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IMPACT OF YANKARI GAME RESERVE TO RURAL DEVELOPMENT AND BIODIVERSITY CONSERVATION IN YANKARI COMMUNITIES BAUCHI STATE

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Abstract

This paper assesses the development and benefits derived by rural communities in the study area surrounding a game reserve. Questionnaires were administered to residents of fourteen selected communities within the game reserve and to the staff of the park. Additionally, focus group discussions were conducted with ten residents from each of the fourteen rural communities. A total of 720 questionnaires were distributed to residents to evaluate the development and benefits received from the establishment of the game reserve, while 250 questionnaires were distributed to the park staff to determine the impact of NGO activities on the communities. Interviews were also conducted with key stakeholders, including ward-heads, village-heads, youths, and women leaders. The findings reveal that the primary developments and benefits received by the game reserve rural communities include the establishment of primary schools, clinics, health centers, construction of roads and culverts, drilling of boreholes and wells, and access to loans for income generation. However, the relationship between farmers and pastoralists is strained, particularly during the dry season when livestock damage crops due

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to scarce forage. It is recommended that the working relationships between the communities and the game reserve be improved to achieve the overall objectives of conservation programs in Nigeria.

Keywords: Rural Development, Community Benefits, Game Reserve, Conservation Programs, NGO Impact, Nigeria

INTRODUCTION

National parks are large tracts of land (not less than 1 Kilo hectare) declared as public property, by a national government with a view to conserving, protecting, preserving and developing for the purpose of tourism, recreation, education, research and cultural amusement (US-National Park Service, 2015). They are reserve of land usually owned and declared by a national government, protected from most human development and pollution.

Generally, National Park provides a number of socio-economic benefits to the local host communities, especially the advantage segments of any community. For instance, a number of permanent jobs will be created within the national parks (protected areas), e.g.in the conservation management and hospitality sectors. There are as well, a number of casual jobs will be created within the national parks (protected areas), e.g. for labour intensive management projects, such as game, culture, alien vegetation eradication and fencing. In addition, some jobs could be created in the service and peripheral industries e.g. suppliers of service and materials, suppliers of skills such as builders, plumbers, caterers, tourist guides. (Sahabo, 2019).

Tourism can often generate higher cash returns locally than other uses of wildlife. In fact, these local earnings can off-set the cost of wildlife damage to crops and livestock lost and access to core wildlife areas, so that wildlife becomes a net benefit to the local residents and hence an asset to protect. Also, in areas of high tourism potential, returns can exceed returns from other land uses, and so justify maintaining or restoring wildlife habitat. Also, the value that tourists place on the local natural and cultural resources can in turn increase the recognition of their value among the local residents (Baez, 2016).

The local people in the park communities are important stakeholders with whom protected area managers must co-operate with. Hence, when people gain from the sustainable use of

resources such as coral reef, or wild animals through tourism they will protect their assets and may invest more resources into it (Marguba, 2012).

Yankari game reserve is one of the most popular game reserves in West African sub region established in 1956, Yankari was upgraded to a national park in 1991 and managed by the National Parks Service until 2006 when responsibility for the management of the reserve was handed back to Bauchi State Government with a view to conserving and protecting the ecotourism potentials and attractions of the country. Yankari game reserve is situated within Duguri, Pali and Gwana District of Alkaleri local Government Area of Bauchi State.

The open country and villages that surround Yankari National Park are populated by farmers and herders, but there has been no human settlement in the park for over a century. There is, however, evidence of earlier human habitation in the park, including old iron smelting sites and caves. The furnaces have been damaged by centuries of exposure to the elements, though by the late 1990s there were more than fifty surviving in the Delimiri and Ampara area.

The National Park law in Nigeria is perhaps one of the most comprehensive and proactive due to its sensitiveness to the needs of the rural communities. Generally, National parks play a central role in the social and economic development of the rural environment and contribute to the economic wellbeing of the Urban Centers and the quality of life of their inhabitants (Ayodele and Falade, 1993).

The National Park Act of 1979 had singularly place Nigeria among the committee of Nations that demonstrated the political will to check the plundering of natural resources, so that the future generations can appreciates and enjoy their natural heritage. In Nigeria, the national park management as a concept focused on the conservation of unique ecosystems for sustainable development, recreation and public enjoyment unlike other countries that received foreign assistance. The Nigeria's effort towards National Parks development was borne out of the desire to embrace environmental conservation, recreation and nature tourism for sustainable development (Sahabo, 2019).

Statement of the Problem

Nigeria is blessed with rich eco-tourism resources in both forest and savannah zones of the country. In Nigeria, there are about 1,129 forest reserves, 30 game reserves, 4 game sanctuaries, 2 strict nature reserves, I biosphere reserve and 7 National parks.

Sahabo, (2019) observed that taking over these Game reserves by the Federal Government has seriously affected the means of livelihood of the communities residing within and around the national park boundary by restricting them from using the resources in the park, through controlling movement into the national park by the Rangers, through arresting and prosecuting offenders. This restriction has affected the individual households and families in terms of income generation in high proportion. As a result, many members of these communities were rendered jobless particularly women and youths.

The role of game reserve to rural development is therefore central to understand not only the development and the potential impact but also a but also a key determinant of the overall benefit the rural host communities of the game reserve enjoyed. A number of studies have conducted along this line. From the foregoing, there exists paucity of research on the role of Yankari game reserve to rural development in Yankari communities in Bauchi state. This study therefore will fill the existing gap in literature of the role of Yankari game reserve to rural development in Yankari communities with the view to examine how the rural communities' benefit from the Yankari game reserve.

The following research question were generated from the statement of research problem:

1. What are the developments Yankari game reserve has brought to her rural communities?
2. Is the game reserve of benefit to the rural communities?
3. What are the assistances received from the game reserve management by the communities?
4. What are the rural community's expectations from the game reserve?

Aim and Objectives of the Study

The aim of the study is to ascertain the impact of Yankari Game Reserve to rural development in Yankari communities, Bauchi State, Nigeria.

The specific objectives of the study are to:

1. Identify the different ways in which Yankari Game Reserve contributes to the rural development of Yankari communities.
2. Ascertain the level of assistance received from the game reserve management by the communities and biodiversity conservation

3. Examine the rural communities' expectations from the game reserve

Review of related literature

Conceptual framework

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Impact of tourism towards sustainable development

The impact of tourism on sustainable development is felt via the income multiplier effect, the employment, infrastructure and environmental development and friendliness with the ecosystem. Ibrahim et, al., (2023), found that the demand by tourists to the Yankari National Park implies spending some money with the local community; airport workers, farmers, fishermen, hoteliers, caterers, taxi drivers, horticulturists, etc., who in turn spend

on their healthcare, housing, child education, food security and more. This has reduced the local's dependence on indiscriminate harvesting of the ecosystem and wildlife for livelihood. This agreed with Awoseyin's (2007) concept of the Tourism Income Multiplier (TIM). France, being the number one tourist nation is a beneficiary of Tourism Income Multiplier, this is why it has a tourism development plan to attract 100million tourists annually till 2020. The plan wants to also address the paradox why France receives 10% fewer revenue than Spain despite having 30% number of tourists. The United Arab Emirates also has a similar plan to double the number of international tourists to 20million from the present 10million by the year 2020. To this end, Dubai alone is adding to its impressive record the construction of 160,000 hotel rooms while Emirates Airline, the national carrier is increasing its fleet with corresponding expansion of the Dubai Airport.

According to Eneji et, al., (2016), Nigeria could generate $10billion annually in their work "Diversification of Nigeria's Economy; Impact of Tourism on Sustainable Development in Nigeria" projected growth from tourism industry. This is realistic considering the present size of the industry and the current GDP. For instance, assuming that 10% out of 175million Nigerians travel locally for business, leisure, culture, etc., spend only 10% of the per capita income of N3,400 we will probably be having a tourism market that is worth more than $9billion. This alone will account for roughly 20% of Africa's current tourism industry. This clearly showcases the multiplier effect of tourism and possibilities in the industry, and the more reason why it is in the interest of government to get the industry organized in order to increase non-oil income. Already a good number of economies in Africa are aware of the tourism income multiplier; they derive substantial revenue from tourism. In Gambia, tourism accounts for as much as 22% GDP. 12.1% of Kenya's total GDP comes from the sector while employing more than 10% of the total labour. In Ghana it accounts for 7.2% GDP and 5.8% employment respectively. Following the rebasing of the economy in April 2015, Nigeria emerged not just Africa's biggest economy, ahead of South Africa with GDP of $384.3 but also the 26th largest economy in the world. The nominal GDP also places Nigeria ahead of countries like Austria with $394.7 billion, Venezuela with $381.26 billion, Columbia $369.6 billion, Thailand $365.96 billion, Denmark $314.88 billion, Malaysia $274.7 billion and Singapore $269.87 billion. In other words, Nigeria's growing middle class with an increasing international exposure will induce a domestic-driven tourism market, just the way Nollywood created an entertainment industry that now accounts for 1.2% of GDP. Tourism increases foreign exchange to

provide the investment necessary to finance the development of other sectors and macroeconomic growth. The socioeconomic impact of tourism subsector is seen in promoting sports, arts and cultural exchanges, as well as intermarriages. Individuals from diverse cultural backgrounds meet, promoting unity, peaceful coexistence at continental and global levels, beyond racial, ethnic and religious divides.

METHODS

Study Area

Location and Size: The area of study is in Bauchi State. Its southern and northern limits are demarcated by latitudes 9°30'N and 12°30'N, respectively, its western and eastern limits are bounded by longitudes 8°45'E and 11°0'E, respectively. Within these co-ordinates, however, the state's total land area covers about 49,259 sq. km. This is about 4.9m ha out of Nigeria's 92.4m ha (Nig, FOS, 1987). The state now has an eight-like shape, with a blotted lower region, with about two thirds of the land area being south of latitude 11°15'N. The neighboring states by location, clockwise, are Yobe, Gombe, Taraba, Plateau, Kaduna, Kano and Jigawa States. Thus, Bauchi State could potentially co-operate in mutual development programs and projects with up to seven other states which share borders with her. Indeed, the state occupies a central location spatially among the north-east group of states in Nigeria. has its proximity Another locational advantage which Bauchi State has is its proximity to Jos Plateau, which is less than 100km south of the state, by which it has access to a commercial airport and to a large market for its agricultural produce, particularly fruits.

Research Design

The descriptive research design adopted for this study is used the survey research which select sample from the respondents for the Simple study. Purposive Simple random sampling method was used to administer questionnaires in fourteen selected recognized communities within the three (3) districts in Yankari game reserve. Two hundred and fifty questionnaires were administered to staff of the game reserve and a total of seven hundred and twenty (720) questionnaires were administered to the residents of the game reserve communities to ascertain and examine the development as well as the benefit they derived from the game reserve. Also, one hundred and forty people, ten each from the park communities were selected for focused group discussion with a view to determining the

impact of NGOs activities in the communities. Also, interviews were held with the key stakeholders such as ward-heads, village-heads youth and women was ty leaders. This was done with a view to deriving information, ideas and experience of the members Game Reserve Communities. Analysis was done using frequency and percentage tables to determine the responses obtained from the residents of the game reserve communities and the staff of the game reserve.

Data Analysis

Objective one is to Identify the different ways in which the Game Reserve contributes to the rural development of Yankari communities using descriptive statistic. Also, the process of analysis was performed via the statistical package for social science (SPSS) software version 23. Objective two (2) is to identify assistance received from the game reserve management by the communities using descriptive statistic. Also, the process of analysis was performed via the statistical package for social science (SPSS) software version 23. Objective three (3) is about the rural communities' expectations from the game reserve. This was analyzed using descriptive statistic (percentage and table). Also, the process of analysis was performed via the statistical package for social science (SPSS) software version 23.

RESULTS AND DISCUSSION

It is believed that, in Nigeria security, protection and success of tourism development depend on the support and cooperation given by the people of the reserve communities.

Yankari Game Reserve provided some social services in order to gain the support and cooperation of the local people game reserve communities such as employment opportunities, establishment of schools, construction of roads, bridges and culverts, clinics and the formation of cooperative societies with a view to integrating and involving the reserve communities in the management of the game reserve.

Also formed are the Park-Community Development Association and Park-Community Relation Committee which serves as a channel for interaction and providing facilities and services to the park communities and visiting the communities formally and informally.

There are also Community Liaison Officers and Environmental Protection Officers who regularly visits the park communities and sometimes stay with the people, discuss with

them and report back the outcome of their interactions and observations to the park management.

The report enables the park management to prepare its management strategies in terms of rural development, conservation and environmental protection programs for proper and better park management (Sahabo, 2019)

Table 1: Development/benefits derived from the park to the communities

Benefit Revealed	Frequency	Percentage
Sitting of primary schools in our localities	200	27.7
Construction of clinic/health centers	150	20.8
Construction of access roads & culverts	150	20.8
Digging/Drilling of wells/boreholes in localities	100	13.8
Employment and loans to generate more income	120	16.6
Total	720	100.0

Source: Field Survey 2024

On the development and benefits received by the communities from the game reserve, Table 1 revealed that, 27.7% of the respondents said they have benefited with the sitting of primary schools in their localities. 20.8% said they have benefited with the construction of clinics and health centers in their localities. 20.8% said they have benefited with the construction of access roads and culverts, also 13.8% said they have benefited with the provision of wells and boreholes, 16.6% said they have benefited by obtaining loans to generate more income and have benefited from the park employment opportunity.

Table 2: Assistance received from the management by the communities and biodiversity conservation

Other assistance received	Frequency	Percentage
Small scale loan as source of income	47	6.5
Employment opportunities	283	39.3
Provision of books & seats to schools	196	27.2
Provision of drugs to clinics/health centers	102	14.2
Assisted farmers with fertilizer & chemical	36	5.0
Inoculation of our cattle	56	7.8
Total	**720**	**7.8**

Source: Field Survey 2024

On other assistance received from the game reserve management, 6.5% of the respondents said they have received small scale loans to boast their source of income, 39.3% said that members of their communities have been given employment opportunities to work with the game reserve (Table 3). Others are, 27.2% said they have received books and schools' seats from the management of the game reserve, 14.2% said they have also received drugs in their clinics and health centers. In addition, 5.0% said they have received fertilizer and chemicals for their farm usage and 7.8% said their cattle were inoculated by the game reserve management.

Table 3: Communities Expectations

Communities' expectations	Frequency	Percentage
Full promise made by the game reserve	379	52.6
Provide employment opportunities	180	25.0
Access roads and supply of drugs in clinics	161	22.4
Total	720	100.0

Source: Field Survey 2024

With regard to expectations from the Game reserve (Table 3), above shows that 52.6% wants the management to improve on their relationships. Also 25.0% said the only way to improve cordial relationship between the park communities and the game reserve is by providing more employment opportunities to the youths and any interested persons. Again, 22.4% said the game reserve management should construct more access roads and supply drugs to their clinics and health centers is the best way to improve cordial relationships between the communities and the game reserve.

CONCLUSION

Game Reserve communities usually enjoy some benefits due to establishment of the reserve within their areas of jurisdiction. However, this depends on the relationship that exists between the management of the game reserve and residents of these communities hence the communities benefit more when the relationship is cordial. This study reveals that there are some major developments and benefits received by the communities, they are primary schools, clinics, health centers facilities and construction of roads and culverts. These are followed by drilling of boreholes and wells and obtaining loans for income generation. Also, the game reserve was able to provide most of its long- and short-term

projects to the communities because of the cooperation and cordial relationship between the management of the reserve and the residents of the rural communities.

Nevertheless, the relationship between Cordial farmers and pastoralists is not cordial, because during dry season when forage is often scarce, livestock moved into farms and destroy the crops available.

Recommendations

The management of Yankari Game Reserve should provide alternative sources of income as a substitute to the lost primary sources of income due to the rules, regulations and laws introduced which forbids hunting, fishing, farming, honey lumbering, firewood collection among others in the park.

There is need to create an avenue for improving good working relationship between the rural communities and the management of the game reserve through employment opportunities, providing social facilities and continuous meetings to discuss issues of common interest that affects the park and the communities in general (job creation, construction of rural feeder roads, culverts, health facilities, school facilities etc.).

There is need for the Yankari game reserve management to provide sporting facilities for the common use and benefit of both the staff of the game reserve and the members of the communities to serve as a forum for interacting and relating very well between and among themselves.

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