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Parks and Communities: Assessing the Social Impacts of the Creation of Cross River National Park, Nigeria, using the Sustainable Livelihoods Approach

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Abstract

Cross River National Park (CRNP) of Nigeria is a globally acclaimed biodiversity hotspot and region of species endemism. Some of her keystone fauna species like the Cross River Gorilla (*gorilla gorilla diehli*) is not found anywhere else in the world. In the context of anthropogenic challenges threatening biodiversity conservation in the park, the paper adopts a livelihoods perspective (Sustainable Livelihoods Approach) in assessing the ignored social impacts of the creation of CRNP on buffer zone communities. Sustainable Livelihoods Approaches are methodologies developed by international development agencies for poverty alleviation interventions guided by frameworks that enhance the study, analysis and understanding of poverty in local communities. A combination of qualitative and quantitative research methods were used to facilitate the study, culminating in interesting findings on the ignored social impacts of the park's creation – which underpins the anthropogenic challenges in her buffer zone communities . Hinging on failing conservation strategies in the tropics, the paper discusses the need for conservationists and communities to find a common ground over parks – poverty debate using valuable insights from the Sustainable Livelihoods Approach, and evidence from CRNP.

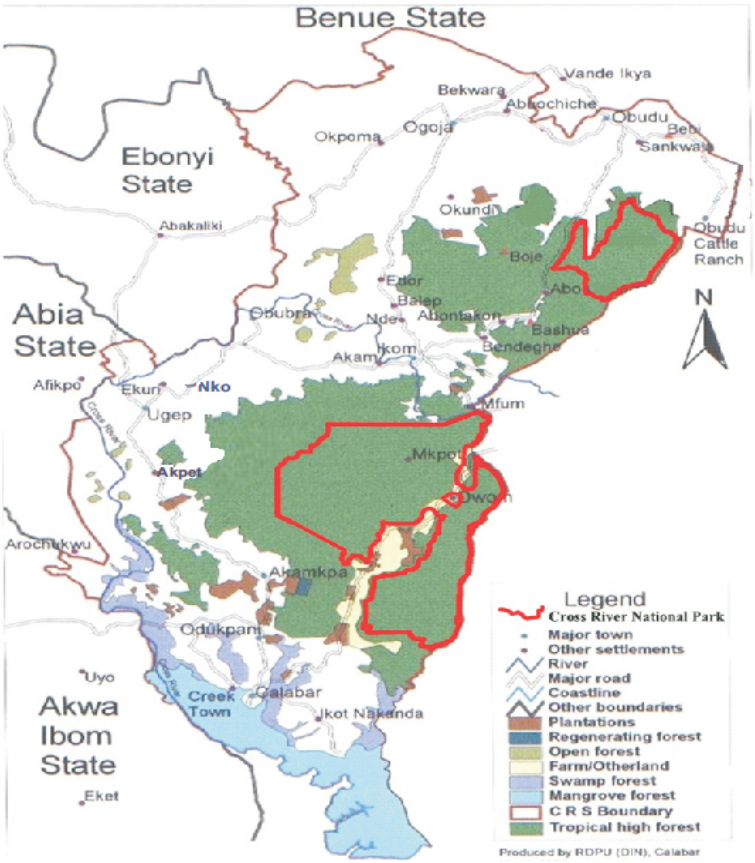
Keywords: Parks, biodiversity, impacts, people, and poverty.

1. Introduction

In 1986 and 1987, the tropical rainforest of Cross River State of Nigeria, 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.
All three "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). WWF/ODNRI further observed that Nigeria had lost over 90% of her pristine rainforest and that "an international consensus now exists that further equatorial deforestation must be prevented". In response to the above, and after a series of negotiations, the (then) Federal Military Government of Nigeria in collaboration with the Government of Cross River State established the Cross River National Park through Decree 36 of 1991.

The park is located in Cross River State of Nigeria, straddling two non-contiguous ecological divisions (Oban and Okwangwo divisions), and occupying a total land area of about 4,424 sq km. The Oban Division is in the southern part of Cross River State, covering an area of about 3,424 sq km within the Cross River loop, and sharing a common boundary with the Korup National Park in Cameroon. The Okwangwo Division occupies about 1,000 sq km, lies in the north of Cross River State, and shares a common boundary with the Takamanda Forest Reserve in Cameroon. The creation of CRNP culminated in 105 buffer zone villages (39 in Oban Division and 66 in Okwangwo Division) being stripped of their rights to use 'their forest' for various activities, including hunting and gathering (Dunn and Otu, 1996:37). The Park's master plan acknowledges that the economies of the villages surrounding the park depend on having access to the resources of the park, and that the procurement of bush meat for consumption and sale is an important traditional economic activity involving 38% of the adult male population of the buffer zone villages (ODNRI/WWF, 1989: 20 & 38).

Figure 1: Map of Cross River National Park, Nigeria



On the strength of the above, a buffer zone rural development program was proposed. This would act in several ways: (a) to provide indirect compensation for the loss of access to the park; (b) to improve traditional farming systems; (c) to educate the people on the principles of sustained-yield forest management; and (d) to involve the communities in the development of the park (WWF/ODNRI, 1989: 38). Despite over 22 years of implementation of buffer zone rural development activities by the park, aimed at securing communal support for biodiversity conservation, the problem of commercial bush meat hunting has persisted and intensified, culminating in serious and continuous depletion and extinction of various fauna species (Oates,1999).

Studies alleging integrated conservation and development projects (ICDP) failure as biodiversity conservation strategy in the tropics in general and Nigeria in particular (Ite and Adams, 2000; Oates, 1995, 1999 & 2002) do not offer sufficient explanation on the social impacts of the creation of CRNP on local livelihoods. Calls for return to authoritarian protection (Oates, 1995 & Terborgh, 1999) remain insensitive to the social impacts of tropical parks. The failure of ICDPs as tropical biodiversity conservation strategies have provoked the parks – poverty debate amongst conservationist. While some maintain that parks have social impacts on buffer zone communities (e.g. exacerbation of rural poverty), which ought to be addressed, others maintain that biodiversity conservation in parks and poverty alleviation activities are incompatible. Wilkie et al. (2006) called for further studies that will confirm the causative links between parks and poverty in order to justify parks' further involvement in poverty alleviation activities. The need for proper analysis and understanding of the gap between biodiversity conservation policies and programs, and the local realities that undermine conservation outcomes is the reason why the paper adopts a livelihoods perspective (Sustainable Livelihoods Approach) in assessing the ignored social impacts of the creation of CRNP.

There is limited information on the application of the Sustainable Livelihoods Approach (SLA) in parks – poverty assessments. This paper demonstrates that the SLA can be useful in assessing and determining the social impacts of the creation of parks on buffer zone communities, with insights from CRNP. The article comprises four sections. The first examines the poverty aspects of biodiversity conservation and how this connects with the Sustainable Livelihoods Approach. The second delves into the SLA with detail information on its tool for livelihoods analysis – the Sustainable Livelihoods Framework (SLF). The third presents the social impacts of the creation of Cross River National Park on buffer zone communities through the lens of the Sustainable

Livelihoods Framework. The last section concludes and makes recommendation for further research, policies and program interventions. The paper argues that the causal relations between tropical parks (biodiversity conservation) and rural poverty in buffer zone communities can be established using the Sustainable Livelihoods Approach (SLA).

2. A synopsis on the Parks - Poverty debate

The use of authoritarian measures as park management strategy in Africa, anchored on frequent arrest and punishment of trespassers into park territories for livelihood activities (also known as fortress conservation), came under serious criticism. Murphree (1991) argues that if conservation projects are perceived as serving the external world, while local people pay the costs, successful outcomes will be elusive. Hulme and Murphree (1999: 277) observe that fortress conservation is anti-human. Given the colonial background of African parks, the growing consensus is that "protected areas should be part of the solution to poor people's problems, and not create new ones" (Abbott et al., 2001: 1115). In response to the above concerns, integrated conservation and development projects (ICDPs) were introduced in the 1980s, with the assumption that "development activities will in some way affect the attitudes and behavior of local people, so that they are more supportive of conservation measures that regulate resource use, whether enforced by an outside agency or self-imposed" (Abbott et al., 2001: 1115). ICDPs are not tantamount to compensation demands by local communities over nationalized forest territories that are now parks.

After about a decade of ICDP activities in parks and protected areas in the tropics, project reviewers and researchers alleged that the strategy is a mix of success and failure (Abbott et al., 2001). A number of authors out rightly reported that ICDP projects are a failure as they do not enhance the actualization of biodiversity conservation objectives (Oates, 1999 & Terborgh, 1999). The above authors called for a return to authoritarian protection or fortress conservation, as the only strategy of effective biodiversity conservation in the tropics. Such prescriptions ignore the problem of colonial nationalization of the forest territories of local communities, property rights struggles, and ignored community demands for the payment of compensation by parks.

While a growing number of conservationists, researchers and reviewers were skeptical of ICDPs, the UN Millennium Ecosystems Assessment Report and the UN Millennium Development Goals (MDGs) placed emphasis on global sustainable development strategies that tackle biodiversity conservation and poverty alleviation simultaneously. MDG 1 seeks to eradicate poverty globally, while MDG 7 seeks to ensure environmental sustainability. On grounds of the above alleged failure of ICDPs, some conservationists began to strongly argue that rural poverty and biodiversity conservation are divergent problems that should not be addressed by parks and protected area managers. Agrawal and Redford (2006: 2 & 32) argue that "biodiversity conservation and poverty alleviation cannot be achieved together", and that it is even "inappropriate" to pose a question such as 'what is the relationship between biodiversity and poverty?'

Sanderson (2005: 531) stresses that "alleviating poverty and conserving biodiversity will take place in the most difficult settings, places of extreme ecological vulnerability, very low population densities and no state presence." Barrett et al (2005: 193) similarly argue that "the common assumption that poverty reduction and environmental sustainability goals are inherently complementary does not appear to stand up well to empirical scrutiny." However, the reality that surrounds tropical biodiversity conservation is that wherever parks and protected areas exist, abject poverty (with people living on less than one dollar per day) also exists amongst the surrounding communities (CBD, 2010). Wilkie (2006) calls for more research that will establish the links between biodiversity conservation and rural poverty.

Poverty is multi-dimensional in nature and the relationship between poverty and biodiversity conservation in tropical parks and protected areas appear unclear and less understood by some conservationists, conservation organizations, researchers and policy makers. Understanding and responding to the multi-dimensional underpinnings of poverty in parks and protected areas requires a holistic or broad multi-disciplinary approach. One of the most popular multi-disciplinary approaches to the study and analysis of poverty in developing countries is the DFID Sustainable Livelihoods Approach (SLA), and its tool for poverty analysis – the Sustainable Livelihoods Framework (SLF). In response to the call by conservationists that more research be conducted to establish the links between biodiversity conservation and poverty, in order to inform conservation interventions, the paper finds the SLA insightful.

3. Overview on the Sustainable Livelihoods Approach (SLA)

Brocklesby and Fisher (2003) and Krantz (2001) trace the origin of the sustainable livelihoods idea to the 1987 Brundtland Commission on Environment and Development, and the 1992 United Nations Conference on Environment and Development, where the term 'sustainable livelihoods' was used in discussions on natural resources ownership, basic human needs, and rural livelihood security. Both fora mobilised international

attention towards environmental issues and linkages with the rural livelihood activities of local people. Hilson and Banchirigah (2009: 174) comment that the term "sustainable livelihoods, is a phrase which despite giving rise to a bourgeoning literature, remains highly contested." In international development Fisher (2002) maintains that current interest in livelihoods emerged from different strands of thinking which includes: livelihoods ideas that evolved through the 1980s and 1990s; work on famine and food insecurity; thinking on poverty and vulnerability; and ideas about sustainable development.

On the strength of the above, Sustainable Livelihoods Approaches (SLA) are ways of thinking, planning, and strategizing on sustainable rural livelihoods programs (Carney, 2003; & Brocklesby and Fisher, 2003). Singh and Gilman (2000: 3) maintain that Sustainable Livelihoods Approaches are "methodologies (or approaches)" developed by international development agencies for the design, implementation, and evaluation of sustainable livelihoods programs at the country level. Allison and Horemans (2006:757) maintain that "The Sustainable Livelihoods Approach (SLA) combines a conceptual framework with a set of operational principles to provide guidance on policy formulation and development practice." Sen (1981) informs that Sustainable Livelihoods Approaches have evolved over time from changing perspectives on poverty, participation and sustainable development.

In the late 1990s, sustainable livelihoods ideas metamorphosed into an approach, or related approaches, adopted by several international development organizations like UNDP, FAO, International Fund for Agricultural Development, CARE International, Oxfam, DFID, and development research institutes (Brocklesby and Fisher, 2003). Scoones (2009:179) maintains that different organizations devised "different versions of livelihoods approaches which were applied to everything: livestock, fisheries, forestry, agriculture, health, urban development and more."

There are guiding principles underpinning the Sustainable Livelihoods Approach. Ashley and Carney (1999) emphasize that the sustainable livelihoods approach is underpinned by core principles, such as being (i) people-centred (focusing on what matters to people and group dynamics e.g. gender), (ii) responsive and participatory (people-driven livelihoods strategies), (iii) multi-level (reflecting micro-macro connections) where development policy is informed by micro level activities and macro level structures and processes supporting poverty reduction, (iv) conducted in partnership (public and private), (v) holistic (sensitive to key poverty causing factors), (vi) sustainable (meeting present and future needs).

For progress in poverty reduction to be long lasting, and not fleeting, DFID (1999) maintain that rural livelihood activities must be sustainable. Accordingly, "livelihoods are sustainable when they:

- are resilient in the face of external shocks and stresses;
- are not dependent upon external support (or if they are, this support itself should be economically and institutionally sustainable);
- maintain the long term productivity of natural resources; and

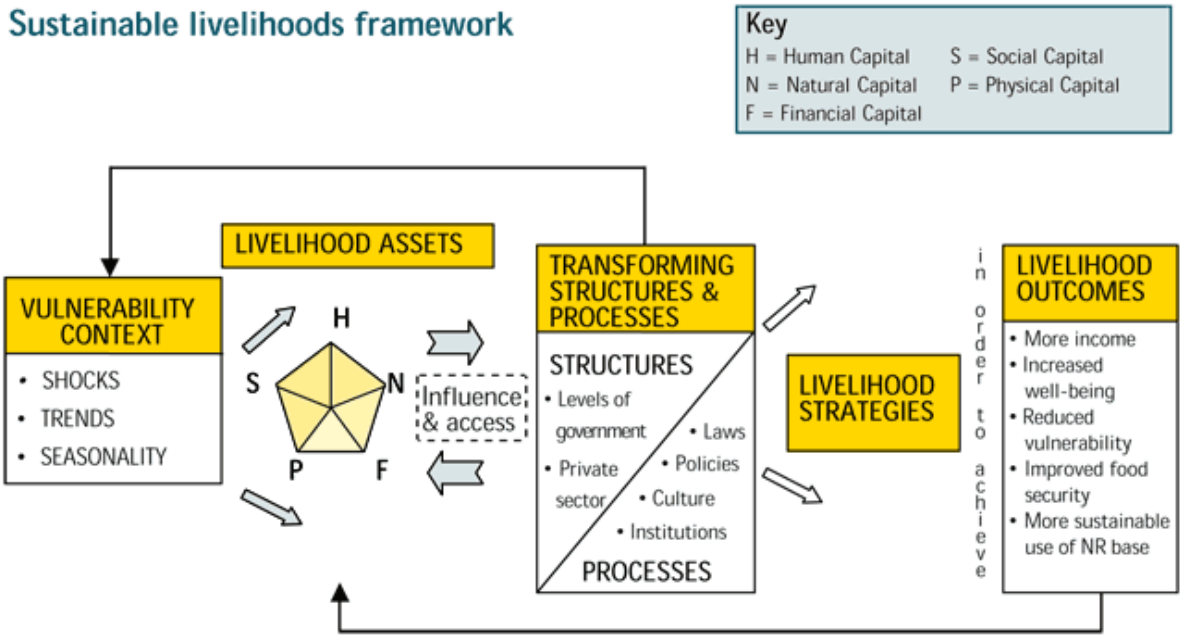
do not undermine the livelihoods of, or compromise the livelihood options open to others."

The tool used for livelihoods analysis in the Sustainable Livelihoods Approach is referred to as the Sustainable Livelihoods Framework (SLF) (see section 3.1).

3.1 **The Sustainable Livelihoods Framework**

Scoones (2009), comments that the evolution of SLAs culminated in different organizations coming up with different Livelihoods Frameworks, which are analytical tools on rural livelihoods. Examples include the DFID Sustainable Livelihoods Framework (SLF), CARE's Household Livelihood Security Framework (HLSF), and UNDP's programming framework for integrated livelihood support activities (Krantz, 2001). The DFID Sustainable Livelihoods Framework (SLF) is the most popular. Carney (2003:15) comments that "the Sustainable Livelihoods Framework has been the 'public face' of DFID's Sustainable Livelihoods Approach, but it is in reality only one of many analytical tools that can be employed when implementing an Sustainable Livelihoods Approach. The framework highlights some of the key points of Sustainable Livelihoods Approaches (assets, vulnerability, policies/institutions and the fact that all these interact)."

Figure 1: The Sustainable Livelihoods Framework (SLF)



DFID (1999) maintain that the Sustainable Livelihoods Framework (SLF) illustrate the main factors that affect people's livelihoods, and the relationships between them. It is useful in both planning new development interventions and assessing the contribution to livelihood sustainability made by existing development activities. It can also help in the identification of appropriate entry points in livelihoods program interventions.

In summary of what the Sustainable Livelihoods Framework depicts, DFID (1999) maintain that the framework sees local people as operating in a context of vulnerability where they have access to certain assets or poverty reducing factors. The factors gain their meaning and value through the prevailing policy, social, institutional and organizational environment. This environment also influences the livelihood strategies – ways of combining and using capital assets (natural, physical, human, financial, and social) – that are open to people in pursuit of beneficial livelihood outcomes that meet their own livelihood objectives.

For progress in poverty reduction to be long lasting, and not fleeting, DFID (1999: 1.4) further maintain that rural livelihood activities are sustainable when they:

- are resilient in the face of external shocks and stresses;
- are not dependent upon external support (or if they are, this support itself should be economically and institutionally sustainable);
- maintain the long term productivity of natural resources; and
- do not undermine the livelihoods of, or compromise the livelihood options open to others."

Critical literature on the sustainable livelihoods approach notwithstanding, this paper notes that the different elements of the SLA and SLF (for livelihoods analysis), are all consistent with the anthropogenic challenges of biodiversity conservation prevailing in parks and protected areas. The paper thus maintain that the sustainable livelihoods approach and its framework for livelihoods analysis – the SLF can be useful in parks and protected areas, in the assessment of the social impacts of the creation of parks on local communities. It offers insights that can be useful in determining livelihoods entry points in the buffer zone communities of parks and protected areas. The sustainable livelihoods approach (if adopted) in assessing the social impacts of parks, can offer new and valuable insights to conservation researchers, consultants, government and park managers on how to resolve the enduring problem of parks – poverty debate, and the strategies needed to address the anthropogenic challenges of tropical biodiversity conservation.

(3)

4. Methods

A combination of qualitative and quantitative research techniques were used in data collection and analysis. The qualitative techniques comprise document research, interviews, focus group discussions, observations, and participatory rural appraisal exercises (e.g. historical time line information, seasonal calendars, and community resource mapping). On quantitative data, a rural livelihoods survey exercise was carried out in three local communities (two in the buffer zone of Cross River National Park, and one outside the park's buffer zone), for comparative purposes. The five blocks or windows in the sustainable livelihood framework (vulnerability context, livelihood assets, transforming structures and processes (or Policies, Institutions and Processes), livelihood strategies, and livelihood outcomes) summarize the factors that shape sustainable livelihoods amongst local people, and offered the analytical lens used in assessing the social impacts of the creation of Cross River National Park on buffer zone communities.

5. Results on the social impacts of the creation of CRNP:

The study found that biodiversity conservation in Cross River National Park is impacting on buffer zone communities vis-à-vis vulnerability context, livelihood assets (natural, physical, social, financial and human capital), transforming structures and processes (or policies, institutions and processes), and livelihood strategies and outcomes. A brief summary of findings on each of the above is presented in sections 5.1 – 5.4.

5.1 Vulnerability context

The study reveals that persistent wildlife raiding of agricultural crops in buffer zone communities, crop failure, human health shocks, resource conflicts, natural disasters and climate factors make buffer zone villagers susceptible to commercial bushmeat hunting activities. Also commodity prices, food availability, seasonal unemployment and production dynamics, do create situations and circumstances that push people into bushmeat hunting. International / national economic trends, resource governance, technological trends and human population trends all add to the vulnerability underpinnings of commercial bushmeat hunting activities.

The livelihoods survey reveal that wildlife raiding of agricultural crops is more intense in the Cross River National Park buffer zone communities (Old Ekuri and Abo Mkpang), than in the non-buffer zone community (Akwa Ibami). Accordingly, villagers in Akwa Ibami did not complain about poor returns on agricultural investments, compared to their Old Ekuri and Abo Mkpang counterparts who complained bitterly. This implies that biodiversity conservation in parks and protected areas (with the example of Cross River National Park), is impoverishing or impacting negatively on rural agricultural production, return on agricultural investments, food scarcity, and livelihood outcomes in buffer zone communities. The study thus confirms that vulnerability context is a contributory factor to commercial bushmeat hunting challenges in Cross River National Park.

5. 2 Livelihood assets

5.2.1 Physical capital

Poor social infrastructure in the communities (e.g. transport or road network) remain the greatest development problem in all three villages of this study. Only motor bikes, tractors and four-wheel drive Land Rover Pick-ups are able to make it to these villages. All other types of cars such as buses and taxis are unable to make it to any of the villages. A key informant at Akwa Ibami disclosed that when it gets to the peak of the rainy season (e.g. July, August and September), even Land Rover Pick-ups and tractors, find it difficult to make it to the village. None of the communities in the study has access to electricity, telephone communication, and safe or treated drinking water.

5.2.2 Natural capital

All three villages are extremely blessed with different types of forest resources such as timber, non-timber forest products (NTFPs), solid minerals, rich agricultural lands, and possesses great potentials for the proposed carbon forestry (UN REDD program) in Nigeria. The forest is still pristine or intact in the buffer zone villages (Old Ekuri and Abo Mkpang), while that of Akwa Ibami (non-buffer zone community) has been partly logged and partly used for rubber plantation (Cross River Rubber Estates Limited / former Dunlop Rubber Plantation).

During PRA exercises, buffer zone villagers (Old Ekuri and Abo Mkpang) complained bitterly that the advent of Cross River National Park has undermined their economic interest in their ancestral forestlands. They maintained that whereas non-buffer zone communities like Akwa Ibami are allowed to hunt animals, extract solid minerals, undertake timber logging, and sell or mortgage their lands to investors for tree crop plantations (e.g. Rubber, Cocoa and Oil Palm), buffer zone villages are prevented from engaging in the above initiatives, and with no compensation paid for loss of access. The economic value of forestlands (as articulated by villagers in the PRA exercises) and the natural capital costs of the creation of CRNP (borne by buffer zone communities) is presented in table 1:

Table 1: PRA on economic value of forestlands in the study villages

S/No	Description	Old Ekuri (Buffer zone village)	Abo Mkpang (Buffer zone village)	Akwa Ibami (Non-buffer zone village)
1	Solid Minerals	Intact Granites, Barytes, Limestone, precious stones, etc	Intact granites, Barytes, precious stones, etc	Quarrying of granites & Barytes mining allowed
2	Timber	Assorted tropical hard wood species (intact)	Assorted hard wood species (intact)	Logged forest (Seromwood Nig. Ltd) operated here
3	Tree crop agricultural plantations and investors (e.g. Cocoa, Rubber, Oil Palm)	Not permitted	Not permitted	Dunlop Rubber Plantation is here and community collects land rents
4	NTFP (Non-timber forest products) extractions	Hunting more lucrative than others , but has restrictions.	Hunting more lucrative than others , but has restrictions.	Hunting allowed; over hunting and declining fauna populations.
5	Proposed Carbon Credit (UN-REDD) programme	Priority village and suspicion of Govt.	Priority village and suspicion of Govt.	Low priority community

Source: Fieldwork, 2010.

5.2.3 Financial capital

None of the three villages in the study has access to banks or credit institutions. Financial institutions are found only in urban centers in Nigeria. Households have no bank accounts, and people rely on their personal savings to cater for their needs. During focus group discussions, villagers lamented that lack of credit facilities from banks make it impossible for them to expand their farms, or engage in other businesses. They further complained of lack of subsidy on agricultural inputs from both the government of Cross River State, and the Cross River National Park. From the livelihoods survey, 80% of households in the buffer zone communities (Old Ekuri and Abo Mkpang) do not generate savings income of up to £100 (one hundred pounds) per annum. On the other hand 80% of their counter-part in Akwa Ibami (the non-buffer zone community where hunting is not restricted), generate savings income of above £150 (one hundred and fifty pounds) per annum.

5.2.4 Social capital

It was found that different types of social capital exist in both buffer zone (Old Ekuri and Abo Mkpang) and none buffer zone (Akwa Ibami) communities of Cross River National Park. They include Family / Extended family groups, age grades, church / religious groups, community youth groups, women group, commodity associations, formal community-based organizations (CBOs) / non-governmental organizations (NGOs), political party groups and local savings groups. Of the above groups, it was observed that only commodity associations, CBOs / NGOs, and local savings groups do not cut across the three villages of this study (table 2):

Table 2: Mapping of Social Capital in the villages of this study

S/No	Nature of Social Capital	Areas of intervention	Beneficiaries	Where Operational		
				Old Ekuri	Abo Mkpang	Akwa Ibami
1	Household/Extended Family ties	Emergencies e.g. health shocks (sickness & death), crop failure, land needs, financial stress, etc.	Household and extended family members only.	X	X	X
2	Age Grades	Local lending/borrowing, Labour exchange, health shocks.	Members of a given age grade only.	X	X	X
3	Church/Religious Groups	Spiritual well-being, health shocks, Labour exchange.	Members of a Church or religious group only.	X	X	X
4	Community Youth Group	Conflicts resolution, support during police & customary court cases	All youths in the community (male and female).	X	X	X
5	Community Women's Group	Farming activities and labour exchange, marital conflicts and support, School fees (single parents), etc.	All women in the community only.	X	X	X
6	Commodity Associations	Production & knowledge sharing, lending/borrowing, and marketing /collective bargaining strategies, etc.	Producers and marketers of certain commodities only.	X	X	
7	Formal CBO/NGO	Common development problems e.g. schools, road maintenance, water supply, Community-based natural resources management, livelihoods projects, micro-credit scheme, etc	Membership open to all community members	X		
8	Political Parties	Remittances, donations, Community development support, political conflicts resolution e.g. police and court cases, etc.	Strictly for members of a given political party, e.g. PDP or ACN.	X	X	X
9	Local Savings Group	Local enterprises & Local borrowing / lending.	Strictly for contributing members.	X	X	

Source: Fieldwork, 2010.

It was observed that amongst households, the value of social capital (as mechanism for livelihoods improvement) is dependent on the number, types and quality of social relations and networks that people have. That is due to the fact that (i) social groups at the local community level are not very buoyant financially, and so no single

group can produce all the resources needed (at short notice) to tackle the problems of those in stressful financial circumstances, (ii) some groups have stronger capacities to address certain challenges than others, and (iii) certain problems are easily addressed through a combination of resources drawn from different groups.

5.2.5 Human capital

All three communities are educationally disadvantaged. The educational institutions available in these communities are ill-equipped primary schools. There are no secondary schools in any of the villages. The level of illiteracy is high especially among female children. A key informant at Old Ekuri mentioned that rural households tend to give preference to male children in secondary and tertiary level educational investments. Male children are perceived as permanent members and prospective inheritors, while female children would leave for marriage when they mature, and prospective husbands come after them. Accordingly the lean financial resources of households are invested in the education of male children, instead of girls.

There are no vocational training centers close to any of the three villages in the study. Accordingly, villagers lack vocational skills generally. At Akwa Ibami (the non buffer zone community), a key informant mentioned that lack of technical or vocational skills in the community, was responsible for non-employment of indigenes when logging activities took place in the community. All skills - based junior workers like drivers, mechanics, plant operators, electrician, saw mill operators, carpenters, etc were all brought from outside. This made it extremely difficult for villagers to benefit from the logging operations of the 1980s.

5.3 Policies, Institutions and processes

The study found that CRNP establishment was anchored on policies and processes that colonially nationalized the forest lands of local communities, culminating in property rights struggles which have persisted to the present day. The study reveals that six villages (Okwangwo, Okwa I, Okwa II, Mkpot, Abung and Iku) are enclave communities (currently residing in the core area of Cross River National Park) due to property rights claims. The 1989 management plan for CRNP, prepared by WWF/ODNRI recommended the resettlement of all enclave villages within the first seven years of the take-off of the park. We are now in year 2014, and the resettlement program has not taken place. These communities are the ones fuelling commercial bushmeat hunting activities in CRNP. Forest ownership claims and conflicts between park rangers and the enclave communities have been a persistent source of violent confrontations in Cross River National Park. Currently, the affected communities threaten that park staff should not come into their lands. The park constructed patrol posts in the enclave villages, but the villagers revolted and demolished them.

The study shows that CRNP restricts local people's access to livelihood assets (e.g. natural capital, physical capital, financial capital, human capital and social capital). Such restrictions undermine the capacity of buffer zone villagers to combine different capitals in the pursuit of different livelihood strategies. This scenario culminates in livelihood outcomes of poverty in buffer zone communities. The study thus concludes that CRNP's restriction of access to livelihood assets in buffer zone communities, undermine households capacity for asset combination in the pursuit of sustainable livelihood strategies and outcomes.

In comparison of transforming structures and processes between buffer zone communities and non-buffer zone communities, the study found that whereas forestry and national park policies do not impose restrictions on non-buffer zone communities over forest extractive activities, it does on buffer zone communities, culminating in serious poverty in such communities. See comparison in table 3:

Table 3: Assets and TSP: A comparison Between Buffer Zone and Non-Buffer Zone Communities

S/No	Livelihood Assets	Issues in Transforming Structures & Processes	Non-Buffer Zone (NBZ) villages	Buffer Zone (BZ) villages	Livelihood impacts
1	Natural Capital	Forest Policy / Logging	Logging / Royalties paid to communities	Conservation/No royalties paid	Impoverishing on BZ villages/ contestations
		Forest Reserves converted to Govt. agric. Plantations (post – colonial forestry)	Cocoa/Oil Palm/ Rubber & land rents paid to communities	Conservation / No land rents paid	Impoverishing on BZ villages/ contestations
		Solid Minerals in Forest Reserves	Limestone/Cement factories & Granite Quarries/ payment of landlord revenues	Conservation / No revenues paid to communities	Impoverishing on BZ villages/ contestations & hunting
		De-reservation approvals	Forest Reserve boundaries shifted for certain communities/ private investments	No shift of conservation boundaries / No private investments	Impoverishing on BZ villages / contestations and hunting activities
		Farming in Forest Reserves	Farming approved in Forest Reserves @ N2,500 per hectare / individual investments	Conservation / No farming despite poor soils in buffer zone areas	Impoverishing / contestations and bushmeat hunting activities
		National Park Creation / Policy	Not affected (business as usual)	Park Creation / tighter restrictions	Compensation advocacy by villages ignored / more deviant activities
		Non -timber forest products (NTFPs) extractions and tariffs	No restrictions	Hunting restrictions imposed	Upsurge of illegal hunting activities
2	Physical Capital	Infrastructural dev. (roads, electricity, water supply, telecommunications, etc)	Concentrated exclusively in the non buffer zone areas of the state/country.	No infrastructural development / marginalised & Barbaric	Lack access to markets/poor prices of commodities/ exacerbating poverty
3	Financial Capital	Revenue distribution/ Fiscal policies / Credit institutions	Concentrated in the non buffer zone areas, e.g. Banks / loans	No access to credit institutions / relying on personal savings for livelihood activities	Compensation advocacy ignored / intense hunting activities
4	Social Capital	Private sector / Third sector development initiatives	Concentrated in the non buffer zone areas	Reliance only on informal social capital mechanisms	Impoverishing / over reliance on NTFPs / hunting
5	Human Capital	Educational / vocational training institutions / health care institutions & services	Advancement in human capital development concentrated in the non buffer zone areas	Total lack of capacity / no presence in policy making & implementing arenas / marginalized	Lack capacity for alternative livelihoods/ livelihoods diversification /resorting to hunting

Source: Fieldwork, 2010.

5.4 Livelihood strategies and outcomes

Generally, it was observed that buffer zone villagers do not specialize in a specific livelihood activity, but practice a combination of different activities, depending on what fetches revenue at different times of the year. The study reveals that though bushmeat hunting activities are underpinned by a cocktail of factors, the leading or main reason why people hunt is for purposes of generating income towards meeting household socio-economic needs and demands. In other words, income generation purposes (hinging on disappointing livelihood strategies and outcomes), is the primary driver of commercial bushmeat hunting activities in Cross River National Park. From the livelihoods survey, 47.6% of household heads generate less than N10,000 (£40) per month; 31.5% generate within N11,000 – N20,000 (£80); 12.4% generate within N21,000 – N30,000 (£120); 8.6% generate within N31,000 – N40,000 (£160); while nothing was recorded in the last category – N41,000 – N50,000 (£200) per month. This clearly demonstrates that there is serious poverty amongst forest communities in the study area. From a sample size of 267 households, those whose monthly net income meet their needs constitute 37.5%, while 62.5% indicated that they are unable to meet their needs from their monthly net income.

Findings also reveal that households cope with disappointing livelihoods outcomes by engaging in commercial bushmeat hunting activities and gathering of non-timber forest products (NTFPs). While men dominate hunting activities, women dominate NTFP activities. The study found that hunting is the most lucrative livelihood activity in communities in the study area. It was also observed that villagers who combine tree crops (e.g. Cocoa, Oil Palm, or Citrus) with food crops (e.g. Plantain, Cassava or Yam), were hardly involved in hunting, and owned better and more comfortable houses than their counterparts who cultivated only food crops, and who disclosed that they were into hunting activities. It was observed that villagers who own tree crops are occupied with different production and processing activities (e.g. Cocoa and Oil Palm), all year round, and so hardly had time for hunting activities. Also the tree crops have export value (e.g. Cocoa beans and Palm Oil), and so attract more revenue than subsistence (food crop) farming. However, the study found that majority of households do not cultivate tree crops due to the cost of technical inputs like agro chemicals

The study further reveals that the livelihoods program (Support Zone Development Program) that was proposed in the management plan for buffer zone communities has not been implemented till now. The cost of the support zone development program was ECU 17.5 million (for villages in Okwangwo division), and ECU 16.5 million (for villages in Oban division). The support zone development program that would have addressed the livelihood underpinnings of commercial bushmeat hunting, has been abandoned by the international donor partners to this day. Table 4 summarizes the costs of the creation of CRNP borne by buffer zone communities.

6. Discussion

Despite the fact that the Sustainable Livelihoods Approach (SLA) has "provided new insights into the livelihoods of the poor, and emphasised the importance of working alongside poor people and supporting them in reducing poverty" (Carney, 2003:9), criticisms exist on its principles and practice. As core principle, the Sustainable Livelihoods Approach is holistic (addresses all factors affecting people's livelihoods). Such a principle leads to a consideration of many aspects, and a flood of information that could be difficult to cope with (Kollmar and Gamper, 2002). Its application is supposed to be preceded by livelihoods analysis which "requires enormous financial, time and personal resources often lacking in practical projects" (Kollmar and Gamper, 2002:10).

Morse (2010) argues that the SLA goes beyond economics to other wider domains of the socio-cultural aspects to human existence. Inevitably this means a deviation from expressing the relationship between people and environment as numbers, into a richer and more qualitative appreciation. He maintains that whereas people's lives are complex, the diagram of the sustainable livelihoods framework is rather simplistic, and that "an attempt to make a quick analysis as the basis for policy change could also result in a 'dirty' one driven by the needs of those doing the SLA and not necessarily those meant to benefit" (Morse, 2010:168).

Small (2007) observes that the Sustainable Livelihoods Approach is not formally linked to any theory on social or economic change, but rather relies on an array of current international development concepts and values such as participation, empowerment, holism, and equality. Though it draws a number of current international development themes together, "it does not integrate these ideas into a theoretically consistent whole", and processes of social change are left undefined (Small, 2007: 32). This is somehow problematic for an approach that seeks to use and intervene in the processes of social change. Wiggins (2002) argues that the use of sustainable livelihoods concepts by development organizations and practitioners who are unfamiliar with broader theories could lead to interventions that are clearly in opposition to established principles.

Its widely acclaimed apparent holism notwithstanding, the Sustainable Livelihoods Approach does not demonstrate sufficient sensitivity to, or take into account, the actions and influence of wealthier players in the field (Moser and Norton, 2001). Analysis of assets and their use is seen as focusing only on the poor, without illuminating on the activities of the wealthier members of society. The complexities of social structure and power relations (e.g. market, class, and ethnicity) are not reflected in the livelihoods approach. Instead of attaching

premium to the historical events and forces that have shaped current social realities, the Sustainable Livelihoods Approach is ahistoric (O'Laughlin, 2002), concentrating only on present circumstances and situations.

Table 4: CRNP creation and the SLF: Mapping the costs borne by buffer zone communities

S/No	Sustainable Livelihoods Framework (SLF) lens	Park action with direct poverty impacts on buffer zone communities	Park action with indirect poverty impacts on buffer zone communities
1	Vulnerability context	• Farmlands and persistent wildlife raiding of agricultural crops and crop failure. • Diseases from wildlife • Land scarcity and buffer zone land / resource use conflicts	
2	Livelihoods Assets:	Limit access to capitals and undermine villagers' capacity for asset combination towards wealth creation / sustainable livelihoods	
	Natural capital	Dispossession of ancestral natural capital (park land territory) without compensation	
	Physical capital	Prevention of road construction through the park / communities in order to discourage human trespass into park territory / protect biodiversity	Undermine other infrastructural development that usually follow road availability e.g. water supply, electricity, telephone communication, hospitals and schools. Lack of access to markets Poor commodity prices due to transportation problems
	Financial capital	Limit access to financial capital	
	Human capital	Poor education and health care facilities	
	Social capital	Reliance on social networks that often are too weak to help	
3	Policies, institutions and processes	• Policies of nationalization of the forestlands of buffer zone communities (now park) • No land valuation to ascertain the costs of park territories and no payment of land rents • Resource use restriction policies in park territory (e.g. logging and hunting restrictions)	
4	Livelihoods strategies	Limited livelihood options (e.g. subsistence farming and gathering of non-timber forest products)	
5	Livelihoods outcomes	Disappointing livelihoods outcomes	

Source: Fieldwork, 20110.

In practice, Farrington et al (1999:1) maintain that there is difficulty of "identifying appropriate in-country partners, and developing collaborative approaches to understanding the complexity of poverty and integrating that understanding into a common livelihoods frame." Krantz (2001) observes that the framework is not gender sensitive, does not acknowledge inequalities of power relations within communities, between communities, and between government and communities. The Sustainable Livelihoods Approach, if applied consistently, "might be beyond the practical realities of many local development administrations, with the risk that this framework remains an initiative of donors and their consultants" (Krantz, 2001:4). Similarly, Conway et al (2002:2) maintain that the Sustainable Livelihoods Approach is "perceived by many project planners and policy makers as complex, and requires more administrative and financial flexibility to develop and implement than a more conventional approach firmly rooted within one sector or discipline."

Evaluating outcomes (within the purview of the Sustainable Livelihoods Approach) can be an uphill task (Small, 2007). The phrase sustainable livelihoods imply that "livelihoods are evaluated on the basis of sustainability of resource use and resultant livelihoods" (Small, 2007: 32). One of the elements under livelihood outcomes is

reduced vulnerability. Ashley and Carney (1999) maintain that reduced vulnerability makes it difficult to measure livelihood outcomes. Closely linked to reduced vulnerability is the issue of resilience of livelihood strategies (after shock or stress). Small (2007) insists that resilience or ability to bounce back after shock or stress is dependent on the characteristics or nature of the stress or shock itself, and thus difficult to measure.

A number of reasons have been advanced by some reviewers, on why the application of the Sustainable Livelihoods Approach by development organizations, appear to be declining. Scoones (2009:182) attributes the above to "processes of economic globalization, debates about politics and governance, challenges of environmental sustainability, and fundamental transformatory shifts in rural economies." However, the Sustainable Livelihoods Approach is still important. Scoones (2009:183) maintains that the Sustainable Livelihoods Approach offer what other approaches do not, and that "what is needed is a re-engineering of livelihoods perspectives with new foci and priorities to meet these new challenges."

On positive note, Kollmar and Gamper (2002) stress that flexible design and openness to change, of the Sustainable Livelihoods Approach makes it desirable in development research and interventions. Long et al (2004: 14) adopted a livelihoods perspective in evaluating a community based natural resources management project in Namibia (the Wild Project) and concluded that "understanding people's livelihoods in specific rural contexts can be facilitated through the use of a Sustainable Livelihoods Approach." In the context of Cross River National Park establishment and assessment of the social impacts of parks on buffer zone communities, the Sustainable Livelihoods Approach provides a useful conceptual lens and analytical framework, and is therefore strongly recommended to policy makers, park managers and conservationists who are all interested in resolving the parks – poverty debate, and enhancing effective biodiversity conservation in tropical parks and protected areas.

7.Conclusion

The linkage of biodiversity conservation to rural poverty and the alleged failure of people oriented conservation initiatives (ICDPs), has culminated in the emergence of a new line of argument, that it is inappropriate to pose a question such as "What is the relationship between biodiversity and poverty?" (Agrawal and Redford, 2006: 32). In their strong opinion, "until analysts and policy makers begin to think much more precisely about exactly which aspects of biodiversity and poverty are addressed by their favourite approaches, there will be little or no progress in understanding why people remain poor in certain ways (but perhaps not others), what makes (certain aspects of) biodiversity decline, and how to slow and even reverse such declines." Sharply opposed to the above view are Brockington, et al (2006: 251) who maintain that "Decisions to evict people, or restrict their access to resources" perpetrates poverty, and should thus be "governed by pragmatic ecological considerations rather than ideals of wilderness," (as species coexistence and interactions is a fundamental ecological principle).

This paper uses the Sustainable Livelihoods Approach and its framework for livelihoods analysis – the SLF to assess the parks – poverty discourse in the context of Cross River National Park. Findings reveal that parks do have social impacts on buffer zone communities vis-à-vis vulnerability context, livelihoods assets, transforming structures and processes (or policies, institutions and processes), and livelihood strategies and outcomes. Rural livelihoods survey, focus group discussions, PRA exercises and interviews reveal that local people are abjectly poor, and hunt animals in CRNP majorly for income generation purposes. It will therefore make sense for Cross River National Park (and indeed other tropical parks) to address their social impacts while carrying out their traditional park management or biodiversity conservation activities. Failing to do so, will invariably hurt biodiversity, vis-a-vis frequent human trespass into park territories for livelihoods or income generating activities.

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