

► La Lettre des Aires Protégées en Afrique de l'Ouest

“The West African Protected Areas Newsletter”

«big game hunting and conservation»



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IUCN-PAPACO has launched a series of studies on conservation in West Africa: several of them are now online: contribution of community based protected areas to conservation, Sahelo-Saharan dry areas' contribution to conservation, possible impact of the World Heritage label on conservation of protected areas, etc. The programme tried recently to assess the role of "big game hunting" in Africa, particularly in West Africa, for preservation of protected areas. A comprehensive study has been conducted to understand its importance as possible factor of conservation and development. This APAO newsletter present some issues raised during the study.

All these studies can be downloaded at www.papaco.org, on publications section, page "our studies". Note also that the website will be soon translated into English...

conservation strategies. An undeniable positive point of the results obtained is that their conservation has been almost totally financed by hunters, without donors' support, and often without the government's commitment.

Speaking of economic issues, the results are weak. Land use for big game hunting cannot be compared to other agro-pastoral usages, and the difference is sometimes very high. The contributions of big game hunting to GDP and States budgets are insignificant compared to the surface of areas involved. The amounts generated per ha, for private sector as well as States do not reach the rates required for a good management of these surfaces. The benefits for populations, even in case of specific projects, are insignificant and cannot encourage them to stop poaching and extending agricultural areas. The number of jobs created (about 15 000 for all Africa) is low compared to the 150 millions inhabitants of the main eight countries of big game hunting, and compared to the surfaces used (16.5% of these eight countries). In summary, the sector uses large spaces but the socioeconomic benefits are not up to the expectations.

In many countries, « governance » is not very developed in the sector of big game hunting. The people who presently control the system do not wish to share their authority and undertake adjustments enabling to improve it. They try to perpetuate a mode of management that is mostly outdated. This position is in favour of individual interests, but not in favour of conservation, States or local communities.

Hunting has played and is still playing a role of conservation in Africa. It is not sure that in the future, it will still play the same role under the same conditions. But on the other hand, it does not play a significant economic or social role and does not contribute to good governance.

Therefore, the question can be summarized as follows: can we do better for the conservation of these areas than what big game hunting has done so far? This is uncertain, particularly as big game hunting is self-financing. But with

Big game hunting in West Africa: how does it contribute to conservation?

Today, big game hunting covers very large areas in Sub-Saharan Africa (about 1.4 millions sq. km). Therefore, it is an important component of the rural landscapes organization in many countries. Analysis of the data collected during the study enabled us to understand the relevance of big game hunting according to the criteria of sustainable development: conservation, socio-economic development and good governance. Following the present introduction is a summary of the most important results of the study.

As far as conservation is concerned, the results of big game hunting are irregular: there are hunting areas which are geographically stable and which fauna populations are important, but this is not the case in general. There is a great disparity in terms of quality between areas. With an equal level of management, the conservation results in hunting areas are less good than those obtained in the neighbouring parks or reserves. Hunting areas are less able than parks to resist pressures coming from the periphery, and therefore they play a less important role in



the arrival of the payment of environmental services and sustainable financing, the funding of protected areas networks can be envisaged with a new approach. Environment is more and more considered as a global property that cannot be used for only particular or minority interests. Other ways to increase the value are being developed, in particular tourism, and deserve to be given at least equal attention.

In modern protected areas networks, hunting areas will still probably have a conservation role to play: that of financing and maintaining the surrounding areas of some conservation large blocks, provided that this development is not harmful to the protected area resources...

The full study report is available at: www.papaco.org, publications section (in French only)

■ Importance of big game hunting sector in West Africa ■

The sector of big game hunting in West Africa covers about 13 000 sq. km, that is 2.2‰ of the area (6 139 570 sq. km) of the region. This rate is low compared to "protected areas" which cover about 10% of these territories. In reality, these hunting areas are mainly located in two countries (Burkina Faso and Benin) and cover about 3.5% of their territory.

In terms of economic contribution for States, the totality of incomes for West African countries is 340 millions CFA F per year (about 518 000 €). Public revenues represent only 0.65 (Benin) and 2.35 (Burkina Faso) per ten thousand of the State budget. Their contribution to countries' GDP is low in comparison with the surfaces used: 0.08‰ in Benin and 0.17‰ in Burkina Faso. So, we can consider that big game hunting covers significant areas in these countries, but the economic benefits are not tangible.

As far as the contribution of big game hunting to the socio-economic welfare of populations is concerned, the number of jobs created is low for 3.5% of the national territory used (in Benin and BF): employment is estimated at 400 permanent workers (for a duration of about 6 months per year) and 400 temporary workers (for a duration of less than 2 months/year) in the region. The total benefits of big game hunting for West African local populations are about 80 millions CFA F per year (about 122 000 €). The average income per hectare for populations is very low: about 60 CFA F/ha (0.09 €), while these areas are located on lands which are favourable to agriculture and where cotton for example would provide 150 000 CFA F/ha (230 €), that is 2 500 times more.

Safaris rates are the lowest in Africa (it is slightly better in Benin), and with these rates, it is not very likely that local operators make profits up to the investments required. In this market governed by the offer and demand, this shows

the weak attractiveness of the services offered in the region. Every year, about 370 big game hunters go to Benin and Burkina Faso out of a potential of 18 500 hunters in Africa, that is 2% of the market.

■ Value of big game hunting for conservation ■

The aim of conservation is to preserve or even increase the current ecological capital. We have considered four indicators:

- maintaining the limits of hunting areas: this point enables us to measure how the statute of "hunting area" can resist when confronted with pressures,
- maintaining the level of vegetal coverage within hunting areas limits: this shows that maintaining the quality of the habitat enables perpetuation of wild fauna,
- maintaining the list of the wild fauna species which live in the hunting area: are some species better preserved than others?
- evolution of wild fauna numbers within hunting areas.

The study of these indicators is often done in comparison with the neighbouring protected area (PA) where hunting is not authorized (national park, reserve, etc.). This supposes that the protected area has a sufficient level of management (including surveillance), even if it is not the same level as the neighbouring hunting area.

Hunting areas management is self-financed by hunters, and is therefore developed as long as hunting is carried out. Even though hunting areas management is not optimal, at least it exists. However, there is a great disparity in terms of quality between areas. Some hunting areas fully play their role of conservation, have geographically stable limits and important fauna populations, but this is not the case in general.

The comparison between hunting areas and IUCN category II protected areas ("national parks") of the region shows that, with an equal level of management, hunting areas appear less efficient than the latter: (i) in preserving their limits, (ii) in preserving the vegetation inside, (iii) because national parks play a more important role in the conservation of the species the most threatened by anthropogenic pressure, (iv) and because the fauna density in hunting areas is nearly always inferior to that in protected areas.

In summary, with a more or less equal level of management, hunting areas play a less important role of conservation than national parks. Hunting areas probably have an important role to play in order to strengthen the surrounding areas of conservation blocks. Their self-financing is also an advantage because protected areas networks do not benefit from sustainable financing. Today, whereas the States' commitment and financings are insufficient for conservation, hunting area is an interesting

choice. It is not sure that this will be the case in the future, seeing the increase of anthropogenic pressure and the setting up of functional PA networks.

■ *Big game hunting and demography* ■



To be carried out on a permanent basis, big game hunting requires large spaces. Africa main eleven countries (see below) of big game hunting allocate 110 million hectares to this activity practiced by 18 500 hunters,

that is about 6 000 ha per hunter. In these countries, with a population of 250 millions inhabitants and an average density of 34 inhabitants/sq. km, hunting areas represent 14.9% of the surface.

The population of most African countries has been multiplied by four since the 60's, when the majority of protected areas were already gazetted. In addition, this population has suffered the effects of concentration due to the years of drought in the Sahel and elsewhere, which have moved the isohyets and brought breeders close to farmers, so that no much space was finally unoccupied. The notion of *marginal* and *abandoned lands* has nearly disappeared.

Nowadays, with the demographic growth, lands are less and less available for hunting areas. During this study, a statistical link has been established between human density and the part of national land devoted to big game hunting: the more human density grows up, the more the part of land devoted to big game hunting decreases. Therefore, in most countries hunting areas are endangered by demographic explosion and this has to be taken into account for the establishment of future policies regarding possible hunting areas expansion.

In the main 11 countries¹ of big game hunting, PA cover 9.4% of national surface areas, to which are added 14.9% hunting areas. This represents a total of 24.3% of the land surface devoted to "conservation" (or let's say to the sustainable use of fauna), a figure which is far more superior to the 12% required by international norms (CBD). Fight against poverty, food security research and demographic growth are not compatible with this figure of 24%. Protected areas should therefore be devoted to the preservation of the most useful 12%, as the remaining part might be counter-productive for conservation by slowing down human development.

¹ South Africa, Namibia, Tanzania, Botswana, Zimbabwe, Zambia, Cameroon, Central African Republic, Ethiopia, Burkina Faso, Benin

The low socioeconomic performances of big game hunting noted during the study prevent it from being a priority solution for the use of lands or for conservation in the future. Big game hunting therefore must be considered as a complementary conservation tool for PA, being one of the possible tools for managing the surrounding areas of conservation blocks. It should not substitute PA as it is the case in some countries.

■ *Big game hunting and gross domestic product (GDP)* ■

The table below shows the GDP values for the main countries of big game hunting:

Country	Contribution of big game hunting to the GDP in %	% of hunting areas in the national territory	GDP per ha in USD	GDP owed to hunting per ha in USD
South Africa	0,04	13,1	2092	2,1
Namibia	0,45	11,4	76	13,9
Tanzania	0,22	26,4	135	0,7
Botswana	0,19	23,0	186	12,7
Zimbabwe	0,29	16,6	142	1,4
Zambia	0,05	21,3	145	0,4
Cameroon	0,01	8,4	386	0,1
Central African Republic	0,10	31,5	24	0,3
Ethiopia	0,01	0,8	118	0,02
Burkina Faso	0,02	3,4	221	0,07
Benin	0,01	3,6	423	0,05

In these 11 countries, the average surface area of the national territory covered by big game hunting is 14.9% and the contribution of big game hunting to the GDP is 0.06%. The economic productivity of these hectares is very poor. These data show that hunting is not a good option for the use of lands, particularly in a context of fighting against poverty. We also note that big game hunting (unlike small game hunting) takes place essentially on lands which have no other use and are devoted to it.

The less productive countries per ha are Ethiopia (hunting areas have nearly disappeared), Burkina Faso and Benin (safari rates are low), Cameroon (where hunting areas suffer high pressures from agriculture). These countries would better release (some) lands which are poorly productive economically by stopping hunting. Those which take the more advantage of it are Namibia and Botswana. However, Botswana estimated that they will better develop these territories through sight-seeing tourism and so they stopped hunting in 2009 in Okavango. This option certainly has to be considered in other countries, particularly seeing the rapid growth of touristic demand.

In a context where socioeconomic contribution and development contribution of big game hunting are very low, the main global interest of big game hunting is its value as a conservation tool. Therefore, this value has to

be increased by better integrating hunting in conservation strategies.

■ **Employment and economic benefits for local population** ■

The data related to jobs created by big game hunting are given in the table below:

Country	Hunting areas' surface area in sq. km	Number of jobs	Number of ha per job
South Africa	160 000	5 500	2 909
Namibia	94 052	2 125	4 426
Tanzania	250 000	4 328	5 776
Botswana	103 451	1 000	10 345
Cameroon	39 830	1 200	3 319
CAR	196 035	670	29 259
Burkina	9 340	280	3 336
Benin	4 000	100	4 000
TOTAL	856 708	15 203	
Average			5 635

These jobs are not permanent for some of them: some only last for one hunting season that is about six months; or just for tracks opening when the hunting season starts (one or two months).

The 8 countries in the table above have a total population of 140 millions inhabitants. Big game hunting covers 16.5% of their territory but globally offers only one job for 10 000 inhabitants. It is a very modest employer. The average is about one permanent job for 5 500 ha of hunting area : this figure is very low in comparison with agriculture and cannot significantly motivate populations and prevent them from transforming hunting areas into agricultural lands.

Example: in Botswana, one of the main reasons why they have chosen to stop hunting in Okavango has been the creation of jobs. In this country, a sight-seeing tourism concession of 10 000 ha in which there is a nine-tent (18 beds) luxury camp employs an average of 38 people, that is 2.3 permanent jobs per bed. Therefore, the ratio is one permanent job for 263 ha, against one permanent job for 10 345 ha for hunting. In this case, sight-seeing tourism creates 39 times more jobs than big game hunting on an equal surface area!

In summary, the jobs proposed are insecure, very few, not competitive compared to the resources drawn from the other uses of the land, including agriculture. So, big game hunting does not efficiently contribute to development, even though it covers large surface areas.

In terms of economic incomes, we can give the following examples:

- In Benin, the incomes of big game hunting for populations are about 35 millions CFA F (53 000 €) for 3 942 sq. km (where 300 000 inhabitants live)
- In Burkina Faso, the steady incomes were estimated at 34.5 millions CFA F (52 500 €) in 2005 for 9 340 sq. km.
- In CAR, the incomes for populations are 103 millions CFA F (157 000 €) for the villages' hunting areas which covers 34 714 sq. km.
- In Zambia, the incomes of big game hunting for the populations of all the *Game Management Areas*, in 2006, where one million USD for 22% of the country's surface area.
- In Zimbabwe (Campfire Programme), each household (10 people) receives one to three USD per year.

In the 11 countries of big game hunting, local communities get 20 to 88 CFA F/hectare (0.04 to 0.18 USD) from big game hunting areas, and these are very low amounts. Tanzania is the country in which local communities get the lowest income per ha devoted to big game hunting. The countries which redistribute the more are Namibia and Benin (0.16 and 0.18 USD respectively).

On average, big game hunting distributes 0.1 USD per ha of land used as hunting area. This represents more or less an income of 0.3 USD per year per inhabitant of the area. These very low figures are comparable with those of the Campfire programme in Zimbabwe. It has to be underlined that this money does not always reach the beneficiaries and is most often intended for community actions.



These incomes are so low that they do not motivate local communities. This is what brings them not to respect hunting areas and do poaching, with all the consequences on conservation. Bush meat black market is much more profitable and, in Ghana for example, poachers are the main beneficiaries of the fauna sector and bush meat selling has an annual turnover of 250 millions USD (higher than the entire hunting sector in Africa); in Cote d'Ivoire big game hunting no longer exists but bush meat has an annual turnover of 148 millions USD.

■ **Big game hunting and tourism** ■

In the same way as big game hunting, wild fauna can be the subject of sight-seeing tourism. In fact, in sub-Saharan Africa, tourism has developed fast over the 20 years, with 20 millions visiting tourists in 1995, projected 47 millions in 2010 and 77 millions expected in 2020 (World Tourism Organization). However, West Africa does not take advantage of this growth, except for seaside destinations like Senegal or Ghana.

Tourism turnover has considerably increased during the past 20 years, and hunting share in tourism, which was at

that time important, has now become marginal in many countries such as South Africa (1%) or Tanzania (3%); it is higher in Namibia (6.6%) or Zimbabwe (4.7%) for example.

These few tourism % dedicated to hunting require very important percentages of national territories (8 to 26% as seen before). This ratio is not in favour of the development of big game hunting, which surface areas are "added" to the other protected areas where tourism is mainly practiced. We therefore note that, in national territories where there are other vital vocations (in terms of development), big game hunting cannot conserve the place it had before the demographic and tourism boom.

In Kenya for example, tourism turnover now exceeds one billion USD per year (the same as in Tanzania), whereas the lost foreseen when closing hunting totally in 1977 was 30 million USD and is minor in comparison. Kenya has made a big financial profit by closing hunting which would have anyway decreased under the influence of agricultural and demographic (65 inhabitants/sq. km now) pressures.

For West Africa, the challenge is to reach the performance of the other countries by proposing a strategy which meets the global values required by tourists, together with institutional adjustments, a better professionalization and real governance. This supposes that more importance will be given to national parks and fringe local communities who have to really benefit from it.

■ *Hunting and private sector* ■

Private sector brings improvement to management effectiveness and flexibility to procedures. In the field of hunting, private sector is self-financing. This is not the case in the field of conservation where it most often depends on external financing: in this case, private sector becomes simply an operator.

The main constraint for private sector is that it has to make profit, but big game hunting field is not necessary profitable. This is one of the causes of the frequent degradation of hunting areas, the amount allocated to management being insufficient to limit the effects of pressures. As for sight-seeing tourism, it can be a growing niche in some conditions which have to be analyzed beforehand. Most often, a private operator who is not a "sponsor" (acting not necessary for profit) has no interest in applying for managing a PA. If the private sector does not have its own source of financing, it is just an operator (as an NGO), and obtaining the right to manage a PA must be submitted to the rules of good governance.

The private sector cannot take the place of the State, as far as the sovereign functions are concerned, the first function being surveillance. This is also true for hunting areas. All the examples in Africa show that a short-term success in taking the place of the State in its duties has been followed by a mid-term crushing failure. This phenomenon which has been described as

« environmental imperialism » has been rejected by the other actors, firstly the local populations. This means that if the State tries to make itself replaced by the private sector (in PA or in hunting areas) because it does not (or cannot) fulfil its sovereign duties, this cannot work in terms of conservation. The first condition a country has to meet to enable the private sector to intervene is to be a State which fulfils its sovereign duties.

Notwithstanding the economic and governance obstacles, the private sector in hunting areas is confronted with a problem of human resources (competencies, experience and awareness of populations' aspirations).

The development of modern tourism goes through private sector; the proof of it is that most of the States' hotels have been privatized. As any economic sector, the quality of the operators varies and their control requires the setting up of governance rules. These rules will aim at selecting the best operators, thus contributing to the improvement of the country's public image. The customers will come if the country's and the operator's public image is good. This is a priority also for hunting areas...

See on www.papaco.org for the full report



Call for submission

The third call for submission of small grants applications (related to biodiversity conservation or climate change) to the French Global Environment Fund is now open!

Useful information regarding objectives, targets, rules and procedures to request a subvention can be downloaded on www.ffem.fr. For Central Africa and Madagascar, grant application forms must be sent to: ppi@iucn.fr. For West Africa, please submit your application to lacine.kone@iucn.org (and copy ppi@iucn.org). Please make sure you receive an acknowledgement reply.

Deadline for submission is fixed at 5 September 2010, before 4 pm GMT but we would like to encourage you to submit your projects before the 25th July as far as possible.

► **APAO newsletter** ◀

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