



Contribution of Ecotourism to Financial Sustainability of Old Oyo and Okomu National Parks, Nigeria

¹*Okafor, F.A., ²Ogunjinmi, A.A., ²Oladeji, S.O., ¹Abokede, B., ¹Azeez, O.K.

¹Old Oyo National Park, Oyo State, Nigeria

²Department of Ecotourism and Wildlife Management, Federal University of Technology, Akure, Nigeria.

*Corresponding author: okaforaf@yahoo.com

ABSTRACT

This study was conducted to determine the contribution of ecotourism to financial sustainability of Old Oyo and Okomu National Parks. Visitation and income data were obtained from the Management of the Parks. Data were analysed through descriptive statistics. The results revealed that 18,849 tourists comprising 18,515 domestic and 334 international tourists were in Old Oyo National Park from 1997 to 2017 while in Okomu National Park, 11,224 tourists comprising 10,394 domestic and 830 international tourists were in the Park from 2003 to 2017. The total government budgetary release for Old Oyo National Park from 1997-2017 was ₦2,556,387,449.81 (\$7,099,904.76) while ₦891,876,478.94 (USD 2,477,063.10) was released for Okomu National Park from 2003 to 2017. In addition, the sum of ₦13,383,697 (USD 37,170.80) and ₦10,958,397 (USD 30,434.97) were generated by Old Oyo and Okomu National Parks respectively from ecotourism. Thus, income from ecotourism was too low to sustain the operations of the Parks.

Keywords: Financial sustainability, income, national parks, tourist, visitation

INTRODUCTION

Tourism is the world's third largest global export in the world. It generates around USD 7.6 trillion, which is 12 percent of total world's Gross Domestic Product (GDP) and employments are 292 million jobs for 2016 (one tenth of total jobs available in the world) of the world for the economy of a total sum of 1.14 billion tourist worldwide (UNWTO, 2017). The development of tourism as a critical sector of the economy has gradually assumed a centre stage in the economic agenda of most nations of the world. In the past few decades, international attention on tourism as a critical sector of the economy has greatly increased. This is in view of its ability to speedily stimulate income growth, generate foreign exchange and contribute to domestic earnings of government through fees and taxes (Zakaria, 2020). Tourism is considered the most coveted activity in the world,

considering the growing number of destinations around the world that have been investing in the sector. This makes it the major driver of socio economic progress through the creation of jobs and enterprises, export revenues and infrastructure development, leading to a continuous expansion and diversification that reveals it as one of the fastest growing economic sectors in the growing world (UNWTO, 2017).

Financial sustainability of conservation areas is one of the cornerstones for enabling effective conservation management. However, the current status of conservation area funding is widely separated from the need, and this disparity is more visible in developing countries. Therefore, identifying and valuing the revenue streams and finance needs of conservation areas is an important step in the process to becoming financially sustainable (Rylance, 2016).

With the right policies in place, tourism can contribute directly to the conservation of natural areas and habitats by bringing visitors to protected areas to learn, take part in other ecotourism activities thereby contributing financially and support of local economies. In many destinations especially protected areas—tourism income can replace revenue generated by actions that threaten biodiversity, such as poaching, deforestation or the sale of wild animals for consumption (UNEP, 2001). A portion of the revenues generated from park entrance fees and other charges on tourism services provided (such as tours and accommodations) can be allocated specifically to fund the protection and management of environmentally sensitive areas (UNEP, 2001). Income from tourism is largely beneficial for the host communities. It has the ability to employ more people, consequently reducing unemployment and at the same time conserve, the biodiversity and protect the environment since it can be generated sustainably. Presently, the Nigerian National wildlife policy places equal emphasis on all aspects of wildlife utilization, recreation and tourism, bush meat production and preservation of gene pools (Ogunjinmi & Ijeomah, 2010). However, the desire to manage wildlife for tourism development ranks highest amidst other various objectives in many states in Nigeria probably due to the benefits derivable from ecotourism: revenue generation, foreign exchange, value addition to local products and job opportunities. The study evaluated the contribution of ecotourism to financial sustainability of Old Oyo and Okomu National Parks in Nigeria. In the bid to have a better insight on the contribution of ecotourism to financial sustainability of Nigeria National Parks. It is therefore important to evaluate tourists' influx to the parks and their level of contributions in the overall funding.

MATERIALS AND METHODS

Study Area

The study was conducted in two National Parks in Nigeria. They are Old Oyo National Park and Okomu National Park. Old Oyo National Park originated in two earlier administrative forest reserves; Upper Ogun established in 1936 and Oyo-Ile established in 1941. These were converted to game reserves in 1952, then combined and upgraded to a National Park by Decree Number 36 of 1991, which was later repealed and replaced with Decree (now Act) Number 46 of 1999 presently established by the National Park Service

Act. Cap 65 of the Law of the Federation of Nigeria (LFN) 2004 (Ogunjinmi & Braimoh, 2018). Old Oyo National Park (Figure 1) is geographically located between latitude 8°10' and 9° 05', North and longitudes 3° 35' and 4° 21'. The Park covers a land area of approximately 2,512 sq Km making it the fourth largest National Park in Nigeria. It lies in Oyo State in the Southwest of Nigeria and borders Kwara State in the Northeast. It is surrounded by ten (10) Local Government Areas in Oyo State and one Local Government Area in Kwara State. The mean annual temperature is between 12° C and 37° C (Oladeji *et al.*, 2012).

In Old Oyo National Park, the two major climate seasons are wet (May to September) and dry (October to April). Temperature is highest in the dry season and lowest during the wet season with the mean daily maximal, which are highest during February and March with values of about 33.6°C with the lowest value of about 12°C during the peak of harmattan in December and January. Total annual rainfall varies between 900mm in the North and 1,500mm in the Southern regions of the park (Nchor *et al.*, 2010). The average relative humidity is 50% (Oladeji *et al.*, 2012). The common and rare animals in Old Oyo National Park are Buffalo (*Syncerus caffer*), Roan Antelope (*Hippotragus equines*), Western Hartebeest (*Alcelaphus buselaphus*), Kob (*Kobus kob*), Bush Buck (*Tragelaphus scriptus*), Red river hog (*Potamochoerus porcus*), Water Buck (*Kobus ellipsiprymnus*), Warthog (*Phacochoerus aethiopicus*), Troop of Baboons (*Papio anubis*), Patas Red Monkey (*Erythrocebus patas*) etc.

Okomu National Park (Figure 2) is in Edo State. Okomu National Park formally Okomu Forest Reserve occupies landmass area of 202.2 sq km (Olaniyi *et al.*, 2015). It lies between longitude 5° 30' E and 5° 23' E and latitude 6° 15' N and 6° 25' N in the South-West Local Government of Edo State, Nigeria. The reserve was gazetted as Okomu Wildlife Sanctuary in 1988 by the Nigeria Conservation Foundation. It was declared a National Park (Decree 46 of 1999). Okomu, a relatively undisturbed forest was legally constituted a Native Administrative Forest in 1950 under the Benin district council. In 1970, the reserve came under the management of the state government, to be managed on behalf of the local community (Nigeria National Park Service, 2015).

The reserve as gazette as Okomu wildlife sanctuary in 1988 by the Nigeria Conservation Foundation as the last hope for the protection of endemic and endangered species of wildlife in the face of high exploitation rate and human encroachment (Ogunjemite *et al.*, 2011). Okomu National Park has abundant flora and fauna resources within a very rich, unique and distinct ecosystem. The Park consists of

semi-deciduous, humid, lowland rainforest with freshwater swamp forests along the rivers, mangrove and swamp forest, and Guinean forest savanna mosaic ecoregion. The park has diverse fauna and is a home of rare and endangered species such as the forest elephants (*Loxodonta africana cyclotis*) and the white-throated monkey (*Cercopithecus erythrogaster*)(Ajayi *et al.*, 2017).

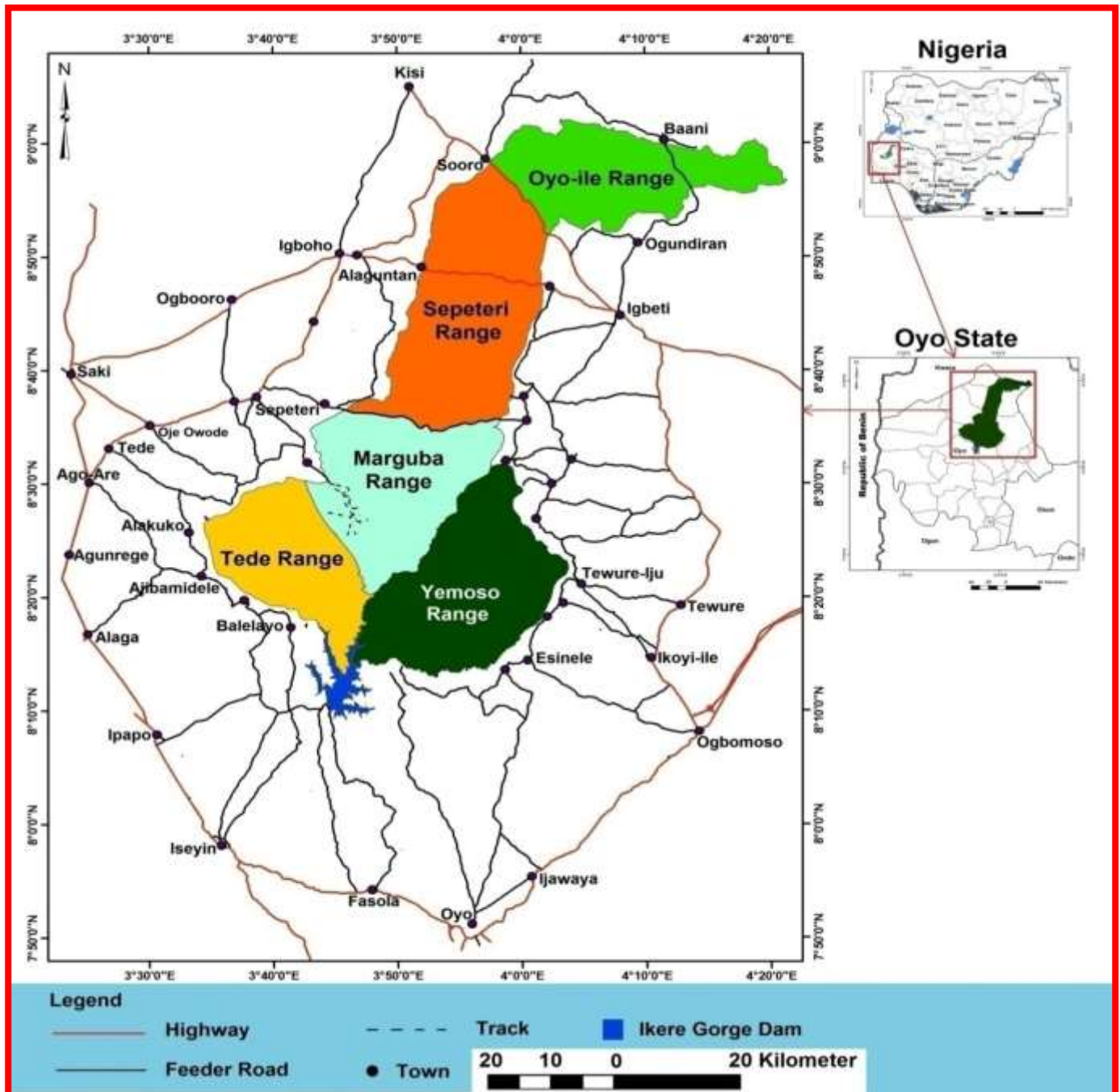


Figure 1: Map of Old Oyo National Park showing some surrounding communities

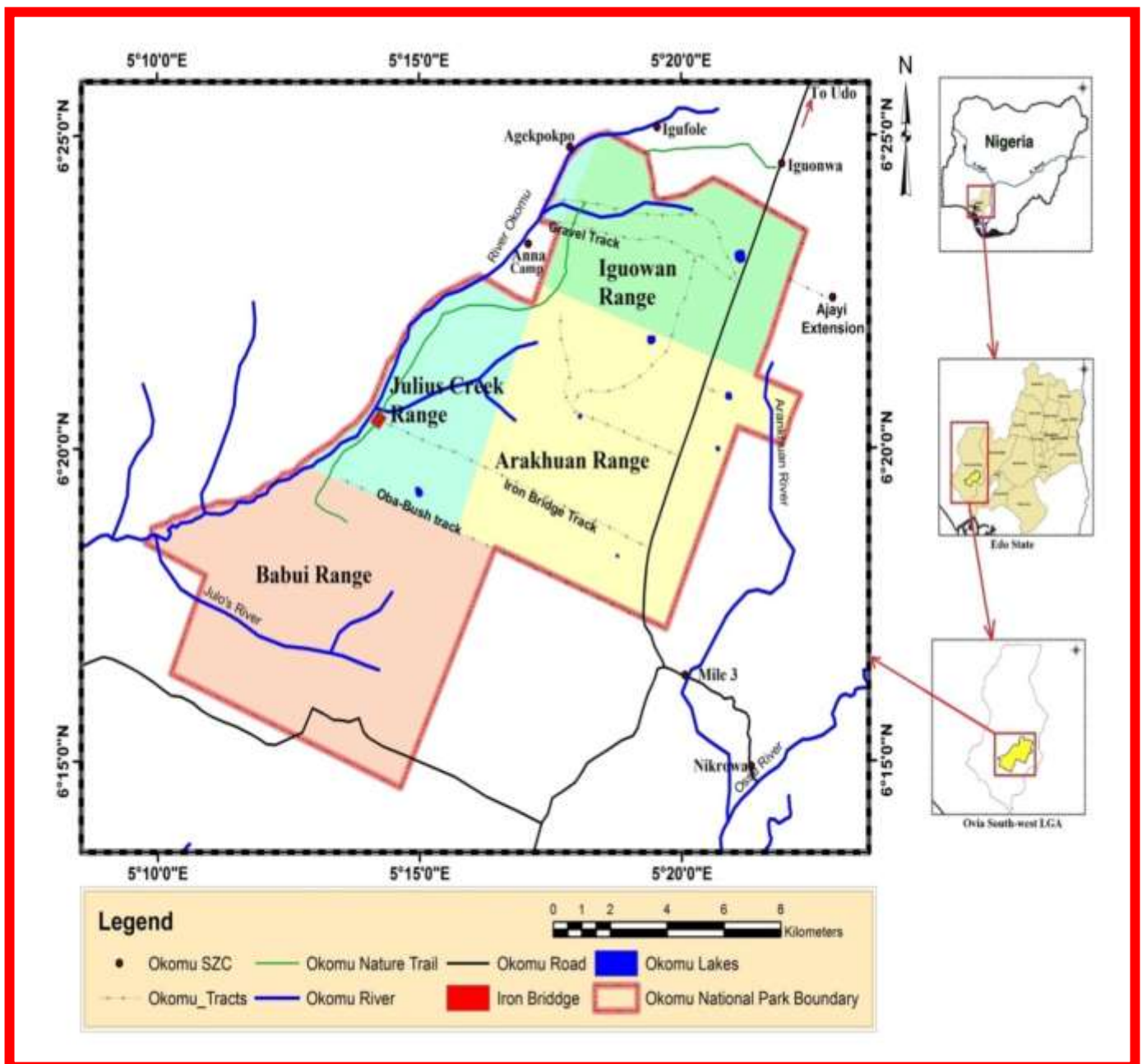


Figure 2: Map of Okomu National Park showing some surrounding communities

Data Collection and Analysis

The study was conducted in 2019. The study involved secondary data from the management of the parks. Data obtained include visitation and income data from 1997 to 2017 for Old Oyo National Park and 2003-2017 for Okomu National Park. Visitation data were from monthly, quarterly and annual progress report of the selected parks. Income data were obtained using Financial Sustainability Scorecard for National Systems of Protected Areas (Bovarnick, 2007). Growth rate was calculated using percentage increase formula $\left[\frac{((\text{Final value} - \text{staring value}))}{(\text{staring value})} \right] \times 100$ (Furey, 2022). Analysis of data was through descriptive statistics.

RESULTS

Trends in Visitation to Old Oyo and Okomu National Parks

The tourist's inflow to Old Oyo National Park from 1997 to 2017 shows that 18,849 tourists visited the park (Table 1). This was made up of 18,515 domestic tourists and 334 international tourists. The highest number of tourists to Old Oyo National Park was in 2015 with 3,785 tourists while the least was in 1997 with 45 tourists. In Okomu National Park, there were 11,224 tourists in the park from 2003-2017 (Table 2) comprising 10,394 domestic tourists and 830 international tourists. The highest number of tourists' visitation to Okomu National Park was in 2011, the

park received 2,081 tourists while in year 2005 no tourists' visitation in both parks. tourist visited the Park. There was fluctuation in

Table 1: Tourist inflow to Old Oyo National Park (1997- 2017)

Years	Local	Foreign	Total	Annual Growth	Growth Rate (%)	Percentage Rate(%)	Growth
1997	41	4	45				
1998	197	50	247	202	4.49		449%
1999	334	10	344	97	0.39		39%
2000	326	16	342	-2	-0.01		-01%
2001	318	111	429	87	0.25		25%
2002	694	33	727	298	0.69		69%
2003	277	4	281	-446	-0.61		-61%
2004	321	27	348	67	0.24		24%
2005	537	8	545	197	0.57		57%
2006	226	24	250	-295	-0.54		-54%
2007	604	12	616	366	1.46		146%
2008	418	2	420	-196	-0.32		-32%
2009	616	0	616	196	0.47		47%
2010	825	4	829	213	0.35		35%
2011	1297	8	1305	476	0.57		57%
2012	556	9	565	-740	-0.57		-57%
2013	676	2	678	113	0.20		20%
2014	3617	8	3625	2947	4.35		435%
2015	3785	0	3785	160	0.04		04%
2016	1935	2	1937	-1848	-0.49		-49%
2017	915	0	915	-1022	-0.53		-53%
Total	18515	334	18849				

Table 2: Tourist inflow in Okomu National Park (2003- 2017)

Years	Local	Foreign	Total	Annual Growth	Growth Rate(%)	Percentage Growth Rate(%)
2003	165	67	232			
2004	650	138	788	556	2.40	240%
2005	0	0	0	-788	-1.00	-100%
2006	414	60	474	474	-	-
2007	600	129	729	255	0.54	54%
2008	1110	122	1232	503	0.69	69%
2009	1062	120	1182	-50	-0.04	-04%
2010	1283	40	1323	141	0.12	12%
2011	2021	60	2081	758	0.57	57%
2012	1156	20	1176	-905	-0.43	-43%
2013	524	20	544	-632	-0.54	-54%
2014	199	23	222	-322	-0.59	-59%
2015	1042	20	1062	840	3.78	378%
2016	141	9	150	-912	-0.86	-86%
2017	27	2	29	-121	-0.81	-81%
Total	10394	830	11224			

Contributions of Budgetary Provisions, Ecotourism, and Other Sources to Financial Sustainability of the Parks

In Figure 3, the contributions of different sources of funding to financial sustainability of the parks are presented. The sum of ₦3,448,263,928.75 (USD 9,576,930.72) was released to the two parks by the Federal Government. The budgetary release to Old Oyo National Park was ₦2,556,387,449.81 (USD 7,099,904.76) from 1997 to 2017 while it was ₦891,876,478.94 (USD 2,477,025.95) for Okomu

National Park from 2003 to 2017. The total income from ecotourism to Old Oyo and Okomu National Parks was ₦24,342,095.00 (USD 67,605.78) (OONP: ₦13,383,697.00, USD 37,170.81, ONP: ₦10,958,397.00, USD 30,434.97) while the sum of ₦63,513,142.81 (USD 176,396.29) (OONP: ₦62,311,782.81, USD 173,059.73, ONP: ₦1,201,360.00, USD 3,336.56) was generated from other sources. This thus indicates that the main source of finance for operations of the two national parks was through government budget.

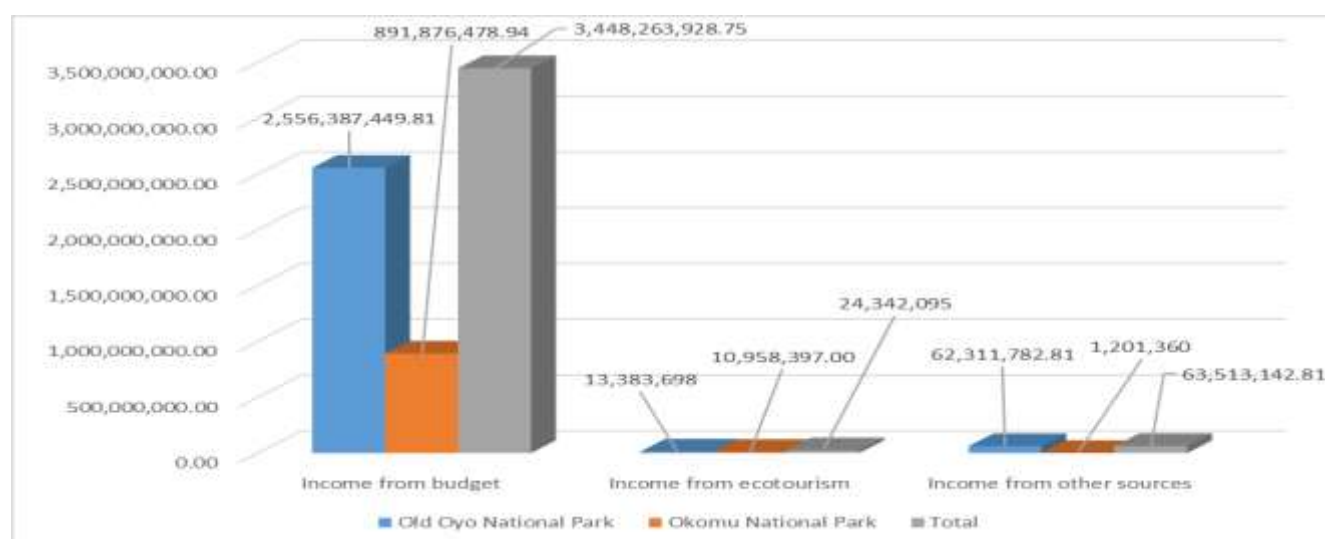


Figure 3: Income from budget, ecotourism and other sources in Old Oyo and Okomu National Parks
Exchange Rate: ₦360.0594 = USD1 (2019).

The Contributions of Various Aspects of Ecotourism to Park Incomes

Table 3 shows the contribution of the various aspects of ecotourism to the incomes of Old Oyo from 1997-2017). The study reveals that accommodation was the largest contributor to Old Oyo National Park income with ₦7,729,181.00 (USD21,466.41). This was followed by park entry with ₦3,279,038.10 (USD9,106.94) while catering services was ₦2,319,523 (USD6,442.06) and sales of souvenir was ₦55,955.00 (USD155.41). No income was recorded for game viewing, bar/drinks, and swimming pool.

However, at Okomu National Park, swimming pool was the largest contributor from ecotourism to park income with ₦3,132,260 (USD8,699.29), followed by park entry (₦2,695,205, USD7,485.45), accommodation (₦2,505,695, USD6,959.12), bar/drinks (₦1,109,450, USD3,081.30), catering services (₦834,236.54, USD2,316.94), miscellaneous (provision of campfire facility, camping site, use of facilities, etc. (₦679,950, USD1,888.44), and sales of souvenir (₦1,600, USD4.44). However, no income was recorded for game viewing (Table 4).

Table 3: The contribution of various ecotourism income sources to Old Oyo National Park revenue (1997-2017)

Year	Accommodation	Catering	Park entry	Sales of Souvenir	Game viewing	Bar/drinks	Swimming pool	Total
1997	21,240	0	0	0	0	0	0	21,240
1998	127,240.01	69,977.84	0	0	0	0	0	197,218
1999	58,291	36,577.07	49,135	0	0	0	0	144,003
2000	26,438.50	77,850.24	18,801	55,955	0	0	0	179,045
2001	6,270	57,327.70	107,038.80	0	0	0	0	170,637
2002	8,800	133,222.36	8,010	0	0	0	0	150,032
2003	1,740	61,395.25	7,590	0	0	0	0	70,725
2004	54,725	84,341.48	13,345	0	0	0	0	152,411
2005	NA	NA	NA	NA	NA	NA	NA	0
2006	207,856	61,637.48	34,850	0	0	0	0	304,343
2007	88,809	60,870.55	51,033.34	0	0	0	0	200,713
2008	276,614	53,401.32	63,850	0	0	0	0	393,865
2009	509,970	66,700.00	185,650	0	0	0	0	762,320
2010	350,823.75	72,350	181,453	0	0	0	0	604,626
2011	583,740	98,790	412,255	0	0	0	0	1,094,785
2012	982,085	118,720	315,450	0	0	0	0	1,416,255
2013	929,710	140,036.75	592,523	0	0	0	0	1,662,269
2014	1,219,436	75,095	343,620	0	0	0	0	1,638,151
2015	885,824	302,500	295,470	0	0	0	0	1,483,794
2016	1,138,584	361,230	473,085	0	0	0	0	1,972,899
2017	250,985	387,500	125,880	0	0	0	0	764,365
Total	7,729,181	2,319,523	3,279,038.1	55,955	0	0	0	13,383,697

Exchange Rate: N360.0594 = USD1 (2019).

Table 4: Contribution of various aspects of ecotourism to Okomu National Park income (2003-2017).

Year	Accommodation	Catering	Park entry	Sales of Souvenir	Game viewing	Bar/ Drinks	Swimming pool	Miscellaneous	Total
2003	108,300.00	0.00	176,990	0	0	0	0	0	285,290
2004	54,000.00	32,910	87,940	0	0	0	0	0	174,850
2005	NA	NA	NA	NA	NA	NA	NA	NA	0
2006	67,950	161,950	73,320	0	0	0	463,480	0	766,700
2007	61,400	0.00	169,860	1,600	0	0	0	195,000	427,860
2008	65,500	0.00	194,400	0	0	0	0	257,000	516,900
2009	68,300	0.00	231,850	0	0	0	109,780	56,500	466,430
2010	425,478	178,880	228,620	0	0	0	275,000	86,000	1,193,978
2011	141,363	87,956	352,310	0	0	56,600	440,000	85,450	1,163,679
2012	296,790	112,710	304,265	0	0	0	256,000	0	969,765
2013	328,480	101,430	190,400	0	0	669,000	1,074,000	0	2,363,310
2014	375,550	42,240	349,400	0	0	900	309,000	0	1,077,090
2015	0	0	0	0	0	0	0	0	0
2016	325,284	116,161	194,900	0	0	382,950	0	0	1,019,295
2017	187,300	0	140,950	0	0	0	205,000	0	533,250
Total	2,505,695	834,236.54	2,695,205	1,600	0	1,109,450	3,132,260	679,950	10,958,397

Exchange Rate: N360.0594 = USD1 (2019).

DISCUSSION

The study revealed that the total number of visitors to Old Oyo and Okomu National Parks was 30,073 comprising 28,909 local tourists and 1,164 foreign tourists from 1997-2017. Compared with the number of tourists to two of the most popular national parks in Kenya from 1998-2003 reported by Irandu (2004), the tourists' visitation to the two National Parks was very low. Furthermore, the findings disagree with Statista (2022) that reported that Yellowstone National Park received over three million visitors annually since 2008 and reached its visitation peak in 2021. The results on the total number of international tourists is an indication that the visitation by international tourists to the two Parks was low. The total numbers of domestic and international tourists were also lower than what was reported by Erb (2005) for Komondo National Park. In addition, the study further revealed that Okomu National Park recorded higher number of international tourists (830) than Old Oyo National Park (334), which could be as a result of primates and elephant populations that attract international tourists to Okomu National Park. The number of visitors was also lower than the annual tourist arrivals at Kruger National Park, South Africa which is approximated to be 950,000 people yearly, while that of Serengeti National Park in Tanzania recorded 150,000 –

200,000 people yearly (Siyabona Africa, 2022). This finding agrees with Stevens *et al.* (2014) who reported low level of visitation in the Grand Canyon National Park, Arizona from 1993 to 2010 during economic recessions while it however disagrees with Lopez (2021) that reported high level of visitation to Manuel Antonio National Park (191,500) and Vulcan Poas National Park (174,400) from 2009 - 2019 in Costa Rica. The study found fluctuations in the trends of visitations to the parks. The fluctuations could be attributed to the effects of political instability as a result of military rule and unstable economic policies that did not support tourism. Schuett *et al.* (2010) also reported high level of visitors' fluctuation at Texas National Park in United States.

The findings further revealed that the total income from tourism for Old Oyo and Okomu National Parks from 1997-2017 was ₦24,342,095. This is very low compared with annual income from tourism reported by Krozer *et al.* (2007) for Alde Feanen National Park, The Netherlands (€ 79.3 million with € 200,000 state support and € 175,300 costs of the park, which is € 793 per visitor) and Werribben National Park, The Netherlands (€ 25 million with € 2 million of costs of the park). The study found that government budgetary funding was by far higher than the income that was generated by the parks from tourism. This is an

indication that ecotourism activities in the park contribute very low to the parks' financial sustainability. This is consistent with the findings of Ogunjinmi and Ijeomah (2010) who observed in Kainji Lake National Park that income from ecotourism could not sustain the park.

CONCLUSION

There is a large variation in the number of domestic tourists and international tourists in Old Oyo and Okomu National Parks. Budgetary provisions were the main source of finance for the operations of the national parks. Thus, income from ecotourism activities of the park was low compared with income from annual government budgets. Thus, the contribution of ecotourism to the financial sustainability of the parks was very low. The park management should develop strategies and plans towards enhancing visitation for both domestic and international tourists. These strategies could include upgrading and maintenance of ecotourism facilities, aggressive marketing, and promotion while government should improve on the security architecture around the parks and host communities at the same time, explore the full range of income generation opportunities in ecotourism such as fees for game viewing, bar and drinks, and swimming pool particularly in Old Oyo National Park. The parks should collaborate with tour operators to always organise small, medium and large scale group tours, this can be in form of annual events during which other festivals (traditional and cultural) do take place in the parks' environs – such as Oranmiyan, Osun Oshogbo, Igue, Ewere, Christmas, Easter and Sallah festivals. The management should showcase more of the parks' ecotourism potential in international trade fairs and travel markets being organized annually to attract both local and foreign tourist.

REFERENCES

- Ajayi, O.O. & Eveso, J.O. (2017). Ecotourism in Nigeria: The Okomu National Park Context. *Journal of Tourism, Hospitality and Sport*, 28:22-33.
- Anup, K. C (2016) Ecotourism and Its Role in Sustainable Development of Nepal. In: Butowski, L. (2016). *Tourism - From Empirical Research Towards Practical Application*. Chapter 3, IntechOpen, Pp.31-59.
- Bovarnick, A. (2008). Financial sustainability scorecard for national systems of protected Area. UNDP. http://www.cciforum.org/pdfs/FinancialScorecard-Version1_5_August08.pdf
- Eltringham, B. K. (1984). *Wildlife resources and economic development*, New York, John Wiley and Sons Ltd.
- Erb, M. (2005). Limiting Tourism and the Limits of Tourism: The Production and Consumption of Tourist Attractions in Western Flores. In book: *Indigenous Tourism*. DOI: 10.1016/B978-0-08-044620-2.50017-1
- Furey, E. (2022). "Percentage increase Calculator" Available at <https://www.calculatorsoup.com/calculators/algebra/percentage-increase-calculator.php> from CalculatorSoup.<https://www.calculatorsoup.com> – Online Calculator
- Irandu, E.M. (2004) The role of tourism in the conservation of cultural heritage in Kenya, *Asia Pacific Journal of Tourism Research*, 9(2): 133-150.
- Krozer, K., Lordkipanidze, M., Bijma, T. & van den Akker, F. (2007). Income generation from tourism in National Parks: European experience. *WIT Transactions on Ecology and the Environment*, 102: 1019-1028.
- Nchor, A. A., Obot, E. A., Enniang A. E., Wari, M & Stopfords G. P. E (2010). Participatory Management plan of Old Oyo National Park, 2010 – 2014, Abuja global Tree Planters Limited, 153.
- Ngoka, P.C. (2013): Capacity and Levels of Utilization of Tourism potentials of Yankari and Cross river National Parks – Implications for Optimistic ecotourism development in Nigeria. *African Journal of Hospitality, Tourism and Leisure*, 2(4): 1-12.
- Nigeria National Park Service (2015). Okomu National Park. Available at <http://nigeriaparkservice.org/okomu/default.aspx>.
- Ogunjinmi A. A. & Ijeomah H. M. (2010). Analysis of ecotourism activities in Kainji Lake National Park, Nigeria. *Global Approaches to Extension Practice*, 6(1): 86 – 90.
- Oladeji, S.O., Agbelusi, E.A., & Ajiboye, A.S. (2012). Assessment of Aesthetic Value of Old Oyo

- National Park. *American Journal of Tourism Management*, 1(3): 69-77.
- Olaniyi, O.E., Ogunjemite, B.G. & Akindele, S.O. (2015). Ecotourism Development in Okomu National Park, Nigeria. *Journal of Sustainable Development in Africa*, 17(7): 51-73.
- Rylance, A. (2016). Estimating tourism's contribution to conservation area financing in Mozambique. A Decade of Progress in Protected Area Tourism (January 2017), *Tourism and Hospitality Research*, Special Issue: 17(1): 24-33.
- Schuett, M.A., Le, Y. and Hollenhorst, S.J. (2010). Who visits the U.S. National Parks? An analysis of park visitors and visitation: 1990–2008. *World Leisure Journal* 52(3): 200-210.
- Siyabona Africa (2022). An Introduction to Kruger Park. Images of a Great African Park. https://www.krugerpark.co.za/Krugerpark_Travel_Guide-travel/images-of-kruger-an-introduction.html
- Statista (2022). Number of visitors to Yellowstone National Park in the U.S. 2008-2021. Available at <https://www.statista.com/statistics/254231/number-of-visitors-to-the-yellowstone-national-park-in-the-us/>
- Stevens, T.H., More, T.A., Markowski-Lindsay, M., (2014). Declining national park visitation: An economic analysis. *Journal of Leisure Research*, 46(2):153-164.
- UNEP. (2001). "Tourism and Environmental Conservation." United Nations Environment Programme. Accessed April 2018. <http://drustage.unep.org/resourceefficiency/tourismandenvironmental-conservation>.
- UNWTO. (2017). *Tourism highlights: 2017 edition* Available at <https://www.eunwto.org/doi/pdf/10.18111/9789284419029>.