

# BUSHMEAT

## A WILDLIFE CRISIS IN WEST AND CENTRAL AFRICA AND AROUND THE WORLD



In Africa, the forest and shrub land is often referred to as 'the bush', thus wildlife and the meat derived from that wildlife is locally called 'bushmeat' (in French – *viande de brousse*). This term applies to all wildlife species including: elephant, gorilla, chimpanzee and other primates, forest antelope (duikers), porcupine, bush pig, cane rat, pangolin, monitor lizard, guinea fowl, etc.

Over 24 million people live within the forested regions of Central Africa, 40-60% live in cities and towns, and most rely on the meat of wildlife as a primary source of animal protein. Forest antelope (duikers), pigs, and primates are most often eaten, and as much as 1 million metric tons of wildlife is killed for food in Central Africa each year. In West African nations human population densities are high (25-78 persons per square kilometer) compared to countries in the Congo Basin (5-20 persons per square kilometer). West African wildlife populations have been so depleted by years of unsustainable hunting for meat, that bushmeat is no longer the most important source of protein in families' diets. When bushmeat is eaten, ungulates and primates have been replaced by rodents as the most commonly eaten wild animals.

NICHOLS



### What is the Bushmeat Crisis and Why is it Important to Forest Management and Biodiversity Conservation?

Though deforestation and habitat loss are often cited as the primary causes of local wildlife extinction, hunting for both local consumption and large commercial markets has become the most immediate threat to the future of wildlife in the Congo Basin in the next 5-15 years. It has already resulted in widespread local extinctions throughout the Upper Guinea Forest Ecosystem of

West Africa (Figure 1: Map of West and Central Africa highlighting Congo Basin and Upper Guinea Forest Ecosystem).



Figure 1

Hunting of wildlife to meet people's demand for protein may still be sustainable in the few remaining areas where population densities are less than 2people/ km<sup>2</sup>, trade routes are poorly established, and human population growth rates are low. The scale of the commercial bushmeat trade now occurring in West and Central Africa, is driven by markets with high human densities and growth rates. This commercial market threatens the survival of many species, including several unique to the dense

forested regions of Africa. While deforestation is an obvious menace to wildlife dependent on these habitats, hunting constitutes a comparable threat to the ecosystem itself. Even where tree cover is relatively intact, we find forests with no large animals – this is known as **Empty Forest Syndrome**.

(continued on p. 2)

The commercial bushmeat trade threatens wildlife populations across West and Central Africa.



1700 Connecticut Ave. NW, Suite 403  
Washington, DC 20009-1134

### Why is it a Crisis?

Wildlife has been hunted for food ever since humans first evolved, and wildlife is still viewed as a resource 'free' for the taking in many areas. Today in West and Central Africa, bushmeat continues to be an economically important food and trade item for thousands of poor rural and urban families, and it's a status symbol for urban elites trying to retain links to 'the village' - often commanding extremely high prices in city restaurants. Virtually uncontrolled access to forest wildlife (i.e., almost anyone can go hunting anywhere), rising demand for bushmeat, lack of economic options for rural and urban communities, the absence of affordable substitutes, the opening up of 'frontier' forests by logging and mining companies, and the complicity of government law makers and law enforcers, are the most important factors driving commercial hunting and militating against wildlife conservation (See BCTF Fact Sheet on Logging).

**C O N T E N T S**

**What is the Bushmeat Crisis?**  
page 1

**Why is it a Crisis?**  
page 1

**Underlying Factors**  
Population Growth / 2  
Few Alternatives / 2  
Economics / 2-3  
Logging / 4  
Hunting Regulations / 4  
Governments and Policies / 5

**What Is Being Done?**  
page 6

**What Can YOU Do?**  
page 7

**BCTF Priority Areas & Contact Information**  
page 8

What Is... (continued from p. 1)

Absence of animals because they were over-hunted for bushmeat will result in the loss of predators such as leopard, golden cats, large snakes and birds of prey that depend on them for food.

Loss of wildlife from hunting means loss of seed dispersing animals that play a key role in determining tree composition and distribution, causing, over the long term, loss of many plant species, altering both the structure and function of the forest and potentially causing irreversible

ecological effects (e.g., carbon sequestration) with global consequences.

Ironically, the short-term economic benefits derived from the commercial bushmeat trade, though expedient for poor families today, may jeopardize long-term economic opportunities for future generations. In addition, increasing levels of contact with wildlife populations may place people in increased jeopardy of contracting and transmitting animal-derived diseases such as Ebola or HIV (See BCTF Fact Sheet on Health), and risks transmitting human diseases that may be lethal to apes and other species.

**Growing Demand for Meat and Limited Productivity of Wildlife**

Urban populations in Central and West Africa are growing at 2-4% per year and only 1-2% of that is from rural to urban migration (Trefon 1997). Add to this the fact that urban families typically consume more resources than their relatively poor rural relatives (Deaton and Paxson 1998), and it is likely that demand for bushmeat will increase by 2-4% per year – a rate that far exceeds the replacement potential of already over-hunted wildlife populations (Wilkie and Carpenter 1999).

Wildlife populations, though highly diverse in these forests, are not as productive when compared with savanna-based wildlife populations. In general, there is an order of magnitude difference between the biomass available for hunting within the same amount of space when we compare forests (2,500 kg per square kilometer) and savannahs (25,000 kilograms per square kilometer) (Robinson and Bennett 2000). Thus, animal husbandry programs such as the game ranching efforts (commercial management of wildlife for meat and skins) found in East and Southern Africa are not necessarily a viable alternative in West and Central Africa.

**Few Alternative Sources of Protein Exist**

In the region, domestic animals such as cattle, goats, pigs, chickens and ducks are raised by rural and urban households, but they are primarily viewed as savings and insurance rather than as sources of protein. This traditional value of livestock remains important to households in the region today because inflation is high and access to banks and formal credit is limited or absent. Furthermore, tsetse flies and trypanosomiasis severely limit cattle raising in the forested and scrubby savannah landscapes typical of the region. As a result, the meat of domestic livestock tends only to appear in rural or urban markets that are located relatively close to savannahs and ethnic groups with a tradition of pastoralism.

**Hunting is Very Profitable in the Short-term**

In the Congo Basin, collapsing roads systems and declining global prices for traditional cash crops such as coffee and cocoa have left rural families with fewer and fewer ways to make money sufficient to meet basic needs for food, shelter, clothing, schooling and health, at a time when government spending on social services is decreasing per capita. Bushmeat with its relatively high value to transportation cost ratio offers poor rural families a lucrative, if short-term, source of money (Eves and Ruggiero 2000). Moreover, hunting and trading bushmeat can be scheduled so as not to compete with other household activities such as farming or fishing, so the opportunity costs of participating in the bushmeat trade are often not significant. When wildlife are abundant hunters can make between \$400 and \$1100 per year from bushmeat alone, which exceeds the average income for households' across the region, and is comparable or greater than the salaries of guards paid to prevent hunting (Wilkie and Carpenter 1999). In West Africa, although wildlife are less abundant, the price of meat, and the low opportunity costs to hunting, ensure that the bushmeat trade remains profitable. Consequently there remain strong economic incentives for families in West and Central Africa to participate in the commercial trade in bushmeat.

Retelling the story about the day's hunt using a forest plant replica of a gun lent by a logging company employee.



CURRAN

## Hunting Continues Even When Some Animals Become Scarce

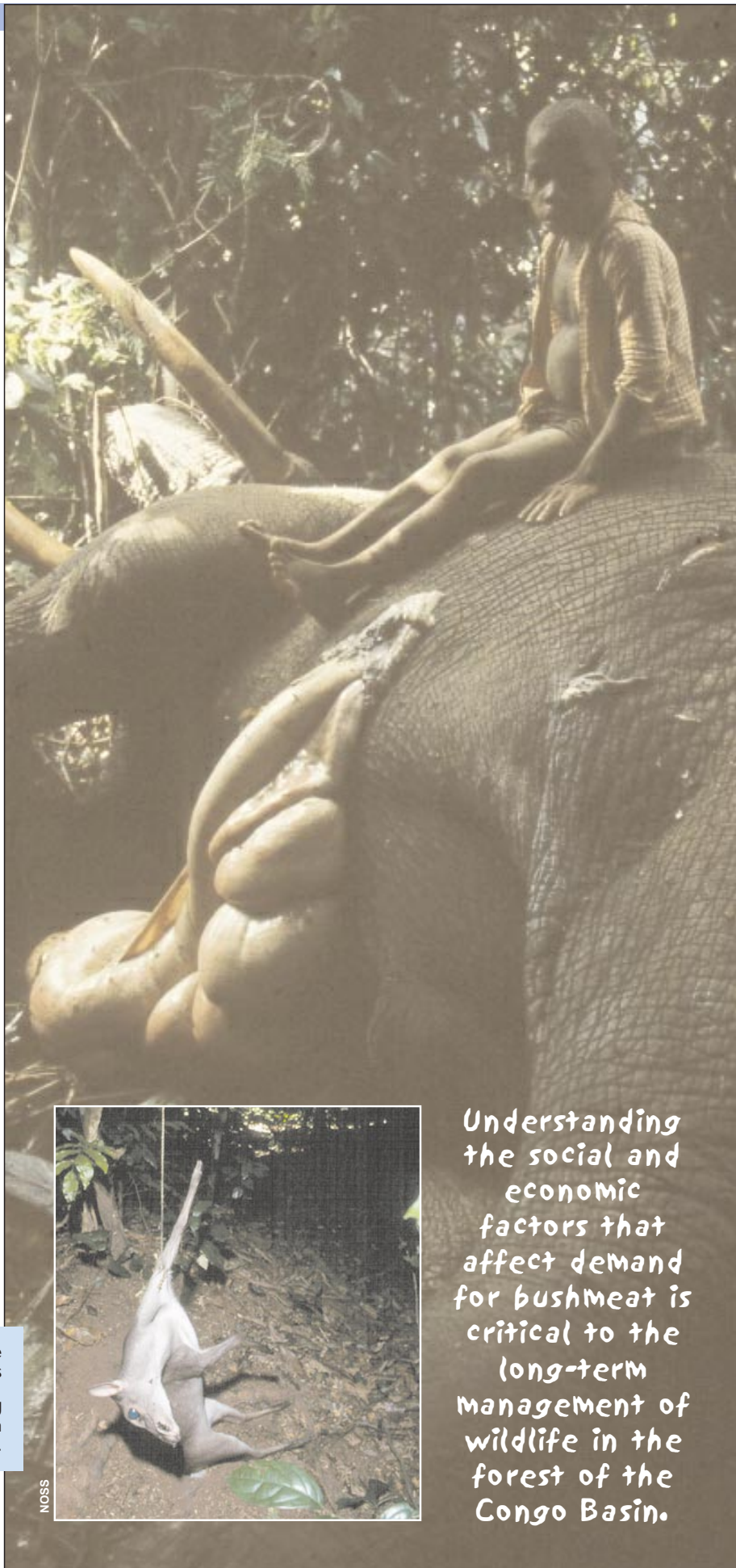
If only one species of animal existed in the forest, hunters would continue to hunt that species until it became so scarce, from over hunting, that profits from hunting would decline below that which the hunter could make doing something else, such as farming or fishing. Unfortunately for rare and endangered species, the forests of West and Central Africa are home to numerous wildlife species that are hunted for food. In this case, when people go hunting they are not targeting single species, but are roaming the forest in search of any animal worth (in economic terms) killing. A bushmeat hunter with a shotgun is inclined to shoot the largest animal he can be assured of killing because this will generate the most profit per cartridge. So although an animal may become scarce, even to the point of local extinction, a hunter will shoot it if he encounters it, and it is large enough to warrant using up an expensive shotgun cartridge. Given this fact, rare and endangered species are likely to be driven to extinction by hunters when other more abundant animals continue to make hunting profitable.

Moreover, even when over hunting and bushmeat scarcity causes prices to rise and substitutes to be more competitive, hunting will continue in areas where bushmeat capture and transport costs remain comparable to the costs of livestock rearing.

Duikers (small forest antelope), pigs, primates and rodents are the most commonly hunted groups of animals in the forest, with duikers both numerically and in terms of biomass being the most important bushmeat species group. Apes are most often hunted opportunistically and tend to constitute the 'by-catch' of hunters seeking the more abundant and, in absolute terms, more lucrative duikers. This is not surprising as gorilla are considered to be the most dangerous species to hunt (McRae 2000). On occasion, gorilla may be targeted explicitly by hunters because gorilla hands are considered a delicacy by some consumers. Apes' absolute scarcity and low reproductive rates means that, though they rarely constitute more than 1% of the carcasses brought into markets, even present levels of hunting may threaten the long term survival of all ape populations within all range states in the Congo Basin. In long established markets in the Congo Basin and throughout West Africa, rodents appear to gain in importance presumably because duikers and primates have been depleted in nearby forests.

Elephant shot for its ivory, ready to be butchered for sale and to feed local families

Inset: Cable snares are unselective hunting tools that capture everything from duikers to chimpanzees.



Understanding the social and economic factors that affect demand for bushmeat is critical to the long-term management of wildlife in the forest of the Congo Basin.



**KEY CONCEPTS**

- Hunting Wildlife for meat is a greater immediate threat to biodiversity conservation than is deforestation.
- People in the Congo Basin eat as much meat as do Europeans and Americans; approximately 80% of animal protein is derived from wildlife.
- As much as 1 million metric tons of bushmeat is eaten each year in the Congo Basin, the equivalent of almost 4 million cattle
- Primates and antelopes that are commonly hunted for meat, play an important role in the forest by spreading the seeds of trees, vines and shrubs.
- Meat consumption may increase by 3% or more per year as human populations continue to grow and household incomes increase.



*Rural families eat bushmeat on average nearly two days per week while families living in logging communities eat bushmeat two to three times more often.*



**Commercial Logging Increases Hunter Access and Reduces Transportation Costs to Market**

In the Congo Basin region of Central Africa, valuable trees species are scattered in low density throughout the forest. To find and harvest these trees, loggers construct numerous survey trails and roads, heavily fragmenting the forest, and opening it up to hunters. The large numbers of workers employed by the logging company eat more meat than poorer unemployed families, they have the money to purchase weapons, they have ready access to the forest to hunt, and to logging trucks to transport meat. Consequently, logging companies not only directly increase demand for meat by hiring a large workforce; they also greatly facilitate workers entry into the commercial trade to supply bushmeat to urban markets. This same scenario played itself out in West Africa in the 1950s and 1960s, and contributed to the regional decline in wildlife populations evidence in West African forests today.



**Local and National Hunting Regulations**

A major factor enabling the uncontrolled advance of the commercial bushmeat trade is the lack of capacity to enforce existing national and international legislation. Much of the hunting taking place throughout the region is illegal. There are limited personnel and infrastructure to effectively address the needs for control of hunting and the bushmeat trade throughout the West and Central African region. Confounding this fact is the reality that policies and laws that are intended to regulate the hunting of wildlife are seldom perceived by local communities as legitimate, desirable, or enforceable and are therefore widely ignored.

The commercial bushmeat trade threatens the livelihoods of rural communities dependent on these resources to meet their basic needs.

## Lack of National and International Awareness and Willingness to Take Action

Awareness and support for control of the bushmeat trade was virtually non-existent until the late 1990's. Funding of a suite of studies and the efforts of a few key individuals have begun to change that. Now NGOs, governments, and the private sector are awakening to the challenge, and are currently seeking ways to understand and address the bushmeat crisis at local, national and international levels.

## Policy Development

Commercial bushmeat hunting is one of the few currently available income generating options for many rural families. Poverty, coupled with economic and civil instability within the region, makes efforts to curb such hunting politically difficult. Moreover, convincing hunters to change their behavior because forest wildlife are globally scarce is easier said than done, as hunters view the same wildlife as being locally abundant, and free for the taking. The bushmeat trade involves complex networks of rural and urban producers – any effective policy developments will require an understanding of the role each group of participants play within the trade.

The role of policy makers and policy making at the local, national and international level is to reconcile the trade-off between resource over-exploitation for short-term economic gain and the irreplaceable loss



As hunting technology improves, the ability of hunters to kill animals increases. Cable snares and shotguns are replacing woven nets and bows as the preferred hunting tools.

of biodiversity. So what makes a good policy? In the best circumstances natural resource management policy making is based on consensus and compromise, because, given the different needs



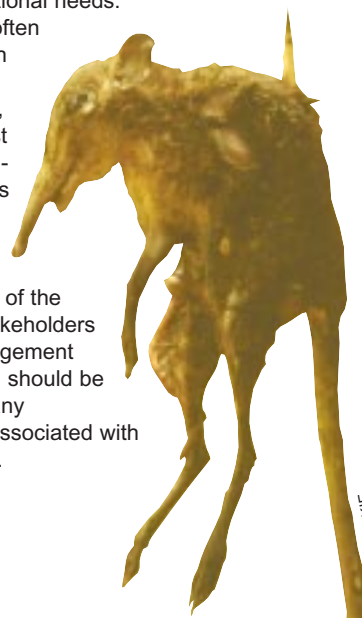
SIDLE

Bushmeat from a concession being driven to market on a logging vehicle.

and priorities of all stakeholders, only when the majority of the people that a policy affects are equally “happy” can a policy be said to good. From the opposite perspective, a policy is bad because it fails to address the concerns, needs and priorities of stakeholders who have the ability to prevent or subvert effective implementation of the policy.

Given present and projected demand for bushmeat, policies to conserve wildlife are likely to impose resource use restrictions that will directly impact the household economies of families involved in the commercial bushmeat trade – be they producers, traders, or consumers. Conservation by its very nature imposes short-term costs for long-term benefits, and often results in short term sacrifices to meet long-term local, national or international needs.

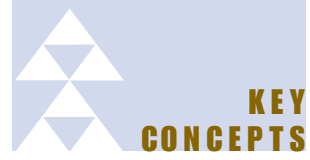
Poor families are often most dependent on natural resources such as bushmeat, and will suffer most from the implementation of restrictions on their use. Consequently, they should be considered as one of the most important stakeholders in bushmeat management policy making, and should be compensated for any economic losses associated with conserving wildlife.



WILKIE

Forest wildlife productivity is very low compared to savanna populations and cannot sustainably supply protein demands for growing human populations in West and Central Africa.

Working with logging companies to curb the export of meat from concessions is an essential step to conserving forest wildlife.





NICHOLS

## Solutions to the Bushmeat Crisis and the Role of the Bushmeat Crisis Task Force

### Partnerships and Logging Companies:

In general, a shift in cooperative action involving logging companies, communities, and government agencies toward sound forest and wildlife management in logging concessions needs to occur. Given the number of people involved, attempting to curb the commercial bushmeat trade at the village or market level would require enormous resources. In the Congo Basin developing wildlife management activities with logging companies, at least initially, may provide the most effective intervention because they play a key facilitation role in the commercial bushmeat trade and have management responsibilities across large areas of forests in the region.

Successful management of wildlife within logging concessions requires effective systems for monitoring wildlife; incentives for company employees, other local residents, and government to negotiate and implement the regulation of wildlife use; and disincentives for these same stakeholders to flout agreed upon regulations. Some activities to facilitate this process might include: providing alternative sources of protein to employees; linking employee bonuses to compliance with wildlife regulations; encouraging the preferential

employment of local residents; restricting human immigration to logging concessions; negotiating areas to be set aside and remain unlogged; prohibiting use of logging vehicles to transport bushmeat; and removing bridges along roads in already logged areas.

**Protected Areas:** Long-term support for protected areas including provision of well-equipped and trained anti-poaching units is a second clear priority for mitigating the commercial bushmeat trade. This is particularly true for West Africa where much of the original forest cover has been removed and protected areas provide some of the only land available for many wildlife populations.

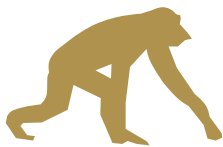
### Networking and Capacity Building:

Increasing support for national and transborder protected area networks and developing capacity at local, national, and regional levels is highly important. All stakeholders should focus efforts to assure that the necessary governmental and financial support for protected area management exists, law enforcement capabilities are in place, and broad-based initiatives toward working with and educating the public are implemented. These actions can be encouraged through building partnerships among logging industry employees, government personnel, conservation agencies, and local communities.

**Conflict Resolution:** Provide support for resolving conflicts throughout the region. By disrupting regional economies and conservation enforcement, political and civil conflict leads to dramatic losses of wildlife. The damage done is costly in both ecological and economic terms to future generations of Africans.

**Environmentally-Appropriate Economic Development:** Support environmentally sound economic development throughout West Africa and the Congo Basin. Influence broader environmental strategy implementation (e.g. through NEAPs - National Environmental Action Plans) and increase capacity for international cooperative efforts.

**Research, Education, and Alternatives:** Development of multi-level research and education programs including: immediate development of programs to provide training to government personnel in basic wildlife management principles and monitoring techniques for integrating wildlife management into concession management; fundamental and applied research to increase understanding of tropical forest ecosystems and improve ways of harnessing renewable natural resources for economically and ecologically sustainable development; develop additional alternatives for bushmeat and establish effective mechanisms to assure availability of acceptable protein substitutes; adapt school and university curricula to highlight social, ecological and economic importance of viable wildlife populations within forest ecosystems and for human



Promoting access to cheaper alternative sources of protein may reduce demand and help conserve wildlife.

communities, enhance access to, and capacity to use, new communication, information management, and monitoring tools and technologies.

**Institutional Partnerships:** Institutional reforms are essential - locally, nationally and internationally - through cooperative efforts involving the World Bank, the European Union, IUCN, UNESCO, CITES, CDC, FAO, ITTO, governments around the globe, domestic and international NGOs, private sector and others.

**Policy Development:** Management plans for concessions should be required to include wildlife management and monitoring programs. Some wildlife laws may need to be adapted to the local socio-economic context. Current systems of concession allocation and establishment of appropriate investments for management should be reviewed in terms of long-term benefits and sustainability of activities.

**Public Awareness:** Public awareness campaigns, particularly in the high GDP regions of the world are essential to educate international consumers about forest products that are harvested without irreversibly impacting the forest. The challenge of such campaigns is to assure the distinction between sustainable, legal, subsistence-level hunting that enables rural communities to meet basic protein needs and

unsustainable, illegal, commercial level hunting that jeopardizes such opportunities for future generations of Africans. Even where sustainable and legal hunting is occurring within the region, this is unlikely to remain true for long as human populations continue to grow – which further emphasizes the immediate need to identify and implement ways to alleviate the dependence on wildlife as a major source of protein.



NICHOLS

“If we don't respond to the bushmeat crisis, we may well lose chimpanzees and other endangered species in Africa and around the world in the next 20 years.”

Dr. Jane Goodall / The Jane Goodall Institute



## KEY CONCEPTS

Legitimizing and helping countries enforce existing wildlife laws is central to effective wildlife conservation.

Securing long-term support for protected areas and buffer zones will be the only solution for many species' survival.

A significant percentage of the animals being hunted are classified as threatened or endangered and are protected by international laws (e.g. CITES).

## What Can YOU Do About It?

### Grassroots

Get involved! Educate yourself further about the bushmeat trade and keep informed about emerging activities involving local and national communities supporting biodiversity conservation in West and Central Africa. Contact the BCTF or any of its Supporting Members for more information about what you can do to help. Contact your elected representatives to tell them that you are concerned about the unsustainable trade in wildlife for meat in West and Central Africa and that conserving wildlife matters to you.

### Donors

Commit resources to:

- a / curb the export of bushmeat from logging concessions
- b / enhance the capacity of governments to legitimize and enforce existing wildlife conservation laws
- c / ensure that communities in West and Central Africa have access to alternative sources of protein.

### Government

Commit to financing bushmeat conservation initiatives, and to legitimizing and enforcing existing wildlife conservation laws. Mobilize a G8 commitment to supporting Congo Basin countries in their agreement to conserve biological diversity, create and manage protected areas, and develop long-term capacity to manage wildlife collaboratively throughout the region as stated in the Yaoundé Declaration\*

of 17 March 1999. Support bi- and multi-lateral projects specifically designed to address the bushmeat problem in West and Central Africa.

Support a West African intergovernmental declaration equivalent to that signed by Central African heads-of-state in Yaoundé - including the République de Côte d'Ivoire, Republic of Ghana, Republic of Guinea, Republic of Liberia, Federal Republic of Nigeria, and Republic of Sierra Leone.

### NGOs

Commit to implementing, in collaboration with national governments, pilot activities to:

- a / curb the export of bushmeat from logging concessions
- b / enhance the capacity of governments to legitimize and enforce existing wildlife conservation laws
- c / ensure that families in West and Central Africa have access to alternative sources of protein.

### Industry

Concerned for-profit companies should commit to: financing wildlife monitoring and management programs within their concessions, including bushmeat control activities; providing alternative protein sources for workers and their families; allocating a percentage of capital investments for wildlife habitat restoration following harvesting; setting aside non-exploitation zones within their concessions; and adopting low impact (sustainable) management and exploitation practices.



*The primary goal of the BCTF is to facilitate the work of its members in identifying and implementing effective and appropriate controls over the commercial exploitation of endangered and threatened species in Africa.*

**VISIT US ON THE WEB!**

**[www.bushmeat.org](http://www.bushmeat.org)**

1700 Connecticut Avenue, NW - Suite 403  
 Washington, DC 20009 - 1134  
 Phone: 301.706.6028  
 Fax: 202.588.1069  
 Email: [info@bushmeat.org](mailto:info@bushmeat.org)

## **BCTF supports the efforts of its members in four priority areas:**

### **Information Management**

Science-based decision making is crucial to appropriately addressing the bushmeat issue. BCTF compiles and analyzes information to support engagement with key decision makers, education efforts and public awareness.

- **Web resources and print publications** on the BCTF website, including the *Bushmeat Bulletin* member newsletter and the *Bushmeat Quarterly* review of the bushmeat crisis
- **BCTF Information Pack and CD** containing Fact Sheets, newsletters and major BCTF products
- **Bushmeat IMAP** (Information Management and Analysis Project) – mapping and research tool

### **Engaging Key Decision Makers**

The future of Africa's people and wildlife rests in the hands of African communities, governments, businesses and resource managers. Policy makers and private industry have an important role to play in addressing this issue.

- Technical and financial support for the CITES **Central African Bushmeat Working Group**
- US **Congressional testimony** and briefings
- **Bushmeat policy recommendations** adopted by US, African and other governments
- **IUCN Bushmeat Resolution**

### **Education and Training**

BCTF works with conservation education professionals to support formal training opportunities and public education products.

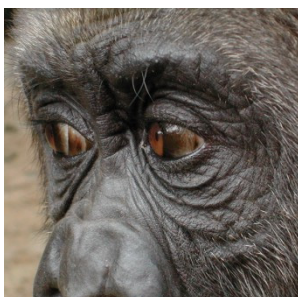
- **Bushmeat curriculum development** with African regional wildlife colleges in Cameroon, Tanzania and South Africa
- **Bushmeat Education Resource Guide** (BERG) provides training, programs, curriculum, signage and other resources for public education

### **Public Awareness**

Public awareness has been identified as a priority activity for addressing the bushmeat crisis, to enable consumers to make informed decisions about what they choose to buy and eat.

- **Support for NGO and government efforts** in the field
- **Major market media coverage** in newspapers, magazines and radio programs around the world
- The **Bushmeat Promise** provides ways that individuals can become involved in solving the crisis.

More information on BCTF's goals and projects and a current listing of Steering Committee and Institutional Members is available online at [www.bushmeat.org](http://www.bushmeat.org).



TOBIASON

**For more information about becoming a BCTF Supporting or Contributing Member:**

Please contact the BCTF Director

**Heather E. Eves**  
 Email: [HEves@bushmeat.org](mailto:HEves@bushmeat.org)  
 Phone: 301-706-6028

