were applied in form of group packaged tours to different tourism destinations in the country over the research duration. The findings portrayed dearth of tourism culture or habit, insensitivity to conservation and preservation of historic and cultural heritage, and physical development of some sites at variance with ambient physical environment. The findings recommend the pursuance with vigor revitalization of tourism industry through public awareness, education and participation of the populace to boost domestic tourism and attract international tourism through public and private empowerment, learning and practical involvement in packaged tours. The result showed burning zeal for participation by students and the university community in subsequent tours. The feat however achieved a measure of long lasting result in inculcating tourism culture and habit through 'generational culture transfer' as inherent in Europe, America, Australia, Asia and other continents of the world.

**Key words:** Revitalization, Sustainable, Ecotourism, Conservation, Education and Participation

## **Introduction**

Every spot on earth is naturally endowed with one or more resources; be it material, human or both. Much depends on the ability of the inhabitants of such environment to discover to their advantage the potentials surrounding them; by exploring and harnessing the resources for their utmost benefits. Those potentials may be in nature as arts, culture, nature reserves, minerals or human. Every environment

has its characteristics and peculiarities that favours one activity or the other; tourism is one amongst others.

Nigeria the neglected tourism goldmine and nature's biggest gifts, for many decades had little or no new investment in the industry. The traditional tourist attractions: Game Reserves, Nature Reserves and Museums; are not adequately maintained nor physically developed in line with ambient physical environment that enable conducive atmosphere for attraction of domestic and international tourist. There is very little investment in the promotion of the industry in terms of education, awareness and private and public participations.

In spite of a new government emphasis on tourism promotion by the Nigerian Tourism Development Corporation, a subsidiary of the Federal Ministry of Culture and Tourism; the situation has not seen a significant change.

Nigerian game and nature reserves may not be as co-extensive or heavily populated with animals as the East African reserves, but there are more of them, each unique in its own way and rich with wildlife.

Apart from game reserves, there are museums with collections of art and cultural artifacts. There are also interesting cultural attractions - traditional events and festivals that take place at different intervals throughout the year in different towns and communities across the country. Those events are components and adjuncts of ecotourism.

### **Tourism**

Tourism connotes the act of interest and self improvement: mentally, physically, socially, recreationally, educationally, spiritually and even economically by means of exploring some new experiences and advantages in enabling and sustaining tourism environment. Relaxation and satisfaction are the basic interests of tourists relative to one's destination, and capped with appreciation.

Tourism destinations are one of the exploits of man on earth for his socio-economic development. Tourism encompasses natural and man-made components such as built environment. Tourism is seen as the third biggest industry in the world, and money spinning economy. No country wants to be left out in this exploits, Nigeria inclusive, the oil wells that lay the golden eggs notwithstanding. This paper sees eco-tourism as the backbone of tourism industry world-wide, and the need for its sustainability towards revitalization of tourism in Nigeria.

### **Ecotourism**

Ecotourism is a purposeful travel to natural areas with a view to understanding the culture and natural history of the environment. It thrives in enabling natural environments; organic, inorganic or both as media for its sustainability.

### **Natural Environment**

The natural environment encompasses all living and non-living things occurring naturally on earth or some region thereof. It is an environment that encompasses the

interaction of all living species, (Johnson, et al 1997). The concept of the *natural environment* can be distinguished by components:

- complete ecological units that function as natural systems without massive human intervention, including all vegetation, microorganisms, soil, rocks, atmosphere and natural phenomena that occur within their boundaries;
- universal natural resources and physical phenomena that lack clear-cut boundaries, such as air, water, and climate, as well as energy, radiation, electric charge, and magnetism, not originating from human activity;

The natural environment is contrasted with the built environment, which comprises the areas and components that are strongly influenced by humans. A geographical area is regarded as a natural environment.

### Ecosystem

An ecosystem (also called as an environment) is a natural unit consisting of all plants, animals and micro-organisms (biotic factors) in an area functioning together with all of the non-living physical (abiotic) factors of the environment.

Central to the ecosystem concept; is the idea that *living organisms* are continually engaged in a highly interrelated set of relationships with every other element constituting the environment in which they exist. According to Odum, (1971), one of the founders of the science of ecology, stated: "Any unit that includes all of the organisms (i.e. the "community") in a given area interacting with the physical environment so that a flow of energy leads to clearly defined trophic structure, biotic diversity, and material cycles (i.e.: exchange of materials between living and nonliving parts) within the system is an ecosystem." The human ecosystem concept is then grounded in the deconstruction of the human/nature dichotomy, and the emergent premise that all species are ecologically integrated with each other, as well as with the biotic constituents of their biotope.

A greater number or variety of species or biological diversity of an ecosystem may contribute to greater resilience of an ecosystem, because there are more species present at a location to respond to change and thus "absorb" or reduce its effects. This reduces the effect before the ecosystem's structure is fundamentally changed to a different state. This is not universally the case and there is no proven relationship between the species diversity of an ecosystem and its ability to provide goods and services on a sustainable level.

The term ecosystem can also pertain to human-made environments, such as *human ecosystems* and human-influenced ecosystems, and can describe any situation where there is relationship between living organisms and their environment. Fewer areas on the surface of the earth today exist free from human contact, although some genuine wilderness areas continue to exist without any forms of human intervention. It is natural that plants and animals thrive well in their habitats.

## Natural Habitat

The *natural environment* is a source for a wide range of resources that can be exploited for *economic* profit, for example timber is harvested from forests and clean water is obtained from natural streams. However, *land development* from anthropogenic economic growth often causes a decline in the ecological integrity of nearby natural habitat. However, there is also economic value in conserving natural habitat. Financial profit can be made from tourist revenue, particularly in the tropics where species diversity is high. It is observed by researchers that the cost of repairing damaged ecosystems is considered to be much higher than the cost of conserving natural ecosystems. Preservation and conservation of natural habitat led to conservation movements world-wide.

## Conservation Movement

The conservation movement, also known as nature conservation, is a political, environmental and social movement that seeks to protect natural resources including animal, fungus and plant species as well as their habitat for the future. The early conservation movement included fisheries and wildlife management, water, soil conservation and sustainable forestry. The contemporary conservation movement has broadened from the early movement's emphasis on use of sustainable yield of natural resources and preservation of wilderness areas to include preservation of biodiversity. In other parts of the world conservation is used more broadly to include the setting aside of natural areas and the active protection of wildlife for their inherent value, as much as for any value they may have for humans. For much of human history, nature had been seen as a resource, one that could be controlled and used for personal and economic gain. The idea was that plants only existed to feed animals and animals only existed to feed man (Thomas et al. 1983). The land itself had limited value only extending to the resources it could provide such as minerals and oil. Throughout the 18th and 19th centuries social views started to change and when in 1872, the world's first national park, *Yellowstone National Park* in the United States of America was declared. After that, began official conservation movement. Rather than focusing on the economic or material benefits associated with nature, humans began to appreciate the value in the nature itself and the need to protect pristine wilderness.

By the middle of the 20th century countries such as the United States, Canada, and Britain understood this appreciation and instigated laws and legislation in order to ensure that the most fragile and beautiful environments would be protected for generations to come. Today with the help of NGO's, not-for profit organizations and governments world-wide there is a stronger movement taking place, with a deeper understanding of habitat conservation with the aim of protecting delicate habitats and preserving biodiversity on a global scale; hence enriching ecotourism.

Deforestation and overpopulation are issues affecting all regions of the world. The consequent destruction of wildlife habitat has prompted the creation of conservation groups in other countries, some founded by local hunters who have witnessed

declining wildlife populations. A typical example of such early movement in Africa is that of Botswana in Southern Africa.

### **Botswana**

In order to discourage illegal South African hunting parties and ensure future local use and sustainability, some indigenous hunters in Botswana began lobbying for, and implementing conservation practices in the 1960s. The Fauna Preservation Society of Ngamiland (FPS) was formed in 1962 by the husband and wife team: Robert Kay and June Kay, environmentalists working in conjunction with the Botswana tribes to preserve wildlife habitat. The FPS promotes habitat conservation and provides local education for preservation of wildlife. Conservation initiatives were met with strong opposition from the Botswana government because of the monies tied to big-game hunting.

### **The Nature Conservancy**

Since its formation in 1951 The Nature Conservancy has slowly developed into one of the world's largest conservation organizations. It is currently operating in over 30 countries, across 5 continents world-wide. The Nature Conservancy currently has a large number of diverse projects in operation. They work with countries around the world to protect forests, wildlife, river systems, oceans, deserts and grasslands. In all cases the aim is to provide a sustainable environment for both plant and animal life forms that depend on them as well as all future generations to come.

### **Tourism and Wildlife in Africa**

Tourism however is not fully developed in Africa as it is in the developed countries of the world. Wonders of the wild nature are part of the wealth of Africa and of mankind which the world cannot afford to ignore. Some parts of Africa have become popular tourist centres; such is the case with East Africa (Kenya, Tanzania and Uganda), West Africa, South and North Africa. East Africa scores high because it has a lot of sunlight throughout the year and this arouse interest in the people from colder regions especially during winter season ([UNEP-WCMC http://parks.it](http://parks.it)).

In East Africa, tourism is best developed in Kenya where the number of tourist increased from 6,000 in 1952 to 328,000 in 1972 and it is estimated that one lion is worth 7,000 US dollars annually. In Tanzania and Uganda the inflow is lesser. For example L.Nakudu National Park is noted for birds such as flamingo Malindi and Watamu. Marine National Parks are noted for their beautiful coral reefs where over 200species of fish can be seen in the clear waters. Serengeti National Park and Ngorongro in Tanzania, while Uganda, Kabelega and Ruwenzori National Parks offer numerous Tourist attractions. Earnings from ecotourism in Kenya and Tanzania dwarf that of coffee earnings.

In West Africa, it is not yet significant although some countries like Gambia, Ivory Coast, Senegal and Nigeria are trying to build more and improve the existing tourist industries. In Ivory Coast, Senegal and Gambia, the attractions are their beaches for

swimming, water skiing, surf riding, sailing and Desert Track in Dakar for Rally- has uninterrupted views across the vast land of the desert, fig. 1.

In Southern Africa, Ethosa National Park of Namibia with some 50,000 big mammals roaming in the wilderness of South Western Africa is worthy of mention as tourist industry. North Africa is not to be left out in tourist industries especially Algeria and Egypt for their national parks with abundant wildlife and Museums where the oldest pyramid constructed in the world was preserved as seen in fig. 2, (UNEP-WCMC <http://parks.it>).

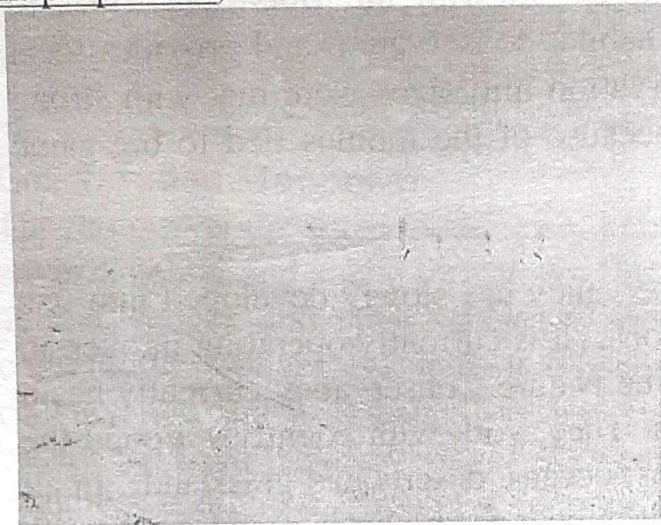


Fig1: Desert Track for Dakar Rally  
Source: Microsoft Encarta2009

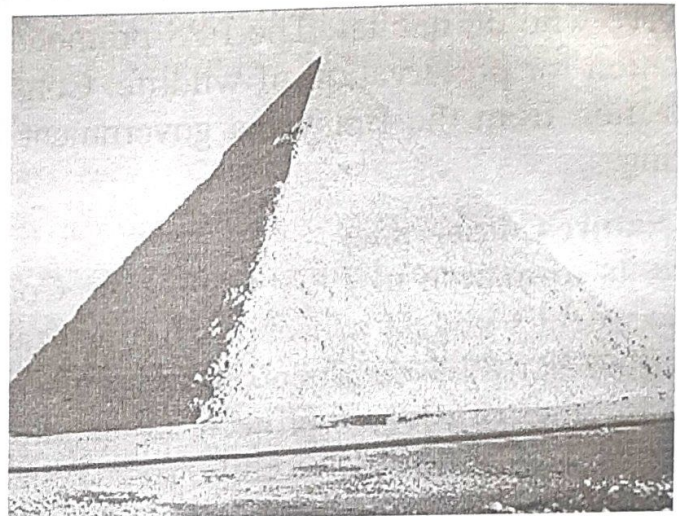


Fig. 2: Pyramid at Khafre, Egypt,  
Source: Microsoft Encarta2009

### Nature Conservancy in Nigeria

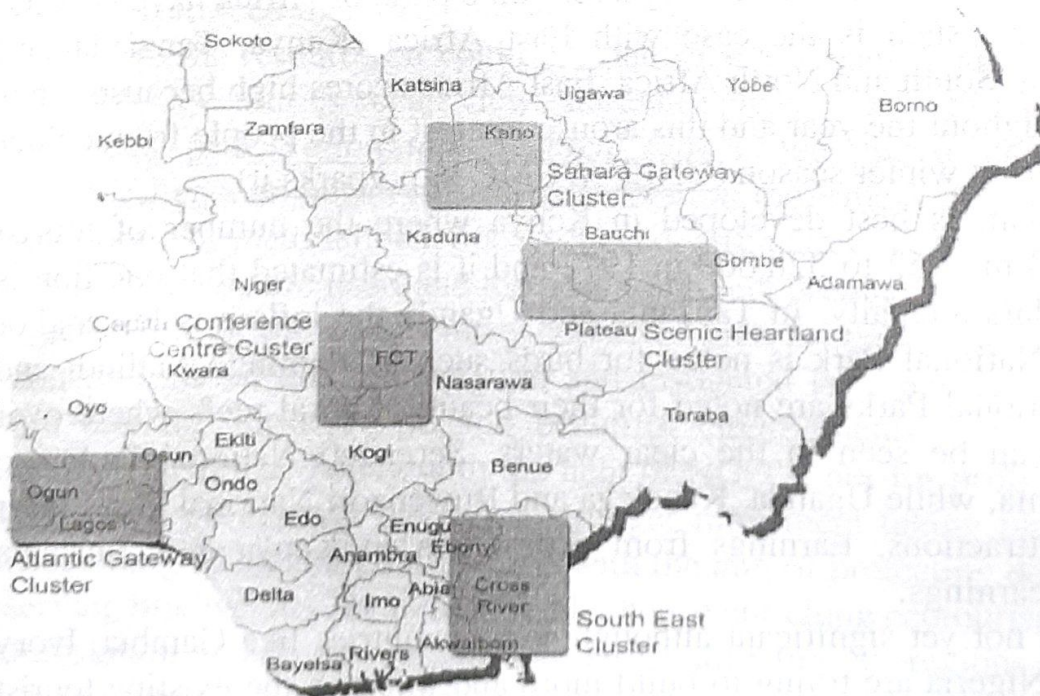


Fig 3. Map of Nigeria, and major tourist attraction states

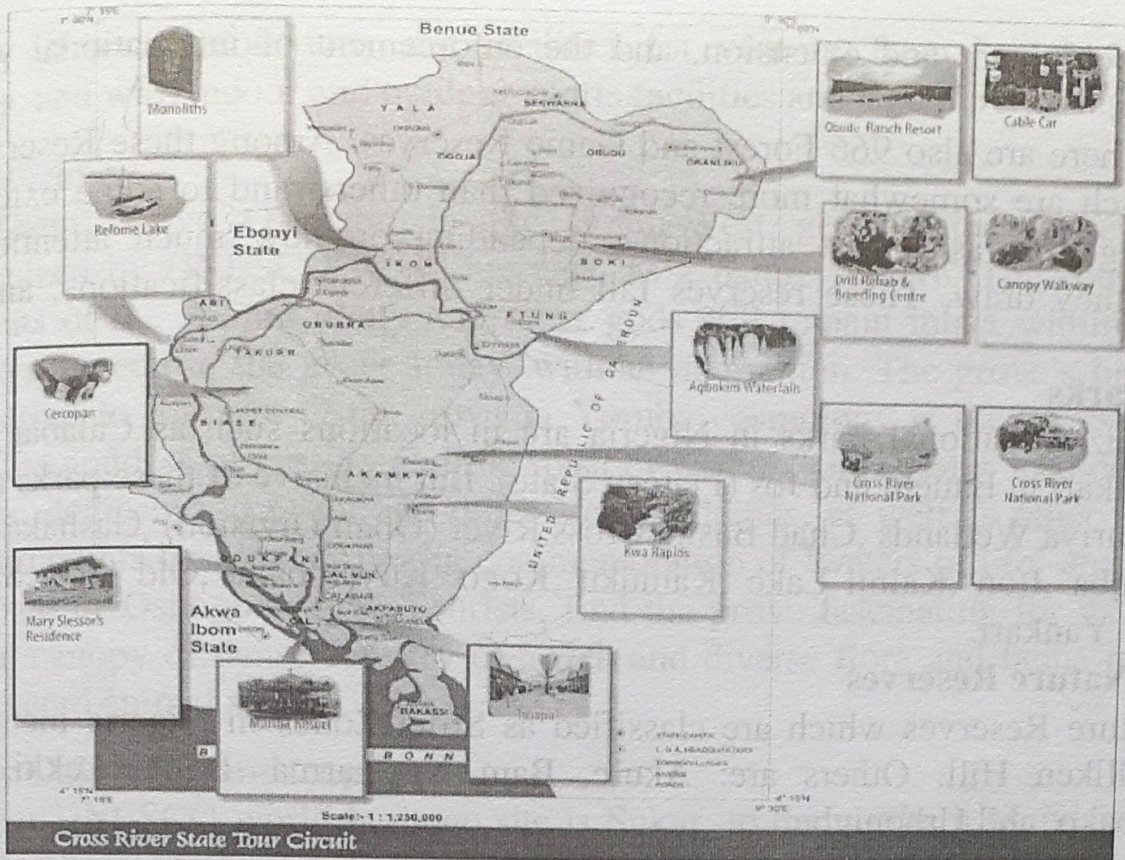


Fig4. Map of Tourism destinations in Cross River State  
 Source: Nigeria Tourist Master Plan

### Tourism and Protected Areas in Nigeria

The protection of wildlife began with the creation of Nigeria, soon after the amalgamation of the northern and southern parts of the country in 1914. Regional game laws were enacted, initially by Eastern Nigeria in 1916 and later by the western and northern regions in 1928 and 1963, respectively.  
<http://cercopan.wildlifedirect.org>.

The three categories of protected areas recognized within the wildlife sector are strict nature reserve, game reserve and national park, all of which were formerly reserved forests.

In the late 1980s, the Federal Natural Resource Conservation Council (NRCC) was created. This Council is chaired by the President with representatives from a number of Ministries, and forms the Nigerian Conservation Foundation. This Council provides coordination for the conservation of natural resources, develops policies, can take direct measures to secure the status of species and sites, monitors conservation activities within the forestry and wildlife sectors, and provides funds for conservation and research works.

At the national level, the mandate for wildlife conservation and protected areas management is the responsibility of the Federal Department of Forestry in the Ministry of Agriculture, Water Resources and Rural Development. Within this Department, is the Division of Wildlife and Conservation, which is responsible for

wildlife development and extension, and the enforcement of international wildlife conventions.

In Nigeria there are also 966 Forest and Game Reserves. Among these Reserves are several which are somewhat more recognized than others, and to some extent can even be regarded as tourist attractions; depending on how much attention and awareness they draw. These reserves fall under different classifications, and they include:

### **National Parks**

The recognized National Parks in Nigeria are in locations such as Calabar (Cross River), Yankari in Bauchi and Jos (Plateau State). But inclusive of these parks are:

- Baturiya Wetlands ,Chad Basin, Cross River (Oban Division) ,Gashaka-Gumti ,Gujba ,Ifon ,Kainji Lake ,Kamuku ,Kogo ,Kuyambana ,Old Oyo ,Sambisa and Yankari.

### **Strict Nature Reserves**

- Nature Reserves which are classified as Strict Zones in Nigeria include the Milliken Hill. Others are: Akure, Bam Ngelzarma, Bonu, Lekki, Omo, Ribako, and Urhonigbe.

### **Game Reserves:**

- These include the following: Akpaka, Alawa, Anambra, Ankwe River, Bakono, Baturiya Wetlands, Dagida, Dagona, Damper Sanctuary, Ebbe/Kampe, Falgore (Kogin Kano), Gilli-Gilli, Ibi, Ifon, Iri-Ada-Obi, Kambari, Kashimbila, Kuyambana, Kwale, Lame-Burra, Margadu-Kabak Wetlands, Meko, Nguru/Adiani Wetlands, Num River, Ohosu, Okeleuse, Okomu, Ologbo, Opanda, Opara, Orle River, Pai River, Pandam, Sambisa, Stubbs Creek, Taylor Creek, Udi/Nsukka, Wase , Wase Rock Bird

**Wetlands of International Importance (Ramsar)** - Nguru Lake (and Marma Channel complex)

**World Heritage Convention-** Sukur Cultural Landscape.

**UNESCO-MAB Biosphere Reserves-** Omo Strict Natural Reserve

### **Yankari National Park**

The Yankari Game Reserve is in the Alkaleri Local Government Area of Bauchi State, 115km from Bauchi town. It was upgraded to a National Park in 1991. The Park covers an area of 2,250.10 sq km. Over 50 species of wild animals can be located in the Park, including baboons, elephants, hippos, hartebeests and variety of birds and fishes. There are natural formations such as the Marshall Cave Systems and the Wikki Springs, source of the Wikki River which provides cool and clear natural swimming facilities for visitors. Yankari Park contains several archeological preserves including the Dukkey Well System and the Ampara and Shanshau iron smelting works and furnace shafts dating back many centuries. Yankari provides a



variety of accommodations and facilities for visitors, from hostels for youth, to chalets, and with indoor and outdoor sports facilities and a conference hall.

### **Osun Grove**

The Osun Grove Oshogbo in the South-West geographical zone of Nigeria recognized by UNESCO world heritage, as a nature reserve. The components and elements of the shrines, deity and other gods still remain intact within the original location as seen in the grove today, without alternation. The grove's history is also fascinating to tourists. Osun grove in Yoruba cosmology is the ancestral home of Osun the goddess of fertility and the spirit of waters. Ritual paths lead devotees to 40 shrines, dedicated to Osun and other Yoruba deities, as well as other nine specific worship points beside the river in commemoration of 'waters of life' and the spiritual life force of Oshogbo town. Tourists, find the grove fascinating for its undisturbed natural canopy of dense forestry of a rich and diverse flora and fauna including the endangered animal species.

### **Sukur Cultural Landscape**

Another UNESCO world heritage site is Sukur, in the northern Mandara Mountains of Adamawa State, listed in 1999. UNESCO enamoured with it because of its exceptional landscape which graphically illustrates a form of land-use that marks a critical stage in human settlement and their relationship with their environment. The site has survived, and remained unchanged for many centuries and continues to do so. This form of traditional settlement is nearly extinct in many parts of the world. Fascinating is the amazing views of how early humans lived. The Hidis Palace contains the ruins of the house complex of the chief, paved walkways, water wells, iron smelting furnaces, cemeteries, traditional shrines, domesticated landscape with extensive terraces; some for farming or for spiritual significances and granite and dry-stone architecture in villages.

### **Ikogosi Spring**

Ikogosi Springs in Ekiti is a natural wonder where warm spring runs down a hilly landscape forming a confluence with another cold spring from an adjoining hill, and merges to form a continuous stream. Warm and Cold temperatures can be felt simultaneously in a marked section of the spring. The mature vegetation of tall evergreen trees provides natural canopies for recreation. The undulating landscape adds natural beauty to the scenery. In addition, there is an existence of natural astonishing feature where there is the growth of an Iroko tree and Palm tree from the same root. The mystic growth of the plants from the same root is termed as being represented by the cold and warm waters of the spring. Osun worshippers throng the spring in large numbers. There is effort by the state government to avoid it's deified by securing the spring, and barricading it with iron rods and barbed wire along the course of the spring.

The face to face encounter of a natural wonder by an Irish bishop, Rt. Rev. Charles Burke, where cold and warm spring flow side by side made him believe that God loves Nigeria. In his words: "I believe there is nowhere in the world where cold and warm water meet, except at Ikogosi Spring. Any other one would be man-made, which is artificial. Ikogosi is a miracle of nature and a sacred place where God exhibited his power of Creativity." He appealed to the state government to urgently transform the site to a world class status, because unlike Osun Grove, foreign tourists are unaware of its existence, (Ogunbayo 2011). The bane of Nigerian Tourism is maintenance culture, which is prominent and readily visible on the dilapidated chalets and surroundings. This far cry was necessitated by the dilapidated state of the site, losing its cultural, spiritual and tourism economic values.

Amongst the rocks in Nigeria, Aso and Olumo Rocks ranked the most popular. Aso rock, the background of the president villa of the Federal Government of Nigeria is popular for its political connotation.

### **Olumo Rock**

The Olumo Rock tourist complex located in Abeokuta, Ogun State, with the biggest natural rock sculpture of a woman, lying on her back with her feet pointed towards the Ogun River, and besides her feet, grew the centuries Iroko tree which is also visible atop the rock. Tunde Sawyer, the executive director of the site referred to the rock as "Isipaya" meaning revelation in Yoruba Language. The rock comprises caves and rocks, an "Ifa" deity's divination, a source of sanctuary and protection for the aged, wives and their children from the warriors of the old Oyo empire while their men were on the battlefield during the intertribal wars of the late 18<sup>th</sup> and early 19<sup>th</sup> centuries. Evidence of relics of its earliest inhabitants like hanging and crumbling walls of makeshift rooms prevail; secret war cabinet rooms where battle strategies were planned; stones used by women for grinding; tunnels through which they passed outside to fetch supplies and other services.

### **Festivals**

The display of the full culture and heritage of the people of Nigeria is usually colourful, exciting and memorable. Periodic festivals of the people include the following which are remarkable and interesting, and catch the fancy of tourists such as: the Argungu and Fight festivals respectively in the northern Nigeria, and others in the south.

### **Argungu Tourist Site. (International)**

Argungu international fishing festival is celebrated by people of Argungu in Sokoto State. The site is a good boost for ecotourism, famous for its fishing festival in which a lake is stock with fish which are nurtured until the festival day. Fish catching competition is held with largest size of catch as prize winner, as in fig. 3 below. This festival attracts tourists all over the world. International car manufacturers and

marketers such as Toyota, Mercedes, Peugeot and others, feature in car rallies during the festivals.



Fig 3 Argungu fishing festivals



Fig. 4 Fight festival

Sources: Microsoft Encarta

## Fight Festival

Fight festivals are periodic annual traditional wrestling fight organized in different parts of northern Nigeria as cultural entertainment by local communities during the festival seasons in the year as seen in fig. 4. Other interesting festivals abound in different parts of Nigeria such as:

- **Eyo Festival:** Eko people of Lagos hold annually and usually culminate in the display of masquerades adorned resplendently in white flowing dresses and hats to match.
- **Kwa-Ghir Festival:** A festival of the Tiv people in Benue state of Nigeria, it is a display of traditional masquerades, Puppet Theater, some forms of acrobatics, dancing, music and sartorial display. A colourful festival indeed, it attracts many people and is accentuated by the friendliness and warm welcome of the Tiv people of Nigeria.

**The Durbar:** This is usually a festival culminating in a horse race at the behest of an Emir, a traditional ruler. With roots in the Islamic way of life, the Durbar is colourful, exciting and open to all to watch.

**Sustainable Architecture** is the general term that describes environmentally-conscious design techniques in the field of architecture. Extensively, it seeks to minimize the negative environmental impact of buildings by enhancing efficiency and moderation in the use of materials, energy, and development of space. This strategy could be enabled by the application of *Vernacular Architecture*- the local architecture of a place; natural building and ecological design; and *Environmental Design*- green architecture, sustainable landscape, urban design and regional resource conservation. It involves building construction with local sourced materials such as mud walls, building construction methods as appropriate in a locality as exemplified by buildings on wooden stilts in river-rein areas ; and roofing with thatch ( palm leaves, raffia, tall dried grasses and others).The resulting man-made integrated structures with nature whereby differences between nature and man-made structures are eliminated while creating a natural feeling in interior spaces could be termed organic product.

From statistics, Nigeria barely has tourist industry at all, and neither ranked among the tourism nations of the world nor in Africa. Records revealed that 02 percent of GDP was recorded from tourism in 2006. According to Punch News paper, April 13 2010, that Nigeria earned N50bn from tourism in 2009, the Director-General, Nigerian Tourism Development Corporation, Mr. Olusegun Runsewe asserted that: "A broad range of businesses and services earned the N50bn from engaging in activities that promoted tourism, and not necessarily what accrued to the Federal Government; there is no reason why the Nigerian tourism industry cannot give the federal government alone the said amount if harnessed properly".

## Methodology

A period of over five years of research based on documentations and visits to different tourism destinations in Nigeria were conducted by the authors to find out the

dearth of tourism culture and habit in terms of its sustainability as regards low patronages and low human traffic (visits). Experimental method in form of pedagogical approaches on enrolled Post Graduate students offering the course, *Tourism and the Built Environment* in the Department of Architecture, University of Nigeria, Enugu Campus were conducted. Different groups of students enrolled in subsequent years were used as research teams for five years as seen in table 2 period.

### Research Design

The studies involved the following methods:

Firstly, the method involved teaching: lectures, tutorials, literature reviews, and followed by examination in form of term papers on selected topics that served as continuous assessments and finally examination.

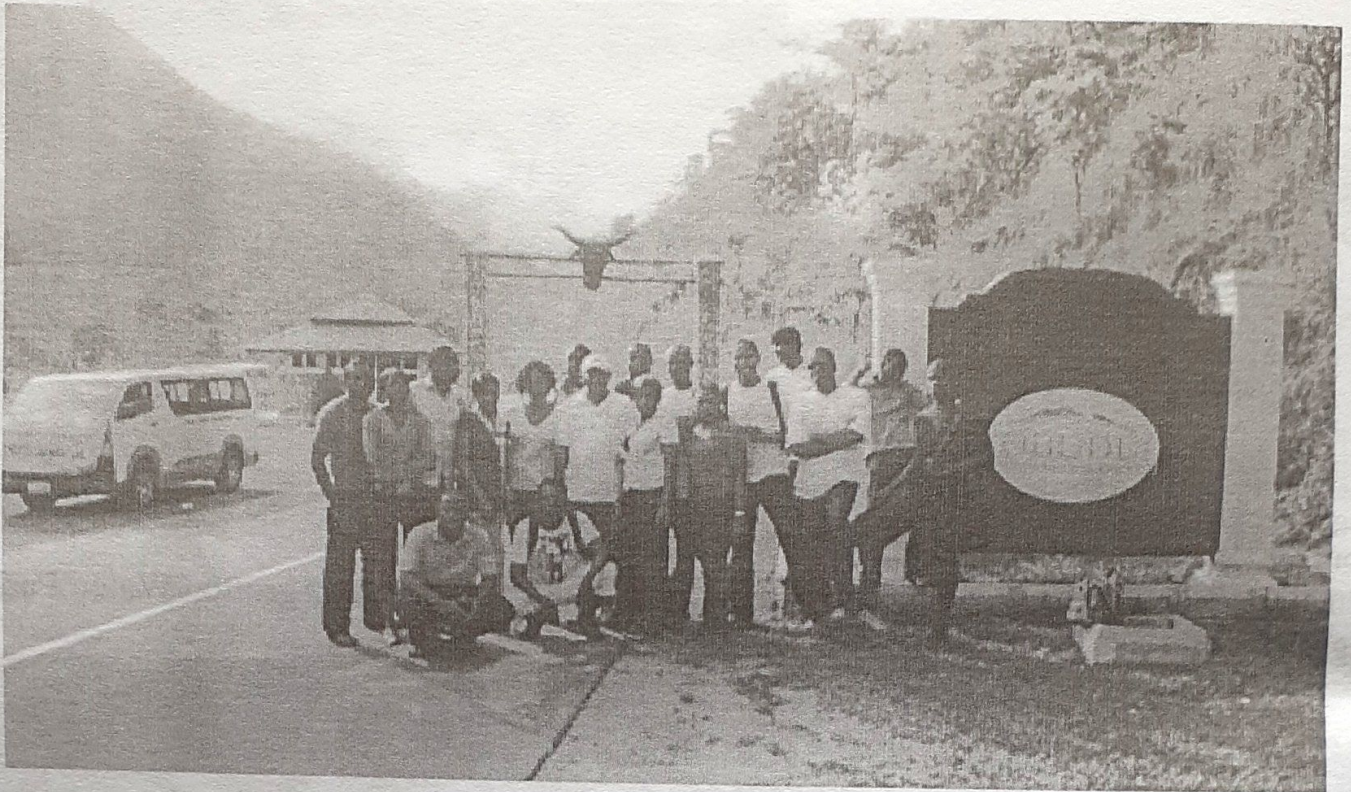
Secondly, research studies involved group participation on tours of four conserved selected natural sites of Obudu Mountain Resort, Obudu (the Cross River National Park- conceived as a preserve of the last remaining Rain Forest ecosystem in Nigeria); Obudu Earth Dame, Obudu; Centre for Education, Research and Conservation of Primates and Nature (CERCOPAN), Calabar; and Tinapa Resort Calabar. They were actualized as follow: planning; site selection; packaged tours, site visits; documentations; lectures; data collection, synthesis and report writings.

Thirdly, method involved public awareness and educational communication in terms of multi-media audio-visual presentation of our personal documentations, practical experiences and participations of toured tourism destinations in Nigeria and others continents of the world.

### Obudu Mountain Resort

Trip to the destination by the authors with the team of 18 postgraduate research students offering *Tourism and Built Environment* in the Department of Architecture, University of Nigeria, Enugu Campus on 11<sup>th</sup> – 15<sup>th</sup> March, 2010 revealed the following information:

Access to the crest/habitable area (plateau) of the site is by car along “winding road” (intestine road) to date or by Cable Car, constructed in 2005. It occupies a land area of about 10,240 hectares, and with a high altitude on a plateau, 1,600 meters above sea level on the Oshie Ridge of the Sankwala Mountains. It has semi-temperate climate with a contrast of Africa’s tropical heat. It has the Kanyang Tourist Village designed to accommodate eco-tourists. Animal attractions in the Park include gorillas and other primates, the Gwantibo or golden Grotto forest, elephants and forest leopards. It also provides for periodic international mountain races virtue of its height above sea level. See details in fig.5 below.



# OBUDU CABLE CAR

year of construction:	2005
height bottom station:	730 m
height top station:	1.600 m
vertical rise:	870 m
inclined length:	4.030 m
drive speed:	5.00 m/s
number of towers:	12 pcs.
rope diameter:	50.00 mm

general contractor:  
**PONET NIG. LTD.**  
NIGERIA / [www.ponetnig.com](http://www.ponetnig.com)

ropeway technology:  
**Doppelmayr**  
AUSTRIA / [www.doppelmayr.com](http://www.doppelmayr.com)

Fig: 5 Research Team arrival at Obudu Mountain Resort, heading to Cable Car Station  
Source: Authors', Field Work, 11-15, March 2010

The team, air borne and aboard Cable Car- tour by cable car over the captivating scenery of the undulating rolling grassland of the natural landscape with deep wooded valleys and waterfalls and 'winding roads' as photographed by the team in fig.6 below; depicts its natural landscape of inexplicable beauty.



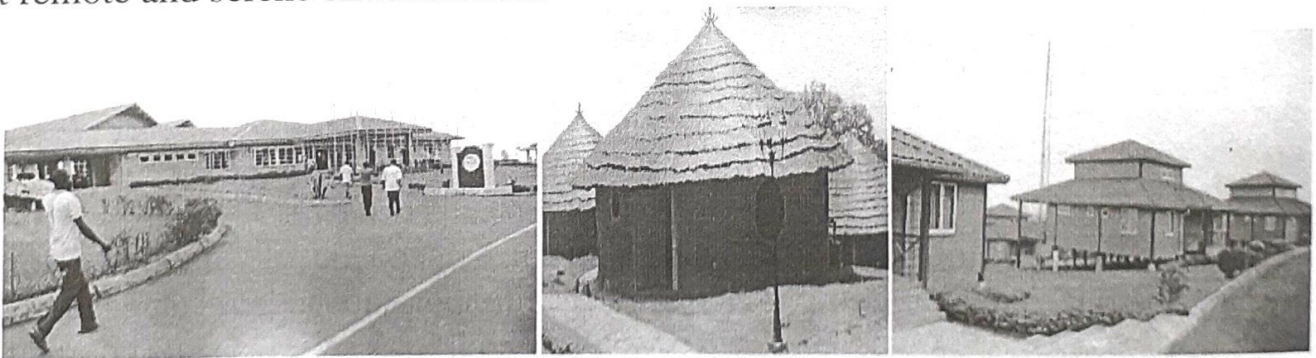


**Fig. 6** Team at Cable Station, boarding, air borne, photographed the undulating Mountain with 'Winding' road

**Source:** Authors', Field Work, 11-15, March 2010

The first point of call on arrival at the plateau is the administrative block which welcomes visitors; accommodating arrival/departure hall of Cable Cars, the reception, gift shops, offices.

Other facilities on the large expanse of land include: accommodations- chalets in vernacular/ traditional architectural forms; some standing on stilts on natural undulating rolling ground built of wooden walls and other available traditional building materials and construction methods; and the presidential chalets, as in figs.7 and 8. Lounges restaurants, conferencing halls made of similar natural materials pervade the terrain with recreational, sporting and natural reserved activities located at remote and serene environments.



**Fig 7:** Approach to Administrative block, African village, Timber made Chalets on stilts

**Source:** Authors', Field Work, 11-15, March 2010.



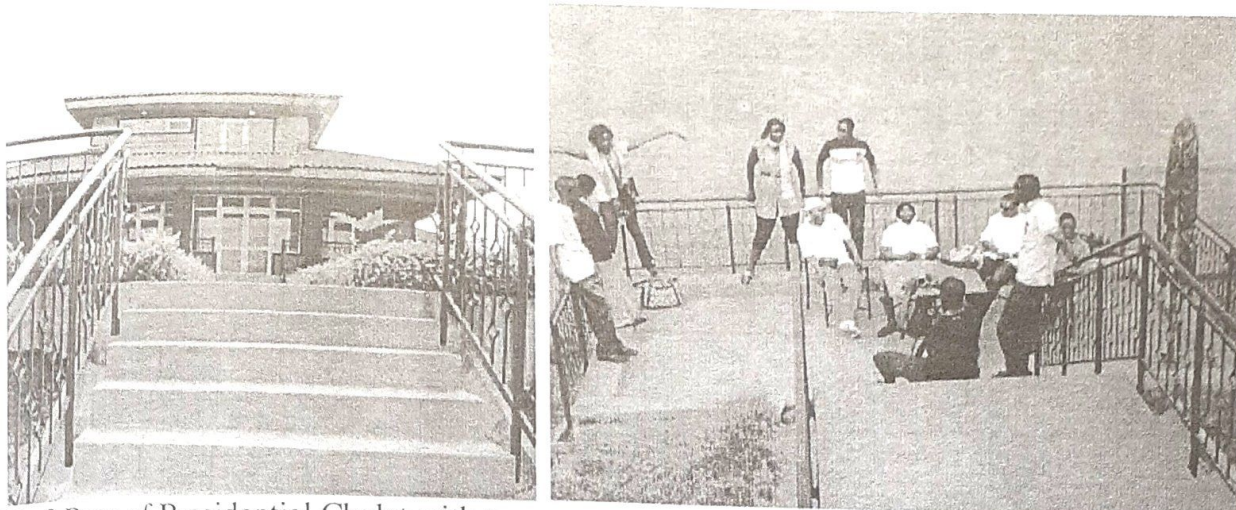


Fig.9 Rear of Presidential Chalet with terrace on crest overlooking deep valley and mountain  
Source: Authors' Field Trip 2010.

On the site are other leisure and recreational facilities such as: grotto, Water Park, figs.10-12



Figs 10, 11 and 12, Road leading to the Grotto, the Grotto and the Water Park  
Source: Authors' (Field Trip) 2010

### Obudu Earth Dam

The Obudu Dam is one of the largest water reservoirs in Cross River State. It stretches for about a distance of 18 kilometers and 13.72m deep. It is a reservoir Dam, basically created for the purpose of water supply, irrigation, recreation, fish production, and many other purposes. The Dam was earth-filled, the natural soil was removed and replaced with tested soil that has water retention capacity. The embankment, known as *Rip-Rap* was manually constructed with the laying of large boulder stones, carefully arranged so as to prevent the water from eating up the soil around the bank of the Dam, fig.13



**Plate 13:** Dam bank, showing Rip-Rap, team on tour, valves and earth thermometer buried 5cm  
**Source:** Authors' (Field Trip) 2010

Another similar tours of tourism destinations in and around Calabar environs with a group of 28 research students of *Tourism and Built Environment* of the Department of Architecture, University of Nigeria, Enugu Campus took place from 16<sup>th</sup> – 19<sup>th</sup> March 2011; gave insights of the respective nature and character of each of destinations visited.

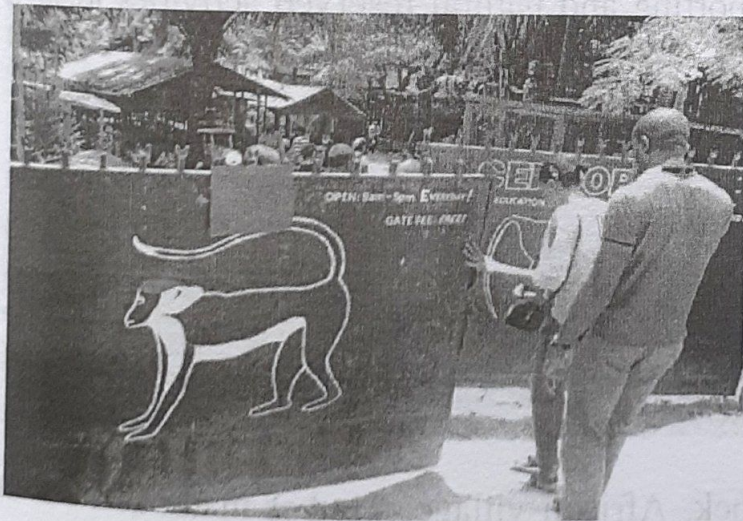
### **Centre for Education, Research and Conservation of Primates and Nature (CERCOPAN)**

One of the notable conservation organizations in Nigeria is the Centre for Education, Research and Conservation of Primates and Nature (CERCOPAN) in Calabar, Nigeria. It was founded in 1995, by a Canadian, Zena Tooze. CERCOPAN is now one of the leading environmental non-profit, non-government organizations working for conservation in Cross River State, Nigeria, with excellent relationships with governments at both state and federal levels, and with a support organization in the UK (with registered charity 1116955).

Its primary areas of work are primate rehabilitation, environmental education, community rainforest conservation, and research. CERCOPAN has two sites, its administrative and primate rehabilitation headquarters in Calabar, and international

research and education centre at Rhoko, Iko Esai (their community partners). Partners include the Cross River State Forestry Commission, the Cross River National Park and the University of Calabar. They preserve and conserve primates threatened by extinction.

The education and public awareness programmes conduct lectures as seen below in fig.14 with the research team and the authors towards sustainable ecotourism (Wildlife Conservation) in particular and tourism in general.



**Fig:14** Education Officer Mrs. Martina Otinya, lecturing the Authors with 28 Post Graduate Students, Dept of Architecture, University of Nigeria Enugu Campus, at(CERCOPAN), Calabar

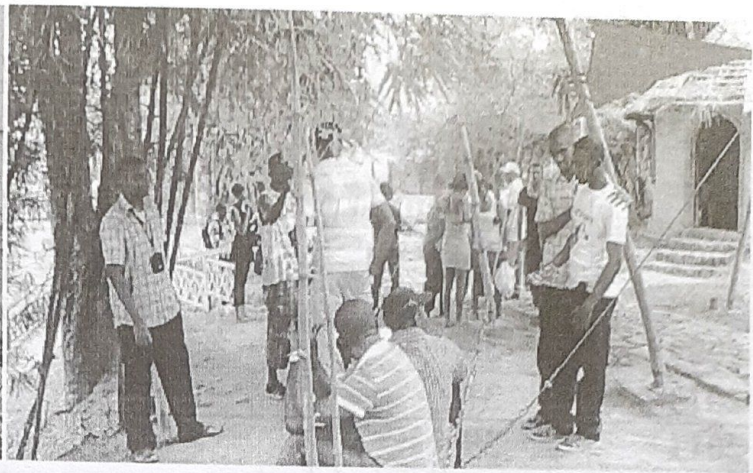
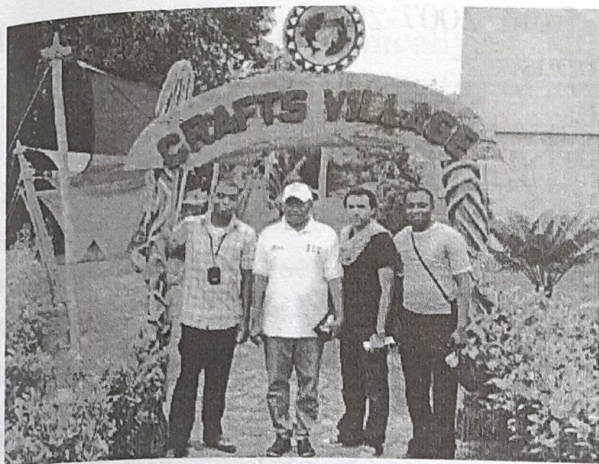
**Source:** Authors', Field Work, 16-19 March 2011.



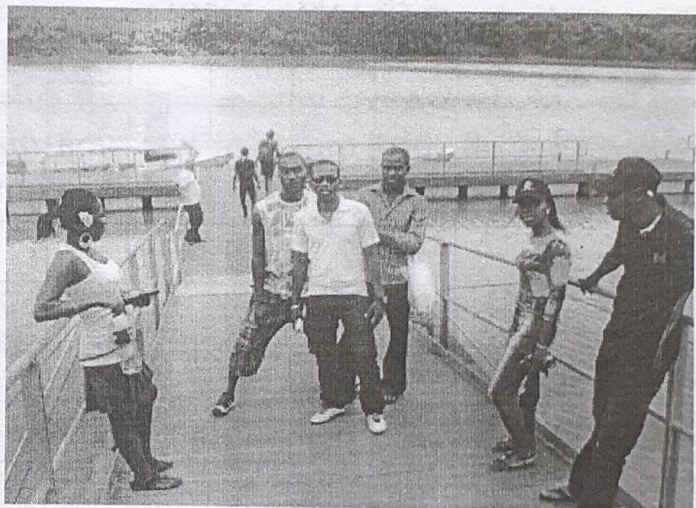
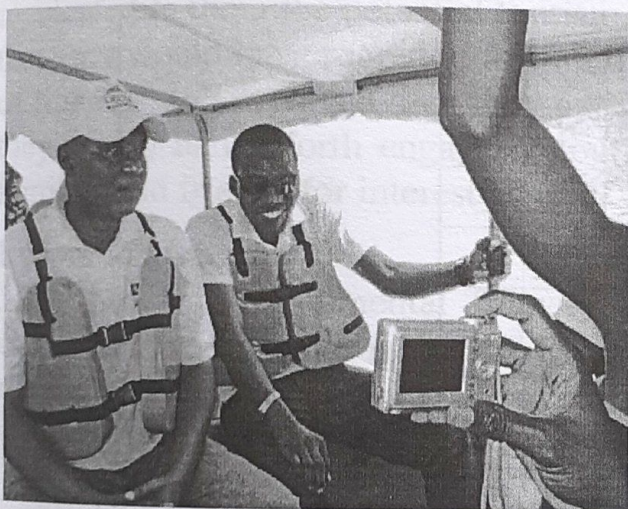
**Fig.15** Primates of Assorted Species Quarantined  
**Source:** Authors', Field Work, 16-19 March 2011

### **Tinapa Resort Calabar**

The resort was conceived as a preserve of the last remaining Rain Forest ecosystem in Nigeria, and located in South-South, Nigeria. The natural environment is contrasted with the built environment, which comprises the areas and components that are strongly influenced by humans. It is the biggest nature reserve in the country developed along the coast of Cross River with sustainable organic architecture-providing commerce, leisure and socio- economic facilities; as in figs. 16 and 17 below, showing Craft Village, where artifacts are produced. Leisure such as *jetty cruise* of the Cross River is provided as seen in figs. 20 and 21.



**Figs.18 and 19: Craft Village**  
 Authors', Field Work, 16-19 March 2011



**Figs. 20 and 21: Team on Jetty Cruise of Cross River, and disembarking from Jetty.**  
 Authors', Field Work, 16-19 March 2011

**Analysis of Data**

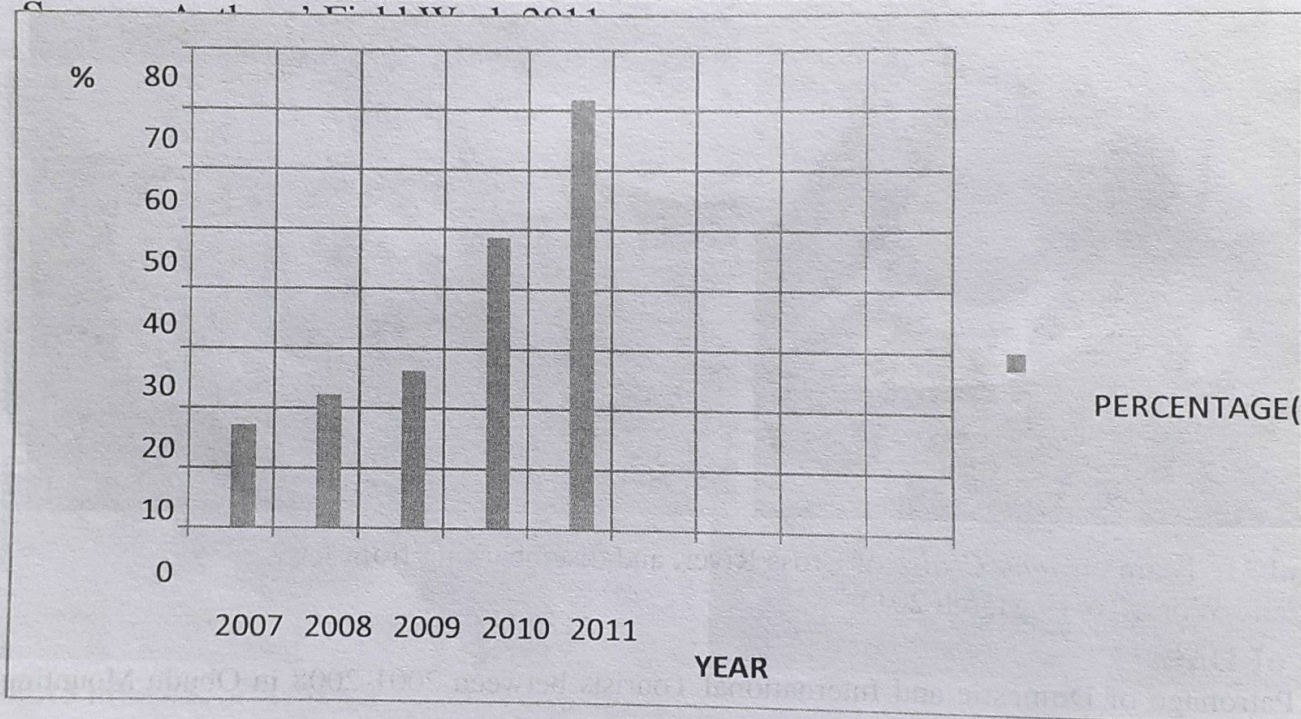
**Table1. Patronage of Domestic and International Tourists between 2001-2008 in Obudu Mounting Resort**

YEAR	NUMBER OF VISITORS NIGERIA	% OF TOTAL	NUMBER OF VISITORS FOREIGNER	% OF TOTAL
2001	1231	1.88	253	1.39
2002	1613	2.47	373	2.05
2003	3074	4.70	536	2.95
2004	6307	9.65	921	5.07
2005	9715	14.87	1312	7.22
2006	12,091	18.50	3117	17.16
2007	14,467	21.14	4922	27.10
2008	16,843	25.77	6722	37.04
<b>TOTAL</b>	<b>65,341</b>		<b>18,161</b>	

Source: Resort Management

**Table 2** Post Graduate Students' Enrolment from 2007-2011, the Department of Architecture University of Nigeria, Enugu Campus

YEAR	Total Post Graduate Enrolment	Post Graduate Enrolment of Tourism and the Built Environment	% OF TOTAL
2007	35	6	17.14
2008	36	8	22.2
2009	38	10	26.31
2010	37	18	48.64
2011	39	28	71.79
<b>TOTAL</b>	<b>188</b>	<b>70</b>	<b>37.23</b>



**Chart 1:** Percentage (%) of Student Enrollment (Tourism and Built Environment)  
**Source:** Authors 2011

**Findings**

The numbers of domestic and International tourists visits as shown in table1 above, are at the lowest ebb; in spite of its exoticism, splendor, comfort it provides and mosquito free - being the best natural reserve in Nigeria that earned it the name, 'Jewel of Africa'. Findings from the studies as regards dearth of tourism development in Nigerian - low patronages revealed the following facts:

1. Lack of tourism culture and habit that can enable domestic tourists to attract international tourists;

2. Poverty – economically, socially, spiritually, and unawareness.
3. Ignorance of the benefits of tourism by both the elites and the masses
4. Lack of security and road carnages.

Table 2 and Chart 1 showed a remarkable growth from the year 2010-2011 of tourism students' enrollments as a result of the new teaching method of multimedia instruction and presentation, and group tours to destinations in addition to the first method in use. The experiment enhanced the growth of students' enrollment in the course in arithmetic progression.

### **Result**

The experiment yielded splendid result as seen in students' enrollment in the course based on enlightenment, education, practical group participation in tours to tourism destinations and influences. It generated interests, curiosity and impacted and inculcated in them the potential tourism culture. As testified by all the research team; that they would have regretted for life if they had not embarked on the tours; in spite of financial toll involved, that they got value for their money spent, and pledged that they would hence forth engage in tourism now and in future with their respective families and friends for interest and self improvement.

### **Recommendations**

To achieve environmental friendly development and habitable ambient for all creatures to enhance sustainable ecotourism in Nigeria the following are recommended:

- 1) Giving value to nature and forest by educating and empowerment of wildlife host community through partnership participation towards discouragement against bush burning, hunting and poaching for food, and for commercial purposes (Osefoh 2012).
- 2) Empowerment of youths through subsidized group packaged tours as experimented in the research; with a view to encouraging domestic tourism as a compliment of international tourism.
- 3) Establishment of links between educational institutions, mass transportation agencies and respective tourism sites (Organizations) in Nigeria in organizing tours in different periods of the year.
- 4) Injecting relevant environmental courses in curricula of primary, secondary and tertiary levels and making them compulsory. This will aid in cultivating tourism habit in youths towards environmental reservation and conservation; and acquisition of tourism culture.
- 5) Security, good roads, and reduction in number of road carnages are necessary adjuncts for sustainable tourism
- 6) Sustainable architectural and infrastructure development of tourism sites, maintenance and improvement of tourism facilities are of great importance.

## Conclusion

Revitalization of ecotourism through sustainable architecture however enhances high level of environmentally friendly ambience. It attracts interest (domestically and internationally), generates curiosity and awareness for private and public participations; giving tourist 'good value for money spent in their visits. In this regard, the hope for the future of tourism lies on preservation, reservation, and conservation of natural, historical, and cultural heritage sites rests on the present generation with the youths as the links of the present and the future for its sustainability; and achievable through education of the mass. The measures would enhance inculcation of tourism culture in the present generation and enable "generational tourism culture" transfer to future generations, and would go a long way in exploration and exploitation of great tourist potentials in the country; and enlisting and ranking Nigeria among the tourism nations of the world.

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