

The case for bushmeat as a component of development policy: issues and challenges

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SUMMARY

This paper makes a case for bushmeat as a topic of interest to development policy. Drawing on a range of secondary sources, it argues that there are two principal grounds for this view: its importance in the livelihood strategies of the poor, and its relevance to wider issues of public governance.

Considered from a livelihoods perspective, the balance sheet is more positive than has often been assumed. These positive dimensions have tended to be discounted in conservation strategies. Recent research is reviewed which illustrates the importance of bushmeat to the livelihoods of the poor. This perspective is also indicated when considering issues of forest governance. On the one hand, instruments such as timber certification and associated codes of conduct need to take account of key livelihoods concerns. On the other, bushmeat management could support and leverage wider improvements in the quality of forest governance.

Keywords: wildlife, bushmeat, livelihoods, governance, management.

INTRODUCTION

This paper is concerned with an often-neglected class of NTFPs with important livelihoods dimensions, namely animals hunted for consumptive use linked to local livelihoods. For simplicity's sake, the colloquial African term 'bushmeat' is used to describe the class, despite its geographical restrictions and (for some) alleged colonial connotations. Non-consumptive uses are not considered here.

The paper focuses on the question: '*Why should bushmeat be of concern to international development policy?*' It is suggested that the answer is two-fold. On the one hand, the safety-net functions of bushmeat and similar forest products are crucial to the livelihoods of the poor in the humid tropics, particularly in areas with little immediate prospect of transformation out of poverty. And on the other, progress in the management of internationally high profile and emotive resources such as wildlife raises important issues in governance and may leverage broader governance benefits. The paper argues the case for the centrality of a livelihoods perspective in the development of public policy on forest governance.

The paper is in three sections. The first provides a reminder of the scale of the bushmeat trade, and the conservation and welfare issues which this raises. The second examines the evidence concerning the role played by bushmeat in the livelihoods of the poor. And the third considers the potential, which exists for bushmeat to figure as a component of improved governance.

THE PRESENT REALITIES OF THE BUSHMEAT TRADE

Bushmeat and international aid policy

The tensions, which exist between conservation and pro-poor development, are well-illustrated in the title of a recent paper on the theme of hunting for wild meat in the humid tropics. Written by two eminent conservationists, it is entitled 'Will alleviating poverty solve the bushmeat crisis?' (Robinson and Bennett 2002). From a livelihoods perspective, such a proposal would seem something of an inversion of priorities. While the point is taken that economic development provides no guarantee of sound environmental stewardship (indeed, the evidence is often in the opposite direction), it would seem more appropriate to ask what roles bushmeat and other forest goods might play in poverty alleviation. The authors' response to their rhetorical question is not encouraging. They write:

'The only way out of this crisis will be offered by long-term, integrated efforts to provide alternative sources of protein and income for the rural poor, curtail the commercial trade in wildlife, secure wildlife populations in protected areas, educate hunters and buyers....'. (2003)

The people whose behaviour must change, they say, are 'the millions of people at the margins of the cash economy in Asia, Africa and Latin America ... whose lives are intertwined with natural areas'. There is 'no 'silver bullet'

for the twin goals of conserving wildlife across the humid tropics and preventing the people whose lives now depend on wildlife from being driven further against the wall' (Ibid).

Coming at a time when most international aid agencies are seeking to limit their fields of activity, and to concentrate on those investments which offer the greatest chance of delivering poverty alleviation with maximum efficiency (cf. SoS 2002), such a pessimistic scenario is challenging to those who have sought to deploy international aid resources in order to reconcile global interests in tropical forests with national and local realities. It raises important questions about the trajectory of conservation policy, and the focus of policy change. What benefits can be offered to justify the engagement of development assistance with the bushmeat issue, and what are the implications at the level of policy?

A success story?

On the surface, the scale, vigour and penetration of the bushmeat trade might be viewed in a highly positive light, as one of the great success stories of autonomous food production in the developing world, and a testimony to the resilience and self-sufficiency of its populations.

The volume of consumption

Bushmeat is one of those minor forest products that have been shown to have major significance for rural communities, particularly in the humid and sub-humid tropics. The levels of offtake vary by ecological zone, country and continent but in general levels of offtake are highest in the humid forests of west-central Africa, and lower (though still significant) in Asia and South America. A number of factors have been held to account for these differences. Inter-continental variations can be explained partly in terms of the productivity of the forest ecosystems, the central African forests being considerably more productive than those of South America (Fa and Peres 2001). The relatively high ratio of sea coast to land area in the Asian case – and hence, increased potential for penetration by sea fisheries – may account for the historically lower contribution of mammalian meat to the diet on this continent, and the higher contribution elsewhere (Robinson and Bennett 2000). The higher offtake levels from humid forest than savanna ecosystems may seem paradoxical, given the much greater productivity of the latter. However, this may be explicable in terms of the high potential of savanna ecosystems to

support domesticated fauna, and the associated cultural preference for farmed meat in such areas (Chardonnet *et al.* 1995). Other factors such as abundance and accessibility also influence levels of human dependence. For example, the relative importance of fish over bushmeat in human diets in the Amazon basin can be explained not only in terms of the high productivity of the Amazonian river systems, but also by the fact that the mammalian biomass there is not only low in volume, but being predominantly arboreal, is also inaccessible (Fa and Peres 2001).

Estimates for the size of the harvest in the core production areas vary greatly, but by any standards the off-take is economically and ecologically of major significance (see Bennett and Robinson 2000). Wildlife is estimated to play a significant and direct part in the livelihoods of up to 150 million people, much of this from consumptive use (Ibid). One recent estimate puts the continent-wide production for Africa at over a million tonnes per annum (Elliott 2002), though this could be a major underestimate. The current harvest in central Africa alone, for example, may be in excess of two million tonnes annually (Fa *et al.* 2003); the sub-regional human population is 33 million, which would imply in excess of 60 kg/person/year if all of it is locally consumed. Table 1 provides one Africa-wide perspective on consumption – one of the more modest of recent estimates – categorised by ecosystem, and relative to other animal sources of dietary protein.

The offtake on other continents is often conspicuously lower, and less evenly distributed. However, high levels of dependence occur in South America, particularly among the indigenous populations. For example, annual consumption of wild animals by local peoples in Amazonas State, Brazil, has been estimated as 2,800,000 mammals, 531,000 birds and about 500,000 reptiles (Robinson and Redford 1991).

South East Asia presents a comparable picture. The trade in animal products from Laos to China is valued at upwards of \$12 million per year. In Sarawak, the economic value of wild meat consumed by rural populations, expressed in domestic meat equivalents, has been estimated at \$75 million per year, meat to the value of over \$5 million is sold on the open market (Bennett and Robinson 2000)¹.

¹ This is only an estimate. One of its assumptions is that one quarter of the population of Sarawak depends significantly on wild meat.

TABLE 1 *Relative importance of game meat in Africa (1994)* Source: Chardonnet *et al.* 2002

Ecological region	Population (millions)	Game meat production		All meat production	
		Total (m.tonnes)	Average/person (kg/person./year)	Total (m.tonnes)	Average/person (kg/person./year)
Savannah	344	405,421	1.2	4,857,133	15.2
Savannah/Forest	163	533,763	3.3	1,571,732	9.7
Forest	54	287,225	5.3	418,527	7.8
Islands	16	3,846	0.2	378,029	22.7
Total	577	1,230,255	2.1	7,225,422	12.5

A positive scenario?

The virtues of bushmeat as a livelihoods activity include low barriers to entry and high social inclusion. The poor may benefit less than the rich but – it can be argued – this is always the case, and is a feature of inequality not of bushmeat. Unregulated and decentralised in trade, a fair proportion of the value of the product is retained by the primary producer (the hunter) – much more so indeed than has historically been the case with other forest products such as timber and beverage crops. Unlike domestic animal husbandry, the labour inputs that it requires are discontinuous and easily reconciled with the agricultural cycle. Bushmeat is the product of a system of farm/forest management that collectively offers high returns from a range of activities. For the risk-averse small farmers to whom labour is the major constraint, all this has much to commend it.

The trade is likewise low risk and flexible, with minimal capital costs, and thus particularly attractive to the poor. Markets are often indiscriminating and species-wide. Extractive technology is generally low level and accessible. Gender aspects are also remarkably positive. In most situations, it is men who do the hunting, but women who take charge of all the downstream processing and commerce, to the point of sale in the scores of ‘chop bars’ and restaurants, which are a familiar feature of the urban scene in the South. Bushmeat has excellent storage qualities, in a manner compatible with the storage of agricultural produce. It is easily transportable and with a high value/weight ratio, bushmeat fits in with the realities of rural life in the tropics in other respects, particularly for the poor.

Arguably, the starting point in any analysis of the bushmeat trade should be these positive benefits, and any attempt to improve its management should take the preservation of them as its fundamental parameter.

In reality, however, the international profile of bushmeat is almost entirely negative, and its livelihood benefits are largely discounted both nationally and internationally. Bushmeat hardly figures at all, except repressively, in public policy in the range states (i.e. producer countries). The fact that the positive values of such a major commodity are unacknowledged by most policy makers, failing to appear in national economic statistics or to be subject to budgetary allocations by the state, reveals much about the political economy of natural resource exploitation in the tropics, as well as about the historical evolution of tropical governance. Bushmeat and other products of the hunt tend to feature among those goods conceded by range state governments, as part of a tacit agreement which separates ‘traditional’ products for domestic consumption and the generation of lower-level public sector rents from ‘modern’, industrial commodities which enter into the circuits of national wealth generation and political patronage, and over which the population at large has no established right of voice. One of the questions that needs to be posed when evaluating new initiatives relating to bushmeat, is whether they challenge or support

this marginalisation within policy discourse. We will return to this issue below.

A bushmeat crisis?

One factor (though not necessarily the most important one) in accounting for the peripheral nature of bushmeat in policy terms is the issue of resource degradation. A trade in primary products on this scale and of a fundamentally extractive type raises important issues of future sustainability. It is beyond the scope of this paper to evaluate in detail the evidence for and against the view that this has now reached ‘crisis proportions’. Suffice to say that while the conservation interests, which are driving much of the international policy agenda, may be prone to exaggerate the problem, it would be surprising if there were not a looming crisis, given what is known of the potential of forest ecosystems to support the animal populations at stake, and the lack of management systems in place.

Total carrying capacity of tropical forests varies according to the context, but Robinson estimates that the maximum biomass of larger mammals in evergreen forests is unlikely to exceed 3,000 kg/km² (in open mosaic forests carrying capacity may be five times as much). Assuming a fairly generous diet of animal protein, this suggests that human carrying capacity for people totally dependent on bushmeat for protein would be unlikely to exceed one person per km² (approx. 150 kg/km²/year, 65% of it edible meat) (Robinson 2000).

If these figures apply then existing rates of offtake must be severely threatening the stock. Much of conservation opinion is in line with this view. A recent study by Fa *et al.* (2002) suggests that 60% of mammalian species are harvested unsustainably. Offtake levels in the Congo Basin are estimated to be almost 50% higher than production and possibly more than four times sustainable levels (Ibid). Fa (2003) and his colleagues predict that bushmeat protein supplies will drop by 81% in all the central African countries in less than 50 years, and that only three countries would be able to maintain a protein supply above the recommended daily requirement of 52 g/person/day.

Even if these estimates prove excessive, the outlook must surely still be very bleak. Among other things, the present situation is usually characterised by a complete lack of management by the state, as well as strong disincentives for local populations to attempt to regulate the harvest. The chances are, therefore, that there is an impending bushmeat crisis of significant proportions.

What does not necessarily follow, however, is the view that the way to manage this very large and lucrative, if unsustainable, trade is to attempt to ban it altogether. The arguments against such an approach are both welfare-related (in terms of livelihood and economic benefits) and practical (the low likelihood of success). Yet this is the strategy that has been most strongly advocated by the conservation lobby (e.g. Oates 1998).

BUSHMEAT AND LIVELIHOODS

Donor interest in bushmeat would undoubtedly be increased if it could be shown that the trade could contribute to poverty eradication on a substantial scale. This is an under-researched theme in the literature. However, there are good reasons to doubt it as a general proposition. A distinction needs to be drawn between those livelihood benefits for the poor that relate primarily to survival strategies and safety-net functions, and those that have potential to contribute to growth and transformation in the rural economy. The evidence suggests that the long-term prospects for bushmeat relate to values of the former type, and that it is unlikely to figure strongly in any process of capital accumulation. As with many other NTFPs, important livelihood benefits relate to timing and compatibility with the types of multiple enterprise that are the bedrock of the peasant economy, independently of the overall volume of the trade (Arnold and Ruiz Perez 2001).

A range of factors, including nature of the resource, the character and volumes of its trade, and the availability of alternatives, are of relevance here. Paradoxically, it may be partly because of the virtues of bushmeat as a livelihoods asset (low thresholds of entry, leading to broad participation, but also tight margins) that means it is unlikely to figure strongly in rural transformation. There would also seem to be few opportunities for value to be added in processing, through technical sophistication or increased investments of labour (in this respect, bushmeat may differ from, say, artisanal woodworking). This is particularly the case where the trade is treated as *de facto* illegal, and thus has to be pursued largely underground. The international stigma of bushmeat also limits the potential for export-oriented processing and value added (though cf. Section 3.2 below). Viewed from the perspective of volume, bushmeat also offers an unencouraging prospect. Even if the projections of sustainable offtake are over-cautious, they are often so far below existing offtake levels as to make it most unlikely that sufficient capital could be generated from the sector to sustain long-term economic change.

On the other hand, urban demand in the range, and neighbouring, states is high and possibly growing, and it can feature as a luxury item in the trade, even where substitutes exist at a competitive price (Fa and Wilkie 2002). There is historical evidence that bushmeat can play a secondary role in supporting economic change. Asibey (cited in Cowlshaw *et al.* 2003; but cf. Oates 1998), for example, notes the part it played in underwriting the development of the Ghana cocoa industry and opening up the forest frontier. Thus, even a decapitalising stock can have a role in economic growth and structural change of long-term benefit to the poor.

Nevertheless, even discounting these uncertainties, it seems most unlikely that the main future justification for donor involvement with bushmeat is going to come from a positive assessment of its poverty eradication potential on any major scale, sustainable or not. The primary interest

must rather lie with the livelihoods dimension, both in its own right – as an aspect of food security to vulnerable human populations, both rural and urban – and also as a means of underpinning and reinforcing the drive to improved public governance. The major challenge is to address the public governance dimensions without surrendering the livelihoods focus.

Bushmeat and the poor?

Until recently, livelihoods considerations have tended to figure only peripherally in wildlife research in the tropics. However, a number of recent research studies have addressed the livelihoods aspects directly, and linked them to issues of policy. These do not necessarily support the view that dependence is greatest among those living in the most extreme poverty, as had been previously proposed (cf. Scoones *et al.* 1992). However, the situation is complex, and defies simple poverty/non-poverty labelling.

A case in point would be the study undertaken by De Merode in the Zande area of Eastern Democratic Republic of Congo (de Merode *et al.* 2003). While significant variations in patterns of consumption and sale were found, correlated with relative wealth, all the families in the study could be classed as ‘living in extreme poverty’ by the standard international test (income of less than US\$1 per day). Thus the variations were only relative.

De Merode’s study sought to address three questions:

- Whether wild foods (including bushmeat) were valuable to households, in terms of both consumption and sales;
- Whether the value varied according to the season;
- Whether the value was greater to the poorer or less poor.

In summary, it was found that while wild foods in general formed a significant proportion of household production, most was sold on the market and not consumed. This was particularly the case with bushmeat and fish, where more than 90% of production was sold. Consumption levels varied by household, with both seasonality and wealth effects.

Consumption of wild foods increases significantly during the hungry season (particularly bushmeat, where consumption rose on average by 75%). Bushmeat and fish consumption were fairly even across all wealth ranks, except the poor (who consumed very little of their own production, though they made up for this through bushmeat gifts), bushmeat sales were influenced by the wealth rank of the household, with the richer households more likely to be involved in market sales. This was unrelated to questions of land access and tenure (all families had equal theoretical access to the production zones, and – unlike with fishing – there were no restrictions on activity related to non-membership of a craft guild). However, it was strongly correlated with access to capital (e.g. ownership of shotguns and nets) and to the wealth required to generate a surplus over consumption needs. Interestingly, both fish and bushmeat exhibited the characteristics of ‘superior goods’ (i.e., luxury items consumption of which increased

exponentially with increasing wealth). By contrast, wild plants were 'inferior goods', in that increasing wealth implied decreasing household consumption.

A particularly interesting finding of the study was that, for families living in extreme poverty, market sales of bushmeat were more important than household consumption. This challenges the view put forward in certain conservation quarters, that the way to reconcile the interests of the poor with those of conservation, in a 'win-win' scenario, is to prohibit market sales, but turn a blind eye to subsistence use.

For a view of the pro-poor dimensions of the bushmeat commodity chain, there is some useful evidence from the joint Zoological Society of London/University College London, concerning mature bushmeat markets in Ghana (Cowlshaw *et al.* 2003a, 2003b; Mendelson *et al.* 2003). In a series of papers on the bushmeat trade in Takoradi, SE Ghana, Cowlshaw, Mendelson *et al.* discuss the relative incomes and influence of five primary actors – commercial hunters and farmer hunters (always men) and wholesalers, market traders and 'chopbar' operators (always women). In terms of numbers, this is a medium level enterprise, with a about 1,000 persons involved in the trade in the catchment area of the study, most of them non-professional farmer/hunters (75% of the total)². While the chop bar owners handle the largest volume of produce, profitability is highest, in percentage terms, among the hunters. Hunters are found to capture 74% of the final sales price in Takoradi chopbars. Taking into account the fact that most hunters are also farmers, bushmeat provides an important supplement to rural incomes in this group.

An interesting proposition of this work is that the sustainability of the current market profile is the result of the operation of an extinction filter. That is to say, vulnerable species (such as the slower-reproducing and larger, more vulnerable ungulates) have already been wiped out in the more accessible areas, so that only more robust and fast-reproducing species (chiefly rodents and smaller, farm-bush resident ungulates) now figure in the trade. The possibility then opens up of sustaining the industry using robust stocks of non-vulnerable species in the highly productive farm-bush, and using forest protection more selectively to preserve the vulnerable species in isolated forest areas. It would clearly be unwarranted to extrapolate from these findings or to draw conclusions as to the lack of connection between biological diversity and human welfare, but this does at least offer a positive scenario, allying conservation with consumption and not opposing it. The best strategy for achieving a win-win scenario might be to compromise early with the industry's needs, rather than – as is so often the case – to assume that the only way to save the weak and endangered species is to rigidly oppose the trade.

² The totals for each category are: farmer/hunters (746); professional hunters (50); wholesalers (14); market traders (16); chop bar owners (143). (Cowlshaw *et al.* 2003a).

Conservation strategies and local livelihoods

Conservation strategies have, at least until recently, tended to discount these livelihoods dimensions. Typically, the dominant legal framework is one which supports the preservation of nature, with a strong emphasis on interdiction and non-consumptive uses, and restricting, not positively managing, public access to the resource (cf. Brown 1998). The principles that are typical of forest laws, and which have long characterised (at least in theory) exploitation of timber – regulated access, realistic licensing, financing arrangements to minimise investor risk, and rules to discourage damage to the resource while permitting consumptive use – are rarely in evidence. Though some international conservation agencies have attempted a more positive approach (WWF-Cameroon's Conservation Programme being a promising example, work by the Wildlife Conservation Society with the timber concession of the company *Congolaise Industrielle de Bois* (CIB) in Congo-Brazzaville another), successes have been few and far between.

Much greater efforts have been expended, in fact, on compensatory approaches to justify interdiction of the trade. Alternative income-generating strategies have been much favoured (ranging from captive rearing of game species, to promotion of domesticated livestock, to handicraft development). These alternatives are often vulnerable to criticism precisely because of their lack of cognisance of livelihood interests. They are unlikely, used in isolation, to reduce hunting pressure unless they are compatible with the resource users' capital base, offer superior benefits to them, and successfully compete for their labour time. There could well come a time when such options do prove attractive to investors in the range states, but the evidence is that the time is still far off for the areas of greatest conservation concern.

THE APPROACH FROM GOVERNANCE

The second area of possible justification for donor interest in the bushmeat trade is the potential that it can contribute to improved governance. This final section of the paper considers some of the possibilities and risks which accompany the attempt to address the issue of forest governance as it pertains to bushmeat, through developing management models and other means.

The challenges are undoubtedly immense. On the one hand, most of the source areas are subject to major failures of governance which affect the utilisation of all forms of natural resources, not just wildlife. Approaches that require the pre-existence of effective systems of governance are thus unlikely ever to take root. On the other hand, there is little by way of successful experience of wildlife management in any comparable situation on which to build. The management models which have proven most successful (such as 'Campfire' in southern Africa (Metcalf 1994)) are not well-adapted to the circumstances which

pertain in the bushmeat heartlands, with very restricted tourist markets, an imbalance between national and international tourist trade, frequently poor security and an almost total absence of the necessary access and infrastructure.

Governance considerations feature in the debate principally in two ways: firstly, as adjuncts to other initiatives that impinge on the issue of bushmeat, and its role in livelihoods; and secondly, in the way that they inform strategies to improve on bushmeat management. Forest certification provides an example of the former, attempts to institute new management models for wildlife harvesting an example of the latter. We shall consider each in turn.

Forest certification

To date the debate in relation to forest certification has centred not on the bushmeat chain of custody itself, but on the role which certification might play in mitigating the negative impacts of the timber industry on the wildlife resource. While the former approach would have virtues, agreed channels for a well-managed and sustainable trade are such a distant prospect as to make this of conjectural interest at the present time. By contrast, certification of tropical timbers is an active issue and commends itself more readily as a means of influencing the bushmeat supply. Being a non-state mechanism, it largely avoids the paradox of requiring the pre-existence of the public governance systems that it is intended to promote.

Wildlife and hunting already figure among certification principles and criteria, or can be construed as such, in relation to such issues as forest use rights, indigenous peoples' rights and environmental impacts (for example FSC principles 2, 5 and 6). In addition, a number of proposals are currently on the table for the more explicit integration of wildlife management standards into forest certification. The most prominent is the Ape Alliance's 'Code of Conduct to minimise the impact of hunting in logging concessions' (1998). The more recent proposal by Woodmark on behalf of Fauna and Flora International proceeds on essentially similar lines (Dickson pers. comm.).

These proposals need to be assessed not only for their relevance and effectiveness as industry instruments, but for the assumptions which they make about forest livelihoods, and their likely impacts upon them. In a context where industrial interests are dominant, the interests of other resource users have to be fought for on whatever terms are available. The disincentive for range state governments to advance progressive legislation is particularly evident. Having often inherited the beneficial legacy of a legislative framework, which denies almost all tenurial rights to traditional users, these are rarely of a mind to surrender their power to endeavours which would, at best, represent only a secondary level of economic activity, as well as one for which the revenues would be much more difficult to capture. This is particularly the case where the precedents created would have political resonance. Thus, whatever the intentions, there will be strong pressures to channel

governance changes towards the needs of the industry, downplaying its other dimensions. This limits their potential to act as a catalyst for more general reform.

Work in this field is inevitably constrained by existing legal frameworks, which are inappropriate and unworkable as these colonial inheritances often are. The Ape Alliance Code is designed only to curb the industry, and makes no concessions to the interests of other forest users. It presumes and requires the sovereignty of the industry operator over the total land area, not merely the timber resource. It also accepts the validity of the existing legal frameworks and official notions of legality and illegality as a basis for the control of the wildlife resource, regardless of their public legitimacy, and encourages the development of an enclave economy (albeit a more disciplined one).

Where traditional ownership claims are accepted as valid (as in the FSC principles), these depend heavily on the notion of indigenous peoples' rights, as well as optimistic assumptions as to the clarity of their tenurial claims. Particularly in the context of west-central Africa, where there is no history of alien conquest, and no segregation of 'indigenous' and 'settler' economies, such notions are fundamentally problematic. The situation here is more likely to be one in which traditional user rights are usurped by legislative principles that grant the state close to monopoly powers in managing resources ostensibly on the public's behalf. In the case of Cameroon, for example, the recently-imposed national land use system or *zonage* disregards historical patterns of land usage in favour of a division of the forest estate into two zones: the permanent estate, reserved for forest production and conservation, where the rural majority have no rights; and the much smaller non-permanent estate, conceded for immediate or eventual conversion to other forms of usage (Brown 1999). It allows no recognition that there may be entirely legitimate land claims outside of this imposed structure of rights.

In summary, while there are strong grounds to support a better integration of different forms of land use, including hunting, through non-state mechanisms such as certification, present models are conceived within governance frameworks, which are not well adapted to the contexts typical of the bushmeat trade, and unlikely to prove 'pro-poor'. Among the major challenges, which present themselves, are the need for a more constructive engagement between the industrial and local economies, and recognition that there are legitimate forms of land use that are not based on close proximate residence³.

An attainable goal? – effective management of the bushmeat resource

The experience with certification warns of the difficulty of recognising livelihood imperatives in contexts dominated by powerful industrial and conservation interests. An

³ Hunting zones in tropical forests are not necessarily different from, say, North Atlantic fisheries in this regard.

alternative – and in principle, more promising – route to governance reform is through the active management of the bushmeat resource.

Despite an unpromising institutional context,⁴ there are indications that progress can be made, provided two conditions are met. The first is the revision of the legal frameworks to create legitimate channels for the bushmeat trade. The present situation – of presumed illegality at all levels – is neither conducive to the development of participatory management models or to broader governance reform. So long as no legal channels exist, then any attempts to tighten up on management are likely only to drive the trade further underground (Dickson 2003). This creates increased incentives for rent-seeking behaviour by officials, and encourages a further deterioration in standards of public governance. It also diminishes the potential for development of the commodity chain through export-oriented processing and value-added.

The second condition is that changes in the legal context should favour community participation in management not just for this one resource but more broadly. In this way, the social capital created for any one enterprise could become available to the others – a classic joint production issue, and hence a means of lowering transaction costs where they might otherwise be prohibitive. At the same time, broadening the range of legitimate interests in the forest estate is also likely to have beneficial effects on the quality of forest governance. In the case of Cameroon, for example, the allocation of forest exploitation rights to local communities may well lead both to better management of timber and plant NTFPs, and improved control over hunting and bushmeat. Increasing the voice of this constituency over key livelihood resources could then have knock-on effects on governance, both through the enlargement of the public interest in the future condition of forest resources, and linked effects on decentralised local government. Local awareness of the extent of the benefits, including revenues, which may be derived from forests is a necessary pre-condition for accountability and transparency in the use of public goods (cf. Brown *et al.* 2002).

CONCLUSION

To resolve the bushmeat crisis effective management of the bushmeat resource, according to principles specific to the sector, and giving major priority to livelihood concerns must be of paramount importance. The case for

international assistance to support the development of a well-regulated bushmeat industry must be based in the first instance on a recognition of its important livelihood benefits, and in the second, on its potential to contribute positively to the growth of good governance of the broader forest resource. An essential prerequisite for the latter must be to bring the bushmeat trade into the open and clearly identify the possibilities for legal and legitimate trade.

What has been lacking to date is an understanding of the centrality of social interests to conservation goals. As others have noted, sustainability is not, at the end of the day, an issue of purely biological concern (Hutton and Dickson 2002). To argue that social and livelihoods issues are more pressing is merely to acknowledge that the decisions regarding what resources to retain and what to consume will ultimately be made not by conservationists but by those whose lives are directly affected by their day to day contact with the wildlife resource.

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⁴ Arnold and Ruiz Perez (2002) point to the distinction between benign and active forest management; the past existence of the former did not necessarily imply the latter. In many situations, only the most sedentary animals show much evidence of active management by local users; in Ghana, this class is restricted to invertebrates such as snails and crabs [Falconer, pers. comm.].

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