# Cross River National Park and Communities: Is Authoritarian Park Protection the Answer?

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Received: May 28, 2018 Accepted: August 6, 2018 Online Published: September 28, 2018

doi:10.5539/jsd.v11n5p212 URL: https://doi.org/10.5539/jsd.v11n5p212

#### **Abstract**

Cross River National Park (CRNP) is a rainforest biodiversity hotspot and region of species endemism in Nigeria. It has solid minerals, valuable timber, assorted fauna species, rich agricultural lands, medicinal plants and several other plant species that are new to science. The formal establishment of the park in 1991 was anchored on the global ecological importance attached to the region. Instead of implementing the resettlement of enclave communities and a 7 year livelihoods program, as was originally proposed in the park management plan (prepared by WWF and ODNRI in 1989), the park has been concentrating on authoritarian protection as park management strategy. Using a combination of document research, participatory rural appraisal techniques and rural livelihoods survey, the study assesses the effectiveness of authoritarian protection in the midst of economic and ecological contestations in CRNP. Findings reveal that donor partners abandoned CRNP in 1995 without implementing the resettlement and buffer zone livelihoods program. This led to the explosion of commercial bush meat hunting activities in the park (despite authoritarian protection). The paper argues that authoritarian protection alone cannot save biodiversity in CRNP. It presents the perspectives and conservation standpoints of buffer zone communities on the bush meat crisis and how to address it in CRNP. It highlights the need for the creation of arenas for finding common ground on all contentious issues threatening biodiversity conservation in CRNP, the need to revisit the drawing board and donor return, and the present and future dangers facing CRNP if nothing is done.

**Keywords:** Authoritarian protection, biodiversity conservation, bushmeat hunting, communities, Parks, & threats

### 1. Introduction

The tropical rainforest of Cross River State of Nigeria (within the lowland Guinean forest of West Africa), is ecologically treasured as one of the twenty five biodiversity hotspots in the world. In 1986 and 1987, the tropical rainforest of Cross River State was accorded international recognition as important and worthy of special conservation attention, through three IUCN publications:

- (a). Directory of Afro-Tropical Protected Areas;
- (b). Action strategy for Protected Areas in the Afro-Tropical Realm; and
- (c). Review of the Protected Area system in the Afro-Tropical Realm.

The three publications "emphasized the extreme biological richness of the resource, its unique intact status, and the increasing threats to its integrity represented by uncontrolled farming, logging and hunting activities" (WWF/ODNRI 1989:8). Accordingly, CRNP (comprising Oban and Okwangwo divisions) was formally created to protect the above biodiversity in 1991. The creation of the park resulted in 105 buffer zone communities being stripped of their rights to forest resources exploitation in the park territory, culminating in economic contestations and park – people conflicts.

The feasibility study and management plan of the park was prepared by WWF/ODNRI in 1989. The plan document recognized the survival challenges and needs of the above 105 buffer zone communities, and so articulated a protected area governance approach which hinged on park protection and people oriented programs

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such as resettlement of enclave communities (located inside the park), rural livelihood activities, and provision of social amenities like roads, health centers, schools, water supply, etc. The new park was to be funded for the first seven years of its existence, by a combination of donor funds from Europe and local counter-part funds from the Nigerian government. A core management team (CMT) made up of international experts in different aspects of park management and people oriented programs was proposed, as Nigeria never had a rainforest park before, and so had no manpower in this field (WWF/ODNRI, 1989). The CMT was to manage the affairs of the park for some time before eventually handing over to trained local experts.

After bureaucratic bottlenecks, donor driven funding of the park commenced in 1994 (for the Okwangwo Division of the park) and 1995 (for the Oban Division of the park). The Okwangwo program was managed by WWF, while the Oban program was controlled by the European Union (via Hunting Technicals Ltd,UK). The total 7 year proposed budget for park protection and people oriented activities was 17,500.00 ECU and 16,000.00 ECU for Okwangwo and Oban Divisions of the park respectively (WWF/ODNRI, 1989 & 1990). Till date only 4.087 million ECU was spent on the Okwangwo Division between 1994 – 1998, leaving an unspent balance of 13.413 million ECU. Similarly only 1.5 million ECU was spent on the Oban Division between 1995 – 1996, leaving an unspent balance of 14.5 million ECU.

At the time both WWF and EU were involved in the take-off phase of CRNP (above), proponents of authoritarian or strict protection (as park management strategy) disagreed with people oriented programs (integrated conservation and development projects), in tropical parks and protected areas, alleging that such initiatives do not culminate in the achievement of biodiversity conservation objectives (Brandon and Wells, 1992; Oates, 1995; Oates, 1999; Oates, 2002; Terborgh, 1999; Ite and Adams, 2000; & Wilshusen, et al, 2002). In the case of CRNP, donor funded activities was still at the first phase, comprising investments in rural infrastructure, with 75% of unspent budgeted funds. The resettlement of enclave villages and investments in rural livelihood activities were still expected when anti-people conservation articles (in favor of strict protection) dominated biodiversity conservation literature. Accordingly the well prepared feasibility study and management plan for CRNP, as prepared by WWF/ODNRI in 1989, was abandoned at the above first phase of project implementation. This has resulted in the exacerbation of commercial bush meat hunting activities in CRNP by buffer zone villagers.

#### 1.1 Tropical Biodiversity Conservation and Call for Authoritarian Protection

In the last three decades, there has been several calls by conservation researchers and reviewers for a return to authoritarian or strict park protection (Oates, 1999; Terborgh, 1999; and van Schaik et al, 1997). The above authors maintain that parks and protected areas in the tropics should revert to authoritarian protection, similar to what prevails at Yellowstone National Park in the United States of America. In the same vein, Rabinowitz (1999: 70 -72), maintains that "biodiversity conservation is doomed to failure when it is based on bottom-up processes that depend on voluntary compliance. I advocate a top-down approach to nature conservation – contrary to much contemporary political and conservation rhetoric – because in most countries, it is the government, not the people around the protected areas that ultimately decides the fate of forests and wildlife."

However, Wilshusen et al (2002), maintain that though the arguments against people-oriented conservation initiatives are well grounded, they "ignore key aspects of social and political processes that shape how conservation interventions happen in specific contexts." For instance the creation of Yellowstone National Park in the United States of America in 1872 was preceded by wars with native American Indian tribes (e.g. Shoshone & Arapaho tribes), treatises, evictions and resettlements in reservation districts (Sullivan, et al 2005). The Shoshone and Arapaho tribes were resettled (and presently live) in the Wind River Indian Reservation District, in the State of Wyoming, (Massey, 2004). Thus the political and social process that shaped the creation of Yellowstone national park is military in nature, and that is why authoritarian protection has been successful in that context to this day.

Parks creation in America in the 19<sup>th</sup> century (like Yellowstone national park), is not the same thing as park creation in Africa in the 21<sup>st</sup> century (like Cross River National Park, Nigeria). In Africa "political changes from colonial to post-independence governments led to the erosion of political acceptability of, and support for exclusionary discourses" (Buscher and Whande, 2007:26). They strongly maintain that "the political economic system under which fortress conservation was developed and able to thrive in Africa was suppressive colonialism." Local Communities' resistance to the above policies have been suppressed from the colonial period to the present day (Fairhead and Leach, 2000). Mapedza (2007: 833), maintains that "local resource users have not remained passive recipients of the repressive forestry policies and practices...but have actively contested them since the 1950s."

Buffer zone villagers have been protesting parks' land dispossession policies and the colonial nationalization of their forestlands in different ways since the 1950s. Timko and Satterfield (2008:252) note that "even in the heavily fortified national parks such as the Kruger, the illegal harvesting of wildlife occurs on a regular basis." Adams and Hutton (2007) maintain that where the establishment of parks entails human displacement, such communities should be compensated. Similarly, Schmidt-Soltau and Brockington (2007:2182) draw attention to the issue of resettlement of enclave communities and aptly observe that "best practices for resettlement should require prior, free and informed consent of the affected people." In South Africa, the creation of Ndumo Game Reserve in 1924 culminated in the eviction of Mbangweni community, the original owners who lost all rights to their ancestral land (Naguran 2002).

With the end of Apartheid and enthronement of democracy in 1994, the government of South Africa redressed the problem by negotiating and reaching a legally binding agreement which "transformed the eastern part of the Ndumo Game Reserve from what was essentially a state property regime to a common property regime" (Naguran 2002:8), among other benefits. Ostrom and Schlager (1996:137) maintain that "The significance of a well-established property-rights system is the security that enforced rights give to individuals and groups of individuals that their access, withdrawal, management, exclusion, and /or alienation will be recognized in the future by potential competitors."

Naughton-Treves and Sanderson (1995: 1273) and Naughton-Treves (1999), argue that a major part of the conflict over wildlife conservation "involves property, and property rights", and thus conclude that "the political determination of property regimes is critical to conservation." The feasibility study document of Cross River National Park prepared by ODNRI / WWF (1989:12), aptly observe that "beyond farming, hunting and gathering, few opportunities exist for regular employment." The withdrawal of donor funding for people oriented conservation initiatives in Cross River National Park, on grounds that such initiatives do not result in the achievement of biodiversity conservation objectives, culminated in the concentration of park management efforts on strict or authoritarian park protection. The lingering question is, can strict protection alone, result in the achievement of biodiversity conservation objectives, in contexts where economic contestations, rural livelihoods and property rights issues are suppressed?

This paper explores commercial bush meat hunting activities in CRNP (as major economic undertaking by local people), amidst authoritarian (strict) protection, which is all the park has been carrying out, following the abandonment of people oriented programs by WWF in 1998 and the EU (via Hunting Technicals Ltd, UK), in 1996. It exposes the strengths and weaknesses of the approach and how buffer zone villagers are engaging with the approach, and having their way with commercial bush meat hunting activities. It presents the perspectives and conservation standpoints of buffer zone villagers on why they hunt, and what it will take to stop commercial bush meat hunting activities. The paper argues that authoritarian (strict) protection alone, in the context of ecological and economic contestations in CRNP, cannot guarantee long term and effective biodiversity conservation in the region.

# 2. Methods

# 2.1 The Study Area

Nigeria is located in West Africa, lying between latitudes 4<sup>0</sup> N and 14<sup>0</sup> N and longitudes 3<sup>0</sup> E and 15<sup>0</sup> E. It has an area of 923,768 square kilometers, and a population of one hundred and eighty million people (NPC, 2006:37). It is bordered to the south by the Atlantic Ocean, east by Cameroon, west, by Benin Republic and north by the Republics of Chad and Niger (Dublin Green et al., 1999). Field research activities took place in CRNP and selected buffer zone communities (Abo Mkpang in Okwangwo division and Old Ekuri in Oban division of the park), as well as one non–buffer zone community (Akwa Ibami), all located in Cross River State of Nigeria, West Africa.

Akwa Ibami is a non-buffer zone community in Oban division where rural livelihoods data was also collected for comparative purposes with that of buffer zone communities. Okwangwo division of CRNP is in the northern part of Cross River State, while Oban division is in the south. Nigeria has 36 States, one of which is Cross River State. The CRNP extends to the boundary between Nigeria and Cameroon (see Figure 1).



Figure 1. Map of Nigeria showing the location of Cross River State / CRNP

Source: Google maps: http://images.google.com/nigeria+political+map

#### 2.2 Data Collection

A combination of quantitative and qualitative methods were used for data collection. For the quantitative method, a household survey of current livelihood strategies in the sampled villages was carried out. The list of registered voters (more current than census data) was used as sample frame, and proportional to the voting population size of the sampled villages, a sample size of 267 was chosen. The sampled communities were stratified, culminating in the identification of groups (e.g. hunters/bush meat traders, Chiefs/village councils, women and youth), to whom questionnaires were randomly administered.

The qualitative data collection tools comprised document research and participatory rural appraisal exercises e.g. focus group discussions, key informant interviews, and field observations. The use of several data collection tools in a given social research has been referred to as triangulation (Yin, 2003; and Neuman, 2003). It entails collecting "information from multiple sources but aimed at corroborating the same fact or phenomenon" (Yin, 2003:99). The underlying argument is that "it is better to look at something from several angles than to look at it in only one way" (Neuman, 2003:138). Furthermore, Gillham (2000:13) maintains that "different methods have different strengths and different weaknesses. If they converge (agree) then we can be reasonably confident that we are getting a true picture."

#### 2.3 Data Analysis

For the qualitative data, Babbie (2004:370) maintains that qualitative data analysis refers to "methods for examining social research data without converting them to a numerical format. This approach predates quantitative analysis. It remains a useful approach to data analysis and is even enjoying a resurgence of interest among social scientists." All qualitative data collected entailed conversation or use of language (e.g. interviews, participatory rural appraisal, and focus group discussion), and textual information (e.g. document research), and field photographs that capture facts or realities as they are.

With the aid of a digital recorder, all data involving use of language or conversation were recorded, and later transcribed and stored as word documents in files and folders. During the recording, emotions, pauses, body language or gestures that accompanied certain information were noted. The documents were subsequently printed and carefully perused for purposes of reflecting on the emotions, pauses, body language or gestures that

accompanied certain sensitive information, and what meaning to make out of the above. Classification and labelling of concepts was done through open coding. Strauss and Corbin (1990:62) maintain that

Open coding is the part of analysis that pertains specifically to the naming and categorizing of phenomena through close examination of data. Without this first basic analytical step, the rest of the analysis and communication that follows could not take place. During open coding the data are broken down into discrete parts, closely examined, compared for similarities and differences, and questions are asked about the phenomena as reflected in the data. Through this process, one's own and others' assumptions about phenomena are questioned or explored, leading to new discoveries.

Content analysis was used to evaluate the qualitative data collected. For all textual materials, every sentence and paragraph considered relevant to the research questions or concepts in the conceptual framework was evaluated, highlighted and assigned a code. If a respondent gives information that does not relate to any of the above, such a sentence or paragraph is assigned (X) or no value. From the above exercise, different categories were constructed or integrated into a framework that specified causes, conditions and consequences of commercial bushmeat hunting activities or processes. Interpretation entailed explanation of emergent patterns, and sensitivity to explanations that address or reject the propositions of the research.

For the quantitative data, responses from administered questionnaire were entered into SPSS (version 17) for statistical analysis. All variables were coded with measurements defined as nominal, ordinal and scale. Based on the nature of research questions for the study, descriptive statistics were used in the analysis, to look for patterns in the data set.

#### 3. Results

The results presented here dwell on relevant qualitative and quantitative findings of the study:

# (a) Forest ownership claims and violent clash with park rangers

Villagers are hunting in CRNP due to claims that the forest belongs to them. For purposes of promoting the practice of strict protection, the CRNP has 25 Ranger Stations across the 105 buffer zone villages of the Oban and Okwangwo divisions of the park as presented in table 1.

Table 1. Ranger stations for authoritarian protection in CRNP

S/No	Range/Ranger Post	Status	No. of Rangers	Remarks
	<b>Oban West Range</b>			
1	Ifumkpa	Park building	11	Including research & Conservation Education
2	Nsofang	Park building	10	All Rangers
3	Erokut	Park building	12	Including research staff
4	Iko Esai	Rented	7	All Patrol Rangers
5	Okoroba	Rented	9	All Patrol Rangers
6	Owai	Rented	10	All Patrol Rangers
7	Etara	Rented	7	Including Research Staff
8	Old Ekuri	Rented	6	All Patrol Rangers
9	Nkunaya	Park building	10	All Patrol Rangers
10	Ojor	Rented	10	All Patrol Rangers
11	Park Head quarters		15	Rangers on guard
	Oban East Range			
12	Aking	Park building	15	Plus Officers &Rangers
13	Orem	Park building	13	All Patrol Rangers
14	Ekang	Rented	7	Including research staff
15	Oban	Park building	12	Including con. Edu. staff
16	Neghe	No Patrol post	5	Operating from Aking
17	Ekong Anaku	No Patrol post	5	Operating from Oban station

	Okwangwo Range			
18	Butatong	Park building	26	Including Officers, research & Con. Edu. staff
19	Bumaji	Park building	6	All Patrol Rangers
20	Anape	Park building	6	Including research staff
21	Mbuli	Park building	6	Including research staff
22	Abo-Obisu	Rented	7	Including research staff
23	Bamba	Rented	6	Patrol Rangers
24	Okwangwo	Rented	5	Patrol Rangers
25	Bashu	Rented	6	Patrol Rangers

Source: CRNP Annual Report, 2008.

Interviews and observation reveal that in the above stations, Park Rangers carry out daily surveillance and night patrols, culminating in series of arrest of park offenders (especially poachers), imposition of fines, and in some cases prosecution, depending on the gravity of the offence. Violent clashes between park rangers and hunters are ubiquitous, cutting across all stations. Focus group discussion with park rangers reveal that the Ekong Anaku Ranger Station (No. 17 in the table above) was closed since 2005, due to a violent clash between park rangers and the entire Ekong Anaku community who opposed hunting restrictions and insisted that the forest belongs to them. The crisis was so serious that from 2005 to 2018, all efforts by the park management to reopen the Ekong Anaku Ranger Station have proved abortive to no avail. Hunting in the park has accordingly been thriving at Ekong Anaku and other neighboring villages to this day.

One way buffer zone communities have been protesting forest nationalization policies and suppressed property rights in CRNP is the admission of immigrant hunters for commercial bush meat hunting activities. Key informant interviews reveal that villagers no longer see the forest as their own, due to the above policies. Coupled with the fact that the CRNP is accused of not attracting any form of financial benefits to communities, villagers are exploring different ways of generating income from the park. The admission of, and cooperation with immigrant hunters (by way of showing them the forest and hunting routes/destinations), attracts some income (commission) to natives. This has exacerbated unsustainable hunting practices and stretched strict protection challenges in CRNP to the fullest. The immigrant hunters come from neighboring Akwa Ibom and Abia states of Nigeria as presented in figure 2.

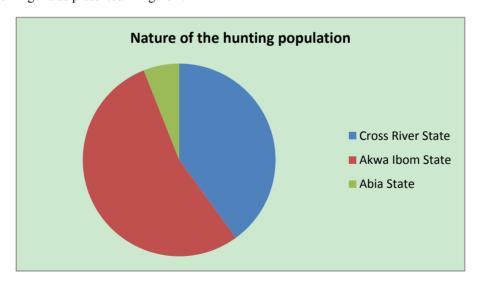


Figure 2. State of origin of hunters in CRNP

Source: CRNP annual Report, 2008.

#### (b) Donor withdrawal and exacerbation of hunting activities

The withdrawal of WWF and other donors, and non-implementation of the original management plan of the park,

notably the resettlement of enclave communities and buffer zone livelihoods program has exacerbated hunting activities in CRNP. Document research and analysis of hunters' arrest by park rangers reveal that hunting offences had a downward trend between 1990 and 1998, corresponding to when the World Wide Fund (WWF) and the European Union commenced the first phase of livelihood activities and buffer zone development program, in CRNP. From 1998 to this day, there has been upsurge in hunting activities corresponding to the period of donor withdrawal and non-implementation of the livelihoods program and management plan of CRNP, as prepared by WWF/ODNRI in 1989 (see figure 3).

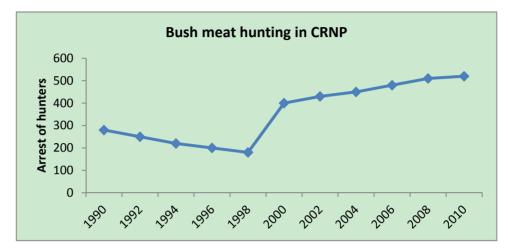


Figure 3. Donor withdrawal and hunting activities in CRNP

Apart from investment in livelihood activities, the above management plan provided for resettlement of enclave communities (villages inside the core area of the park), which are currently six in number (CRNP, 2005:13). Funding was to come from the EU, KFW of Germany and WWF (UK). The withdrawal of the above donors (perhaps due to anti-ICDP conservation literature), and non-implementation of the above resettlement program, is key to heightened hunting activities in CRNP.

#### (c) Hunting and local income generation

Income generation is the main driver of commercial bush meat hunting activities in CRNP. In response to a survey question: "Which of the following reasons best explains why you engage in hunting activities", the following responses were obtained out of 267 respondents:

Table 2. Reasons why hunters engage in hunting activities

Options	No. of respondents	Percentage
As a sport or hobby	10	3.745
To obtain meat or protein for my family	51	19.10
To generate income for family upkeep	187	70.037
To protect farm crops from animal pests	19	7.116

Source: Field Research, 2010.

During a focus group discussion in one the villages, one of the participants stressed that survival or rural livelihoods challenges is key to why commercial bush meat hunting is ubiquitous amongst buffer zone communities of CRNP. He insisted that Local people are hunting for income generation purposes and that conservation success will be difficult if CRNP concentrates only on strict park protection and fails to address sustainable rural livelihoods challenges in buffer zone communities. In a yes or no response to a survey question: "Can the arrest and punishment of hunters by park rangers eradicate hunting practices in this community", 92%, of the 267 respondents said **no**, while 8% said **yes**. The issue of rural livelihoods kept being repeated during individual interviews and focus group discussions across the three communities of the study.

### (d) Hunters and knowledge of the forest

Hunters know the forest more than the park rangers and rely on such knowledge to undertake hunting activities without passing through conventional roads and footpaths, and thus evade arrest by park rangers. Park rangers carry out patrols using existing roads and footpaths and mount road blocks for the arrest of hunters. In most cases they are unable to effect any arrest, though hunting is going on in the community or village. This makes strict protection very challenging and yielding undesirable results as park management strategy. One of the survey questions demanded to know if hunting locations in the forest have names, to which respondents across the villages of this study answered yes. A follow up question demanded that the names of such forest locations or hunting destinations be filled in, and respondents complied. During participatory rural appraisal exercises that took place subsequently, villagers were asked to indicate in a map of Cross River State (containing CRNP), the locations of the hunting destinations, and results indicate that only 10% was in the community forest areas, while 90% were in the territory of CRNP. Hunters were thereafter interviewed on how they are able to carry out commercial bush meat hunting activities inside the park despite strict protection by park rangers. In response they mentioned their knowledge of the forest and capacity to hunt without passing through roads and footpaths.

#### (e) Continuous change in hunting strategies

In their desperation to survive and cope with strict park protection, hunters have adopted different hunting methods and tactics to sustain their business. From interviews and field observations, hunters now (i) place emphasis on night hunting (ii) group hunting in the day time to withstand arrest by park rangers (iii) hunt far inside the park (too far for park rangers to get there) and returning to the village with bush meat at night (iv) rely more on trapping (wire snares) than use of guns; and in some highly desperate cases apply certain chemicals on fruit trees or forest fruits that animals eat and die, while they come round and recover the carcass.

#### (f) Nocturnal nature of bush meat trade

Bush meat trade has become nocturnal, making it difficult for park rangers to arrest and punish poachers. During a focus group discussion with hunters and bush meat traders, some insight was given on how they go about the business despite the presence of park rangers in the community:

**Researcher**: There is a Park Rangers Station in this community. How are hunters and traders able to deal with bush meat trade here?

**Respondent 1**: We have been having very rough times with park rangers in this village. There are times when one is unlucky with movement, and they will arrest and confiscate everything. So it depends on how you move, and the understanding you have with your outside customers, who come on certain days of the week. This is a secret and I cannot tell you this.

**Researcher:** But I have assured you all of strict confidentiality in this discussion, so why not take me into confidence and be as open as possible. This information is for research purposes only. It is not going to CRNP, so please I sincerely need the facts on how bush meat is traded in this community.

Respondent 1: Well, we do it in different ways. The hunters usually return with their goods at night. We time the Rangers. We watch their movements in the community. Sometimes they go on patrol. We note where they have gone to, and we take-off with our goods. Sometimes carrying it with Motor Cycles, or sometimes hiring human carriers. In any case we know how we move along the road. If we hear any sound, we enter the bush. We suffer a lot before reaching the highway, where the meat is supplied to our customers (mainly women who are into restaurant business in different urban communities).

Respondent 2: There are times when our outside customers come here with pick up Land Rovers to buy plantain. As the road is bad, only pick up Land Rovers are able to make it here. They come during the day and leave very late in the night when everybody is asleep. That is the time they carry both plantain and bush meat without being molested. Because of Park Rangers, some hunters don't bring dried bush meat into the village. They by-pass the village and hide the meat at certain locations along the road. The Land Rovers carry the bush meat along the road. Once there was a tip-off, and the Park Rangers mobilized and went on night operation, and there was serious fight along the road. There is serious risk to both bush meat traders and park rangers, but we know how we move. Sometimes we hide with the bush meat in the bush till the meat gets bad or rotten.

## Villagers' perspectives on how to address the problem of commercial bush meat hunting

Villagers have their perspectives on how the problem of commercial bush meat hunting can be addressed. In an interview with a village chief in one of the villages of this study, on why hunting is persisting, and how it can be stopped in the interest of conservation, he said:

"You see, we live in a world where people hold unto what they have. Every man holds unto what he has. Those who have jobs, businesses, or property hold unto it, survive on it, and never let it go. That is why in Nigeria today, you have Traders Unions, Workers Unions and local business monopolies. Nobody gives you what he or she has for free. Motor spare parts dealers in Nigeria have a strong association. The taxi driver with a broken down vehicle cannot just walk into a motor spare parts shop and take an engine part for free. He pays for it. A civil servant in Calabar cannot move into a residential accommodation for free. He enters into a rental agreement with the landlord or owner of the house and pays his bills. Every house has an owner. No house owner will destroy a house that fetches him rental revenue. In Nigeria, Yoruba people own Yoruba land; Ibo people own Ibo land; Hausa people own Hausa land. I have a relation who lives in Lagos and he has built his own house. Before he built the house he bought a plot of land with millions of naira from Yoruba land owners. The Yoruba land owners survive on that.

The trouble with conservation is that conservation does not want to acknowledge the existence of land owners and the financial interest at stake. Conservation is relying on colonial forest reservation policies that held our forest in trust. We did not sell such forest to the white man. It is wishful thinking to believe that such forest is no longer our own. We fought inter-communal wars to acquire our present forest territories. In England where you are studying, does the land not belong to people? I know white people are very wise and organized people. Do they just move into the ancestral territories of local communities and create national parks without proper financial negotiation? Nigeria has 36 States, and every state is owned by people. Conservation is like an undisciplined civil servant in Calabar who earns a salary, but wants to move into a residential accommodation for free. The landlord wants rents, but the civil servant brings biscuits, chocolates and soft drinks. That is what conservation has been doing to local communities, leaving us in perpetual poverty. That is why I am struggling to understand the good idea in conservation. That is why there are problems in our national park".

In another village, a woman leader responded to the above question (how hunting can be stopped) thus:

"I mentioned during the focus group discussion we had the other day, that other communities whose forest reserves have been converted to Cocoa, Oil Palm or Rubber plantation, earn annual rents which enables them to address their local developmental needs and problems. The land is not taken or annexed for free, just because of being former government forest reserves. The corporate bodies managing these plantations make plenty of money, of which landlord communities have a share, by way of land rents. Our own land is hosting conservation or national park, which fetches benefits to park officials, consultants and the whole world, and we get nothing from it. Have you not been hearing of corporate social responsibility? To worsen matters, wildlife destroy our agricultural crops or farmlands and impoverish us the more, and we get nothing from the park. Am I the one to remind you of environmental impacts assessment (EIA)? The new Cement company in Calabar carried out EIA and is addressing its environmental impacts. In our own case conservation simply ignores its impacts on local communities. You researcher, tell the whole world that is benefiting from conservation, that they have to pay for it. Land here has different economic uses. We here are human beings, we are not monkeys. We need better living conditions with our children. If they do what we want, conservation will succeed. If they continue to do what they want, then I am afraid, conservation problems in this park will continue". For conservation to succeed, it must generate annual land rental revenue to villages.

Still on how conservation can succeed in CRNP, a community leader in one of the villages commented during an interview thus:

"Before independence, the British created and protected 25 Forest Reserves in this State. After independence on 1st October 1960, Government became the first violator of forest reservation laws by approving and converting forest reserves into logging concessions, agricultural plantations (Cocoa, Rubber, Oil Palm, etc), mining of solid minerals, and de-reservation of large parcels of forest reserve lands to favored communities and individuals. Through such de-reservation approvals, several thousand hectares of forest reserve lands are now under private ownership. De-reservation approvals technically gave back forest reserve lands to several communities, entrenching serious injustice on other communities that were denied such approvals. Government further came up with taungya farming system in forest reserves. Under this system, individuals were given parcels of forest reserve lands to clear for food crop production, and were expected to plant government-preferred tree species in return. It turned out that government mismanaged the exercise, and the affected individuals never planted the trees, and that is why forest reserves like EKINTA in Cross River State is completely wiped out or cleared to this day.

Should you carry out an inventory exercise on forest reserves in Cross River State, you will discover that the so called forest reserves are now under different levels of deforestation, private economic investments and private

ownership. At Okuni for instance, government sold parcels of forest reserve lands to willing farmers who have planted different tree crop species like Cocoa, Oil Palm, Citrus, etc. That is the wider picture and surrounding context of the creation of CRNP, imposition of hunting restrictions and reliance on colonial forest reservation laws for its survival. We insist that the forest hosting CRNP has been protected by we the villagers living in the buffer zone, and that it ancestrally belongs to us. We are not opposed to conservation. We however insist that proper negotiation and sustainable compensation or annual land rents be paid to core buffer zone communities for wildlife destruction of our farm crops, loss of access to timber, solid minerals, rich agricultural lands and fauna resources. Money is the issue. Conservation will work, if it fetches us money. We have what it takes to stop bush meat hunting, but only if conservation fetches us money."

# (g) Community-based natural resources management institutions and bush meat hunting.

Contrary to popular opinion in conservation literature that local villagers are destroyers of biodiversity and enemies of conservation, this study discovered that local communities are taking steps to promote sustainable management of forest resources at community level through the establishment of community-based natural resources management institutions. Old Ekuri, one of the villages of this study along with a sister community (New Ekuri), have a formally registered institution on forest resources management – the Ekuri Community Forestry Project. As a result of this CBO, all Ekuri indigenes have since 1990 banned themselves from logging activities, and from selling any inch of their forest to logging companies. The Ekuri community authorities in both Old and New Ekuri report hunting offenders to the chief executive of CRNP. In a particular case a villager was arrested by fellow villagers and taken along with his gun to the park headquarters. The affected villager was detained for several weeks at the Akamkipa Police Station. He was subsequently cautioned and released. The CRNP confirmed this.

In an interview on the problem of bush meat hunting in Old Ekuri, one of the leaders of this CBO stated that community institutions have what it takes to stop erring hunters and traders involved in the business. The interviewee maintained that those involved in bush meat hunting and trade do not share the animals they kill or income generated with the rest of the community. Accordingly, other community members are not in support of the killing of forest animals in the park territory as occupation or income generation activities. He however concluded by saying that bush meat hunting will be stopped once conservation begins to yield some annual land rental revenue to communities. If that happens, village authorities will mobilize to make sure such a source of income to the community is not endangered by the illegal activities of a few. He maintained that village authorities and institutions are paying deaf ear to the problem of poaching in the park because conservation yields no financial benefit to communities. He further stated that parks need to empower CBOs and work in partnership with such CBOs in tackling the bush meat crisis. The Ekuri communities own and control the largest communally owned forest in Cross River State. The Ekuri forest shares a common border with CRNP. The CBO has a land use plan and works closely with villagers to promote conservation, sustainable agriculture, sustainable forest management and non-forest dependent occupations.

# 4. Discussion

This study assesses biodiversity conservation strategies in the buffer zone communities of CRNP. Findings reveal that strict or authoritarian protection alone, cannot stop commercial bush meat hunting activities and guarantee effective biodiversity conservation in CRNP. Hunters are devising new strategies and tactics of engaging with the above park management approach in frameworks that make it extremely difficult for park rangers to effect any arrest and punishment of culprits. Most of the activities (especially trading and transportation of bush meat) has become nocturnal, and remains a game of 'the more you look, the less you see'. Hunters capitalize on their superior knowledge of the forest (compared to park rangers), and go to different forest locations, often avoiding the normal forest roads or footpaths, and return with whatever is killed in similar manner. As the forest is no longer perceived to be their own (due to suppressed property rights), hunters in buffer zone communities are admitting immigrant hunters (on certain agreed terms), and showing them different hunting routes and destinations inside the park territory.

There are a number of studies on poaching activities in parks and protected areas in Africa which reveal that strict or authoritarian protection is yielding disappointing biodiversity conservation results. Bonner (1993) examined poaching activities in Zimbabwe and maintained that strict protection is unable to overcome the problem, even with the use of guns, helicopters and nationalist rhetoric. Similarly, Dzingirai (2003:258) reports that in reaction to authoritarian protection, the Tonga people in Zimbabwe "continue, as often as they can, to cut fences and destroy solar panels. Similarly, they interfere with spaces of mobility and access, blocking roads and tracks used for safari hunting. Where the roads are left open and clear, sharp rods and sticks are planted on the

road to deflate the tires of those who seek to penetrate and control the village. Such practices are usually carried out secretively and away from the sight of the state, for instance at night, when the guards are asleep or off duty...The Tonga have reorganized their hunting parties into small units that are difficult to detect, and concentrate more on trapping or poisoning, strategies which reduce the chances of contact with the state and safari operators."

In their assessment of strict protection challenges in Zambia, Gibson and Marks (1995:951) observe that "the stepped-up enforcement of the wildlife scouts forced locals to change their preferred tactics and choices of prey." Conservation is encountering serious problems with authoritarian protection in the developing world because "the political trajectories of protected areas to a large extent shape how they are perceived by local people and other players, including, most importantly, the degree of legitimacy that management restrictions carry. Protected area managers deal with these political realities on a daily basis and yet the broader policy implications have been explored only superficially" (Wilshusen et al, 2002:23).

While it may seem as if "people of all stripes, whether indigenous or not, pose a grave threat to the biological integrity of any park, when they must derive their livelihoods from the park's natural resources" (Terborgh and Peres, 2002:307); Adams and Mulligan (2003:292), stress that "as we enter the 21st century, we can say that the need for a deep dialogue between nature conservationists and indigenous peoples has never been greater." The relationship between conservationists and indigenous or local people has always been frosty. Adams and Mullingan (2003:294) further argue that "indigenous people, and indeed poor rural people in general, are rarely able to exercise power or authority in discussions about conservation. Conservation is too often an alien idea descending from some remote expert, backed by state bureaucracy and, if necessary, coercive force."

Conservation need not strive to paint indigenous or local people as her pagan enemies, for even pagans, do convert to other more popular religions (depending on evangelization strategies). For instance, European Christian missionaries went to Africa, and through evangelism and mutual respect (not dictatorship), succeeded in converting majority of hitherto pagan human populations in sub-Saharan Africa, into Christianity. The same will apply to conservation, if conservation agrees that current approaches are failing, and that the 21<sup>st</sup> century requires paradigm shifts towards conservation that listens to local communities in the developing world, and not just governments or northern NGOs.

In this study, buffer zone communities and their authorities, insist on livelihood alternatives, forest ownership rights, and demand the payment of annual land rents in respect of their ancestral forest territories that have been converted to parks. Buffer zone villagers stress that the above conditions constitute a meeting point where park conservation strategies (and indeed strict protection) will make sense and enjoy their collective support. This calls for arena of finding common ground with local people. A number of authors have called for the compensation of local communities that have been dispossessed of their ancestral forest lands for biodiversity conservation purposes (e.g. Balmford and Whitten, 2003; Ferraro and Simpson, 2001; Ferraro and Kiss, 2002; and James et al., 2001). On a possible formula that could be used to compensate local people in tropical parks, James et al. (2001), posit that in the tropics:

"the total land value of all reserves (parks and protected areas) is estimated to be \$49.5 billion. Assuming a discount rate of 10%, annual compensation for these existing reserves should be approximately \$4.9 billion. The compensation payment averages \$1.365 per square kilometer per year – a significant amount, considering that most parks in developing countries are run on only a few hundred dollars per square kilometer per year. For example, the communities surrounding Mikumi National Park in Tanzania, a reserve of 3.230 square kilometers, would collectively receive \$2.6 million a year in compensation."

There is serious concern on how donor partners like WWF and the EU have abandoned the full implementation of the management plan of CRNP which they jointly articulated. To this day, enclave communities have not been resettled as stipulated in the plan. The affected communities still live inside the core area of the park, and carrying out commercial bush meat hunting activities. The livelihoods program that was part of the support zone development program activities has also not seen the light of day. The creation of CRNP in 1989 was the result of pressure from Europe. Funding of the park was to come from Europe (major donor), while the Nigerian government was to provide counterpart funds of about 15%. Total take off budget for both Oban and Okwangwo divisions of CRNP (first 7 years), was about \$49,000,000.00 (Oates, 2002). As at 1998, during the first phase of project implementation, only \$4.037 million and \$1.5 million dollars (for WWF managed Okwangwo and EU managed Oban divisions respectively) had been spent. Since then, the balance of funds and activities are yet to be implemented till date. Both the management of CRNP and buffer zone communities (that were to benefit from

the livelihoods program) are demanding for the return of the European donor partners .

This study observes that some buffer zone communities like Old Ekuri (along with her sister community, New Ekuri), have established a community-based forest management institution, for the management of their forest resources in the buffer zone of CRNP. Pristine forest in the Ekuri axis of the park remains glaringly and impressively intact. From her over 20 years logging ban, land use plan, communal environmental legislations, and sustainable initiatives in agriculture and forest management; the Ekuri Community Forestry Project demonstrates that Community-Based Natural Resources Management (CBNRM) institutions, if promoted across villages in parks and protected areas; strengthened institutionally; and backed with standardized program and funding, could become a reliable global strategy for conservation domiciliation in local communities in the 21<sup>st</sup> century and beyond. They are like local churches, which if empowered, can take over the business of evangelism from foreign missionaries. The choice remains that of conservation. For now, the CRNP is not adequately funded to support CBNRM activities amongst her buffer zone communities.

#### 5. Conclusion and Recommendations

On the strength the alleged failure of integrated conservation and development projects (ICDP) to enhance the actualization of biodiversity conservation objectives in tropical parks and protected areas, some researchers strongly called for a return to strict or authoritarian protection as a way forward. This study assesses commercial bush meat hunting challenges in CRNP, Nigeria, and the practice of strict protection as park management strategy, and suggests that this strategy alone, cannot stop poaching activities or guarantee the achievements of the biodiversity conservation objectives of the park. The feasibility study or management plan documents for Oban and Okwangwo Divisions of CRNP, as prepared by WWF/ODNRI (1989 & 1990) provided for (i) resettlement of enclave villages (villages living and hunting inside the park), (ii) livelihoods program for buffer zone communities of the park, and (iii) rural infrastructure (e.g. roads, health centers, water supply, etc).

However, no sooner had the first phase of project implementation taken place (which as at 1998 amounted to \$4.087 million for Okwangwo Division, and \$1.5 million for Oban Division), than anti-ICDP conservation articles gained international attention. In addition to the above, EU politics in Brussels on who to control major share of the funds (Oates, 2002), culminated in the project being abandoned to this day. The CRNP has since 1998 been concentrating on park management strategies of strict or authoritarian protection only. Rather than yield positive biodiversity conservation results, strict protection (like ICDPs) is also failing, as hunters have devised complex local strategies of engaging with, and circumventing the strategy (e.g. change in hunting and trading techniques, emphasis on night activities, cooperation with immigrant hunters who give natives a share, etc).

It is instructive to note Wilshusen et al (2002:17), who maintain that while the arguments in support of strict protection are well grounded, they "largely ignore key aspects of social and political processes that shape how conservation interventions happen in specific contexts." In the case of CRNP, this study reveals:

- 1) That forest lands were nationalized in the 1930s through suppressive colonial forest policies that ignored local participation and planted rural poverty across the developing world. All generations of children and youth, born in the affected buffer zone communities have continued to question such policies, and are the ones fuelling anti-conservation activities like commercial bush meat hunting, not just in CRNP, but Africa in general.
- 2) That government led post-colonial violations of forest reservation policies (e.g. approval of logging concessions in forest reserves; establishment of government tree crop agricultural plantations for Cocoa, Rubber and Oil Palm on former forest reserve lands; introduction of taungya farming and admission of small scale farmers in forest reserves; mining of solid minerals on forest reserve lands; and de-reservation of large forest reserve territories to several favored communities, all combine to strengthen local peoples' argument that colonial forest policy laws have long been violated, culminating in government approved repossession of forest reserve lands by certain favored communities and individuals. Accordingly, local people see the invocation of colonial forest reservation laws (as basis for the creation of CRNP without property rights recognition and payment of compensation to local land owners), as injustice and perpetration of eternal poverty against them.
- 3) That it is not in the interest of conservation per se, that the creation and management of CRNP should continue to deliberately ignore property rights, and neither address the social impacts nor corporate social responsibility of conservation.
- 4) That in Nigeria inter-communal wars were rampant over the years with different communities and ethnic groups fighting one another to acquire or protect their ancestral forest territories, which conservation or parks should recognize; and that natives of buffer zone forest communities have allowed immigrants to undertake

commercial bush meat hunting activities in parks and protected areas, not because such immigrants are more powerful than the natives (militarily), but as a form of protest hinging on non-recognition of their property rights.

- 5) That if ICDP has not worked as conservation strategy in CRNP, it is because of buffer zone villagers' perception that they are the land owners (Landlords) of CRNP, and that in ICDP, conservation does not effectively address property rights or attract land rents or any annual sustainable income to communities. Local chiefs and community leaders in this study maintain that communities will not joke with parks and protected areas, if conservation yields some form of sustainable or annual revenue to local communities. It is instructive to note that in Cross River State's government agricultural plantations, established on former government forest reserve lands (e.g. cocoa, rubber, oil palm, etc), local property rights are recognized and landlord communities are paid annual land rents, while conservation or parks do not recognize property rights and pay nothing to buffer zone or landlord communities (as they would prefer to be called). This is the bone of contention in CRNP.
- 6) That local community authorities and institutions have what it takes to stop commercial bush meat hunting activities, and infiltration by migrants, only if conservation addresses rural livelihoods challenges and yields land rents or sustainable revenue to impoverished buffer zone (Landlord) communities.

On the strength of the foregoing, the claim that forest reserves and Parks are more likely to be effective if they "involve people in protection work, in tourism, in sustainable-yield forestry and in research than to encourage their agricultural activity" (Oates, 1995:121), is rather simplistic and insensitive to local peoples' colonial and post-colonial property rights grievances and struggles in tropical forest management and biodiversity conservation. The call by local people on conservation to agree that she is a tenant, while they (buffer zone communities) are landlords, demanding annual rental payments, should be critically negotiated to culminate in terms that will guarantee the protection of both biodiversity and human sustainability in the buffer zones of parks and protected areas. Conservation needs to find common ground with local people and strict protection should then be designed to enforce conservation terms agreed with such peoples.

#### Acknowledgements

This paper is one of the products of a doctoral research program: "Buffer Zone Communities, Commercial Bushmeat Hunting Challenges, and Biodiversity Conservation in Cross River National Park, Nigeria", at the University of Reading, UK. The program ended in 2012, and its sponsorship by the Commonwealth Forestry Commission, UK, is hereby acknowledged and highly appreciated. The cooperation of the authorities of the Nigeria National Parks Service, CRNP, and Cross River State Forestry Commission during field research is also hereby acknowledged and greatly appreciated.

#### References

- Adams, W. M., & Hutton, J. (2007). People, Parks and Poverty: Political Ecology and Biodiversity *Conservation*. *Conservation and Society*, *5*(2), 147-183.
- Adams, W. M., & Mullingan, M. (n.d.). *Decolonizing Nature: Strategies for Conservation in a Post-colonial Era.* London: Earthscan.
- Balmford, A., & Whitten, T. (2003). Who should pay for tropical conservation, and should the costs be met? *Oryx*, *37*(2), 238-250. https://doi.org/10.1017/S0030605303000413
- Bonner, R. (1993). At the Han of Man. New York: Alfred Knopf.
- Brandon K. E., & Wells, M. (1992). Planning for people and parks: design dilemmas. *World Development*, 20, 557-570. https://doi.org/10.1016/0305-750X(92)90044-V
- Buscher, B., & Whande, W. (2007). Whims of the Winds of Time? Emerging Trends in Biodiversity Conservation and Protected Area Management. *Conservation and Society*, 5(1), 22-43.
- Dzingirai, V. (2003). The New Scramble for the African Countryside. *Development and Change, 34*(2), 243-263. https://doi.org/10.1111/1467-7660.00304
- Fairhead, J., & Leach, M. (2000). Desiccation and Domination: Science and Struggles over environment and development in Colonial Guinea. *Journal of African History*, 41(1), 35-54. https://doi.org/10.1017/S0021853799007641
- Ferraro, P. J., & Kiss, A. (2002). Direct payments to conserve biodiversity. *Science*, 298, 1718-1719. https://doi.org/10.1126/science.1078104
- Ferraro, P. J., & Simpson, D. (2001, Spring). Cost-Effective Conservation: A Review of What Works to Preserve Biodiversity. *Resources*, (143).

- Gibson, C. C., & Marks, S. A. (1995). Transforming Rural Hunters into Conservationists: An Assessment of Community-Based Wildlife Management Programs in Africa. *World Development*, 23(6), 941-957. https://doi.org/10.1016/0305-750X(95)00025-8
- Ite, U., & Adams, W. (2000). Expectations, Impacts and Attitudes: Conservation and Development in Cross River National Park. *Journal of International Development*, 12, 325-342. https://doi.org/10.1002/(SICI)1099-1328(200004)12:3<325::AID-JID655>3.0.CO;2-X
- James, A., Gaston, K. J., & Balmford, A. (2001). Can We Afford to Conserve Biodiversity? *BioScience*, *51*(1), 43-51. https://doi.org/10.1641/0006-3568(2001)051[0043:CWATCB]2.0.CO;2
- Mapedza, E. (2007). Forest Policy in Colonial and Post-Colonial Zimbabwe: Continuity and Change. *Journal of Historical Geography*, *33*(4), 833-851. https://doi.org/10.1016/j.jhg.2006.10.022
- Massey, G. M. (2004, Summer & Fall). Making Sense of Work on the Wind River Indian Reservation. *American Indian Quarterly*, 28(3&4).
- Naguran, R. (2002). Property Rights and Protected Areas: The Case of Ndumo Game Reserve. A paper presented at the research seminar on Property Rights and Environmental Degradation, organised by the Beijer *International Institute of Ecological Economics*, 27-30 May, 2002, Durban, South Africa.
- Naughton-Treves, L. (1999). Whose Animals? A history of property rights to wildlife in Toro, Western Uganda. *Land Degradation and Development*, 10(4), 311-328. https://doi.org/10.1002/(SICI)1099-145X(199907/08)10:4<311::AID-LDR362>3.0.CO;2-3
- Naughton-Treves, L., & Sanderson, S. (1995). Property, Politics and Wildlife Conservation. *World Development*, 23(3), 1265-1275. https://doi.org/10.1016/0305-750X(95)00045-E
- Oates, J. F. (1995). The dangers of conservation by rural development a case study from the forests of Nigeria. *Oryx*, 29(2), 115-122. https://doi.org/10.1017/S0030605300020986
- Oates, J. F. (1999). *Myth and Reality in the Rainforest: how conservation strategies are failing in West Africa*. University of California Press: Berkeley.
- Oates, J. F. (2002). West Africa: Tropical Forest Parks on the Brink. In Terborgh et al. (Eds.), *Making Parks Work Strategies for preserving tropical nature*. Island Press, Washington D.C.
- ODNRI/WWF.1989. Cross River National Park Oban Division: Land Evaluation and Agricultural Recommendations. London.
- ODNRI/WWF.1989. Cross River National Park Oban Division: Plan for Developing the Park and its Support Zone. London.
- Ostrom, E., & Schlager, E. (1996). The formation of property rights. In S. S. Hanna, C. Folker, & K. G. Maler (Eds.), *Rights of Nature*. Washington DC: Island Press.
- Rabinowitz, A. (1999). Nature's last bastions: Sustainable use of our tropical forests may be little more than wishful thinking. *Nat. Hist.*, 108, 70-72.
- Schlager, E., & Ostrom, E. (1992). Property Rights Regimes and Natural Resources: A Conceptual Analysis. *Land Economics*, 68(3), 249-262. https://doi.org/10.2307/3146375
- Schmidt-Soltau, K., & Brockington, D. (2007). Protected areas and resettlement: What scope for voluntary relocation? *World Development*, *35*, 2182-2202. https://doi.org/10.1016/j.worlddev.2007.02.008
- Sullivan, C. R., Meany, C. R., Potter, T. M., Larson, D., Ruby, P., & Enuoh, O. (2005). Water Policy and Management in the Wind River Region, Wyoming. Paper prepared for Foundations of Natural Resources Policy and Management (Prof. Timothy W. Clark), Yale School of Forestry and Environmental Studies, New Haven, CT. USA.
- Terborgh, J. (1999). Requiem for nature. Washington, DC: Island Press/Shearwater Books.
- Terborgh, J., & Peres, C. A. (2002). The Problem of People in Parks. In J. Terborgh, C. van Schaik, L. Davenport, & M. Rao (Eds.), *Making Parks Work: Strategies for Preserving Tropical Nature* (pp. 307-319). Washington: Island Press.
- Timko, J. A., & Satterfield, T. (2008). Seeking Social Equity in National Parks: Experiments with Evaluation in Canada and South Africa. *Conservation and Society*, 6(3), 238-254. https://doi.org/10.4103/0972-4923.49216

- Van Schaik, C. P., Terborgh, J., & Dugelby, B. (1997). The Silent Crisis: The state of rainforest nature reserves. In R. A. Kramer, C. P. van Schaik, & Johnson (Eds.), *Last Stand: Protected Areas and the defence of tropical biodiversity* (pp. 64-89). New York: Oxford University Press.
- Wilshusen, P. R., Brechin, S. R., Fortwangler, C. L., & West, P. C. (2002). Reinventing a Square Wheel: Critique of a Resurgent "Protection Paradigm" in International Biodiversity Conservation. *Society and Natural Resources*, 15, 17-40. https://doi.org/10.1080/089419202317174002

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