

UK TROPICAL FOREST FORUM

BUSHMEAT WORKING GROUP

3 December 2002

at the offices of the
UK Department of the Environment, Food and Rural Affairs (DEFRA)
Ashdown House, Victoria Street, London
2pm - 5 p.m.

Report of the Meeting

Attendees List

Ms Hanna Abate	University College London
Ms Elizabeth Bishop	University College London
Dr David Brown	Overseas Development Institute
Dr Bryan Carroll	Bristol Zoo
Ms Lauren Coad	Imperial College
Prof Bob Cheke	Natural Resources Institute
Dr Guy Cowlshaw	ZSL Institute of Zoology
Dr Glyn Davies	Zoological Society of London (ZSL)
Mr Barney Dickson	Fauna and Flora International
Ms Tamsyn East	Imperial College
Mr Bob Ford	DEFRA
Prof Katherine Homewood	University College London
Ms Tatiana Intigrinova	University College London
Mr David Jay	GRASP
Mr Stanley Johnson	IFAW
Mr Iddi Kassim	NRI
Ms Yianna Koutsioni	University College London
Dr Cecilia Luttrell	ODI
Dr E.J. Milner-Gulland	Imperial College
Mr John Palmer	NRInternational / Forestry Research Programme
Ms Meriel Robson	Woodmark, Soil Association
Dr Marcus Rowcliffe	ZSL Institute of Zoology
Ms Ita Ruge	Timber Trade Federation
Mr Chris Sandbrook	University College London / Institute of Zoology
Ms Jane Thornback	Tropical Forest Forum
Mr Andrew Williams	ODI Research Association

Welcoming Remarks and Introduction

1. The Chair, **Ms Jane Thornback**, welcomed attendees and thanked DEFRA for the use of the meeting room. Participants introduced themselves. As there were several new faces, the Chair gave a briefing on the role of the Tropical Forest Forum (TFF).

The TFF has been operational for over 10 years. The 10th Anniversary meeting was held in December 2001. The TFF serves as a neutral mechanism to discuss forest issues. Membership is drawn from a wide audience, including independents, NGOs, government officials, researchers and the private sector. The TFF is not a campaigning organisation, it does not produce resolutions, sign up for lobbying letters nor

take direct action. There is no TFF view on an issue. The Forum Bushmeat Working Group has sponsorship from DEFRA and meets three times a year. The agenda of meetings varies, depending on issues of the moment and the interests of those attending.

2. **Mr Stanley Johnson** asked for a news update for the Great Apes Survival Project (GRASP) project be added to the agenda.

Short news items

Bushmeat Crisis Task Force (BCTF)

3. **Dr Bryan Carroll** gave an update on the activities of the BCTF. It was established in 1999 and is a Washington DC, USA based collaborative forum for mostly US NGOs to discuss bushmeat issues. It is essentially an information gathering and sharing body, and is based at the headquarters of the American Zoo and Aquarium Association.. It has several priority bushmeat solution areas:

- ?? International policy development
- ?? Education
- ?? Linkages with private industry
- ?? Protected areas
- ?? Seeking economic and protein alternatives
- ?? Public awareness and outreach

The BCTF website is www.bushmeat.org

4. BCTF are working with various organisations including CITES, the US Government and IUCN. In Africa, they are working with the three regional wildlife colleges: in Tanzania, Cameroon and South Africa, to develop a bushmeat curriculum for education. They are producing a resource guide which should be completed in early 2003. An information map is being developed, which will highlight key areas of hunting and trade. The organisation is seeking exposure for bushmeat issues wherever possible. Research is being carried out into protein alternatives and sustainability. They will continue to publish the bushmeat quarterly update and participate in the World Bank CEO African Working Group. **Mr David Jay** noted that the WB CEO African Working Group is still working towards principles for certification. **Dr Carroll** said the BCTF is keen to work for the sharing of information between organisations.

5. **The Chair** said that the BCTF website is a useful resource and she encouraged people to send in details of their project activities. The BCTF project listings are useful - though would benefit from better design and search capability.

EAZA petition

6. **Dr Carroll** spoke on behalf of the European Association of Zoos and Aquaria (EAZA). The Association had submitted a petition to the European Parliament in January 2002 demanding a new resolution on bushmeat. There will be a hearing at the EP in January 2003, and a response from the parliament will follow.

7. **Mr Johnson** said that the petition was a good idea, and that it might be worth mentioning at the next CITES meeting. **Mr Jay** asked **Mr Johnson** what he felt a good resolution might look like? **Mr Johnson** said it would require EU nations to define their position regarding bushmeat. **Dr Carroll** added that the submission would include a call for mitigation efforts in Environmental Impact Assessment. The submission will request that Range States' take action to mitigate uncontrolled commercial hunting following the EIA of development projects. Full details of the submission have not yet crystallised.

8. The **Chair** noted that **Mr Adam Matthews** has left the employment of Barry Gardiner MP and will soon take up his post as director of the EU Bushmeat Campaign which will be London based. He is presently in central Africa, where he is seeking to establish political links in Gabon for the EU campaign. He has recently addressed the House of Chiefs in Accra, Ghana.

CITES Conference, Chile

9. **Mr Barney Dixon** from Flora and Fauna International reported on the recent Conference of the Parties (COP) of the Convention on the International Trade in Endangered Species (CITES), which has just met in Santiago, Chile. In 2000, the CITES Bushmeat Working Group was established at the Nairobi CITES/COP meeting. This Group was effectively a central African working group, membership of which was restricted to six central African countries. After a slow start, this group had got going with additional funding from the US Government, the MacArthur Foundation and the UK's DEFRA. The Working Group presented a report to the CITES COP in Santiago. The group members asked to continue without further expansion of their membership. There was little time to discuss this item, but the EU suggested an extra clause to require the CITES Secretariat to co-ordinate the CITES Working group and CBD work. Kenya and Ghana expressed an interest in joining the working group, but the decision was passed that the group should continue with the existing membership and the clause proposed by the EU.

10. The CITES Bushmeat Working Group also made an informal presentation at the CITES conference, but their message was somewhat confused by the presence of other Great Ape interest groups speaking at the same venue. **Mr Dixon** felt that there had been little talk on sustainability, or the relationship between bushmeat and local livelihoods. Rather, the debate had been dominated by talk of banning bushmeat hunting altogether.

11. **Mr Bob Ford (DEFRA)** said that he agreed that the CITES conference had been a little disappointing, but that DEFRA's objectives had been met to some extent. On CITES matters more generally, he asked for feedback from those present on their views of how they envisaged the role of the UK with respect to liaising with NGOs and the role of the EU. He asked for feedback on what DEFRA should be doing in the CITES intersessional period, giving priority to ideas on what resolutions the UK should be working on, as it can take 18 months to prepare a resolution. He also said that the UK is prepared to assist other Party States with resources, but that the UK's resources are also limited.

Questions and comments

12. **Mr Johnson** said that it was unsatisfactory that the CITES website only contains records of the Bushmeat Working Group meetings up to the November 2001 meeting in Cameroon. He had written to CITES on this matter. He added that working with the CBD is a good idea, but that in practical terms this requires follow up. The CBD said that they would set up a liaison group on non-timber resources, but the UK should make sure that something comes of this. **Mr Ford** agreed to pass this on.

13. **Dr David Brown** said that he attended the CITES Bushmeat Working Group meeting in Douala in September 2002. The Group was very committed and enthusiastic. Pilot work on bushmeat that they are carrying out could have wider resonance for good governance. He was pleased to hear that the Group had not been enlarged, as this made it more focussed. He felt that if the number of nations involved needed to increase in the future, it would be more productive to split into several smaller regional groups, following the current central African model.

14. **Mr Ford** added that further funding for the bushmeat working groups is an issue. This is being considered by Mr Martin Brasher of DEFRA but in the face of funding constraints there is no guarantee that funding will be forthcoming.

Great Apes Survival Project (GRASP)

15. **Mr Jay** gave a report on the activities of GRASP (Great Apes Survival Project). This is a UNEP funded project which is species focussed and has a clear overlap with bushmeat issues. They have made contact with over half of the Great Ape range states (about sixteen of twenty-three). The rest of the range states are problematic (such as Angola). Good relations have been developed with some of these states, such as the Congos (DRC and Republic of Congo) and Cameroon. They are trying to produce national policy guiding documents on Great Ape issues, which includes bushmeat. UNEP has brokered this project to large international funding organisations.

Presentations

Market structure and sustainability in a Bushmeat Commodity Chain in Ghana

Dr Guy Cowlshaw & Samantha Mendelson (ZSL, Institute of Zoology)

16. **Dr Cowlshaw** made a presentation of as yet unpublished work that is co-authored by **Samantha Mendelson**, who collected the data. This paper was previously presented at the Society for Conservation Biology conference in Canterbury in July 2002.

17. The study addresses two sets of research questions; 1) market structure and 2) sustainability. Little is known about the structure and dynamics of bushmeat markets; i.e. who are the key actors, how does trade flow between them and what are the implications for conservation policy and management. Equally, not much is known about conditions favouring sustainability, and studies are needed of mature urban markets to address this need.

Market structure

18. A socioeconomic survey was conducted in February 2000 in Takoradi on the south-west coast of Ghana. Actor groups considered were:

- Rural based hunters (including farmer hunters and commercial hunters)
- Urban based actors (wholesalers, retailers and chop bar operators)

The trade was broken down by species, which included five species of antelope, although these made up just 25% of the biomass sold. Rodent species (mostly cane rat and brush-tailed porcupine) made up 60% of the biomass sold. A breakdown of the actors in the commodity chain revealed that chop bar operators were the most numerous actors, responsible for 85% of all sales to the public. Market traders were responsible for the remaining 15% of sales. It is therefore clear that a focus on markets alone would miss a very significant fraction of bushmeat trade. Wholesalers had the largest share of the market per capita, but made up a small proportion of the actors. A flow chart was presented, demonstrating that there is a primary route in the commodity chain (from commercial hunters, to wholesalers, to chop-bars), but that there was no restriction on the routes of trade. In terms of profit accumulation along the chain, prices increased along the commodity chain for each species, with the biggest increase seen at the chop-bar level, although this level had the highest overheads. Therefore net incomes were probably similar for all actors in the chain. Hunters captured 60-70% of the final value, and no evidence was found of other actors exploiting rural hunters. This is believed to be consistent across Ghana.

19. **Professor Katherine Homewood** asked if values referred to net profits or sales prices for each species? **GC** replied that they referred to sales prices.

Conclusions

20. There are clearly advantages and disadvantages to working with the different actors in the chain. Traditionally conservationists have worked with hunters, but in terms of cost-effectiveness it may be better to work with wholesalers as there are fewer individuals and they control a larger percentage of the market. However, wholesalers are difficult to monitor as they tend to work from

home. Market traders are easier to monitor and chop-bar operators are the most numerous actor group. The most suitable entry point to the chain would depend on the aims of the project.

Sustainability

21. The offtake of each species in the area was estimated and compared to that predicted by maximum sustainable yield models. At present all of the species coming to market were being exploited sustainably, and this was by a considerable margin. The data suggest that the market is sustainable, and this is a radical finding given perceptions of the bushmeat trade. The area had a long history of trade, and it is a possibility that vulnerable species had already been hunted out from the area. The species historically recorded in the area were looked at with respect to their reproductive rates. A clear cut-off in reproductive rates was observed above which species were present in the market, and below which they were absent. This supports the hypothesis that vulnerable species had disappeared from the market.

Conclusions

22. Mature urban bushmeat markets may show sustainability for the reasons outlined. Given limited resources research should focus on areas with new markets, where vulnerable species are still coming into the market. City markets for bushmeat can be supplied by resistant species living in agricultural landscapes, and more vulnerable species can be protected without harming the bushmeat market. This is an encouraging finding.

Questions

23. **Dr Brown** found the results of great interest. He asked about the role of habitat, and whether this explained for example the lack of mona monkeys in the market? **Dr Cowlshaw** replied that the mona monkey is comfortable in agricultural habitats (confirmed by **Dr Glyn Davies**), but is probably so rare that it does not appear in the markets.

24. **Dr Brown** pointed out that other work has suggested that the role of invertebrates has been overlooked in the bushmeat context. **Dr Cowlshaw** replied that the invertebrate side is hard to evaluate, and more data is needed on basic biology. **Dr Brown** remarked that **Dr Cowlshaw** had encountered opposition at the Society for Conservation Biology conference when he suggested that bushmeat hunting can under some circumstances be sustainable.

25. **Mr Bob Ford** asked if the model was of relevance to other countries? **Dr Cowlshaw** replied that the model was probably typical of other cities in Ghana and perhaps other coastal West African areas (except Kumasi). **Mr Ford** said that we need a balanced debate on bushmeat.

26. **Dr Cowlshaw** said this information would be available once published in a journal later this year. **The Chair** noted that whilst information only became "real" in the academic world once published, clearly it existed now and was of interest to practitioners now. **Mr Ford** agreed that dissemination to policy makers is very important and was not dependent on peer-reviewed journals. **Dr Cowlshaw** said he was very interested in this.

27. **Dr Davies** said that we need to think of things as a continuum from farmlands and big cities, to longer fallows, to forest frontiers. **Dr Cowlshaw's** results may represent one end of the extreme (the city end).

28. **Prof Homewood** said that there is also a political continuum, with for instance Democratic Republic of Congo having large protected areas, large species, lots of guns and political instability at one end. Under these circumstances things are very different. **Dr Cowlshaw's** results may be representative – but of what?

29. **Mr John Palmer** was concerned about extrapolation from a one month, snap-shot survey. **Dr Cowlshaw** replied that traders had been asked whether the month was representative, and had said that it was. He feels that the results are probably close to representative.

A model of bushmeat harvesting in a multi-species prey community
Dr Marcus Rowcliffe (ZSL Institute of Zoology)

30. **Dr Rowcliffe** gave a presentation that had also been presented to the SCB conference in July 2002. The talk focussed on how to apply modelling in a multi-prey system to the bushmeat situation. He explained the reasons for modelling:

- To look at alternative policy options
- To draw interpretations from the data that might otherwise be hard to interpret
- To look at feedback between hunting offtake and how it affects prey population dynamics and prey abundance

Hunting methods were divided into trap hunting (random catch) and pursuit hunting (selected catch). Parameters for the models include handling times, trap checking frequencies, encounter rates and prey dynamics, which were modelled using the logistic equation. Parameter estimation was based on direct quantification from detailed field studies, and interpolation from allometric equations.

31. The predictive power of the models was tested by comparison with results from studies in the literature. The pursuit hunting model was compared with annual offtake in two hunter-gatherer populations: in Peru (Piro people) and Malaysia (Semaq Beri people). Observed results matched the predictions closely. Snare hunting results from the literature also closely matched predictions. The approach can therefore be applied quite accurately. It is now hoped that the two models can be put together and applied to commercial hunting systems, after which implications will be investigated.

32. Using the Piro data, the model has been used to explore the implications of different hunting intensities over time. With heavy hunting some species become extinct, and other new species enter the market. A possibility is that prey-profiles could be used as an early warning system for over-exploitation.

33. A model was used to explore offtake rates when alternative employment options were available. It was found that as the opportunity costs of hunting increased, the over-exploitation of species decreased. A manuscript of these models is available to anyone interested in seeing it; this will be published next year.

Research project updates & new project notifications

Bushmeat and Certification project, Cameroon, Meriel Robson

34. **Ms Robson** made a presentation about a bushmeat forest certification project in Cameroon. This project is funded by DEFRA's flagship species fund through FFI, and it is very new. The key objective of the project is to look at feasibility of timber certification in tropical forests. They want to consult stakeholders on criterion indicators, and this will include those relevant to bushmeat. The aim will be to develop best-practice guidelines. **Ms Robson** asked for feedback from the working group, and said that a questionnaire would follow.

Questions

35. **Mr Johnson** asked if this was part of the FSC process? **Ms Robson** said it was an FFI project, but could feed into FSC. **Mr Jay** said that Global Forest Watch are carrying out similar work and would be meeting in January. **Ms Robson** expressed an interest in getting in touch with GFW.

36. **Dr Brown** said that he was concerned about the implications of certification for poor forest residents. He said that the theoretical Plan de Zonage in Cameroon was a threat to the poor. People

can still farm and hunt in the theoretical permanent forest estate, which contributes to their welfare. However, if certification projects tighten up on management by the timber industry, this could have a negative effect on the welfare of the poor. **Mr Palmer** replied that protecting indigenous people is part of certification policy, and is indeed FSC Principle Three. **Dr Brown** replied that interpreting the identity of indigenous people is complex. Many Cameroonian forest dwellers are not classed as indigenous people. In fact, only the Ba'aka pygmies are, and to ignore other forest dwellers would be a travesty, and the majority of poor people could end up worse off.

37. Prof Homewood asked what the certification of bushmeat will actual mean in practice? **Ms Robson** replied that certification sought to address the forest unit as a whole, and that bushmeat would be looked at as part of this management. **Prof Homewood** asked if there was experience of the monitoring of extraction of similar forest products elsewhere? **Ms Robson** replied that there was experience of timber extraction monitoring, but not much else. **Mr Palmer** suggested that experiences from deer in the north-eastern United States might be the closest example we have.

38. Mr Johnson said that the initiative is interesting, and that having forest certification schemes include non-timber issues is the right direction to go in. **Ms Robson** said that within the FSC system there are already criteria related to non-timber products.

39. Mr Ford asked if there is anything that can be learnt from the South American experience of managing non-timber forest resources? . **Ms Robson** said that it probably is relevant and that there are some crossovers. She said that social aspects are key and that three of the ten FSC Principles relate to social aspects.

40. The Chair asked if a draft of the report could be brought to the next forum meeting. **The Chair** followed that Malcolm Starkey was absent, and therefore unable to give the presentation on the agenda.

Wild meats, livelihood security and conservation in the tropics
Dr David Brown (Overseas Development Institute (ODI))

41. Dr David Brown gave an introduction on this new ODI project, which is part funded by the MacArthur Foundation. He was pleased to hear today's group call for **Dr Cowlshaw** to channel his findings through to a policy relevant audience, and he suggested that ODI may provide a suitable vehicle

42. The MacArthur Foundation has recently funded two much bigger bushmeat projects (the Bushmeat Crisis Task Force and Wildlife Conservation Society) and wanted a point of view from the livelihoods perspective, so they decided to fund the ODI project as well. The funding is £120,000 over two years.

43. A summary of the project is :

- The project is global, but focuses on the humid tropics
- The specific theme is mammals and sustainable development
- Most research will be desk based but with field visits to identify conference case studies
- This will be followed by targeted dissemination activities

Working on the project will be **David Brown, Andrew Williams** and **Cecilia Luttrell**.

44. The outputs of the project will be briefing papers and an international conference in the spring of 2004. A book-length edited volume, a website and other publications will be produced. The website will be interactive but monitored.

45. The primary focus of the project will be on livelihoods and human welfare, taking the position that most problems are related to management and not educational issues. The work seeks to be iconoclastic, challenging the major conservation narratives, seeking to recognise the natural and social sciences. They are seeking relevant models from cognate disciplines. What discipline makers in regions such as Central Africa lack is the confidence that there are good management models. The "fortress conservation model" remains much more familiar to them.

46. **Dr Brown** asked for help in the following areas:

- Manuscripts of prospective publications
- Selection of sites for in depth study
- Conference papers
- Articles and messages for the website
- Ideas on cognate models and their relevance
- Iconoclastic research

Working group themes will include:

- Models for hunting regulation
- Commodity chain analysis
- Economic analysis
- Cognate models from no-take areas
- Models from fisheries

Wild Foods / Poor People

Professor Katherine Homewood (UCL),

Dr Emmanuel de Merode (IoZ) & Dr Guy Cowlshaw (IoZ)

47. **Professor Homewood** gave a presentation on Wild Foods/Poor People, which reported research looking at the links between the bushmeat trade and poor people's livelihoods.

48. The research addressed the value of wild foods:

- To poor people
- As food or as income
- With the level of poverty
- Across seasons
- How bushmeat compares to other wild foods

49. The research was carried out in the eastern Democratic Republic of Congo, with a Zande community who live next to the large Garamba National Park. Data was collected over a sixteen month period, from a sample of 121 households, with 6776 consumption days distributed evenly across seasons, households and other aspects of the sampling strategy. Data were collected using 24 hour recall of dietary intake, budget and household composition. Wealth ranking techniques were also used. Measurements were taken of household production, household consumption and household sales. These were all expressed in the common currency of \$US per adult male equivalent, using contemporary exchange rates.

50. The communities studied were very poor, with the average total household production valued at less than 0.3 dollars per day. The entire community was very poor, as even the wealthiest households had an average daily income only twice that of the poorest. The communities were also disrupted by civil war.

51. What is the value of wild foods to these people?

	Crops	Wild foods
Household production	53	31

Household consumption	43	10
Household sales	12	24

The values are percentages of expressed in standard units.

52. Flow charts were presented which showed that 90% of bushmeat caught was marketed rather than consumed. Wild plants were 5.6% of total household production, but were almost always consumed within the household. The vast majority of fish went to market, but only 12% of agricultural production went to market.

53. Results were broken down by wealth rank. It was found that the richest households both consumed and sold more bushmeat and fish than the poorest households. On the other hand, the poorest household consumed and sold more wild plants than the richest households. This demonstrates that the poorest of the poor do not have access to nutritional or economic benefits from bushmeat.

54. Changes with seasons were also examined.

	Sale (% change)	Consumption (% change)
Crops	-45	-46
Bushmeat	155	75
Fish	365	475
Wild plants	233	200

Conclusions

55. For very poor people, wild foods are a major source of income year-round and in the hungry season a major source of cash and food. Ninety per cent of bushmeat harvested is sold on, despite the poorest having limited access. Bushmeat therefore makes a critical contribution to poor livelihoods. We therefore need to think very carefully in this sort of situation when regulating and enforcing. It is easy to regulate and enforce against the most vulnerable people rather than those with political power. The practice of systems of certification is often problematic.

Questions

56. **Dr Davies** suggested that the difference between food security and food supply is often confused in the conservation literature. He asked whether bushmeat was crucial for food security in this case. **Prof Homewood** replied that during the hungry season wild foods were indeed important for food security.

57. **Mr Palmer** asked **Prof Homewood** to what extent the community was disrupted by war and whether the livelihood strategies seen were produced by the war? **Prof Homewood** replied that the system of cultivation and livelihoods looks resilient. Disruption is more to do with lack of roads, markets, education and health. A companion paper has looked at buffer zones around the Garamba Park, examining two different flows of the bushmeat trade, locally controlled and militarily controlled. **Emmanuel de Merode** has shown that the very high level of extraction from the Park was dependent on the shifting political situation, and that local systems were more resistant to these fluctuations than military system; he would argue that the Zande institutions were very soundly established.

Discussion of the DFID "research challenge"

58. **The Chair** quoted from the DFID speech by Ms Sally Keble on 9 July 2002:

"The linkages between the bushmeat trade and poor people's livelihoods are not well understood. Further research on these issues is needed. For example DFID hopes that the research it has funded in Ghana will be extended to neighbouring countries. More sharing of research findings and greater

collaboration between individuals and agencies working on bushmeat issues will be vital if these linkages are to be understood and addressed effectively. The UK Tropical Forest Forum's Bushmeat Working Group provides one established mechanism for this."

The Chair wondered whether this Forum Working Group could bring some coherence to the research agenda needed to answer this question. She noted that a recent article in *Oryx* on the links between poverty alleviation and bushmeat assumed that development agencies were interested in alleviating the bushmeat crisis, whereas in actual fact DFID is concerned with alleviating poverty. DFID is only interested if the link to livelihoods is clear; she thought the article in *Oryx* had rather missed the point.

59. To proceed with the discussion, **The Chair** wondered whether a starting point might be the recent DEFRA report that looked at the researchable constraints for sustainable bushmeat trade (copy on the Forum website). **Dr Brown** had led on the DEFRA project regarding the social livelihoods aspect of the issue. She had asked **Dr Brown** to expand on the project conclusions for research in this area; was it possible to identify (say) six key research questions necessary for action to take the thinking forward, and then for different research groups to take forward these priorities.

60. **Dr Brown** replied however that he didn't feel like teasing out research questions at this stage of the afternoon. There had been a lot of new information generated recently, and he advised caution in putting such information into the hands of DFID without analysis, as it could be misrepresented. He felt that DFID (currently undergoing major restructuring) was not a promising environment at the moment for discussions of livelihood and poverty dimensions of bushmeat. The situation is not well understood, although policy makers might assume that it is well understood. The data presented by **Professor Homewood** suggests for instance that not much bushmeat revenue is captured by the poorest of the poor, and thus it could be argued that bushmeat may not be an appropriate focus for DFID's poverty alleviation objectives. The question is how can the value captured by the poor be increased? **Dr Brown** mentioned the article by Murphree & Hulme that argued that the hegemony of fortress conservation had been lost and a new era of people-centred conservation has begun. **Dr Brown** argued that the fortress conservation model had not been lost, and that there is a danger of its revival through the bushmeat agenda. The conservation lobby is preparing itself to demonstrate that the sustainable development paradigm has failed, and to call for a return to protectionism.

61. **Dr Davies** thought it was necessary to wait for the results of the forthcoming DFID wildlife and poverty study before taking forward to DFID any future proposals regarding bushmeat. This study will be published in a few months, after which it should be examined to see what DFID are receptive to, as the political climate may not be supportive. There will be a need to respond to the DFID report before coming up with new research questions. **Mr Palmer** reminded the Working Group that DFID is not the only audience, and there is a need to consider the issues for bushmeat decision takers, and the forms of information that can be coped with and understood in developing countries. There is a need to get results out in a way that is understandable locally.

62. **Mr Barney Dixon** thought there were two main issues. Firstly, the broader research agenda, with respect to bushmeat, poverty and livelihoods. He agreed that this agenda is important, and there could be a need for a subgroup to address it specifically. He felt that this issue is more important than a potential second issue, which is how money can be extracted from DFID for bushmeat research. If **Dr Brown** is right then trying to get money from DFID may be a waste of time.

63. **Mr Jay** asked to what extent bushmeat is replaceable in its importance to livelihoods? If it is possible for livelihoods to continue without certain species, then is the conservation agenda and the objectives of local people the same?

64. **Mr Johnson**, commenting that whilst he was not a biologist, thought that if the forests were to be harvested out, there would surely be other implications for the biosphere through biological interactions. **Dr Rowcliffe** said that local people should be encouraged to switch to alternatives now rather than later. **Prof Homewood** said there were not always available alternatives. **Dr Rowcliffe**

said that this is where conservation and development interests were in common, so their goals should be the same. **Prof Homewood** agreed, but added that aspects of unsustainable harvesting are often driven by elites. **Dr Davies** agreed that this would leave the poor worse off than before, and that we need better data.

65. Dr Brown asked to what extent the Group wanted to focus on the DFID research challenge, adding that it is important for policy. **Mr Palmer** said that there was unlikely to be much money in the challenge, so why bother?

66. The Chair said that there was a bushmeat conference at ZSL in May, and that the agenda there switched from a banning of bushmeat to more of a livelihoods focus. There had been a move from guards and law enforcement to thinking about livelihoods. Now the question is whether DFID is a major target audience. How much is a livelihoods approach also necessary in country?

67. The Chair asked whether the Working Group would wish to set up a subgroup on the question of bushmeat and livelihood issues? **Dr Brown's** MacArthur project, might perhaps provide a focus for such debate. **Dr Brown** suggested that an interactive website could be set up on the ODI site. **Mr Johnson** said that this would be acceptable, as long as the neutrality of the Forum's Bushmeat Working Group was not called into question. **Dr Brown** was keen for divergent positions to be represented in the MacArthur project, and he did not wish to give the impression that he represented a partisan view. **The Chair** agreed that the Forum should not be associated with a specific approach and was a Forum for the exchange of all views.

68. After further debate on the question of the setting up of a subgroup on bushmeat and livelihoods it was decided that the main meeting of the group should continue to have this as a central theme and it was not necessary to establish a separate subgroup.

Date of next meeting

69. 19 March 2003 was proposed and would be confirmed by e-mail at a later date.