

The Bushmeat Crisis in West-Africa

An indicative overview of the situation and perception

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1. Introduction

Meat derived from wild animals, bushmeat, is an important protein source for many people in Africa. Estimates are that between 30 and 85% of daily protein intake of Africans comes from bushmeat. However, due to population growth and the commercialization of the trade in bushmeat, the hunting pressure upon wild animal populations is increasing rapidly. Moreover, modern hunting practices are not always selective concerning species and may pose a risk to consumers' health.

These aspects contribute to an unsustainable harvest of bushmeat. Wildlife populations are rapidly declining, and protected areas which serve as breeding grounds for animal species are not effectively protected to allow populations to regenerate. Concerns also exist that animal diseases can be transmitted to humans in the course of hunting and preparing bushmeat for sale (zoonotic diseases). The unsustainable nature of harvesting bushmeat and the risk for human health after consumption creates a serious threat to long-term food security in various countries in Africa.

Many efforts have been made to tackle the current bushmeat crisis on the African continent. A wide diversity of governmental bodies, non-governmental organizations and development agencies have investigated solutions and discussed ways of addressing the current crisis and providing sustainable solutions so that long term food security for human populations is ensured and animal species are saved from extinction.

The bushmeat crisis is a complicated issue, involving many stakeholders and country-specific information is needed to identify challenges and potential solutions. Moreover, diverse countries are in different stages of managing the bushmeat situation and much can be learned from individual countries' experience with solutions. Ultimately, it is important that countries in a region are aware of each others efforts and harmonize their policy regarding wildlife protection and the regulation of the trade in bushmeat to prevent transboundary commerce in bushmeat.

2. Methods

During the West-African Bushmeat Conference, held in Accra, Ghana, from 22-24 February, participants answered questions regarding the bushmeat situation in their respective countries. The aim of this simple questionnaire was to tap into the experience of the people present to provide a general overview of the bushmeat crisis in West Africa.

The answers to the questionnaire can be used to explore the situation as perceived by the respondents and to document the practical experience in each country regarding the bushmeat situation and the provision of alternative protein sources. The outcomes of this small experimental survey could provide a starting point for further investigation of practices in individual countries.

Representatives of the following countries answered the questionnaire:

Benin, Burkina Faso, Cote d'Ivoire, Gabon, Ghana, Guinea, Liberia, Niger, Nigeria, Senegal, Sierra Leone, Togo.

The complete list with names of country representatives can be found in Annex 1.

The questionnaire consisted of twenty-four general questions, with mostly multiple-choice answers. Some questions had an open answer. The questionnaire can be found in Annex 2.

The respondents were given the opportunity to provide further information at the back of the questionnaire.

Answers given to the various questions were summed and graphs created to produce a visual overview of the outcomes of each question. The outcomes are analysed and discussed and where appropriate, conclusions are drawn.

3. Results

Wildlife Use

How commercialized is the use of bushmeat? Are there any examples of sustainable wildlife use in your country?

Most respondents found that the bushmeat use in their country is highly commercialized and that there are no examples of sustainable wildlife use in their country. The term commercialized is very subjective, but in this case reflects the opposite of bushmeat use for subsistence.

Apparently, bushmeat is viewed by the respondents as a product which is not only used on a small scale for domestic consumption, but rather a product which is traded on a large scale and generates revenues for hunters and providers. According to their answers, the respondents believed that the current use of wildlife for consumption is not sustainable and affirms the belief that current bushmeat consumption patterns are depleting wildlife populations.

Endangered species

Are endangered species involved in the bushmeat trade in your country? Are endangered species legally protected? What is the level of public awareness concerning endangered/protected species?

Most respondents indicated that protected species were involved in the bushmeat trade, although endangered species do have some kind of legal protection in their country. Liberia noted that the protection status was low, presumably because of the recent war in the country. Furthermore, most respondents thought that public awareness concerning endangered/protected species was medium to low. None of the respondents felt that public awareness concerning protected species was high.

Bushmeat is often defined as all the animal meat which is derived from the bush. In the present situation in West-Africa, where many large mammal species face extinction, it would be appropriate to make a clear distinction between certain generalist animal species, which are still relatively abundant and are often considered a pest species (eg grasscutter) and species which depend on an undisturbed natural environment to survive and are prone to extinction (eg chimpanzees). Most West-African countries recognize the endangered status of some species and acknowledge the need of protection of these species by granting them a protected status by law. It became clear from the questionnaire that means are often lacking to effectively materialize this objective of protection. Furthermore, although laws for protection are in place, the public is unaware of these laws and the necessity to protect certain species. Consequently, people hunt whatever is available.

Traditional systems of hunting

Are traditional leaders still in control of hunting? Are traditional rules still being applied to hunting? Do traditional hunting associations still exist? Are there modern forms of hunting associations? Do traditional hunting areas still exist? Are non-local hunters excluded from these hunting areas? To what extent is modern hunting technology used?

In most countries, traditional leaders are no longer in control of hunting, and traditional rules no longer apply. Traditional hunting associations do however still exist, and seem to have evolved leading to some of the respondents to consider them as modern hunting organizations. Other country representatives still considered the associations traditional. Gabon, Liberia and Togo noted that there were no hunting associations present, whether traditional or modern. Traditional hunting areas seem to be still in place in most countries, but non-local hunters are not always excluded from these hunting areas.

Traditional management systems, when still in place, could serve as a starting point for the management of bushmeat hunting. There are many examples of communities attempting to secure their own animal resource base by establishing rules and quotas for hunting and excluding non-local hunters from their territory. Communities could be made responsible for the control of the wildlife resources surrounding their village, if the right is given to them by national governments. The necessity for control by government bodies and the appointment of special units to implement policy regarding wildlife protection and hunting could be circumvented when people are made responsible for the long-term existence of the resource. In some but not all traditional systems, wildlife was seen as a richness of the natural environment which had to be respected, and traditional leaders decided on when, how and how much could be hunted. Currently, wild animals are often seen as a common good which can be exploited for personal benefits.

However, the situation has changed as compared to the past, bushmeat trade has become commercialized to such an extent, that depending on traditional systems alone to regulate bushmeat use and trade will not provide the answer. As the respondent from Gabon noted (see below), some communities in his country are visited by foreign professional hunters who are welcomed presumably because they provide direct monetary benefits to the community.

The use of modern hunting technology varies in the different countries. Most countries indicate a medium use of modern technology. Gabon and Liberia report no traditional hunting system, and mostly modern hunting technology, while Guinea is still using the traditional system and little modern technology.

It can be expected, and seen from the results, that the more economically developed a country gets, the more bushmeat becomes a modernized commodity which is acquired with modern technological means. Whereas in the past people hunted for their domestic use, close to their resident area, the current commercialization of the use of bushmeat leads to more advanced and effective technology for hunting. In the past, hunters were more likely to kill the weak and old animals from a population. Professional hunters, who

hunt to make money, using poison and guns, harvest all the individuals they can get in a non-selective way.

Laws, regulations and licenses

How many logging companies have effective policy for managing bushmeat hunting? Are there laws in your country to regulate bushmeat hunting and trade? Are these laws effectively enforced? Is there a system of hunting licenses? Is the license cost...

Most countries indicate that logging companies do not have effective policy to manage bushmeat hunting in concessions. Except for Cote d'Ivoire, in all countries there are laws to regulate the bushmeat hunting and trade. Most respondents feel that these laws are not effectively enforced, except in Togo and Senegal. In most countries there does exist a system of hunting licenses (except in Liberia and Cote d'Ivoire), but the cost of these licenses is perceived by all respondents to this question to be low.

As a consequence of their activities, logging companies frequently provide the infrastructure to facilitate hunting in an area which was previously hard to access by humans. Besides, the employees of these companies often need to hunt in these concessions to provide for their personal consumptive needs. Proposals have been made to make logging companies comply with codes of conduct to ensure the effective protection of wildlife in their concession areas.

Bushmeat compared to domestic meat

Is bushmeat more or less expensive than domestic meat in your country? Is there a strong preference for bushmeat compared with domestic meat?

Bushmeat is more expensive than domestic meat in seven countries: Ghana, Niger, Sierra Leone, Togo, Cote d'Ivoire, Senegal and Burkina Faso, it is less expensive in three countries: Gabon, Guinea and Benin, and it is variable in Liberia and Nigeria. In all countries except Senegal, respondents noted that people prefer to eat bushmeat as compared to domestic meat.

Bushmeat could be preferred for various reasons: it is perceived to be healthier or tastier, it is used for medicinal purposes, or because of cultural traditions, or it costs less than meat derived from domestic animals. The financial consideration however does not appear to be the most important; although in most countries bushmeat is more expensive, people still prefer it.

Domestication of wildlife species

Is there experience in your country regarding domestication/captive breeding of wildlife species? Management system? Which species? Is this experience successful?

In all countries except Sierra Leone there is experience with domestication of wildlife species and there is no commonly used management system. The mostly used species for domestication projects is the Agouti, followed by Ostriches and Guinea Fowls. Some countries did not answer to the question whether the experience was successful, others still needed to determine the success, but in general respondents scored the experience as successful.

Domesticating and rearing of wild animal species is still in a relative experimental state. There are some species which are widely reared, such as Guinea Fowl and Ostrich. The experience with farming of previously wild species differs per country. Many do not have the means to do it and do not know how to do it. The practice of keeping wild animal species requires daily labor input and constant maintenance of a healthy viable population of individuals. It is capital intensive, and there are high risks involved with starting wildlife farms. There are for example difficulties with the domestication of a species, how to house, feed and breed the animals and getting veterinary assistance. It is often difficult to sell the produce because bushmeat caught in the wild can be sold at much lower rates, and is sometimes preferred to the domesticated variant.

All these considerations lead to a situation where projects for domesticating and keeping wildlife for meat are existent, but the initiatives are not readily taken up by individual farmers.

Production of plant protein

Is there experience with production of plant protein (nuts, beans etc.)?

Although this question is slightly mis-formulated, and should have included ‘...to substitute animal protein?’, most countries said there was experience with the production of protein sources with a plant origin. Only Guinea and Niger gave notice of no experience with it.

To deal with the current deficit in the production of domesticated animal protein, protein derived from plants can be considered as a substitute. Although plant protein does not always contain all the necessary amino-acids to provide for a healthy diet, crops such as Soya or corn and trees such as cashew or avocado can serve as a vegetarian alternative for animal sources. A major constraint will be the preference of people for meat sources.

Supplementary comments by the respondents

The respondent from Liberia noted that much support is needed with regards to the sustainable control of bushmeat harvesting and protected area management during the post-war recovery process.

The person from Gabon expressed that the administration concerned with management of the bushmeat situation does not have enough resources. He also believes that commercial hunting is often done by non-Gabonese who generally experience hospitality from the villagers.

The participant from Guinea affirmed that there is no national strategy for bushmeat. In Sierra Leone the Wildlife Act is being reviewed, but the respondent proclaims there is no particular emphasize on bushmeat production and trade.

The participant from Senegal writes that breeding wildlife species for consumption is in an experimental state in her country, but that there is one project which is successful and villagers are taking up the activity.

The respondent from Burkina Faso acknowledges that many individuals and associations are interested in breeding wildlife species, but often lack the means and competencies to do so.

The graphical representation of these results is presented on the next page.

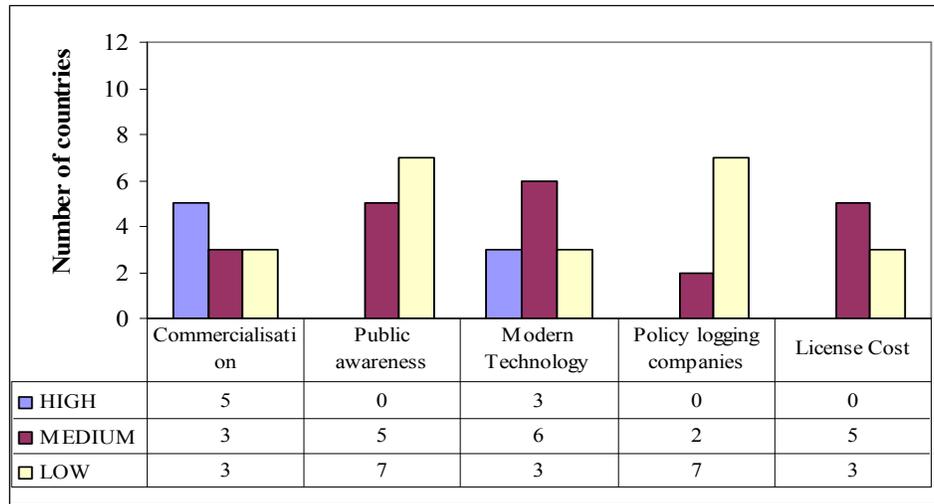


Figure 1 Answers to questions regarding level of commercialization of the use of bushmeat, public awareness of endangered/protected species, use of modern hunting technology, existence of effective policy with logging companies to manage bushmeat hunting and cost of a hunting license.

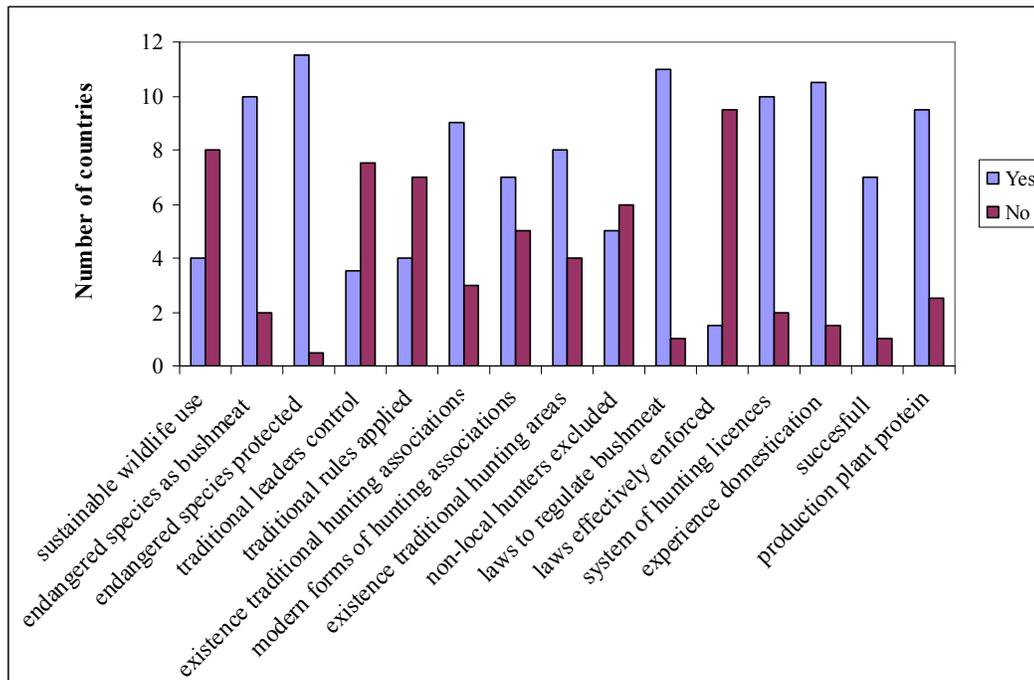


Figure 2 Answers to questions regarding examples of sustainable wildlife use, involvement of endangered species in the bushmeat trade, legal protection of endangered species, control of hunting by traditional leaders, traditional rules for hunting, existence of traditional hunting organizations, existence modern forms of hunting associations, existence of traditional hunting areas, exclusion of non-local hunters from hunting areas, existence of laws to regulate bushmeat, effective enforcement of these laws, existence of a system of hunting licenses, experience with domestication/captive breeding of wildlife species, successfulness of the experience, experience with the production of plant protein.

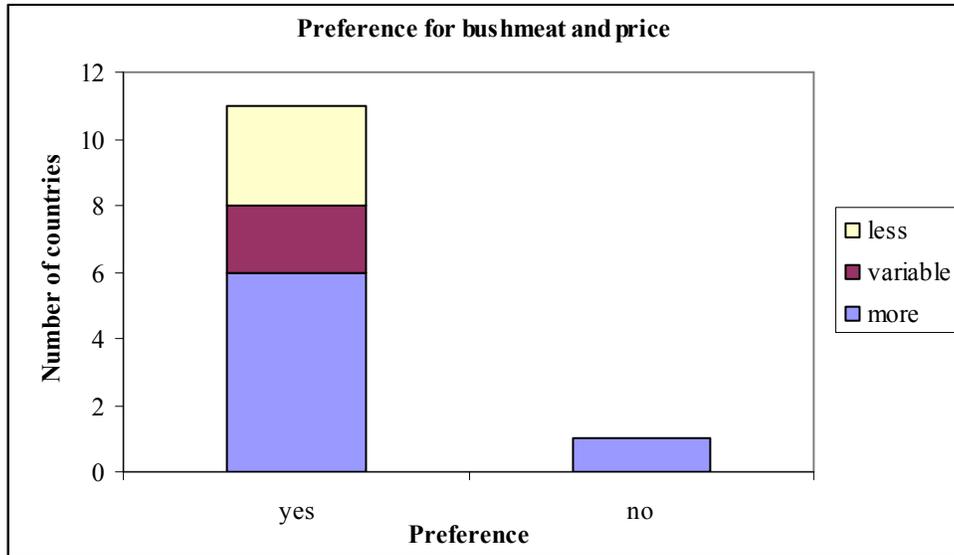


Figure 3 Number of countries (N=12) where there is a strong preference for bushmeat as compared with domestic meat and where bushmeat is more, variable, or less expensive than domestic meat.

Species	
Agouti	5
Ostrich	3
Guinea fowls	2
Cane rat / Grasscutter	2
Crocodile	1
Duikers	1
Gazelles	1
Monkeys	1
Python	1
Snails	1

Table 1 Domesticated species, and number of times mentioned.

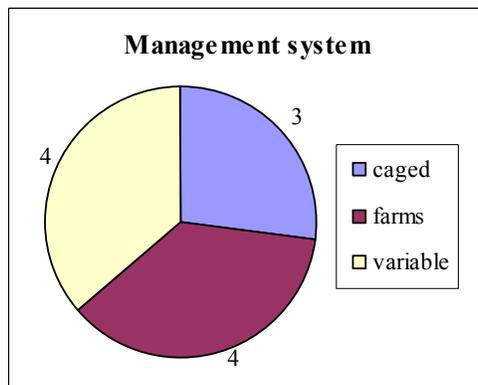


Figure 4 Management system for rearing of wildlife species.

4. Discussion and conclusion

The following issues can be identified:

- Although most countries have some regulatory framework in place to protect endangered species, public awareness and enforcement of these rules are low. Policy with regard to wildlife is often outdated, and does not take account of the current bushmeat crisis. A solution could be to implement an awareness-raising programme to enlarge the knowledge about these rules and to make the public aware of the unsustainability of the existing bushmeat use
- Policy to regulate bushmeat hunting could make use of the existence of organizations of hunters and the current existence of traditional hunting areas. If communities are made responsible to control 'their' surrounding land for large-scale hunting by non-resident persons, commercial hunting could be diminished, relieving government institutions responsible for the control of hunting.
- To make the price for bushmeat higher, which would result into a lower demand, the costs of hunting licenses could be increased. The additional revenues thus created could be used for more effective enforcement of laws regarding wildlife and bushmeat.
- Countries could try to stimulate the domestication of bushmeat species, to lower the pressure on wildlife populations and foresee in the demand for bushmeat. In multiple countries in West Africa there is experience with domestication. Information on these projects should be shared to generate best practices for the breeding of wild animal species.
- Alternative protein sources could provide to some extent for the requirements of protein. The possibilities of increasing poultry, livestock and protein of plant origin could be investigated in each country.

ANNEX 1
List of Respondents

- Jangar S Kamara
Liberia Forest Management, FDA
- M. Herve Ndong Allogho
Gabon Conservator, Parks Gabon (CNPN)
- Mamadou Dia
Guinea Direction Nationale des Eaux et Forets
- Salaou Barmou Moussa
Niger Division Aires Protégées, DFPP
- F. O Omeni
Nigeria Wildlife Department
- Hassan Richard Stevens Mohamed
Sierra Leone Conservator of Forests, Ministry of Agriculture
- Moumouni Abdou-Kerim
Togo Direction de la Faune et Chasse, NERF
- Amani Denis Kouame
Cote d'Ivoire Directeur de la Faune et des ressources Cynegetique
- Ndeye SeneThiam
Senegal Division Etudes et Amenagement, Direction des Parcs Nationaux
- David Kpelle
Ghana CI-Ghana
- OUDE Assogba Pascal
Benin Service suivi de la Gestion de la Faune
- Yembodo Namoano
Burkina Faso Direction de la Faune et des Chasses

ANNEX 2
WEST AFRICAN BUSHMEAT CONFERENCE
22-24 February, Accra, Ghana
Questionnaire

Name
Country
Position
E-mail address

Please provide further information and comments on the back of this page.

	Question	Options		
1	How commercialised is the use of bushmeat?	High	Medium	Low
2	Are there any examples of sustainable wildlife use in your country?	Yes	No	
3	Are endangered species involved in the bushmeat trade in your country?	Yes	No	
4	Are endangered species legally protected?	Yes	No	
5	What is the level of public awareness concerning endangered/protected species?	High	Medium	Low
6	Are traditional leaders still in control of hunting?	Yes	No	
7	Are traditional rules still being applied to hunting?	Yes	No	
8	Do traditional hunting associations still exist?	Yes	No	
9	Are there modern forms of hunting associations?	Yes	No	
10	Do traditional hunting areas still exist?	Yes	No	
11	Are non-local hunters excluded from these hunting areas?	Yes	No	
12	To what extent is modern hunting technology used?	Mostly	Intermediate	Not much
13	How many logging companies have effective policy for managing bushmeat hunting?	Most	Some	Few
14	Are there laws in your country to regulate bushmeat hunting and trade?	Yes	No	
15	Are these laws effectively enforced?	Yes	No	
16	Is there a system of hunting licenses?	Yes	No	
17	Is the license cost...	High	Moderate	Low
18	Is bushmeat more or less expensive than domestic meat in your country?	More	Less	
19	Is there a strong preference for bushmeat compared with domestic meat?	Yes	No	
20	Is there experience in your country regarding domestication/captive breeding of wildlife species?	Yes	No	
21	Management system?	Caged	Farms	
22	Which species?			
23	Is this experience successful?	Yes	No	
24	Is there experience with production of plant protein (nuts, beans etc.)?	Yes	No	