



ACTIVITIES OF FIELD STAFF CURBING THE MARAUDING WILD ANIMALS CAUSING HUMAN WILDLIFE CONFLICT IN OLD OYO NATIONAL PARK

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ABSTRACT

The study examined the activities of Old Oyo National Park (OONP) field staff curbing the marauding wild animals causing human wildlife conflict in the study area. Data were collected using a combination of structured and open-ended questionnaire. All generated data were subjected to descriptive statistics and Pearson's correlation analyses. Pearson correlation results revealed that reported cases of wildlife attack and compensations made due to wildlife attack were significant ($P < 0.05$), while collaboration between the park authority and communities' leaders was negative. Based on the findings from this study, it is imperative to examine any human-wildlife conflict issue within the context of economic, social and cultural lives of the people. For effectiveness, mitigation strategies and palliative measures must consider how and why people perceive crop losses the way they do; what they expect from any intervention and who they expect to take responsibility for the issue.

Keywords: Human-Wildlife conflict, marauding, wild animals, Old Oyo National Park

INTRODUCTION

In many African countries, human-wildlife conflict (HWC) is a contentious issue among conservation initiatives, authorities, personnel and local communities. A lack of locally acceptable, effective ways of reducing such conflict has contributed to the feelings of alienation and lack of inclusion, especially among rural African populations living adjacent to protected areas (De Boer and Baquete, 1998; Gillingham and Lee, 1999; Infield, 1988; Newmarket *et al.*, 1993). In recent years, however, leading conservation managers have singled out human-wildlife conflict as a significant threat to the success of African conservation initiatives (Naughton-Treves and Treves, 2000), and research is now calling attention to the costs to rural African populations living alongside wildlife (Butynski, 2001; O'Connell-Rodwell *et al.*, 2000; Studsrod and Wegge, 1995; Woodford *et al.*, 2002).

An integrated approach to mitigating conflict between cultivators and wildlife (that is, taking into account local people's needs as well as those of

wildlife) (Atteh, 1984; Bell, 1984; Biryahwaho, 2002) recognizes the importance of understanding conflicts from farmers' perspectives, because their beliefs are likely to influence their attitudes and behaviour (for example, tolerance of wildlife) (Hill, 2000). Examining farmers' experience of crop losses due to wildlife within the context of previous conservation policy and practice is likely to provide valuable insights into African farmers' expectations regarding conflict mitigation strategies. This study highlighted the perspectives of Old Oyo National Park field staff on the activities of marauding wild animals as well as efforts made (by the management) to reducing the menace of human-wildlife conflict in the area.

MATERIALS AND METHODS

Study site

Old Oyo National Park (OONP) is geographically located between Longitudes 3°35' and 4°42'E; Latitudes 8°15' and 9°00'N. OONP is considered as a mixed heritage site with outstanding

natural and cultural values that if explored could serve as basis for its enlistment on the UNESCO world heritage list as the first mixed heritage site in Nigeria (Oladeji, 2012). OONP derives its name from the ruins of Oyo-Ile, (Old Oyo) the ancient political capital of Yoruba Empire. The abundance of cultural features in and outside the Park with a combination

of ecological and biodiversity sites places the Park in a very unique and advantageous position as a potential tourism destination. The Park has a total land mass of 2512 km² (making it the fourth largest national park in Nigeria) and is located in the South Western part of Nigeria, specifically Northern part of Oyo State.

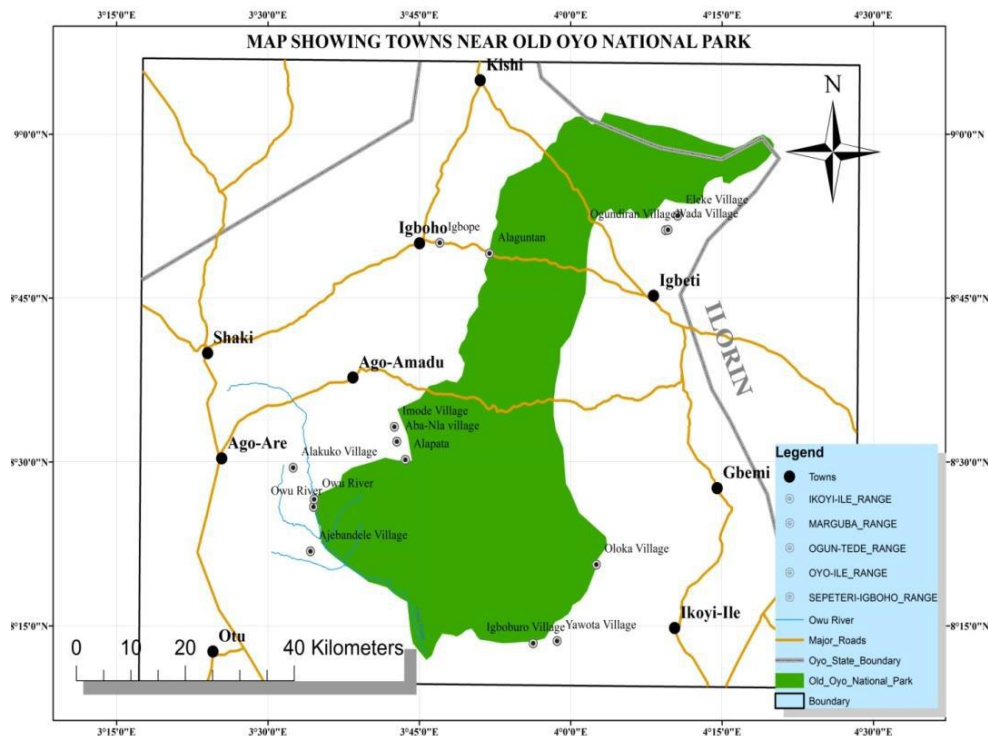


Figure 1: Map of Old Oyo National Park showing the surveyed ranges

Source: Adedoyin *et al.*, 2018

Data collection

A total of twenty (20) copies of questionnaire were administered to the National Park staff present on the field in each of the five ranges: Ogun-Tede, Marguba, Sepeteri-Igboho, Oyo-Ile and Yemoso. Eighteen (18) of the administered questionnaire were retrieved. The questionnaire was designed to obtain the following information: activities of marauding wild animals, park management efforts and activities on human wildlife conflict and conservation of wild animals in the buffer zone, as well as inhabitants of buffer zone support and incentives initiatives. All data collected were subjected to descriptive statistics and Pearson correlation analyses.

RESULTS

Table 1 revealed that there have been reported cases of wild animals' attack (11; 61.1%) in the study area, where crops (8; 44.4%) and livestock

(3; 16.7%) were damaged. The main wild animals' species responsible for this damage and destruction were primates (8; 44.44%), warthog (5; 27.66%) and lion (3; 16.7%). In many reported cases of wild animals' damage and marauding activities, there have always been ways of pacifying the victims (usually farmers). The forms in which the affected farmers were compensated in the study area included through loan, empowerment (8; 44.44%) and free medical care (6; 33.34%), provision of infrastructure as well as organizing empowerment programmes (4; 22.22%). The provisions of these compensations were done to reduce level of retaliation (4; 22.2%) from the affected farmers and buffer zone dwellers. Even with these compensations, some of the wild animals that caused damage through their marauding activities were sometimes killed, captured, injured or shot (14; 66.7%).

Table 1: Activities of marauding wild animals around OONP Buffer zone Communities

Variables	Frequency	Percentage (%)
Reported cases of wild animals' attack		
Yes	11	61.10
No	7	38.90
Total	18	100.00
Attack target		
Livestock	3	16.70
Crops	8	44.40
No response	7	38.90
Total	18	100.00
Usually reported animal species		
Elephant	1	5.60
Lion	3	16.70
Primate	8	44.44
Warthog	5	27.66
Primate and Warthog	1	5.60
Total	18	100.00
Forms of compensation due to attack		
Infrastructure and empowerment	4	22.20
Provision of medical care & payment of damages	6	33.30
Loan, amenities & empowerment	8	44.40
Total	18	100.00
Retaliation from villagers		
Yes	4	22.20
No	6	33.30
No response	8	44.40
Total	18	100.00
Types of retaliation		
Shooting	2	11.10
Catching	1	5.60
Shooting, catching & injuring	14	66.70
No responses	1	5.60
Total	18	100.00
OONP Mgt. reactions when an animal is killed		
Culprits are prosecuted	4	22.20
Reconciliation meeting, pacifying the aggrieved and prosecution of offenders	13	72.20
No response	1	5.60
Total	18	100.0

Source: Field Survey, 2016 and 2017



Plate 1: Maize farm in Ogun-Tede range buffer zone destroyed by marauding wild animals



Plate 2: Groundnut farm in Marguba range buffer zone destroyed by marauding wild animals

In Table 2, it was shown that the management of Old Oyo National Park enlightens (17; 94.4%) the villagers, through conservation education (12; 66.7%) and focal group counseling (2; 11.1%). Wild animals marauding activities were handled by advising farmers on planting regimes (6; 33.3%) as well as advising them to stay away from the park boundaries (4; 22.2%) and establishment of conservation clubs. There was collaboration (which needed to be strengthened) (7; 38.9%) between the

Park management and buffer zone communities' leaders. According to this study, buffer zone can be effectively managed through clear-cut boundary demarcation and conservation education (7; 38.9%). Other ways to manage buffer zone are through resource monitoring and policing (3; 16.7%), through the combination of conservation education, resource monitoring and policing (3; 16.7%) and through conservation education only (2; 11.1%).

Table 2: OONP Management Efforts and Activities to Reducing Wild animals attack around the Buffer zone

Variables	Frequency	Percentage (%)
Do OONP management enlighten the villagers?		
Yes	17	94.40
No response	1	5.60
Total	18	100.00
Forms of enlightenment		
Through conservation education	12	66.70
Through focal group counseling	2	11.10
No response	4	22.20
Total	18	100.00
Management of wildlife attacks by OONP		
Educating the villagers	3	16.70
Payments for damages	1	5.60
Farmers should stay away from the park	4	22.20
Establishment of conservation clubs	4	22.20
Advise farmers on early and late planting of crops	6	33.30
Total	18	100.00
Any collaboration between OONP authority and buffer zone leaders?		
Yes	7	38.90
No	4	22.20
No response	7	38.90
Total	18	100.00
How should buffer zone be managed against wild animals' attack?		
Through clear-cut boundary demarcation& conservation education	7	38.90
Through conservation education only	2	11.10
Through resource monitoring and policing	3	16.70
Through conservation education, resource monitoring & policing	3	16.70
No response	3	16.70
Total	18	100.00

Source: Field Survey, 2016 and 2017

In Table 3, Pearson correlation results revealed that the perception of the staff on the reported cases of wild animal's attack in the buffer zone was significant ($P < 0.05$; 0.870*) at 2-tailed level. Also, compensations made due to wildlife

attack was significant ($P < 0.05$; 0.577*) at 2-tailed level. Collaboration between the park authority and communities' leaders had negative correlation (-0.377).

Table 3: Staff Perception on Wild Animal Attack and Buffer zone Management

Variable	Pearson correlation	1
	N	18
Reported cases of wildlife attack	Pearson correlation	0.870*
	Sig. (2-tailed)	1
	N	18
Compensation due to wildlife attack	Pearson correlation	0.577*
	Sig. (2-tailed)	0.000
	N	18
Collaboration between the park authority and communities' leaders	Pearson correlation	-0.377
	Sig. (2-tailed)	0.012
	N	18
How should buffer zone be managed against wild animals' attack?	Pearson correlation	0.297
	Sig. (2-tailed)	0.844
	N	18

Source: Field Survey, 2016 and 2017

* Correlation is significant at the 0.05 level (2-tailed)

DISCUSSION

Crops being the major target of marauding animals may not be unconnected to the fact that these marauding animals were in search of food. This they found in abundance in the buffer zone around the Park. Also, primates are generalist feeders while warthogs feed mainly on grains and tubers. This shows why primate species were the main threat to the crops. Attack on livestock was low due to the lion's and other large predators' dwindling population in the study area. The marauding activities of the wild animals (especially the extreme agility of primate species) may have negative effect on the farmers and buffer zone dwellers at large. This is supported by the view of Hill (2004) that crop losses to wildlife may have various impacts on farming households which include high guarding investment, disruption of schooling for children who have to help guard fields, increased risk of injury from wildlife and increased risk of contracting diseases such as malaria. Osborn and Hill (2005) further echoed that crop damage depends also on the species that are involved in this activity. Indeed, different species may specialize on different types of crop and different plant parts or development stages. Furthermore, in many reported cases of wild animals' damage and marauding activities, there have always been ways of pacifying the victims (usually farmers). The forms in which the affected farmers were compensated in the study area included through loan (which must be repaid on installments), empowerment and free medical care, provision of

infrastructure as well as organizing empowerment programmes. The provisions of these compensations were done to reduce level of retaliation from the affected farmers and buffer zone dwellers. Even with these compensations, some of the wild animals that caused damage through their marauding activities were sometimes killed, captured, injured or shot. These submissions are in consonance with the assertion of Siex and Struhsaker (1999) that the continued negative attitude of communities towards wildlife emanates from losses (including human life, property, crops and even agricultural land set aside for conservation purposes) incurred by wildlife to the point that the association of wildlife with damage is now so integrated in the minds of local populations that they will even blame beneficial species. Whenever this (attack) happens, Old Oyo National Park management would set up reconciliation meeting, pacifying the aggrieved and prosecuting offenders (if there is any).

Also, it was shown that the management of Old Oyo National Park enlightens the villagers, through conservation education and focal group counseling. Wild animals marauding activities were handled by advising farmers on planting regimes as well as advising them to stay away from the park boundaries and establishment of conservation clubs. There was collaboration (which needed to be strengthened) between the Park management and buffer zone communities' leaders. With close and cordial relationship between the Park management and the

buffer zone representatives, the extent of the damage wrecked by marauding wild animals may reduce. Also, the adoption of a true and effective bottom-top approach in the management of the Park will be a huge success. Buffer zone can be effectively managed through clear-cut boundary demarcation and conservation education. Other ways to manage buffer zone are through resource monitoring and policing, through the combination of conservation education, resource monitoring and policing and through conservation education only. All these submission of effective management ways of managing Old Oyo National Park buffer zone agree with the opinion of Adeola *et al.*, (2017) that the buffer zone of Kainji-Lake National Park can sustainably be managed through enlightenments, conservation education and periodic sensitization of the buffer zone dwellers.

Finally, there have been regular reports of wild animals' attacks in the study area and that the compensations have been more acceptable by the support zone dwellers. But, collaboration between park authority and communities' leaders has not been cordial and this can pose threat to conservation of renewable resources in the park and buffer zone of the park. Also, the neglect of buffer zone management in Old Oyo National Park will do more

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harm than good. Fauna species stroll, roam and visit the buffer zone. As expected, there should be a certain level of control and policing in the area so as to protect the roaming fauna species. Total neglect as revealed in this study, may lead to the loss of some viable and important wildlife species which resultant effect may then be detrimental to the entire fauna species populations.

CONCLUSION

Activities of marauding wild animals as well as crop raiding have a significant impact on the livelihoods of rural people. It is therefore imperative to examine any human-wildlife conflict issue within the context of economic activities, social and cultural lives rather than as an isolated phenomenon that has no bearing on lives of the people outside of their economic activities. To be effective, mitigation strategies and palliative measures must consider not only the degree to which activities of marauding wild animals impact crop yields and household economics but also how and why people perceive crop losses the way they do; what (the exact things) they expect from any intervention and who (park management, conservation managers or non-governmental organization) they expect to take responsibility for the issue.

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