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Collaborative Conservation Through Policy Enforcement in Old Oyo National Park, Nigeria

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Abstract

Nature share neighborhood with locals, who are the original custodians of it. Escalating human population with resultant limitless need for limited, renewable but depletable resource necessitate introduction of restrictions to use. Does constraint guarantee cooperation for conservation? This has prompted need for this research- assessing enforcement as a tool to influence rurals' compliance to park protection and vis versa, taking OONP, a park with historic and cultural relics in Nigeria, as a case study. Two sets of questionnaire were administered to park managers (PM) and Support Zone Communities (SZCs) assisted with in-depth interview in each of the six ranges of the park. Secondary data augments survey from records obtained from park head office. A total of 70 PMs was surveyed purposively at the Park headquarters and at the six ranges. From a sampling frame of 30%, a total of 40 villages was randomly and unevenly pooled from all six range stations depending on number of villages per range. Five households were randomly selected from each village and the household heads were purposively sampled. Park's underemployment lags enforcement and bars resource protection. People evade prosecution, resist arrest and show minute support for conservation. Enforcement has not been sufficient to curb resource exploitation. Alternative measures gain peoples' cooperation for conservation more. Adequate staffing cum updated prosecution terms will ensure effective patrol and deter offenders. Leniency of enforcement and empowerment will aid inclusion and cooperation of people for conservation in the face of 21st century challenges.

Keywords: Cooperative Conservation, Effective Patrol, Biodiversity Loss, Encroachment, Lax Prosecution

Introduction

Areas of high biodiversity concentration usually experience dense human population who are mostly pushed to such locations by high rate of socioeconomic poverty or displacement by terrorism. This raised dust on why protected areas and national parks exclude locals from the territories of the resource where they traditionally belong (Adams and Mulligan, 2003) [1] as eviction of locals from protected nature-lands for species and habitat protection has always been the norm (King, 2007) [18]. People are traditionally bound to nature and are part of it. Millennium efforts towards species and ecosystem protection advocate for co-habiting and cooperative management of biodiversity in protected areas jointly by resource managers and the resource custodians (local communities, if they could be addressed as such). This is due to the concern by international communities to have the people of the globe protected by sustainability at all spheres - sustainable conservation, sustainable development, sustainable consumption, sustainable livelihood and the likes. However, in as much as "there is no conservation without development and sustainability also implies sustainable livelihood", protection and restriction are necessities to gauge and ration consumption, either destructive or not, at a rate that considers the biological rate of species and the resilience of the ecosystem. This will cater for perpetual availability of biodiversity while ensuring that there is wise utilization of it at a rate that does not jeopardize the potential of the resource to cater for the needs of present and future generations of humans. And that is where enforcement comes in – people should view protected areas as a resource bank that is important to be protected and left unexploited, reaping more of the non-consumptive benefits while engaging in nature-friendly alternative livelihood sources. For the protection of not only biodiversity, but also to guide and guard people on their activities, park policy is enacted and is to be enforced. Use of force and violence for protection policy enforcement, though ascertained as authorized, enabled and constrained by the legal structures of conservation enforcement within which they operate, is often at the discretion of individual protection officer (Massé, 2020) [21].

Nigeria is blessed with myriads of species and ecosystems threatened by extinction and degradation (Anwadike, 2020) [4]. Role of Nigerian National Parks, Old Oyo National Park (OONP) inclusive, in conserving and protecting species, habitats, ecological and geographical zones cannot be overemphasized. Old Oyo National Park which earns its uniqueness among all Nigerian National Parks due to its fascinating pockets of archaeological, cultural and historic features dotted within and around the park, suffers illegal mining of tantalite and cobalt accompanied by killing of park staff during resistance of arrest. In social systems, guidelines are spelt out by laws and policies and ensured by enforcement. With the reality of human population boom around protected areas, keeping people to abide by biodiversity conservation through adherence to wildlife policy has spiked the urge for this research – investigating the equipment of policy enforcement in compliance to conservation in Old Oyo National Park. This was done through gauging human population density and livelihood pattern of Support Zone Communities (SZCs) of the park; awareness of the people about policy declaration mandating conservation in the park and; capacity and indices of enforcement towards achieving sustainable conservation in the park.

Literature Review

Concept of Conservation Enforcement in Protected Areas

In combating hunting and illegal biodiversity resource exploitation, the primary step is enforcement of wildlife law and policy, the preliminary of which is protected area boundary demarcation in order to set spatial limit for peoples' access to the land and its resources. Policing of the perimeters then follow hence, highlighting the rights and responsibilities of park officers to ensure enforcement of such policies. Species loss and habitat decline are responsible for this call, as populations of keynote species like rhinos in Eastern and Southern African protected areas, are threatened by poaching and its related activities. Likewise, population of African elephant is facing a decline rate of 8% per annum (Ferreira *et al*. 2017) [10]. Conservation law enforcement (CLE) has been defined by Massé (2020) [21] as "the organized practices and authorities used to enforce laws and norms related to the use of biodiversity and the regulation of activities within spaces of conservation". According to Foucault (2008) [11], law enforcement is the set of instruments - arrest, investigation, prosecution and penalties - that makes the prohibitions established by law, and hence by the state, a reality. Its implementation is by sanctioned state and non-state actors that have the formal or tacit authority to uphold laws and the norms they encompass. The organizing principle of the penal calculation states that the objective of punishment as made possible by those instruments is to deter individuals from breaking the law by increasing the cost–benefit ratio of committing a crime, in this case, making people weigh the risk and punishment of species and habitats exploitation as being too significant. Ranger effectiveness is a function of his ability to protect the boundaries of a protected area and control the movement of illegal exploiters through it (Massé, 2020) [21]. A key requirement that will assist a ranger to achieve this is combat training as the curriculum for Field Ranger Training by the Game Rangers Association of Africa emphasizes its objective that: "the aim of all Field Ranger Training is to ensure the territorial integrity of protected areas". The significance of territorial protection is felt most in Intensive Protection Zones (IPZ), which are smaller areas within protected areas where patrol and surveillance are intensified due to either or both of high concentration of threatened species or illegal hunting.

Tactics and Indices of Enforcement in Protected Areas

Conventional assignment of rangers span ecosystems and species monitoring and maintenance alongside protection. Pressure on poaching in protected areas has streamlined their duty to concentrate only on enforcement with more stringent measures (Hubschle and Jooste, 2017) [15]. As an example, Mozambique's Law No. 16/2016 of 20 June 2014 updated penalty for illegal hunting from fine to a prison term of between eight to twelve years (Massé, 2020) [21], hence putting poaching on a red alert in that country. In all these, concerns are raised that heavy-handedness and violent tactics with people would alienate them and turn them against conservation which is aimed to be supported by them (Duffy *et al*. 2019) [9]. This measure of force for deterrent in some cases could be extreme such as the shoot-to-kill policy in Botswana where biological death of the poacher is formally used to protect the existence of certain species (Lunstrum, 2018) [20]. Some other scenario is to diminish the threat to conservation rather than remove it as is the case with penalties in the Nigerian National Park Act 46 CAP 65 of 2004 where poachers could serve jail term. Generally, rangers possess no right to kill offenders except in cases of resistance of arrest and in self-defense. They however have the authority to keep offenders off protected area territories through arrest (Paasche *et al*., 2014) [23]. Failure of legislation to deter offenders could frustrate rangers to be offensive and melt out corporal punishment on offenders as found in the works of Massé (2020) [21] when poachers with their weapons are caught and re-caught at short intervals in some Mozambican protected areas. As explained by Herbert (1997) [14], a method of removing transgressors in policing term is the "contain and capture" method where a set of officers establishes and maintains the perimeter while another assists the dogs and their handlers to penetrate the space delineated by the perimeter. Those in the helicopter monitor the situation from afar, using their various technological gadgets to observe and detect across a wide expanse. In the case of poaching, the penalty of either fine or jail term depends on the status placed on the species poached. From the works of Massé (2020) [21], when poaching was considered an administrative breach, killing of a rhino attracted payment of fine and not jail term. With the introduction of a new law in that country, killing of protected animals became a crime. This upgrading severity of the penalty from being an administrative breach to a criminal act against nature makes an offender a criminal and hence, faces the associated penalties.

Methodology

Study Site: Old Oyo National Park originated from two former contiguous forest reserves – the northern Upper Ogun Forest Reserve established in 1936 and the southern Oyo-Ile (Old Oyo) Forest Reserve established in 1941 (Businessday, 2020) [7]. The two were converted to game reserves in 1952. As a result of high diversity and population of wildlife species, the two were merged by the then Western State Government in the late 1960s to form the

Upper Ogun Game Reserve. This was later upgraded to the present status of a National Park by the Federal Department of Forestry in 1991 under the National Park Decree 36 of 1991 which later became National Park Service Act 46 of 1999, CAP FLN 65 of 2004. The park has six range offices (Fig 1). Old Oyo National Park covers an approximate land area of 2,512km^2. It lies on latitudes 8^{0}15'-9^{0}00'N of the equator and on longitudes 3^0 35'- 4^{0}42'E of the Greenwich Meridian. Rainy season is from April to September with the highest rainfall between July and August. Annual rainfall is between 900mm and 1,500mm with mean annual temperature between 20^{0}C and 37^{0}C. Temperature is highest in the dry season between February and March with values of about 33.6^{0}C with the lowest values of below 20^{0}C during the height of harmattan in December and January (DRB, 2003). The park is drained by Owu, Owe, Ogun and Tessi rivers. There is also Ibuya pool and the Ikere Gorge dam with abundant fish species and excellent boat cruising and bird sighting all year round. OONP is mostly of lowland plains at a height of 330m and 508m above sea level. The park has scattered hills, rock outcrops and solid mineral deposits like granite, cobalt and tantalite in commercial quantities. Notable flora species found in the park include: *Parkia biglobossa*, *Afzelia africana*, *Vitelaria paradoxum*, *Vitex doniana, Prosopis africana*, *Piliostigma thonnigii*, *Andropogon gayanus*, *A. tectorium*, *A. schirensis, Hyparrhenia dissolute*. Some fauna species in the park are Buffon's kob (*Kobus kob*), Roan antelope (*Hippotragus equinus*), Western hartebeest (*Alcelaphus buselaphus*), Bush buck (*Tragelaphus scriptus*), baboon (*Papio anubis*). Aquatic resources of the park include *Tilapia zilli, Clarias anguilaris, Hemichromis fasciatus, Coptodon guineensis, C. mariae*, while some of the avian species of the park are Black Kite (*Milvus migrans*), Grey Parrot (*Psittacus erithacus*), Crested Francolin (*Francolinus sephienus*), Double Spot Francolin (*Francolinus bicacaratus*), Africa Grey Hornbill (*Tochus nusutus*).

Sampling Techniques

Sources of Data: Two sources of data were employed to elucidate information from respondents for this survey. These are primary and secondary data sources aided with interview sessions with the Park Managers (PMs) and Support Zone Community members (SZCs).

Sampling Frame: A sampling size of twenty-three percent from a staff strength of three hundred was adopted on park officers targeting department heads and patrol rangers. All the six range offices including the park head office (PHQ), were selected for this survey. Ten park staff were picked from each of the range offices and at the PHQ, making a total of 70 park staff purposively selected for the survey of this research. For the park communities however, a multistage sampling procedure was adopted (Akosim *et al*., 2010) [3]. From all the six range stations, 30% of the number of villages in each range were randomly and unevenly pooled. Considering the number of villages in each range, a total of 40 villages were selected thus: Oyo-Ile Range – 4 villages selected from 12; Tessi – 3 from 9; Sepeteri – 8 from 25; Marguba – 8 from 28; Tede – 11 from 38 and; Yemoso – 6 from 19. Five households were then randomly picked from each of the selected villages to give a total of 200 selected households in the entire park for questionnaire administration. Taking household heads' as the major actor in family occupation into account, they were selected in each household. A total of 200 copies of questionnaire sets were then distributed to support zone villages of Old Oyo National Park to elucidate information from the park inhabitants.

The empirical phase of this study was conducted between August 2023 and September, 2024. The assistance of an research guide (Mr Gar'ba Abdullahi) who is a staff of the National Park, Marguba Range, and who understands the cultural and traditional disposition of the locals, was employed in order to syphon as much authentic information as possible from the SZC members. The guide also happened to have a good familiarity with the terrain of the park communities and the ranges. Two other officers each from the six ranges of the park were also part of the data collection. The field officers interpreted the questions on the questionnaire to the respondents who answered and responses were then ticked. An approximate time of five minutes were spent completing a questionnaire set by the local community members assisted by the field officers.

Stage 1: Old Oyo National Park (OONP) was divided into its six ranges viz: Oyo-Ile, Tessi, Sepeteri, Marguba, Tede and Yemoso Range Offices.

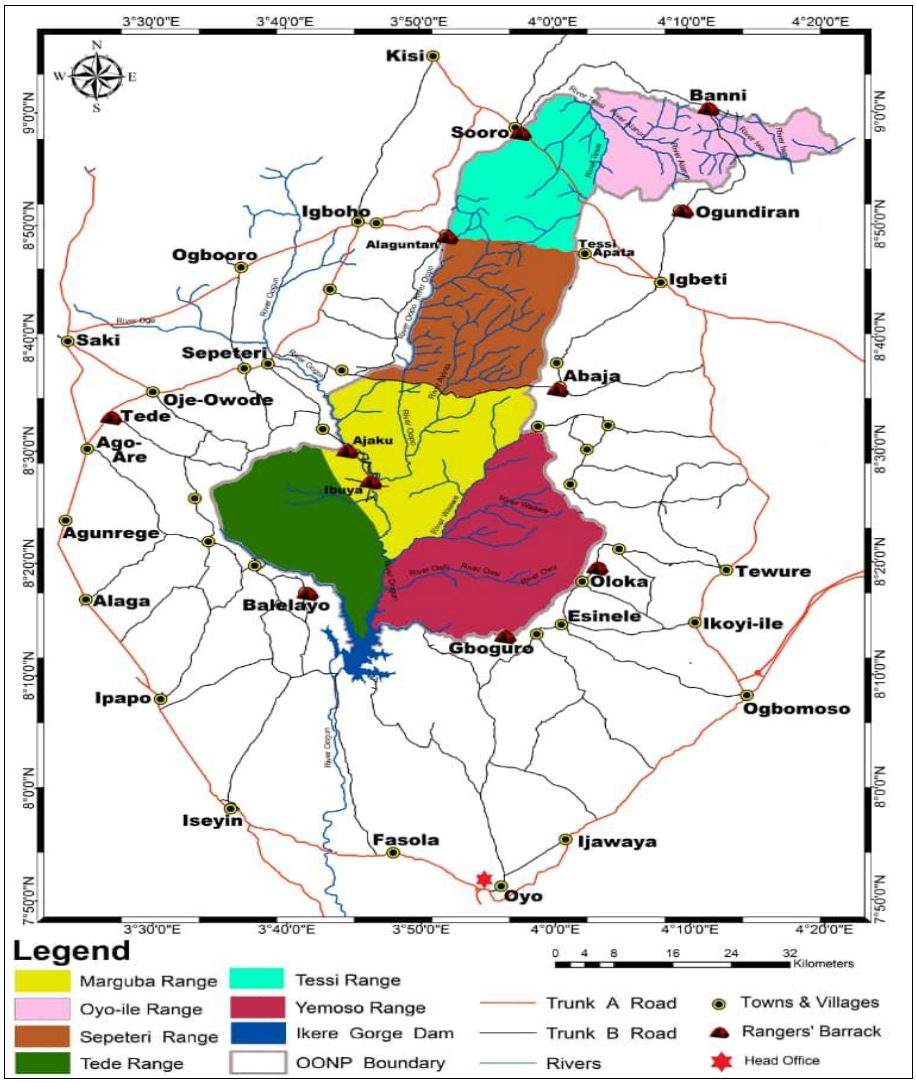
Stage 2: The survey was carried out in all the six range stations of the park.

Stage 3: 30% of the villages were randomly selected from each of the six range stations based on number of villages in each range. A total of 40 villages were selected from the six ranges and presented on Tables 3.

Stage 4: 5 households were randomly selected from each village, i.e. 5x40=200 households.

Stage 5: The household heads were purposively selected,
i.e. 1x200 = 200 household heads
70 Park Officers
Total Respondents =270 Respondents

Data Analysis: Data from this study was processed using Statistical Package for Social Sciences (SPSS Version 20.0) at $\alpha = 0.05$ and subjected to inferential statistics, using Chi Square and Pearson Product-Moment Correlation Co-efficient (r). Descriptive statistics was also employed with results in frequencies of occurrences and percentages presented in the form of tables and charts.



Source: OONP, 2024

Fig 1: Map of Old Oyo National Park Showing the Support Zone Villages

Results

Human Population Indices and Socioeconomic Parameters of Respondents

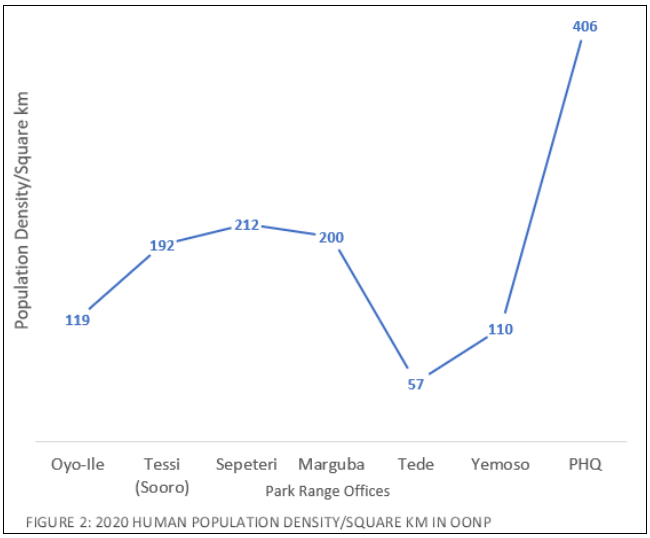
Support Zone Communities (SZCs) of Old Oyo National Park (OONP) are composed of majorly able-bodied males (80%), between 31-40 years of age (34%), of large family sizes (>10, 43.5%), who depend mainly on farming (74%) and mostly earn between ₦500,000 – 1 million naira annually (73.5%). This is in sharp contrast to the park managers (PM) who are civil servants (100%) mostly of the 41-50 age class (44.3%), majorly having smaller family size (1-5, 54.3%), most of whom are males too (88.6%) and also with an annual income of mostly between ₦500,000 – 1 million naira (44.3%). The per capita income (PCI) of the resource managers far exceeds that of the SZCs as found on Table 1.

Table 1: Demographic Characteristics and Livelihood Patterns of PMs and SZCs of OONP

Variables	Park Managers (n=70)	SZCs (n = 200)	Total (N=270)
AGE	**Freq (%)**	**Freq (%)**	**Freq (%)**
<21	0.0	6.0	**4.4**
21-30	21.4	13.0	**15.2**
31-40	32.9	34.0	**33.7**
41-50	44.3	29.0	**33.0**
50-70	1.4	18.0	**13.7**
Total	**100.0**	**100.0**	**100.0**
Family Size			
1-5	54.3	23.0	**31.1**
6-10	31.4	33.5	**33.0**
>10	14.3	43.5	**35.9**
Total	**100.0**	**100.0**	**100.0**
Sex			
Female	11.4	20.0	**17.8**
Male	88.6	80.0	**82.2**

Total	**100.0**	**100.0**	**100.0**
Main Occupation			
Civil Service	100.0	0.0	**25.9**
Farming	4.3	74.0	**55.9**
Herding	0.0	22.5	**16.7**
Hunting	0.0	25.5	**18.9**
Trading	1.4	37.5	**28.1**
Others	0.0	41.5	**30.7**
Annual Income ('000₦)			
500-1,000	44.3	73.5	**65.9**
1,001-1,500	18.6	14.0	**15.2**
1,501-2,000	28.6	10.0	**14.8**
>2,000	8.6	2.5	**4.1**
Total	**100.0**	**100.0**	**100.0**
PCI (₦)	**221,795**	**123,219**	**172,507**

Human population density across the ranges of OONP shows the highest density at the park headquarters (406/km^2) and the lowest at Tede range (57/km^2) as depicted on Fig 2.



Source: Adapted from National Population Commission (2011) and Oyo At A Glance (2020)

Fig 2: 2020 HUMAN Population Density/Square Km in OONP

Popularity of Wildlife Policy in OONP Support Zone Communities

Test of Hypotheses

Hypothesis 1: Testing Variation in Awareness Level on Conservation Policy in The Six Ranges of OONP

Test Statistic: χ^2 Goodness of Fit Test

Hypotheses Testing

Null Hypothesis (H_o): there is no significant difference in awareness level on wildlife policy in all the ranges of OONP

Alternative Hypothesis (H_a): there exists a significant difference in awareness level on wildlife policy in all the ranges of OONP

Probability Level $p > 0.05$ level of significance (α)

Statistical Analysis: Df (3x2), critical value = 12.59, χ^2 = 5.5, p = 4.303

Therefore, H_o is accepted.

Decision: there is no significant difference in awareness level on wildlife policy in all the ranges of OONP.

Indices of Wildlife Policy Enforcement in OONP

Staff strength and corresponding staff strength deficit for an eight-year span are depicted on figures 3 and 4. The deficit is gotten from an IUCN standard of a ranger per 5 km^2 for effective patrol.

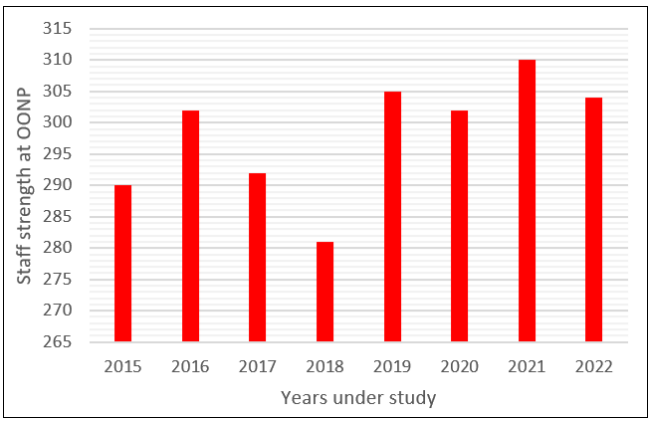


Fig 3: Number of Rangers in OONP from 2015-2022

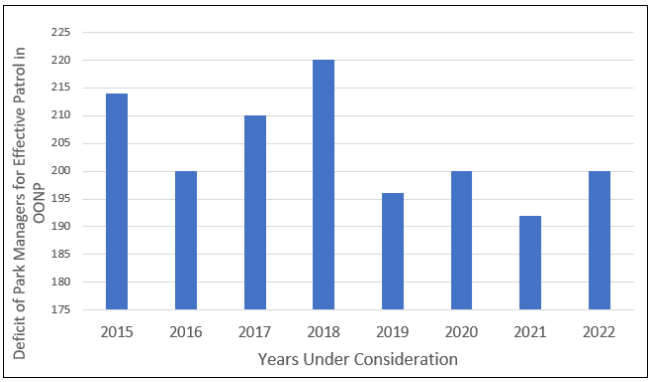


Fig 4: Patrol Men Deficit at OONP by IUCN standard

Hypothesis 2: Testing Correlation between Staff Strength and Number of Arrest Made in Each Year Between 2015 - 2022 in OONP

Test Statistics: Pearson Product Moment Correlation Coefficient (r)

x = independent variable (park strength); y = dependent variable (No. of arrests in a year)

$$r = \frac{n\sum XY - \sum X \sum Y}{(n\sum X^2 - (\sum X)^2) - (n\sum Y^2 - (\sum Y)^2)}$$

n = number of data point, x,y pairs = 8;

$\sum XY$ = sum of product of x-value and y-value for each point;

$\sum X$ = sum of x- values in the data set = 2386; $\sum Y$ = sum of y-values in the data set = 797

$\sum X^2$ = sum of squares of x-values in the data set; $\sum Y^2$ = sum of squares of y-values in the data set

$(\sum X)^2$ = square of sum of x-values in the data set;
$(\sum Y)^2$ = square of sum of y-values in the data set
$-1 \leq r \leq +1$; -1 denotes a strong negative correlation while +1 denotes a strong positive correlation
$r = -0.8664$, $R^2 = 0.7506$, $p = 0.005427$ ($p<0.05$)

Decision: there exists a strong negative correlation between staff strength and number of offenders arrested each year and the correlation is significant. 75% of staff strength is responsible for the arrest of offenders.

Discussion

Anthropogenic Activities as a Measure of Threat to Conservation in OONP: National Parks, nature reserves and other protected areas across the developing world are known to harbor human influx whose population derive their means of livelihood from tilling the soil, exploiting biodiversity resources (Toyobo *et al.*, 2014) [30], both terrestrial and aquatic, and encroaching inside protected area boundaries despite enforcement. Surge in farming population, who are also cattle grazers and hunters with earnings far below the poverty line, is an indication of threat to biodiversity conservation in the park. Their fear of prosecution is not as strong as their urge to fulfil their livelihood needs hence, making them to dare arrest. Additionally, OONP officers are not allowed to brutalize offenders especially when they do not resist arrest. Getting to court, offenders might even be warned and released, making them view policy as less of a threat. Another threat as expressed by park officers during interview with them, is illegal herding and mining. As explained, illegal herders and miners enter the park with arms, resisting arrest by park officers when sighted and engaging in combat with them. Park officers of OONP do not have the freedom to neutralize offenders but only to arrest them as against the findings of Massé (2020) [21] in Mozambican National Parks. This coupled with unsophisticated arms carried by the officers put them at a disadvantage, leading sometimes to their injury or even death.

Spate of Conservation Through Policy Enforcement in OONP: Staff strength is one of the most vital elements for effective biodiversity protection, including poaching control, thereby putting wildlife protection and social security at the frontline (Vasan, 2002) [31]. Although law enforcement for biodiversity protection has been established in some Southern African protected areas to be a weapon wielded by rangers to determine life (saving rhinos) and death (killing of poachers) (Massé, 2020) [21], it does not necessarily follow a continuum for the entire continent. This is owing to the deficit in staff strength and dwindling number of arrest of offenders in OONP. Although the park's patrol figure of 8.4 km^2 per park officer is still beyond Africa's figure of 75.6 km^2 per ranger, global average of 13 km^2 per ranger and 26 km^2 per park officer (Appleton *et al.*, 2022) [5], the park is still understaffed going by the IUCN standard of 5 km^2 per ranger for effective park protection. This points to the fact that the park is in need of almost a 100% of its current staff strength additionally to enable detection of illegal activities in the park as this has been ascertained to be a function of patrol indices which are staff on patrol; number, distance and duration of patrol (Agyeia *et al.*, 2024) [2]. An indication is that almost half of the park territory is left unprotected, opening a window for illegal resource exploitation and a level of freedom for non-compliance to policy with an avenue to evade arrest, since the law custodians are not even available for surveillance, let alone ready to contain and neutralize either by arrest or killing as is the case in Mozambican protected areas (Massé, 2020) [21].

Impact of Staff Strength on Management Effectiveness in OONP: For effective management of specific sites or systems, required numbers and densities of personnel vary and depends on a number of factors which includes: context of management objectives; resources and individual capacity; site characteristics and; threat levels (Henson, 2016) [13]. This realization questions the capacity of increasing staff strength alone to guarantee effective park management and patrol of OONP, given current patrol figure of 8.4 km^2 per patrol officer as against IUCN standard of 5 km^2 per ranger for effective patrol. Even where park officers and ranger levels are available to the required optimum standard, alternative pro-conservation measures are still necessary to support and strengthen the workforce (Appleton *et al.*, 2022) [5] as community members during interview sessions with them expressed their preference for empowerment and involvement in park project planning and implementation against enforcement. On the part of park management, such alternative measures could include staff professionalization which are standards, capacity, resources, working and employment conditions (Sandwith *et al.*, 2014) [25]; exploiting up-to-date and appropriate technologies (Marvin *et al.*, 2016); adopting global standards like IUCN Green List of Species and Protected Areas (IUCN, 2017) [16], improved participation of indigenous and local communities and recognition of their rights (Dawson *et al.*, 2021) [8] and; equal representation for women in the workforce (Seager, 2021) [28]. Women representation in the global ranger workforce is between 3% - 11% (Belecky *et al.*, 2019) [6], OONP women representation is around this value, giving the park a global face in gender representation for effective management. This implies that policy enforcement in the park takes into account family economic situations in the park communities as it is found that women understand better and are more pro-active in family finances (LoNardo, 2025) [19]. In addition, women representation in the park management and decision making could be a measure of leniency in penalty melted out to offenders as women tend to have a sharper sense of empathy (Toussaint and Webb, 2005) [29] given low earnings of the people. Gender representation in the park work force also ensured women involvement in park protection and management decision making. Likewise, coercion of women in the park communities to support conservation is likely guaranteed as female park managers are more likely to woo women better than their male counterparts (Xing *et al.*, 2021) [32]. In all, staff shortfall in OONP could compromise effective management (Appleton *et al.*, 2022) [5], thereby limiting the substantial environmental, economic, ecological, health, and climate benefits that the park is expected to deliver. An increase could be an indicator of adequate levels of management effectiveness of the park and consequently provide a baseline for determining the impact of staff increase on policy compliance and adoption in OONP.

Effectiveness of Patrol as a Function of Policy Enforcement in the Park: As part of their assignment, rangers provide critical information in regards to threat and serve as whistle blowers (Plumptre *et al.*, 2014) [24] as they are the intermediary between the park and the people. Shortfall of staff in OONP calls for effective and efficient patrol given limited resources and several equally important and competing interests. It is also why standardization of patrols and application of generated data and information for management and scientific decisions is essential due to the significance of patrol duties in species and habitat protection (Keane *et al.*, 2011) [17]. As ranger patrol indices for effectiveness include number of arrests, encounters with poachers, and conviction rates (Havemann, 2013) [12], OONP staff strength shows a significant and strong negative correlation with number of offenders arrested each year. Also, a very high percentage of the park staff is responsible for arrest of offenders. This implies that as number of staff on patrol increases, number of arrest decreases giving a room to high rate of efficiency in enforcement as more officers are on patrol in the park as supported in the findings of Agyeia *et al.* (2024) [2] and as explained by Schmitt (2006), that increased patrol intensity decreased records of new instances of illegal activities. Although the park is currently understaffed, from the on-going, could this be a blessing in disguise for efficient policy enforcement in OONP? Perhaps, more park officers could spell a doom for conservation enforcement in the park. This could be an indication of over-familiarization of enforcement officers with the people, making the discharge of their duty watery. It therefore calls for a revision of park managers-people relationship to ensure that their association does not deter enforcement but strengthen cooperation for conservation. Alternatively, the data could be pointing to a beneficial park manager-people relationship for policy enforcement and conservation, if decreased number of arrests translates to reduced deterrents and improved compliance to wildlife policy in the park. If this is the case, there would be a rising need for more recruitment of officers in OONP (Oyeleke, 2017) [22]. Consequently, there is therefore need for extension in research to find out exactly what reduced number of arrests translate to – is it to more capacity of illegal exploiters to evade arrest, or a reduced capacity of park managers to arrest offenders, or laxity of enforcement as a result of familiarity of park managers with the people?

Conclusion and Recommendations: Park communities of OONP are protagonists to conservation as their livelihood options are anti-conservation, even though there is no doubt about their awareness of conservation policy guiding the park. Enforcement in the park is met with staunch resistance by armed illegal miners and cattle herders. Patrol capacity, both in number of officers and sophistication of their arms put them at a disadvantage against enforcement and bar the discharge of their duties. Even at that, officers still arrest offenders and present them in court for prosecution. Women involvement in policy enforcement decision and park management is at a global level, tempering discharge of prosecution of offenders with leniency. Recruitment of more officers and equipping patrolmen both in training and sophistication of their arms would give them a edge at combat with resisting offenders. Capacity of enforcement and prosecution to ensure effective policy implementation should be upgraded to give more room for patrolmen use of corporal punishment and an upgrade from fines to confinement of offenders. This will guarantee a significantly high cost-benefit value of exploitation, making it more expensive and deter illegal exploitation in the face of 21st century challenges.

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