



RELATIONSHIP BETWEEN ECOTOURISM DEVELOPMENT AND THE PROVISION OF SOCIAL AMENITIES IN OBUDU MOUNTAIN RESORT, CROSS RIVER STATE, NIGERIA.

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Abstract

The relationship between ecotourism development and the provision of social services for the host communities of the Obudu Mountain Resort is investigated in this study. The study determined the impact of ecotourism on the living conditions of the host community; with respect to the provision of social amenities. Six settlements of Apah-ajili, Kegol, Kejioku, Okwamu, Okpazenge and Old Ikwette, surrounding the hotel area, constitute the study population. Three hundred adult respondents, out of the total population of 5,048, were drawn from the six surrounding settlements. The multi-stage random sampling technique was adopted in which a purposive sampling of two footpaths in each of the settlement was done. In the second stage, numbers were assigned to all the households in each of the settlements. Average of four households in each of the settlements was selected using the table of random sampling to get a total of about 24 households. About 13 respondents were again randomly selected and administered with the research instrument. Multi-linear Regression Analysis was employed to measure the degree of association and the relationship between the variables. The study showed a weak relationship between ecotourism operations and the socio-economic benefits accruing therein to the indigenes of the area. The infrastructural aspect of ecotourism had a stronger relationship than that of the super structural. It is recommended that Government should step up efforts to expand the provisions of social and infrastructural amenities in the area.

Keywords: Amenities, community development, ecotourism, Obudu ranch, social services.

INTRODUCTION

Obudu Mountain Resort, otherwise known as Obudu Cattle Ranch, is one of the best tourist attractions in West Africa and the tourism hub of Cross River State. Like any other rural environment, in the Sub-Saharan Africa. Obudu Mountain



Resort is beset with lack of social amenities such as access to safe water and sanitation, lack of educational facilities, lack of health facilities, lack of empowerment and more importantly, lack of good governance (Sen, 1999). In order to encourage community participation in tourism activities, make tourist sites accessible and ameliorate the above challenges faced by the rural people, past and present governments in the State have developed programmes and strategies. Some of these strategies include investments in basic health, education, power, transport, communication services, safe drinking water and sanitation (Anake & Itam, 2016). These development interventions, which would have drastically reduced the problems of the rural people especially in the State, have left much to be desired. The above projects may not have been properly conceived and implemented. Chambers (1983), observed, the planning of such projects did not take into consideration, the sustainability and joint monitoring. There is no gain saying the fact that if they were properly planned, the above problems would have been drastically reduced and could have stimulated economic development. Instead, rural people in the area have become more impoverished than they were before these developments. Again Chambers (1983) described this phenomenon as the people “becoming poorer, weaker, isolated, vulnerable and powerless”. He blamed this on the top-down approach to development adopted by most authorities of the affected economies, which instead of consulting the people before embarking on such projects; decide on their own on which project(s) to be embarked upon.

Tourism is a major sector that is gaining attention globally because of its quick intervention and contribution to poverty reduction. Since this service industry is largely rural based and peripheral (Boniface & Cooper, 1987), its contribution to rural development is expected to be monumental.

Interestingly, ecotourism development on the Obudu Mountain Resort is very unique due to its numerous natural facilities which make the area attractive. The attractions here include canopy walkway, waterfalls, temperate climate, springs, cloudy mountain ranges, natural forest, variety of birds for watching and large game reserves. With the presence of these and the development of other attractions to facilitate tourism, such as recreation facilities, roads, restaurants, accommodation and conference centres among others, it is expected that the socio-economic benefits inherent in ecotourism will accrue to the host communities. Consequently, this study is necessary in order to determine the extent to which this new industry has contributed to the upliftment of the living standards of rural communities.



The Research Problem

The host rural communities of the Obudu Mountain Resort are confronted with several problems which have perpetually kept them in poverty and alienation. These problems according to Anake (2008) include poorly maintained public primary and secondary schools, high incidence of adult illiteracy, lack of potable water supply, poor state of roads, poor health care delivery services, poor access to electricity, lack of housing provision for staff of the resort and the non-availability of micro- credit facilities, among others.

Objectives of Study

The objective of the study is to investigate the relationship between ecotourism development and the provision of social amenities to the residents of Obudu Mountain Resort and the environs.

Study Area

The study area is the Obudu Cattle Ranch, in Obanliku Local Government Area (formerly Obudu) of Cross River State. The ranch is bordered in the north by Umaji village (in Boki LGA), east by Ogbakoko and south by Magbe (Fig.1.1). It has an estimated population of 5,815.7 (based on 1991 population census), made up of resident indigenes and non-indigenes. This means that the available infrastructural amenities should to be rehabilitated and expanded to meet expected high demands.

The traditional economy of the indigenes is subsistence cultivation of cocoa yam, cattle rearing, bee extraction, banana planting and fishing. Fishing is carried out on a very small scale along the valley streams. Due to the mild temperate climate, crops like cabbage, Irish potatoes and onion can be successively grown in the ranch; but the cost of importing these exotic crops has made the farmers resort to their traditional economy. However, with the development of ecotourism industry, most of these traditional crops are fading out; especially as the indigenes make more money from casual work in the new industries and construction sites than from their farms (Anake & Itam, 2016). This has consequently forced a rise in the cost of feeding for local residents.

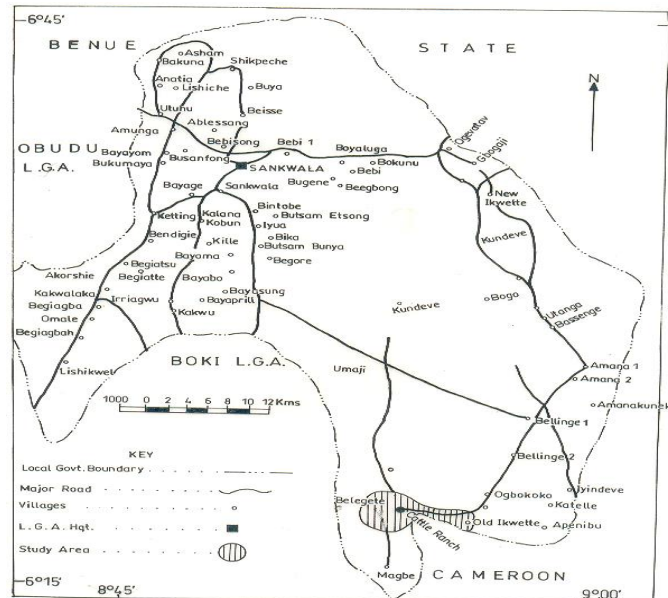


FIG. 1.1: Map of Obanliku Local Government Area showing study area

The Resort's main ecotourism attractions include; cold temperature, which ranges between 26°C to 32°C in November to January and the lowest temperature range of 4°C to 10°C recorded between June and September. Interlocking mountain ranges of 26 (in number) which are characterized by landscapes of rolling grassland bands, winding roads and cloudy mountains.

Montane forest is found only in Obudu Mountain Resort and the Mambila plateau in Taraba State, with only Obudu Mountain Resort left with few characteristics of the montane forest. It is characterized by its long epiphytes and Guatemalan grass which were imported from South America, and used as forages for cattle.

The Becheve Nature Reserve, established in 1963 by the indigenes of the Becheve communities which was originally preserved for hunting, now has additional attractions such as the canopy walkway and birds viewing. It is managed jointly by the AG Leventis, Nigeria Conservation Foundation (NCF), Cross River State Government and the host communities.

Two main Waterfalls (Yaro and Egaga) with gradients of 93ft and 50ft respectively; are located a couple of kilometres from the hotel area, while the Groto (stony in nature) shelters animals such as grass cutter, antelopes, hyenas, rabbits, porcupines, baboons and other monkey species. Bush burning, however, has been a major threat to this animal sanctuary.



The “Holy Mountain” which has a steeper gradient than others in the area is located after the new market and acts as playgrounds and bunkers (for war). It is also one of major tributaries of Cross River which passes through Ikom and emptied into the Atlantic Ocean in Calabar.

The Obudu Mountain Resort hotel, which has about 159 rooms, comprises of 20 African bungalows, 20 mountain villas (60 rooms), presidential lodge, international conference centre (250seater), executive board room (30 seater) and 2 syndicate rooms (40 seater each). Other facilities in the hotel include swimming pool (water parks), 150 capacity car parking space, cable car, hiking, mountain bike, horse riding, camping, research centre, tennis/squash court, 9-hole golf course, restaurant/bar, satellite television, free to air internet services, cell range (MTN/Glo), gym, air travel booking office, treated borehole water supply, Helipad, three 150 KVA standby generator.

LITERATURE SURVEY

A number of empirical works have been done by experts in both rural development and tourism, especially the way they relate these works to the improvement of the living standards of the host communities. Here, attempt is made to review some relevant literature on the relationship between ecotourism development and the provision of social amenities.

Ecotourism development involves the development of natural attractions, the provision of accommodation, infrastructures and services, which make a particular destination attractive. Robinson (1979) and Aniah (2005) opined that the development of these attractions will, in turn, influence their level of patronage. For instance, Boo (1992) argued that the nature of the place in which ecotourism develops is important as the context which can also influence the way in which ecotourism evolves and its impact on the host communities. In the same vein, Asiedu (2004) argued that these impacts, will in, turn modify the places concerned and contribute to a re-definition of their character and geography.

Ecotourism in the study area is a development strategy which has the potentials, according to Nwakonobi (2004), to coordinate comprehensive processes such as diversification of the nation’s economic base as a non-oil export product and source of foreign exchange earnings through the promotion of international tourism, improvements on the quality of life of both urban and rural dwellers through the provision of leisure facilities and social amenities, creation of more rural employment opportunities to absorb the increased labour force through the revival of treasured arts and crafts as souvenirs, and the establishment of small-



scale industries to service tourists' needs, preservation and conservation of cultural heritage, historical monuments and natural fauna and flora, vital force for international understanding and peace on earth, better international image and increased foreign investment and fostering greater interaction, understanding the socio-cultural unity and peace within the country through domestic tourism. Similarly, the social and cultural characteristics of the host society are believed to influence its attractiveness to ecotourists, the process of development and the nature and extent of the impacts which occur.

Tourism is believed to be the biggest growth industry, employer and source of revenue in both developed and developing countries. This realization has made many developing nations believe that through boosting of their tourism potentials, it will be a quicker way to buy into the developed countries' affluence (Asiedu, 2004). These countries also view tourism as a major development tool for achieving rapid socio-economic objectives, such as the provision of quality infrastructure and basic social amenities, and more importantly, through the opportunity the local people have to participate. Others include, employment creation, improvements in standard of living, diversification of the local economy and the generation of the much needed foreign exchange through international tourism. For instance, the study conducted by Abegunde (2007) in Abeokuta, Nigeria, revealed that 37.1% of household heads perceived significant improvement in the image of the town while only about 5.7% agreed the image of the town has been worsened by ecotourism. In terms of socio-economic impacts of tourism on the residents, the study revealed an increase in the price of goods and services (3.83%), quality of life (3.74%), cost of land (3.74%), public water supply (3.69%), vandalism (3.73%) and traffic condition (3.65%). These increases were due to tourists' patronage in the study area. In the same vein, Gould (2004) argued that ecotourism is the fastest growing sector of tourism, and has become a vital part of sustainable rural development, as the rural people are encouraged to participate in its operations. Pearce (1992) also asserted that the impact of ecotourism in rural development reflects the context and processes of ecotourism development and that this has conditioned ecotourism's contribution to the development of the host rural areas.

Meanwhile, considering the abundance of natural resources in the study area, the developments of these resources give the area a greater opportunity to develop, including the immediate surrounding villages. This is supported by Fagbile (2001) who argued that in view of the abundant natural and cultural resources in Africa, the active participation of the local people in ecotourism businesses will drastically



reduce the high rate of poverty in these areas. Hawkins and Khan (2001) in like manner, gave an estimate of over one billion international arrivals by the year 2010, and reasoned that if this is properly planned, it could stimulate community based development, provide an invaluable environmental safeguard, and the provision of basic social amenities which paradoxically are the basic needs of the rural people.

Conceptual Framework

No one independent concept can be used to interpret the mechanism upon which this study is anchored, as a result two conceptual frameworks are hereby reviewed for this study. They include the concept of basic needs and sustainable development. The Concept of Basic Needs is the outcome of the International Labour Organization's (ILO) studies in 1976. It defined development objectives in terms of people and what they need as expressed by the people themselves rather than turn to secondary objectives such as growth, industrialization, and increased trade (Hopkins & Hoeven, 1983). The development of this concept became necessary as an anti-poverty strategy and emphasizes on measures to increase the production of small holders supplemented with public empowerment schemes for landless labourers. It also gives due attention to basic education, vocational training, and redistribution of income with growth in order to combat poverty directly, thereby increasing the productivity and living standards of the poor in rural areas.

Hopkins and Hoeven (1983) cited the experience of the Ujamaa movement in Tanzania in 1982, which they referred to as structural change aimed at providing the rural population with equal access to productive assets and the centrally provided services. The authors quoted the ILO's reports which said that the strategy could not achieve much due to Tanzania's low resource base coupled with the policies that did not contribute to the success of the Ujamaa movement and its inability to eliminate excess capacity in the modern sector.

The concept of sustainable development, even though it has no clear definition, implies "to keep up" or 'maintain' in relation to a resource, so that it is not depleted or permanently damaged. According to Cunningham, et al (2003), sustainable development became popularized in 1987, through "The Brundtland Report" which was published by the United Nations' Commission on Environment and Development. It stressed that development should aim at meeting the needs of the present without compromising the ability of future generations to meet their own needs. Hall and Lew (1998) identified five basic principles of sustainability



from the report to include: holistic planning, preserving ecological processes, protecting human heritage and biodiversity, long term sustainability of production, and balancing equality between nations.

The concept's concern for meeting the present and future needs with regards to ecotourism in the study area is ideal, considering the essential and influence of social amenities, improved human welfare and the attractiveness of a particular destination like the study area.

Meanwhile, for the purpose of this study, an integrated approach, which considers all the aforementioned concepts, is hereby adopted. The concepts will help the people in learning how to plan their spatial environment with the motive of finding lasting solutions to poverty, unemployment, illiteracy and poor health conditions in their domains.

RESEARCH METHODOLOGY

The population of this study comprises of all the indigenes of the study area, from 18 years and above, and other operators in tourism industry in the area. Consequently, the six settlements of Apah-ajili, Kegol, Kejioku, Okwamu, Okpazenge and Old Ikwette; surrounding the hotel area, constitute the study population's residential area. The study is conducted with an estimated adult population of 5,048 respondents. There are about 69 households in the area, as identified by DIN (2006): Apah-ajili (13), Kegol (11), Kejioku (14), Okwamu (9), Okpazenge (10) and Old Ikwette (12).

Three hundred respondents out of the total adult population of 5,048 were drawn from six surrounding settlements of the hotel area. The following number of respondents in Table 3.1 was randomly selected from each settlement proportional to the size of the settlement.

The sampling procedure adopted for this study is the multi-stage random technique in which a purposive sampling of two footpaths in each of the settlement was done. In the second stage, numbers were assigned to all the households in each of the settlement. Average of four households in each of the households was selected using the table of random sampling: giving a total of about 24 households. About 13 respondents were again randomly selected and administered with the questionnaire.

This study utilizes the questionnaire, semi-structured oral interview and participant observation methods to collect data. Out of the 300 Copies of questionnaire administered to 300 sampled respondents, 265 copies were retrieved, representing 88.3%; while, 35 (11.7%) were not recovered.



Techniques of data analysis

The data collected, sorted out in score sheets, tabulated and presented in graphs and charts were analysed based on the stated objectives. In line with the objective which sought to investigate the relationship between ecotourism development and the provisions of social amenities/infrastructures in the study area, the Multi-linear Regression Analysis was employed to measure the degree of association and the relationship which can then be predicted.

The independent variable, ecotourism development is sub-divided into two sectors, viz: infrastructure (X_1), and include the availability of water, electricity, health services, roads, and schools, while superstructure (X_2), include the establishments of hotels, airports, cable car, and so on, which are capital intensive and usually undertaken by private investors and to a lesser extent, the public. The dependent variables on the other hand are the socio-economic benefits accruing to the people, such as access to potable water supply, health services, electricity, good roads, and educational services.

The formula is:

$$y = a + b_1x_1 + b_2 x_2$$

where: y = socio-economic (dependent variable)

x_1 = Infrastructural aspect of ecotourism development

x_2 = Superstructure aspect of ecotourism development

b = rate of change of socio-economic benefits accruing to residents.

Meanwhile, due to the unquantifiable nature of the data, a utility function was used to convert the raw data from ordinal scale to quantifiable data (appendix 1). Utility function is simply quantifying a person's preferences with respect to certain objects. This is necessary because different people want different things. The goal is to establish a relationship expressed via an equation for predicting typical values of the variable given any values of the predictions variables.

Analysis and Discussion of Findings

Data on the availability of social amenities such as water supply, electricity, educational services, medical services, market, communication, industry, housing supply, manpower development programmes are presented on tables 4.1- 4.9.



4.1 Conditions and Lengths of Roads

Data on the conditions and lengths of access roads in the six villages of the study area are presented on Table 4.1. The table indicates that out of the total length (35.6km) of access roads in the area, about 25km (70.2%) is tarred. The length of the road that is tarred is concentrated within the tourism business centre up to the gates of the six settlements studied. About 13.8% is the various lengths of foot paths within the villages studied. Individually, Old Ikwette (Bottom Hill) has the longest distance from the extreme end of the village to the hotel area (12.9km) followed by Apah Ajili 5.9km, Kigol 5km, and the least being Okwa Amu village 2.8km. Most of the respondents argued that even though the roads around the hotel area are tarred, they still do not benefit from them compared to a situation where the roads linking them with the hotel area were motorable.

4.2 Sources of Electricity

Data on the various sources of electricity available in the study area are presented in table 4.2. This table indicates that 65.2% of the indigenes' respondents denied having any access to electricity; while about 32.8% agreed they depend on their gasoline generators for their electricity needs. Only about 1.9% agreed having access to solar energy as their electricity source. Individually, Keji Oku has the greatest number of respondents (32.1%) who agreed they have access to electricity through the gasoline generators, followed by Okpazenge (13.4%), Apah Ajili (17.2%) and Kigol and Old Ikwette (11.5% each) Okwa Amu has the least of 9.2%. Majority of the respondents including those who agreed they make use of their private generators for their electricity needs, feel the government has deliberately kept them in darkness even when most of their houses are located very close to the nearest facility. At old Ikwette (Bottom Hill) for instance the solar cells used for generating solar energy at the water parks and the cable car terminal, could be extended to the host indigenes' buildings which are just about 10 metres away.

Sadly, the rural electrification programme between the Japanese Government, the Federal and the Cross River State Governments in 2007, to link up the whole of the area to the national grid, has not helped in this regards.

4.3 Access to Water Supply

Data on the various sources of water supply available in the study area are presented in table 4.3. The table shows that 79.2% of the indigenes' respondents agreed that they depend on streams for their daily water supply; while 19.2%



denied having any access to potable water supply. Meanwhile 1.5% agreed they have access to potable water supply, and these respondents are from Okpazenge (2) and Old Ikwette (2). Those who denied having access are Okwa mu (29.4%) Old Ikwette (25.4%), Keji Oku (19.6%) and the least being Kigol with (4%). Meanwhile, those respondents whose main source of water supply are streams lament how these streams have been polluted by the debris from construction works going on around the Presidential Retreat Centre and the areas dammed, which normally supply them with clean water. Interestingly, each of these settlements is blessed with streams and springs (Table 4.3). These streams and springs can be harnessed and supplied to the residents through manual surface water pumps.

4.4 Access to Health Care Services

Data on the availability and types of medical services in the study area are presented in Table 4.4. The table indicates that 64.5% of the indigenous respondents agreed they have access to primary health care; while 8.3% said they have access to community/private health care services and only about 7% argued the only source of health services they have access to the are patient medicine stores. Meanwhile, 20.4% of the respondents denied having access to any form of medical services. Individually, Keji Oku has the highest respondents of 26.3%, followed by Okpazenge 23%, Apah Ajili 22%, Okwa Amu 15%, Kigol 12%, and the least being Old Ikwette 3%. There are no pharmaceutical stores or patient stores to take care of immediate cases such as pains and fever. Government or other tourism operators can encourage medicine dealers and other para-medical officers to establish their services in these villages by creating access and making other infrastructures available in such villages.

4.5 Availability of Educational Services

Data on the various types of educational services available in the study area are presented in Table 4.5. The table shows that 45.3% of the indigenes' respondent agreed they have access to only primary educational services, followed by secondary 34%, and Nursery 5.7%.

Meanwhile (15%) of the respondents said they do not have any access to educational services. On individual basis, Okwa Amu respondents have the greatest responses in respect of both secondary schools (38.9%) and primary schools (29.2%), followed by Keji Oku 33.3% for secondary school and 19.2% for primary school. The only nursery school in the area has respondents from Kigol



(53.3%) Apah Ajili (33.3%), and Keji Oku (13.3%). The primary school is poorly staffed, while the secondary school is still on its temporary site and is yet to be provided with qualified staff and adequate residential accommodation for the staff. This, coupled with long distances, the children have to trek to school, has discouraged many youths from going to school.

4.6 Access to Market

Data on access and availability of market in the study area are presented in Table 4.6. The table indicates that 52.8% of the indigenes' respondents agreed they have access to market on the weekly basis, while 17% agreed they have access on daily basis. 30.2% of the respondents denied having access to any form of market, with Kegol having the highest of 55.6% (daily), 10.6% (weekly), followed by Apah Ajili 35.6% (daily). Meanwhile, due to the long distances between these villages and the market, and lack of storage facilities, farmers always find themselves losing their produce before reaching the market.

4.7 Manpower Development Programmes

Data on the various types of manpower development programmes available in the study area are presented in Table 4.7, as it shows that 75.5% of the indigenous respondents agreed that the communities have benefited from skills acquisition programmes organized jointly by the Cross River State government and the United Nations Development Programme (UNDP), 24.5% of the respondents denied ever having knowledge of it. 24% of those who agreed they have benefited from skills acquisition are from Keji Oku, 20% each from Apah Ajili and Okpazenge, while Okwa Amu and Old Ikwette have the lowest of 10% each.

Those who were trained lamented how they depended on the governments' failed promise to empower them. This according to them has resulted to frustration and depression among the teeming unemployed, skilled indigenes. Basically, development begins when there is local capacity to manage it and take full charge for formulating policies, programmes and strategies to implement them. To make ecotourism development in the study area a pro-poor strategy, there is urgent need to encourage capacity building programmes in the host community.

4.8 Availability of Housing Supply

Data on the availability of housing supply in the study area are presented in Table 4.8. The table indicates that there are no housing provisions in the study area. About 93.6% of the indigenes' respondents denied the existence of housing



provisions in the area; while those who agreed, 6.4% do so in view of the staff quarters built by the Agricultural Development Corporation, (ADC) in the early 1960s for its workers but are now taken over by the Ranch management.

For instance Keji Oku (58.8%), Okwa Amu (23.5%) and Okpanzenge (17.6%) agreed because of the proximity of these staff quarters (about 100 units) to them. These units, in addition to some bungalows built for senior cadre workers are currently being renovated. In view of the increasing population resulting from the up-grading of tourism facilities and the rise in immigration, these housing units are grossly inadequate. Some of the workers in the Ranch Resort shuttle between neighbouring towns of Obudu and Sankwalla to their work places.

4.9 Access to Communication

Data on the availability and types of communication network in the study area are presented in Table 4.9. The table and Fig. 4.1 show that the study area has adequate access to communication services. For instance only about 32% of the indigenous respondents denied having access to communication, with Old Ikwette having all their respondents (41.2%) denying, followed by Kigol 35.3% while Okwa Amu and Okpazenge each have 11.8%.

This is followed by those who agreed (34%) that they have access to both Glo and MTN signals. Individually, only Keji Oku and Apah Ajili, has all their respondents agreeing that they receive GSM signals. Some areas of the study area also receive the signals of a Cameroun's CMDX Orange Network. These Networks have greatly facilitated communication services for the host indigenes and tourists; and have also linked the area to the rest of the world.

To show clearly the distribution of communication signals in the area, a bar chart (Fig 4.1) was drawn. Fig 4.1 shows that 63% of the indigence of Apah Ajili received exclusively the signal of MTN mobile telephone provider, while 28% agreed they received both MTN and Glo. The figure also revealed that Okwamu has the poorest signal reception in the area, with only 6% Glo, and 12% not having any signals.

Analysis and Discussion of findings

The data summarized, presented and described were subjected to rigorous statistical analyses and the interpretations of the results are herein made. This was made possible by adhering to the stated objectives and the hypothesis formulated for this study.



One null hypothesis was thus formulated:

H_0 : There is no significant relationship between ecotourism development and the provisions of social amenities and infrastructures in the study area.

To establish the impact of ecotourism, the study looked at the relationship between the different aspects of ecotourism (industries, health care services, educational services, etc.), and the social amenities and infrastructures present in the area. However, ecotourism development process (predictor variable) is grouped into superstructure and infrastructure for the purpose of clarity. The dependent variable, (i.e. social amenities and infrastructure) is otherwise the socio-economic benefit accruing to the host community in the study area. The goal is to establish a relationship, which can be expressed via an equation for predicting typical values of the dependent given any values of the predictor variables. Consequently, since our model has two predictor variables (infrastructure and superstructure), our equation is given as:

$y = a + b_1 x_1 + b_2 x_2$, implying that socio-economic dividends (y) = 282 (infrastructure) + .105 (superstructure). Where b_1 and b_2 are the rates of change of socio-economic benefits accruing from ecotourism development to the people of the study area. Looking at table 4.9, the average respondent does not agree that ecotourism dividends have added to the socio-economic benefit as indicated by their mean values of 1.74 (infrastructure) and .856 (superstructure).

In the correlation matrix (Table 4.11), the independent variables have weak relationship with socioeconomic dividends, especially the superstructure aspects of ecotourism, which is rather very weak, with a value of 0.09. Infrastructure aspect of ecotourism appears to have the strongest linear relationship with socioeconomic dividends (.276). Despite not being significant, it indicates that as infrastructural aspect of ecotourism increases, the socioeconomic benefits to the people also increase. The same relationship however, holds for superstructure aspect of ecotourism.

In Table 4.11, (the model summary of regression analysis), R (.296) is the correlation between the observed and the predicted values of socio-economic benefits to the people of the area, and this shows a weak relationship between the socioeconomic benefits and the socioeconomic benefits predicted by the model. R^2 (.087), is the square of this correlation, thus the infrastructure and superstructure aspects of ecotourism explain almost 9.0% of the variability socioeconomic benefits observed in the area.



In Table 4.15, the f statistics is highly significant, (12.548) indicating that the simultaneous test that each coefficient is 0 is rejected, i.e. there is a change of dependent with respect to independent variable. The fact that this significance value is less than 0.005 does not imply that infrastructural and super structural aspects of ecotourism makes a meaningful contribution to the fit of the regression model. Looking at table 4.16, we can arrive at an estimated model of Socioeconomic dividend $(2.118) = 0.273 \text{ infrastructural} + 0.2 \text{ superstructure}$.

From this we can see that the infrastructural aspects of ecotourism uniquely contributes more to the explanation of the regression model with a beta coefficient of 0.273 and a standard error of 0.06, compared with the superstructure aspect of ecotourism, which has a beta coefficient of 0.2 and large standard error of 0.112.

Also we can see from this table that the t-value for the infrastructural aspects of ecotourism is well above the value of 2,(4.8) so it meet the guidelines to be useful predictor, whereas the t-value for the superstructure aspect of ecotourism, with a value of 1.8 does not meet the guideline for being a useful predictor.

However, the infrastructural aspect of ecotourism is clearly the stronger predictor as demonstrated graphically in Fig. 4.1 and 4.2. Fig 4.1 shows that there is a poor relationship between superstructure provisions and the socio-economic benefits accruing to the people. On the other hand Fig. 4.2 shows an appreciable increase in socio-economic benefits to the people as more infrastructural amenities are established in the area. This implies that even though there exists some social amenities and infrastructure, they are grossly inadequate to make a significant impact on the host resident indigenes.

We therefore accept the null hypothesis which states that there is no significant relationship between ecotourism development and the provisions of basic social amenities and infrastructures in the study area.

Discussion of findings

In the bid to maximize the opportunities ecotourism industry offers in development, the indigenes of the Obudu Cattle Ranch have, through their Development Action Plan for Poverty Reduction (DAPPR), prioritized their needs/problems during their various participatory interactions. This proactive strategy according to them can give them access to basic education, potable water, health care delivery system, housing and good motorable roads.



Meanwhile, the assumption that ecotourism industry is a means to achieve rural socio-economic development which enables the host communities to capture the socio-economic gains derivable from their natural environment as put forward by Gossling (1999), makes this analysis necessary. Prior to this analysis, descriptive analysis of several aspects of basic social amenities and infrastructures was carried out. From Tables 4.1 to 4.9, it was discovered that the basic social amenities which the indigenes have benefited appreciably were access to market (70%), communication (67%), medical services (88.7%), educational services (92%), and industry (92%). It was also observed that other vital amenities and infrastructures such as electricity, motorable roads and potable water supply in the hinter lands, were lacking. This is contrary to the agreement reached in 2003 between the government and the host communities tagged “Memorandum of Understanding” which spelt out the duties of the Government and the communities’ Stakeholders Management Committee. In the meantime, the Cross River State Government in collaboration with the Federal Government and the Japanese Government has started the process of linking the area to the national grid (electricity).

Meanwhile, the graphical description alone and the assertion from there do not necessarily provide adequate explanation of the relationship between ecotourism development and the overall improvements of the host communities’ living conditions; hence the above analysis. The result of the analysis revealed that the average respondent does not agree that ecotourism dividend have added to their socio-economic benefits as indicated by their mean values (Table 4.8). This is contrary to Asiedu’s (2004) findings in Ghana, which revealed that the provision of basic social amenities and infrastructures in the tourism destinations led to the rejuvenation of distressed industries and other economic sectors in the host communities. Most of the tourism service providers are concentrated within the TBC, due to the availability of motorable roads, water and electricity.

Individually, the result also indicates that the independent variables have weak relationships with socio-economic dividends, especially the superstructure aspects of ecotourism, which is rather very weak with a value of 0.09. Infrastructural aspect of ecotourism appears to have the strongest linear relationship with socio economic dividends (Table 4.12 and Figs.4.1 and 4.2). The positive sign, not surprising, indicates that as infrastructure aspect of ecotourism increases, the socio-economic benefits to the people will also increase. Additional provision of potable water supply, electricity and motorable roads will create a stronger relationship with socio-economic benefits accruing to the indigenes. For instance, in Table 4.26, $R (.296)$ is the correlation between the observed and the predicted values of



socio-economic benefits to the indigenes. This shows a weak relationship between the socio-economic benefits and the superstructure and infrastructural aspects of ecotourism predicted by the model. The null hypothesis is however accepted. R^2 (.087) is the square of this correlation showing that the infrastructural and superstructure aspects of ecotourism explain almost 9% of the variability socio-economic benefits observed in the area.

Table 4.15 shows that the F- value (12.548) is highly significant, indicating that the simultaneous test that each coefficient is 0, is rejected. That is, there is a change in dependent variable with respect to independent variable. The fact that the significance value is less than 0.005 does not imply that infrastructural and superstructure aspects of ecotourism make a meaningful contribution to the fit of the model.

With Table 4.16, we can therefore, arrive at an estimated model thus: socio-economic dividends (2.118) = 0.273 infrastructural + 0.2 superstructure. Consequently, we can see from Figs. 4.1 and 4.8, that the infrastructural aspects of ecotourism uniquely contribute more to the explanation of the regression model with beta coefficient of 0.273 and a standard error of 0.06 compared to superstructure which has a beta coefficient of 0.1 and on large standard error of 0.112 (Table, 4.16). The table also shows that the t-value for the infrastructural aspect of ecotourism is well above the value of 2, so it meets the guideline to be a useful predictor; whereas the t-value of 1.78 for superstructure aspect of ecotourism does not meet the guideline for being a useful predictor. The implication of this result is that even though there exists some social amenities and infrastructures, they are grossly inadequate to make a significant impact on the resident indigenes. Hence, the null hypothesis which states that there is no significance relationship between ecotourism development and the provision of social amenities and infrastructures in the study area is retained.

SUMMARY, RECOMMENDATIONS AND CONCLUSION

5.1 Summary

The study has demonstrated that there is weak relationship between ecotourism operations and the socio-economic benefits accruing therein to the indigenes of the area. Individually, the infrastructural aspect of ecotourism was found to have a stronger relationship (.276), than that of the superstructure (0.09).

The study suggests that the state government should formulate holistic policies that will increase infrastructural development and other positive impacts of tourism



generally on the residents. In some cases, this is simply a matter of increasing awareness so that the residents can benefit more from tourist's expenditure.

In any event, there is a strong case for considering ecotourism as an important sector in poverty reduction in our rural areas. To this end, the following recommendations have been prepared for the consideration of the state Government.

5.3 Conclusions

The focus of this research has been to determine the extent to which ecotourism development in the Obudu Cattle Ranch Resort has so far contributed to the improvements in the living conditions of the indigenes spread over six villages surrounding the hotel area. The study showed that comparatively, the operations of ecotourism industry has contributed to the upliftment of the living conditions of the residents in the area. Furthermore, it showed that the basic social amenities and infrastructures presently provided by the authority in the area are grossly inadequate, considering the level tourism activities have attained, and the importance of these services to tourism growth and rural development.

The non-availability of basic social amenities and infrastructures can undermine the peace and security necessary for the smooth operations of ecotourism development in the area. This is because these services are the dividends the host communities hope to gain from the operations of the industry.

This study has been able to show that ecotourism development is truly a rural-based industry which when properly planned could stimulate the development of the rural communities. The study addressed the contributions of ecotourism development to the provisions of social amenities and infrastructures in the area. This was achieved through the applications of the Multi Linear Regression Analysis. This was also necessary so as to plan properly, future developments in the rural areas. It therefore wished that the authorities concerned should as a matter of urgency plan how tourism can be used as a catalyst to rural development in the state.

5.3 Recommendation

The following recommendations are hereby made based on the findings of this study:

1. Government should consider stepping up their efforts to expand the provisions of social and infrastructural amenities in the area, especially as



these constitute the basic requirements for successful tourism operations. For instance, none of the settlements surrounding the hotel area have access to electricity, motorable roads, potable water supply and quality housing supply. Quality availability of these services will, apart from improving the living conditions of the host people, will also create more employment opportunities and improve their income levels.

2. There is need for a tourism master plan to be prepared which should include: Comprehensive strategies, implementation plans and priorities to enhance the role of tourism in rural development and poverty reduction. Similarly, since most of the communities' lands has been taken over for the expansion of ecotourism industry, government should as a matter of urgency produce a land use map of the area to enable the people know where to farm (Anake & Itam, 2016).
3. Adequate institutional frameworks should be put in place to coordinate and monitor the implementation of the master plan, especially the provisions of basic social amenities, the roles to be played by the Village Chiefs, the Private Partnership Participation and the provisions for the shareholders to be among the owners of the resort.
4. Community Tourism which will involve wider community involvement should be encouraged. This will enhance the development of more socially acceptable guidelines for rural development, where the benefits accruing from ecotourism are used to achieve the goals and prosperity of the residents. This research has shown that there are developments gaps within the study area, future research on improvements on the living conditions of the rural people should focus on strategies aimed at integrating the rural people in the development projects that affect them.

TABLE 4.1: Condition of roads in the study area

Community	Tarred	%	No Tarred	%	Path km	%
Apah-Ajili	3.0	12	1.6	28.6	1.3	26.5
Kegol	3.0	12	1.0	17.5	1.0	20.4
Keji Oku	2.8	11.2	0.8	14	0.7	14.3
Akwa Amu	1.4	5.6	0.8	14	0.6	12.2
Okpazenge	3.0	12	0.9	15.8	0.8	17
Old Ikwette	11.8	47	0.6	10.5	0.5	10.2
TOTAL	25.0	100	5.7	100	4.9	100

Source: Author's fieldwork, November 2016

TABLE 4.2: Electricity supply in the study area

Community	Solar	%	Generator	%	No Electricity	%
Apah-Ajili	-	-	15	17.2	35	20.2
Kegol	-	-	10	11.5	30	17.3
Keji Oku	-	-	28	32.1	27	15.6
Akwa Amu	-	-	8	9.2	27	15.6
Okpazenge	-	-	16	18.4	34	19.7
Old Ikwette	5	100	10	11.5	20	11.6
TOTAL	5	100	87	100	173	100

Source: Author's fieldwork, November 2016

TABLE 4.3: Source of water supply

Community	Public Tap	%	Streams	%	No Water
Apah-Ajili	-	-	43	20.5	7
Kegol	-	-	38	18	2
Keji Oku	-	-	45	21.4	10
Akwa Amu	-	-	20	9.5	15
Okpazenge	2	50	44	21	4
Old Ikwette	2	50	20	4.5	13
TOTAL	4	100	21	100	51

Source: Author's fieldwork, November 2016

TABLE 4.4: Types of medical services

Community	Prim. Health care	%	Community/ Private	%	Patient Medical Store	%	None	%
Apah-Ajili	37	22	3	13.6	2	11.4	8	14.8
Kegol	20	12	15	68.3	3	16.6	2	3.7
Keji Oku	45	26	3	13.6	5	27.7	2	3.7
Akwa Amu	25	15	1	4.5	3	16.6	6	11.3
Okpazenge	39	23	-		1	5.5	10	18.5
Old Ikwette	5	3	-		4	22	26	48.1
TOTAL	171	100	22	100	18	100	54	100

Source: Author's fieldwork, November 2016

TABLE 4.5: Availability of educational services

Community	Tertiary	%	Secondary	%	Primary	%	Nursery	%	None	%	Total
Apah-Ajili	-	-	15	16.7	25	20.8	5	33.3	5	12.5	50
Kegol	-	-	7	7.8	10	8.3	8	53.3	15	37.5	40
Keji Oku	-	-	30	33.3	23	19.2	2	13.3			55
Akwa Amu	-	-	35	38.9	35	29.2					35
Okpazenge	-	-	5	5.6	40	25	-		15	37.5	50
Old Ikwette	-	-	5	5.6	25	20.8	-		5	12.5	35
TOTAL	-	-	90	100	120	100	15	100	40	100	265

Source: Author's fieldwork, November 2016

TABLE 4.6: Access to market

Community	Daily	%	Weekly	%	None	%
Apah-Ajili	16	35.6	32	22.9	2	2.5
Kegol	25	55.6	15	10.6		
Keji Oku	4	8.8	36	25.6	15	18.7
Akwa Amu			26	18.6	9	11.3
Okpazenge			27	19.3	23	28.8
Old Ikwette			4	3	31	38.7
SUB TOTAL	45	100	140	100	80	100

Source: Author's fieldwork, November 2016

TABLE 4.7: Manpower development programmes

Community	Skills Acquisition	%	Not available	%
Apah-Ajili	40	20	10	15.4
Kegol	32	16	8	12.3
Keji Oku	48	24	7	10.8
Akwa Amu	20	10	15	23
Okpazenge	40	20	10	15.4
Old Ikwette	20	10	15	23
TOTAL	200	100	65	100

Source: Author's fieldwork, November 2016

TABLE 4.8: Availability of housing provisions in the study area

Community	State	%	%	None	%	Ground Total
Apah-Ajili				50	20.1	50
Kegol				40	16.1	40
Keji Oku	10	58.8		45	18.1	55
Akwa Amu	4	23.5		31	12.5	35
Okpazenge	3	17.6		47	19	50
Old Ikwette				35	14.1	35
SUB TOTAL	17	100		26.5	100	265

Source: Author's fieldwork, November 2016

TABLE 4.9: Access to communication by the indigenes

Community	Global com	%	MTN	%	Both Glo & MTN	%	Not available	%
Apah-Ajili			25	62.5	25	22.8		
Kegol			10	25			30	35.3
Keji Oku	10	20	5	12.5	40	44.4		
Akwa Amu	20	40			5	5.6	10	11.8
Okpazenge	20	40			20	22.2	10	11.8
Old Ikwette							35	41.2
TOTAL	50	100	40	100	90	100	85	100

Source: Author's fieldwork, November 2016

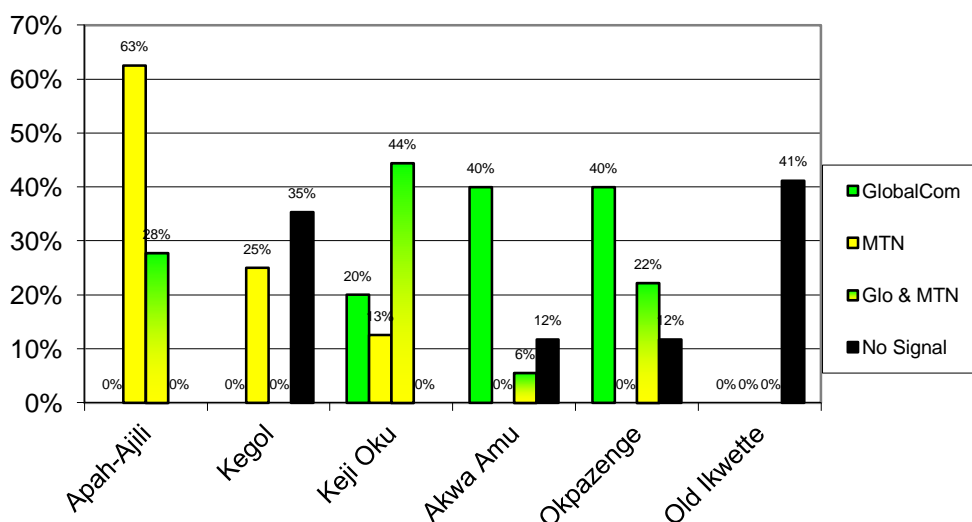


FIG. 4.1: Distribution of communication signals in the area.

TABLE 4.9: Summary of one way analysis of variance (ANOVA) of household income over time

Year		Mean			
2010		67,306.17			
2011		80,340.17			
2012		89,141.33			
2013		180,581.0			
2014		114,570.8			
2015		128,979.2			
2016		138,136.5			
Source of variance	Sum of squares	Df	Mean square	F	Ple
Between Groups	5.50+ ¹⁰	6	9171394184	1.423	.231
Within groups	2.26+ ¹¹	36	644632730		
Total	2.81+ ¹¹	41			

ns = not significant at $P > .05$.

TABLE 4.10: Descriptive statistic of regression analysis

	Mean	Std. Deviation	N
Socio Econ	2.7636	.8681	265
Infrastructural	1.7367	.8965	265
Superstructural	.8569	.4564	265

Source: Data Output

TABLE 4.11: Zero-order correlations matrix

		socioEcon	Infrastructural	Superstructure
Pearson Correlation	SocioEcon	1.000	.276	.090
	Infrastructural	.276	1.000	.090
	Superstructure	.090	-.053	1.000
Sig. (1-tailed)	SocioEcon	.	.000	.072
	Infrastructural	.000	.	.195
	Superstructure	.072	.195	.
N	SocioEcon	265	265	265
	Infrastructural	265	265	265
	Superstructure	265	265	265

Source: Data Output

TABLE 4.12: Descriptive statistic of regression analysis

	Mean	Std. Deviation	N
Socio Econ	2.7636	.8681	265
Infrastructural	1.7367	.8965	265
Superstructure	.8569	.4564	265

Source: Data Output

TABLE 4.13: Zero-order correlations matrix

		socioEcon	Infrastructural	Superstructural
Pearson Correlation	SocioEcon	1.000	.276	.090
	Infrastructural	.276	1.000	-.053
	Superstructural	.090	-.053	1.000
Sig. (1-tailed)	SocioEcon	.		.072
	Infrastructural	.000	.000	.195
	Superstructural	.072	.	.
			.195	
N	SocioEcon	265	265	265
	Infrastructural	265	265	265
	Superstructure	265	265	265

Source: Data Output

TABLE 4.14: Model summary of regression analysis

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate
1	.296 ^a	.087	.080	.8325

a. Predictors (Constant) Superstructure Infrastructural

b. Dependent Variable: Socioecon

Source: Data Output

TABLE 4.15: Analysis of variance

Model	Sum of squares	df	Mean Square	F	Sig.
1 Regression	17.393	2	8.696	12.548	.000 ^a
Residual	181.577	262	.693		
Total	198.970	264			

a. Predictors: (Constant) Superstructure, Infrastructural

b. Dependent Variable: SocioEcon

Source:Data Output

TABLE 4.16: Coefficient of regression analysis

Model	Unstandardized coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.118				.000
Infrastructural	.273	.151		14.031	.000
Superstructure	.200	.057	.282	4.772	.077
		.112	.105	1.776	

Socioeconomic dividends = 2.118 + 0.273 Infrastructural + 0.2. Superstructure.

Source: Data Output

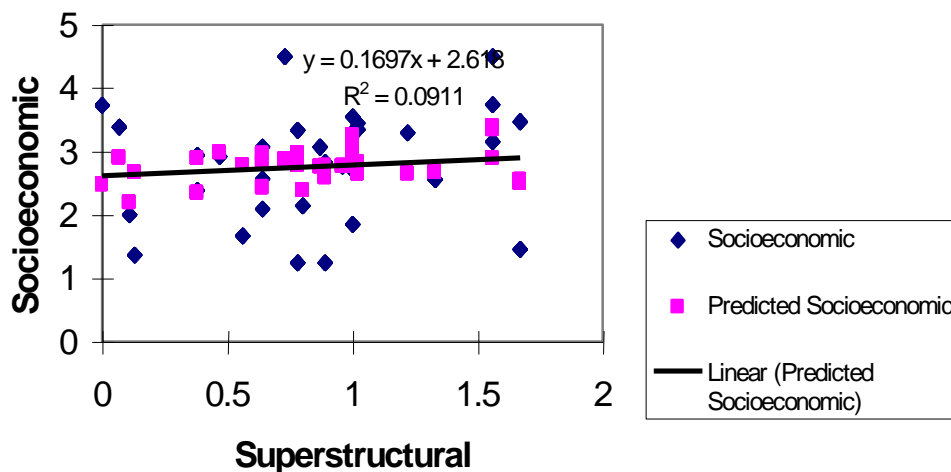


FIG. 4.2: Superstructure line fit plot

Source: Data Output

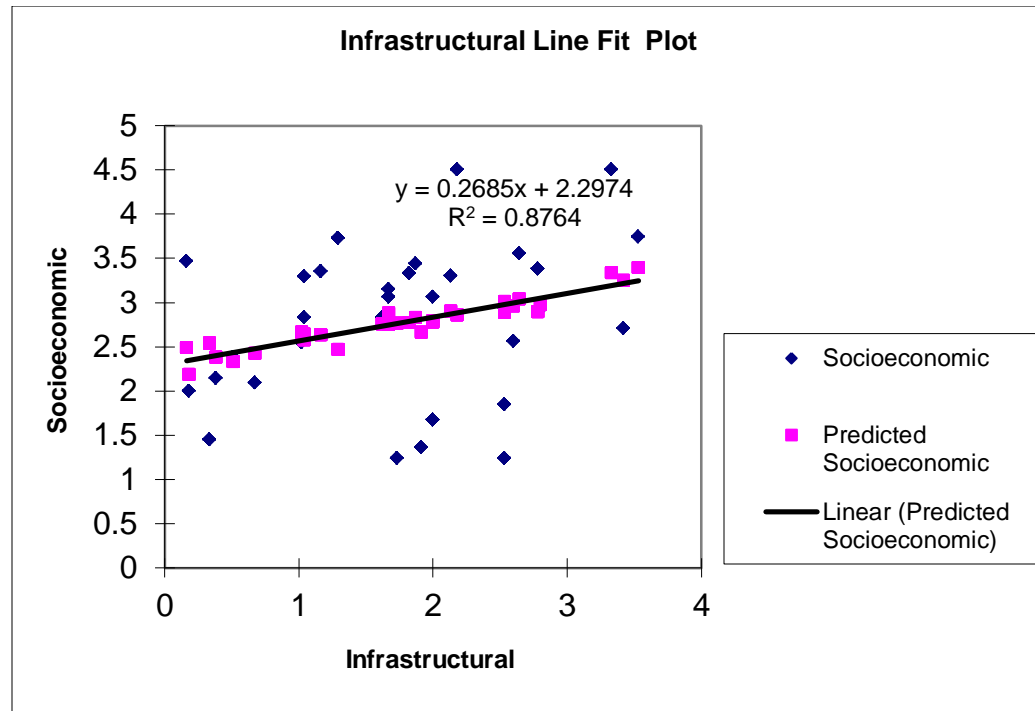


FIG. 4.3: Infrastructural line fit plot.

Source: Data Output



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