

## DRAFT OF CBD/SBSTTA/XXI/3 FOR REVIEW

### GUIDANCE FOR BETTER GOVERNANCE TOWARDS A SUSTAINABLE, PARTICIPATORY AND INCLUSIVE WILD MEAT SECTOR

*Note by the Executive Secretary*

#### I. Introduction

1. The Conference of the Parties, in its decision XIII/8 (paragraph 5(a)) requested the Executive Secretary, in collaboration with other members of the Collaborative Partnership on Sustainable Wildlife Management "to further elaborate technical guidance for better governance towards a more sustainable bushmeat sector, with a view to supporting Parties' implementation of the Strategic Plan for Biodiversity 2011-2020, building on the road map on the role of bushmeat in food security and nutrition and the results of the Symposium on "Beyond enforcement: Communities, governance, incentives, and sustainable use in combating illegal wildlife trade", held in South Africa in February 2015, as well as the workshop on "Sustainable use and bushmeat trade in Colombia: operationalizing the legal framework in Colombia", held in Leticia, Colombia, in October 2015, taking into account the perspective and knowledge of indigenous peoples and local communities in customary sustainable use of biodiversity."
2. The present note responds to this request, providing a synthesis of the information contained in information document UNEP/CBD/SBSTTA/21/INF/XX, prepared by the Center for International Forestry Research (CIFOR), in consultation with the Secretariat and input from other members of the Collaborative Partnership on Sustainable Wildlife Management<sup>1</sup>. The guidance contained in this note also builds on existing recommendations from the Liaison Group on Bushmeat adopted in UNEP/CBD/COP/DEC/XI/25, as well as past decisions of the Convention, and ongoing work of the Collaborative Partnership on Sustainable Wildlife Management (CPW). Further information and guidance is drawn from CBD Technical Series No. 33 "Conservation and Use of Wildlife-based Resources: The Bushmeat Crises", prepared in response to CBD decision VI/22 paragraph 42 and its annex, the expanded programme of work on forest biological diversity, on the basis of goal 4, objective 2, activity (a) of programme element 1, as well as in CBD Technical Series No. 60 "Livelihood Alternatives for the unsustainable use of bushmeat", prepared at the request of COP 10 decision X/32.
3. With the aim of supporting Parties' implementation of the Strategic Plan for Biodiversity 2011-2020, the synthesis note highlights the sustainable use of terrestrial wild meat resources across all types of terrestrial tropical and subtropical habitat, biomes and ecosystems, including forests, grasslands, croplands, wetlands, savannas and other terrestrial ecosystems, and, as appropriate, rural, urban and international settings. The note also includes activities that can be applied at the national, regional, subnational and site levels within a landscape management perspective.
4. As the outset, the note explains the multifaceted role that wildlife plays in the tropic and sub-tropics, focusing primarily on its use for food (Section II). The complexity of the issue is further described, with references to past SBSTTA reports, for example in response to Decision XII/ 18 paragraph 13<sup>2</sup>. Multidisciplinary approaches are encouraged to combine a better knowledge of the use and trade of wild meat species, an understanding of the ecology of species involved, a review and strengthening of legal frameworks, and the provision of food and livelihood alternatives for the sustainable use of wildlife. The potential to achieve a more sustainable use of wildlife for food is explained throughout

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<sup>1</sup> During an initial technical review, input was received from FAO and IUCN, among other independent expert reviewers.

<sup>2</sup> UNEP/CBD/SBSTTA/20/11 Sustainable Use of Biodiversity: Bushmeat and Sustainable Wildlife Management: Information in Response to Decision XII/18 Paragraph 13

the note, underscoring its specific context under Section III Goals and Objectives. Section IV provides a comprehensive set of recommendations to improve the sustainable use of wildlife resources with a focus on how to work with the upstream actors to improve the sustainability of supply (Section A), how to reduce the demand along the whole value chain (Section B), and finally how to create the enabling conditions for a controlled, sustainable management of wild meat (Section C). Section 5 provides suggested recommendations for the consideration of SBSTTA to undertake recognizing the geographic and socio-economic contexts as well as the interests and needs of the different actors involved in the sustainable use of wildlife for food. The synthesis report was prepared with financial support from the European Union.

## II. WILD MEAT, FOOD SECURITY, LIVELIHOODS

5. The present note focuses on wild meat of terrestrial vertebrates in tropical and sub-tropical countries used for food.<sup>3</sup> This may be considered synonymous with the term “bushmeat”. Freshwater and marine fish, and in some situations invertebrates, are also important protein sources, but are not covered by this note.
6. Wild animal harvesting can be undertaken for subsistence, commercial, and recreational purposes. In subsistence harvesting, the benefits obtained from wildlife (particularly food) are directly consumed or used by, and play a very significant role in the subsistence of, the harvester and his or her family. Further, the food security and livelihoods of many rural people in the tropics and subtropics depends on the use and trade of wild animals. Information document UNEP/CBD/SBSTTA/20/INF/46 provides an overview of the role of subsistence hunting in human societies. Impacts of subsistence hunting and other causes of the problem are further addressed, together with an analysis based on the theory of common pool resources. Additional information relating to Parties’ national reports and national biodiversity strategies and action plans (NBSAPs) and sustainable use of wildlife is available in Information Document UNEP/CBD/SBSTTA/20/INF/47.
7. Wild meat has long served as a source of protein for millions of people in many world regions. More recently, growing human populations, technological elaborations and the emergence of a booming commercial wild meat trade have culminated in unprecedented harvest rates that cause the decline of numerous wildlife populations and endanger high-profile species. As a result, there is a medium to high certainty that wild meat supplies are diminishing, as natural habitats worldwide are under increasing pressure, and wild animal populations are exploited at unsustainable levels.
8. The loss of wildlife will impact the availability of animal protein sources for countless numbers of people, and initiate cascading alterations of ecosystems as species that play important ecosystem functions (e.g., seed dispersers, seed predator, control of prey species) are eliminated through overhunting. This loss of ecological interactions in turn gravely impacts other ecosystem and social services.
9. Increasing human population and trade from rural to urban areas, compounded with the lack of any sizeable domestic meat sector are the main drivers of unsustainable levels of hunting. Even where provincial town consumers have access to domesticated sources of meat, they are typically imported and/or expensive and wild meat remains an important part of their diet. In large metropolitan areas

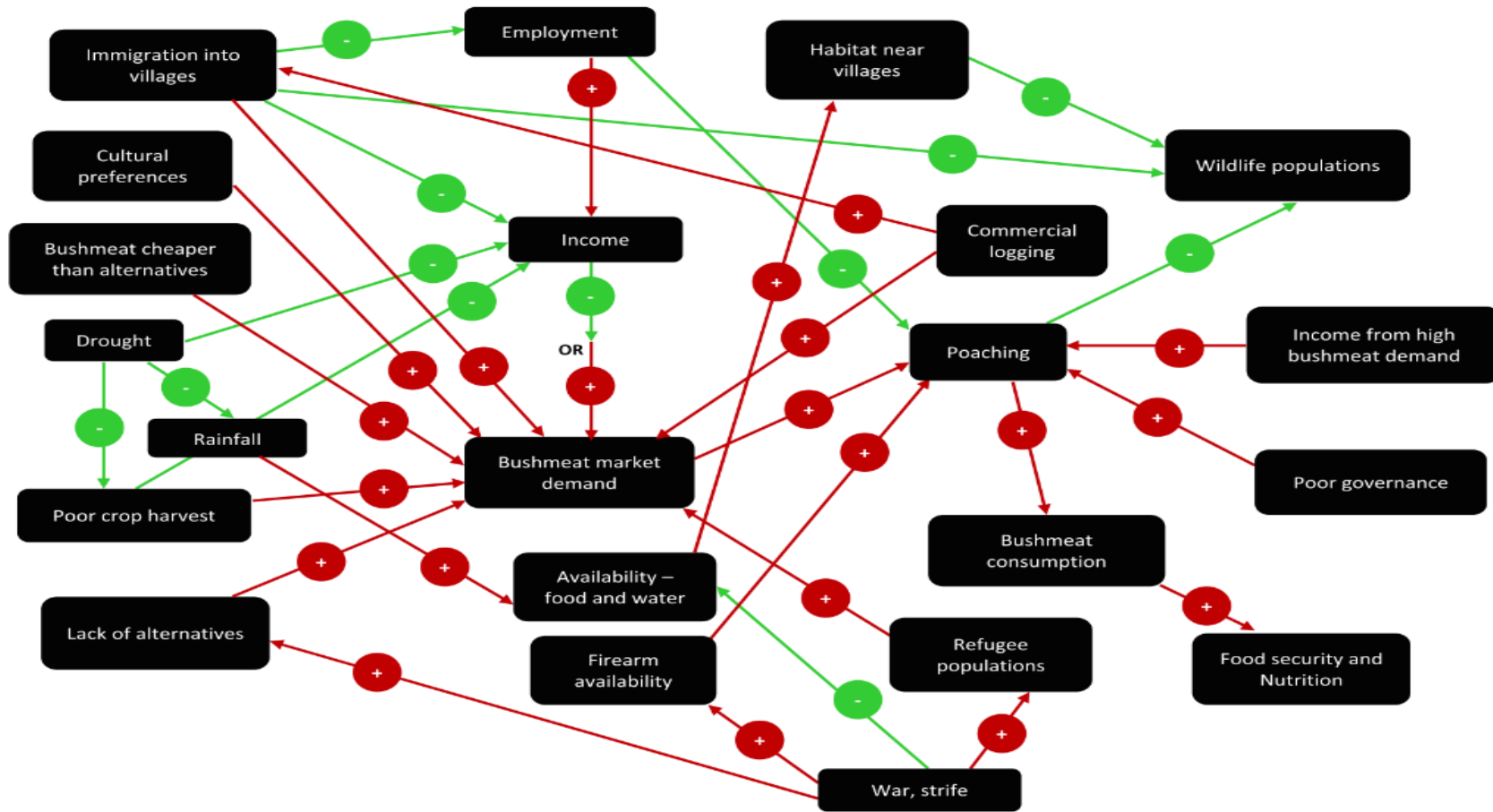
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<sup>3</sup> Based on the scope of work on bushmeat carried out through past decisions of the Convention's Programme of Work on Forest Biodiversity the focus of this report is on wild animals in tropical and sub-tropical forests for food. This present note excludes a focus on non-food purposes, including medicinal uses. Information Document UNEP/CBD/SBSTTA/20/INF/46 provides a broader analysis on non-domesticated terrestrial mammals, birds, reptiles and amphibians harvested for food or other purposes.

located far from sources of wildlife, wild meat is no longer a dietary necessity for families but remains a culturally important luxury or an occasional consumed good.

10. Moreover, habitat for wildlife is declining as lands are converted to agriculture to feed growing human populations. Wildlife are typically less productive and less numerous than domesticated animals— this is particularly true in tropical forests. Given this, wildlife will only ever be able to meet the dietary needs of a tiny and declining percentage of the human population.
11. Given that overhunting for wild meat is deemed a major threat to the ecology of tropical and sub-tropical ecosystems and endangered species, and as people's livelihoods, food security and the health of indigenous peoples and local rural communities' dependent upon it, there is an urgent need to strengthen public policy responses within a more integrated socio-economic, cultural and ecological framework.
12. Mitigating the effects of overhunting is a complex issue of global nature. The reasons for wild meat overexploitation are manifold and these can vary considerably between regions. Often, a complex web of factors exists contributing to increased bushmeat demand and consequent resource overexploitation. These factors may include, among others, employment availability, migration, failures of crop harvests and availability for food from livestock, weather patterns and climate change, logging and resource extraction, poaching, war and strife (see Figure 1 for an example). Moreover, wildlife is an important reservoir of zoonotic pathogens, but still relatively little is known about their host ecology, dynamics and the disease risk to individual people who come in contact with wildlife, and the public health risk of an epidemic.

Figure 1. Web of factors contributing to increased bushmeat demand and consequent resource overexploitation.



**Fig. 2.** The complex web of factors contributing to increased bushmeat demand and consequent resource overexploitation (arrows with + signs indicate positive relationships between components, while lines with – signs indicate negative relationships between components) Reprinted from: The Bushmeat and food security nexus: A global account of the contributions, conundrums and ethical collisions. Article by D.M. Cawthorn and L.C. Hoffman, 2015, Food Research International, 76, p. 906-925  
[http://wedocs.unep.org/bitstream/handle/20.500.11822/19806/The\\_bushmeat\\_and\\_food\\_security\\_nexus\\_A\\_globa.pdf?sequence=1&isAllowed=y](http://wedocs.unep.org/bitstream/handle/20.500.11822/19806/The_bushmeat_and_food_security_nexus_A_globa.pdf?sequence=1&isAllowed=y)  
 (Note: this diagram will be replaced by a generic one in the final version.)

13. Multidisciplinary approaches need to combine better knowledge of the use and trade of wild meat species, an understanding of the ecology of species involved, a review and strengthening of legal frameworks, and provisions of food and livelihood alternatives for the sustainable use of wildlife to become possible. None of these alone appear to be able to tackle this complex issue, but combined and incorporated into solid national and regional wild meat strategies, with enforcement capacity, there is potential to achieve a more sustainable use of wildlife for food.

### **III. SCOPE**

#### **A. Definition**

14. Sustainable wildlife management refers to the sound management of wildlife species to sustain their populations and habitat over time, taking into account the socio-economic needs of human populations. Wildlife, if sustainably managed, can provide both long-term nutrition and sustained income to local communities, therefore contributing considerably to local livelihoods as well as safeguarding human and environmental health.

#### **B. Goal and Objective**

15. The note serves as a synthesized technical guide aimed to promote better governance towards a sustainable, participatory and inclusive wild meat sector in the tropics and subtropics. Interventions specific to rural, urban and international contexts are presented to help reduce the loss of biodiversity, particularly targeted wild meat species, as well as to improve the sustainable use of wild meat for human well-being.
16. The overall objective of this note is to facilitate integrated policy measures, to prioritise and incorporate actions to improve the sustainability of wildlife resources and further implement the Strategic Plan for Biodiversity 2011-2020, in particular Aichi Biodiversity Targets 4, 7 and 12. Aichi Biodiversity Target 4 aims to achieve or have implemented plans for sustainable production and consumption and keep the impacts of use of natural resources well within safe ecological limits by 2020, and Target 7 calls for the sustainable management of areas under agriculture, aquaculture and forestry, ensuring conservation of biodiversity by 2020. Target 12 ultimately aims to prevent the extinction of known threatened species and to improve and sustain their conservation status, particularly of those most in decline, by 2020.
17. The information contained in this note also contributes to the achievement of objectives and commitments under other conventions, including the Convention on the Conservation of Migratory Species of Wild Animals, the Convention on International Trade in Endangered Species of Wild Fauna and Flora, as well as the 2030 Agenda for Sustainable Development.
18. While the note provides technical guidance on types of actions that can be undertaken in the short term, sustainable wildlife management involves sustained activities over the medium and long term. Therefore, the actions identified in this note should be undertaken in the context of the 2050 Vision of the Strategic Plan for Biodiversity and the 2030 Agenda for Sustainable Development.
19. More specifically the note comprises guidance to support the work of Parties as well as relevant organizations and initiatives to promote, implement and accelerate integrated action to:
  - a. ensure that the supply of wild meat is sustainably managed upstream;
  - b. control the excessive demand of wild meat in towns and cities;
  - c. create an enabling environment for the sustainable management of wild meat.
20. Due to the complexity of the issue and its many cross-sectoral issues, the present note proposes joint approaches that can be applied to achieve a more sustainable use of wild meat. The information therein supports continued dialogue, learning and methodological exchanges on sustainable wildlife management among forest, agriculture, natural resources, health, finance, rural development and legal

sectors. The technical guidance within this note, therefore, can be used by various ministries, decision-makers, as well as planning and implementing agencies at the national level.

#### **IV. GUIDANCE FOR A COMPREHENSIVE ROADMAP FOR BETTER GOVERNANCE TOWARDS A SUSTAINABLE WILD MEAT SECTOR**

**21. The guidance contained in this note comprises a comprehensive set of recommendations to improve the sustainable use of wildlife resources with a focus on how to work with the upstream actors to improve the sustainability of supply (Section A), how to reduce the demand along the whole value chain (Section B), and how to create the enabling conditions for a controlled, sustainable management of wild meat (Section C). The guidance also suggests steps and approaches that can be applied, by Parties and other Governments, in collaboration with relevant organizations, building on UNEP/CBD/COP/DEC/XI/25, and in accordance with national legislation, circumstances and priorities.**

##### **A. Managing and improving the sustainability of the supply**

**22. Uncontrolled access to wild meat has been shown to lead to a ‘tragedy of the commons’ scenario, where individual hunters (both within and external to the local community) are aware of their competition with other hunters for a finite resource, and wildlife is harvested as quickly as possible, driving hunted species to local extinction. To safeguard both wild species populations and local livelihoods, establishment of rules governing who can hunt, what and how much can be hunted, and where hunting can take place is, therefore, required. Where they already exist, identify relevant customary laws and procedures for customary sustainable use. These rules and regulations then need to be enforced fairly and effectively.**

**23. In many countries, current hunting laws are set and enforced by the state, and are derived from colonial systems that are poorly adapted to tropical regions or subsistence, rather than recreational hunting objectives. While regulation of hunting is necessary, poorly-designed and mal-adapted wildlife laws are difficult to apply and enforce, and are unlikely to be successful in reducing hunting pressure on key species and ecosystems.**

**24. Many countries lack adequate staff, resources, and motivation to effectively and fairly enforce wildlife laws. A lack of enforcement of national laws results in the illegitimate appropriation of local communities traditional rights over wildlife by external hunters who lack legitimate rights to hunt on communities’ traditional lands. When communities exclusively benefit from hunting, eating and trading wildlife from their lands, they see poaching as stealing from them and are highly motivated to halt the illegal or illegitimate use of their wildlife.**

**25. Enforcement of national wildlife laws with no corresponding increase in benefits from conservation for local communities can have disproportionately negative short-term economic impacts on the poor. There is ample evidence that hunting regulation, law enforcement and crime prevention is more effective when communities and authorities work together over the long term. Tried and proven, effective strategies are those that require long-term engagement on both sides, regulate hunting while also respecting and protecting the legitimate traditional rights of rural communities living with wildlife, defending community assets, and enabling local communities to sustainably manage and benefit from wildlife use and conservation. Communities can be the “eyes and ears” of law enforcement providing actionable intelligence to an arresting authority, like the police, the national park service and the coast guard, that ensures informant anonymity reducing the risk of retribution. Further action could also be taken to train indigenous peoples and local communities to perform roles of security enforcement and national park officers.**

**26. Legalisation and taxation of the sales of some wildlife species is a possible accompanying strategy to the enforcement of national wildlife laws, enabling communities to benefit from**

**wildlife.** However, taxation systems also require well-designed wildlife laws and legal frameworks, as well as the delimitation of hunting zones, licenses for hunters, setting quotas using demographic information on species, monitoring of hunts and sales and enforcement of the law, and strengthened central governance ensuring that tax revenues return to the communities of origin and provide widespread benefits to their members. Law enforcement requires trained officers and officials, population trend information and hunters' catch per unit effort to set and adapt quotas and the setting of licence fees and taxes that can be used to sustainably fund the system. This may not currently be feasible for many countries that lack the required infrastructure and capacity, and a non-corrupt justice system that adheres to the principal of equal rights under the law and equal application of the law. In this regard relevant organizations of the International Consortium on Combating Wildlife Crimes (ICWC) could also provide further support to national capacity building of law enforcement, judiciary, prosecution and legislation.

27. **Several models for co-management of wildlife resources at the community level have been suggested and tested.** Generally, these represent forms of co-management between communities and the state and/or private sector entities involved in extractive industries such as logging and mining. Forms of co-management between communities and the state and/or extractive industries include:

- i. **Community hunting zones,** which can be used to regulate hunting in settlements bordering protected areas or industrial concessions. Hunting by community members is allowed within delimited hunting zones, often using quota systems and rotation of zones and protected areas to allow repopulation of wildlife. Extractive concession owners may also provide workers with alternative animal proteins sources, such as chicken or fish.
- ii. **Wildlife ranching and community conservancies** (a model from Namibia). Hunting quotas are set by the state, based on annual game counts. The conservancies are managed by communities, who have rights to establish tourism enterprises and auction big game licenses. Conservancies are supported by the Namibian Police who respond to conservancy intelligence to apprehend and arrest poachers.
- iii. **Payment for Ecosystem Services (PES) schemes.** Communities are paid on delivery of an ecosystem service; in this case, they may be paid to not hunt certain target species, with population monitoring of the target species conducted to measure the delivery of the service.
- iv. **Certification Schemes.** Certification has the potential to contribute to the conservation and sustainable use of wild species presently hunted at unsustainable levels in tropical forests. The most widely used forest certification systems, PEFC and FSC, include several provisions related to mitigating the effects of logging on wild life species hunted for food. Both these systems regularly revise their criteria and indicators.

28. **Requisites for community-based sustainable (or regional cooperative) wildlife management, to create the enabling conditions for local community management include:**

- i. Members of and legal statutes of local communities (or groups within these communities) and indigenous peoples are clearly identifiable, and identified.
- ii. Communities have the social cohesion (i.e., they trust one another and feel kinship with their community neighbours) sufficient to take collective actions to address shared problems.
- iii. A community's right to manage and benefit from wildlife over which they have traditional and legitimate claims, are recognized and defended by the State.
- iv. The legitimate territory of community rights-holders is defined and demarcated under the law.
- v. Local communities and hunters are explicitly interested in benefiting from their rights to use wildlife, but also take the responsibility to be accountable for its sustainability and habitat conservation. Communities have clear, acknowledged procedures for resolving policy and practice differences within the community or group.

- vi. Clear regulatory frameworks are created to allow for the sustainable use of wildlife by local community members, or groups of members, including procedures for determining and enforcing penalties on group members or whole communities if necessary.
- vii. The structure, capacities and budgets of governmental institutions in charge of wildlife are adapted to play a key role in framing and facilitating sustainable use activities.
- viii. There is clear national hunting legislation, and the effective enforcement of that legislation, which prevents actors from outside a community from undermining the legitimate authority and effectiveness of each governance authority.
- ix. Administrative procedures are simplified, available in local languages, and local leadership capacities are developed.
- x. Land-use zones are clearly defined.
- xi. A local governance authority is made responsible for each land-use zone. If the State is not devolving full control to the local authority (i.e. when the State retains responsibility for protected areas, species or local food security), then there must be clearly laid out criteria for assessment of good local governance and the consequences of poor governance. In cases where taxation or other forms of revenue stem from the land-use zone, then clear frameworks for financial management must also be set out, including penalties for misconduct.
- xii. Local governance authorities have the skills and knowledge to develop sustainable wildlife management plans. Such knowledge should include traditional and customary sustainable use.
- xiii. Benefit assessment criteria and benefit-sharing mechanisms are put in place to ensure that the whole community benefits from wildlife.
- xiv. Species that can tolerate harvesting are identified, and sustainable offtake rates are accurately calculated and adapted on a regular basis.
- xv. Systems to establish sustainable quotas, and monitor (by and with the communities) trends in target wildlife species, are established and rules for adaptation of offtakes are clearly set out, together with responsibility for quota calculations and enforcement and penalties for misconduct in quota assessments.

**Suggested steps:**

- a. **Review existing policies and legal frameworks:** States where wild meat use is common are strongly encouraged to review existing policies and legal frameworks related to the conservation and sustainable use of wildlife, to include:
  1. A rationalization of wildlife laws to focus on sustainability, ensure that they are fit-for purpose and can be properly applied and enforced, and with due consideration to both food security and conservation concerns;
  2. Devolution of wildlife rights to local populations where appropriate and in line with the Convention's Plan of Action on Customary Sustainable Use, enhancing ownership (within and outside of protected areas) to increase their incentive to sustainably manage the resource and exert enforcement against external actors. In this, communities should be supported by a competent and trusted national agency with the authority to arrest and prosecute law breakers in a timely manner;
  3. The potential for a positive discrimination in the trade. Laws regulating hunting and trade should distinguish those wildlife species that reproduce rapidly and are often agricultural pests (e.g., rodents and pigs) from those that do not (e.g., primates and most large bodied mammals).
  4. Where a system of taxation is being considered, a full investigation of the current and required capacities, and the sustainability of the taxation system (i.e. that the revenues will cover the costs) is conducted.
- b. **Strengthen law enforcement capacity:**



1. Strengthen investigative capacity, enhancing control, inspection and arresting procedures and methods, together with training and employment of indigenous peoples and local communities, including domestically and at border-crossing points;<sup>4</sup>
  2. Improve knowledge and willingness or motivation of prosecutors and judges to prosecute and sentence illegal wild meat harvest and trade cases;
  3. Enhance cooperation and coordination among wildlife trade enforcement officers and officials, prosecutors and judges and other relevant personnel in the implementation of the respective law;
  4. Assure that citizens, including indigenous peoples and local communities, are aware of national, regional and local laws.
- c. **Develop and strengthen participatory processes** in formulating and implementing the sustainable management and harvesting of wildlife, with the participation of indigenous peoples and local communities, and the private sector.
1. Where appropriate, communities should be involved in the management of local wildlife resources. This can be achieved by recognizing and supporting community conservation areas (ICCAs) and by using a range of co-management models, including community hunting zones, community conservancies, PES and certification schemes.
  2. Wildlife management, including wild meat species management, should be an essential part of management or business plans for natural resource industries (oil, gas, minerals, timber, etc.) operating in tropical and sub-tropical forest, wetland and savannah ecosystems.
  3. Existing biodiversity safeguards and standards within extractive industry guidelines and policies, such as safeguards for sustainable forest management (SFM), should be identified and applied.
  4. The private sector should provide food alternatives for staff working in logging concessions (for example: stipulated in the contracts between government and extractive industries).
  5. Certification schemes, including the Programme for the Endorsement of Forest Certification Schemes (PEFC) and the Forest Stewardship Council (FSC), could improve their consideration of livelihoods aspects by including provisions for alternative food sources and for capacity building and management systems that support legal and sustainable hunting. The application of these recommendations during the revision of criteria and indicators processes for sustainable forest management is strongly encouraged. Further actions are recommended for forest certification systems to mitigate the impacts of human activities on wildlife.

## **B. Reducing demand**

29. **The global demand for animal protein, due to a fast-growing human population, urbanization, and increasingly successful global efforts to alleviate poverty, is increasing faster than the supply of domestic animals can support.** This is driving a dramatic increase in the demand for wildlife (both terrestrial and aquatic), and this demand will accelerate over the coming decades. Demand for wild meat, as for other consumer goods, is influenced by price, consumer wealth, culture, the availability of substitutes and non-price factors such as consumer preference, and who pays for the good.

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<sup>4</sup> Decision VII/28, paragraph 22: “Recalls the obligations of Parties towards indigenous and local communities in accordance with Article 8(j) and related provisions and notes that the establishment, management and monitoring of protected areas should take place with the full and effective participation of, and full respect for the rights of, indigenous and local communities consistent with national law and applicable international obligations.”

30. **At most income levels, households treat wild meat as a normal good, which means that when the price of wild meat increases relative to substitutes, consumers reduce their wild meat consumption.** If consumption of wild meat confers prestige on the consumer it may become a Veblen<sup>5</sup> good where wealthy households are motivated to consume more as the price increases. There is limited information on the implication of price 'elastic' demand for wild meat, and therefore how much the price of wild meat needs to rise, and cost of available substitutes needs to fall, before demand for wild meat will significantly decrease (known as the own-price and cross-price elasticity of demand). This information is crucial when designing demand-reduction strategies.
31. **The price of wild meat can be increased by increasing enforcement of wildlife laws (effectively a tax on illegal hunting and trading of wildlife), or by taxing wildlife sales and consumption.** As mentioned above this might work if wild meat is a normal/necessary good, but not if an increase price turns it into a Veblen good.
32. **Attention should be placed on the ecological impact of promoting an increased consumption of substitutes when advocating suitable alternatives.** With estimated yearly extraction rates of million of tonnes of wild meat in the tropical forest blocks of the Amazon and Congo Basins, replacing wild meat consumption by locally produced domestic livestock (e.g. beef cattle) would require converting millions of hectares into pasture. Beef production has the worst 'feed to meat' ratio of all domesticated livestock and hence would demand huge areas to produce the vegetation needed to raise enough cattle to meet demand for animal protein. Moreover, ruminants like cattle generate significant quantities of methane, a greenhouse gas 30 times as potent as carbon dioxide.
33. Chickens have a much smaller environmental footprint, and recent advances in vaccinations to prevent common diseases, and the development of breeds suited to tropical climates, have increased the potential for poultry farming as a consumer acceptable substitute for wild meat. **Although having a much higher feed conversion rate than cattle, the production of million of tonnes of pig or chicken meat is unlikely to happen soon in areas such as the Congo Basin, and may also cause their own environmental impacts.**
34. **Previous attempts to produce substitutes for wild meat have generally been as part of small-scale 'alternative livelihood' projects for rural communities.** There has been little evidence of their success due to a lack of project monitoring and because many projects suffered from poor design and short time-frames. None of these projects has provided substitutes at a scale needed to meet the growing demand particularly in urban areas.
35. **Behavioural change interventions aim to influence the consumer choices and decisions, so that they will respond to the availability of substitutes more swiftly.** Media campaigns, often disseminated as radio plays or tele-novellas, attempt to reach large audiences from villages to cities, provide consumers with information designed to encourage them to shift their meat consumption to alternatives. Where young urbanites are already switching their preferences from wild meat, media campaigns can help to catalyse this change.
36. **Rapidly growing provincial towns or remote urban settlements created by extractive industries (logging, mining, oil) are a critical entry point for managing the wild meat trade.** Many residents still eat wild meat regularly due to the proximity to wildlife, and the highly limited availability of other animal source proteins, but are not fully reliant on it for their livelihoods. For rural villages with

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<sup>5</sup> Veblen goods are the only group of goods for which an increase in price will result in an increase in demand. These are luxury or positional goods where part of the reason for purchase is the exclusivity of the good and its conspicuous value, and therefore higher prices makes the good more desirable for status-seeking consumers. Examples might include luxury cars, rare wines, and jewellery.

legitimate claims to manage and benefit from the sustainable use of wildlife within their traditional territories, a key solution to current open-access hunting is to assist rights holders to secure the authority and attain the capacity to control and manage the level of hunting on their lands, as discussed in section A.

37. With rapidly increasing human populations and urbanization, large urban centres represent a significant and growing proportion of the overall consumption of wild meat in some countries. **Increasing the availability of cheaper, sustainable substitutes through local production and importation is both possible and a priority.** This should be combined, however, with a proper enforcement of wildlife use at wholesale, retailer and consumer levels.

**Suggested steps:**

- a. **Develop demand-reduction strategies, focussing on provincial towns and cities, using a cross-sectoral approach:**
  1. Demand for wild meat is not an isolated environmental issue, and hence **demand-reduction strategies should be developed cross-sectorally**, with the involvement of government ministries responsible for not just the environment, but also health, food, agriculture, business, infrastructure, and education.
  2. **Demand-reduction strategies should focus principally on consumers in provincial towns and metropolitan cities**, where a reduction in wild meat consumption can be achieved without impacting livelihoods or land-rights. For provincial towns close to sources of wildlife, a mix of formalization of short value chains based on hunting resilient species should be combined with strict enforcement especially for protected/vulnerable species, and the development of locally produced substitutes. For metropolitan cities, far from sources of wildlife, consumption is a consumer choice issue that may be best resolved through targeted social marketing to encourage behavior change.
- b. **Increase the availability of substitutes:**
  1. **An enabling environment should be developed to encourage the development of self-sufficient private enterprise and private-public partnerships to supply substitutes**, such as chicken, fish and other domestic livestock, in urban settlements which are sufficiently large (and have a large enough customer base).
  2. **Extractive industries that house their employees within close proximity to sources of wildlife should be required to ensure that their employees do not hunt illegally and that they have access to affordable sources of protein from domestically produced livestock.**
- c. **Decrease the availability and demand for wild meat:**
  1. **Targeted media campaigning** (based on an understanding of the drivers of consumption and relevant substitutes) in urban towns and cities should be used to inform citizens on issues pertaining to wild meat consumption, including health issues, wildlife laws and available substitutes, with the aim of changing consumer behaviour. Campaigns should be designed based on a clear understanding of the consumers, drivers, and substitutes in the areas to be targeted.

2. **Wildlife laws governing the sale of wild meat** (which are relevant, understandable, and enforceable) should be applied in provincial towns and cities, to provide a disincentive to illegal traders and increase urban wild meat prices.

### **C. Creating the enabling conditions for a controlled, sustainable wild meat sector**

38. **At the international level, wildlife issues are considered via two main types of institutions:** international conventions (UNCBD, CITES, CMS) and other relevant organizations that help to support or implement the decisions of the conventions (CPW, Interpol, TRAFFIC, UNTAD) and regional cooperation or economic integration bodies (EU, AU, CEEAC) and other related multilateral institutions (EC, COMIFAC, among others).
39. **Among wildlife issues, the question of the illegal wildlife trade (IWT) is of prominent concern and, too often, wild meat issues are overlooked or are treated as some sort of by-product of the work on IWT.** Some conventions do (e.g., CBD, CITES), or intend to (e.g., CMS), explicitly consider and act upon the unsustainable use of wild meat by trying to produce a more favourable environment for the conservation and sustainable use of wildlife.
40. Management of the wild meat sector must move away from ad-hoc, disconnected palliative measures intended to mitigate the effects of wildlife harvest (e.g. hunting bans, captive breeding of wild species, and small-scale alternative proteins or livelihood options). Instead, **a holistic approach along the wild meat value chains, focussed on conserving and sustainably using the resource upstream (rural areas) and reducing the demand downstream (urban centres), should be developed.**
41. This will require a conducive and comprehensive enabling environment, which is currently absent in most developing countries. Creating such an enabling environment becomes the necessary condition to achieve or progress towards a more controlled, more sustainable wild meat sector. **A coherent and focussed governance framework is required at both international and national levels in support of interventions targeting better management of the resource or a significant reduction of the demand.** Figure 2 presents an example of a Theory of Change Diagram for wild meat based on work undertaken by CIFOR in Cameroon with the Baka Pygmies.
42. **The aura of illegality surrounding all aspects of the trade is unhelpful to the policy process and in preventing a sound assessment of management requirements.** There is an urgent need to include the wild meat sector formally within national accounting and GDP estimates.

#### **Suggested Steps:**

##### **a. Increase international collaboration:**

1. **Collaboration must be increased between the relevant conventions:** the Convention on Biological Diversity (CBD), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Convention on Migratory Species (CMS), the World Health Organisation (WHO), the World Organization for Animal Health (OIE), and other relevant organizations. This could start by a stronger recognition and adoption of the recommendations of the CBD Bushmeat Liaison group, as already encouraged by CITES COP 17 (Conf. 13.11)<sup>6</sup>, and as exemplified in the CBD Decision

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<sup>6</sup> <https://cites.org/sites/default/files/document/E-Res-13-11-R17.pdf>

UNEP/CBD/COP/DEC/XI/25 “Sustainable use of biodiversity: bushmeat and sustainable wildlife”.

2. **The international community should support integrated local, national, and transboundary action to build partnerships among relevant organizations and institutions** to: build enforcement and monitoring capacities; develop and implement protein and income alternatives; and increase awareness, research exchanges and education regarding wild meat hunting and trade.
  3. **In an ideal world, international commitments (e.g. adherence to CITES regulations) would be transcribed into national legal frameworks.** Unfortunately, this is not the case for all the various treaties and conventions concerning wildlife management. There is, however, a suite of possible actions to be initiated at country level, beyond the legally binding frame coming top-down from the international commitments, that would greatly increase the chances for a more effective conservation and sustainable use of wildlife.
- b. **Acknowledge the legitimate role of wild meat, and adapt national frameworks accordingly:**
1. Recognize the reality of the existing, all be it unsustainable, trade, as a necessary precursor to getting wildlife management onto a sounder footing.
  2. Record levels of existing wild meat consumption into national statistics, as a means of valuing the resource and giving it appropriate weight in public policy and planning.
  3. Assess the role of wildlife consumption in livelihoods and consider it into major policy planning documents (e.g. PRSPs, PSIA or other national resource assessments).
  4. Include wild meat/wildlife concerns in relevant curricula.
  5. Once recognized as a legitimate national issue, a revision of the national legal framework is necessary (section A).
- c. **Create regional and national monitoring frameworks for wild meat, including to:**
1. **Undertake an evaluation of wild meat consumers, the drivers of consumption and potential substitutes**, including the calculation of own- and cross-price elasticities of demand which is required for the design and targeting of demand-reduction strategies.
  2. **Carry out an evaluation of wild meat producers**, including the use of wild meat for protein and income, the characteristics of hunters and hunting households, the use of alternative sources of protein and income, and the impacts of hunting on local livelihoods.
  3. **Generate a description of the wild meat commodity chain**, to identify key actors and places along the commodity chain to target interventions.
  4. **Design an ecological monitoring platform at key sites nationally** to determine and track the impacts of wild meat harvesting and the impacts of policy implementation.
  5. **Collate past and current interventions aimed at increasing the sustainability of wild meat use**, and any evidence of their impact, to build an evidence-base of success and failures with which to better design future interventions.
  6. **Make use of relevant, existing data platforms<sup>7</sup> to develop a deeper understanding of the type of interventions needed, including their potential design, and opportunities for different stakeholders to contribute to data collection efforts.**

## V. SUGGESTED RECOMMENDATION

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<sup>7</sup> For example, the OFFTAKE project ([www.OFFTAKE.org](http://www.OFFTAKE.org)), a global project to collate information on wild meat hunting, consumption and sales is accessible to Parties, other relevant governments and organizations to participate and contribute to.

*The Subsidiary Body on Scientific, Technical and Technological Advice may wish to recommend that the Conference of the Parties adopt a decision along the following lines:*

*The Conference of the Parties,*

*Recalling* decision XIII/8,

*Aware* that Parties have identified wildlife management needs in their national biodiversity strategies and action plans and in other national, regional and global strategies and/or plans, and that a number of sustainable wildlife management<sup>8</sup> activities are under way with support from various organizations and Governments, and *noting* that many wildlife species are still in need of urgent protection,

*Welcoming* the progress made in the Collaborative Partnership for Sustainable Wildlife Management (CPW),

*Recognizing* the role of wild species, in particular their sustainable use and management in the achievement of the Aichi Biodiversity Targets.

*Also recognizing* the implications from population growth to species conservation and land management, and how the guidance included in this note can contribute to improving wildlife management aspects reflected in Sustainable Development Goal 15,<sup>9</sup> commitments under the Convention on the Conservation of Migratory Species of Wild Animals, the Convention on the International Trade in Endangered Species of Wild Fauna and Flora and other conservation initiatives,

*Building* on the Plan of Action on Customary Sustainable Use of Biological Diversity endorsed by the Conference of the Parties at its twelfth meeting in decision XII/12 B and *recognizing* the significant role that indigenous peoples and local communities play in the sustainable use and management of wild meat,

*Recalling* the urgency to prevent the extinction of threatened species, to improve and sustain their conservation status and to restore and safeguard ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being by 2020,

1. *Endorses* the comprehensive set of recommendations to improve the sustainable use of wildlife resources with a focus on how to work with the upstream actors to improve the sustainability of supply, reduce the demand along the whole value chain, and create the enabling conditions for a controlled, sustainable management of wild meat.;

2. *Urges* Parties and *encourages* other Governments and relevant organizations, to make use of the technical guidance presented in this note, in accordance to national circumstances and taking into account the Plan of Action on Customary Sustainable Use of Biological Diversity;

3. *Encourages* Parties, when developing, revising and implementing governance approaches on wildlife and when updating national biodiversity strategies and action plans, to use the guidance presented in this note.

4. *Invites* Parties to provide, on a voluntary basis, information on their activities and results from the implementation of the present guidance, and *requests* the Executive Secretary to compile the submissions and make them available through the clearing-house mechanism;

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<sup>8</sup> Sustainable wildlife management (SWM) is “the sound management of wildlife species to sustain their populations and habitat over time, taking into account the socio-economic needs of human populations”. Wildlife, if sustainably managed, can provide both long-term nutrition and sustained income to local communities, therefore contributing considerably to local livelihoods as well as safeguarding human and environmental health.

<sup>9</sup> General Assembly resolution 70/1 of 25 September 2015 on “Transforming our world: the 2030 Agenda for Sustainable Development”.

5. *Requests* the Executive Secretary, in collaboration with members of the Collaborative Partnership on Sustainable Wildlife Management, subject to the availability of resources, to mainstream and accelerate the application of the guidance presented by:

(a) Identifying approaches that can inform, incentivise and engage various ministries, decision-makers, as well as planning and implementing agencies at the national level.

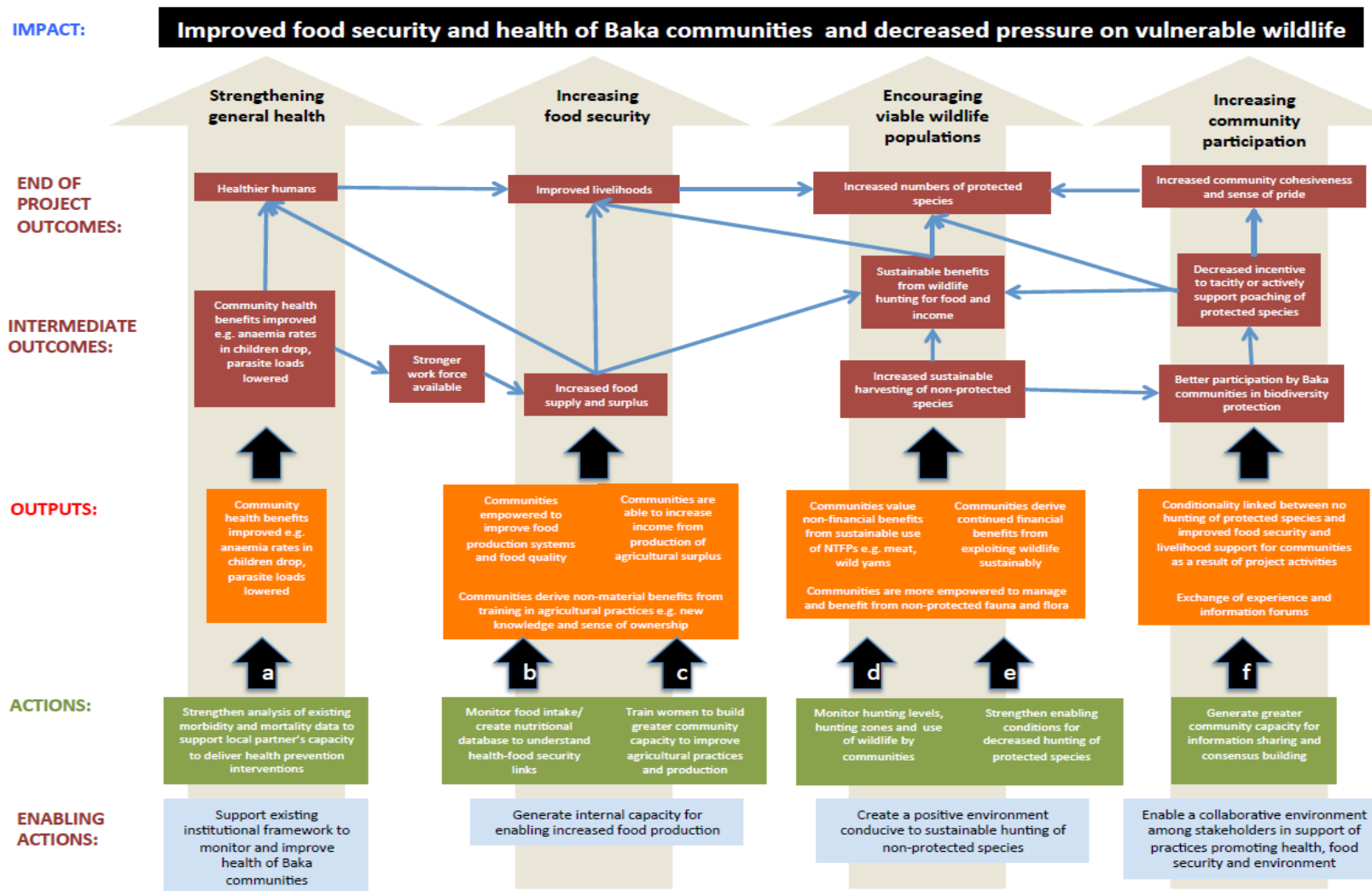
(b) Enabling cross-sectoral dialogues, learning and methodological exchanges on sustainable wildlife management, and joint trainings among forest, agriculture, natural resources, health, finance, rural development and legal sectors.

(c) Promoting and facilitating the use of monitoring tools and data bases, such as from the OFFTAKE project, among Parties, other relevant governments and organizations, to improve information on wild meat hunting, consumption and sales, in collaboration with other member organizations of the Collaborative Partnership on Sustainable Wildlife Management and other relevant organizations.

(d) Further test multidisciplinary approaches to combine better knowledge of the use and trade of wild meat species, an understanding of the ecology of species involved, a review and strengthening of legal frameworks, and an examination of the provisions of food and livelihood alternatives for the sustainable use of wildlife, through existing CPW related projects.

(e) Support cross-sectoral dialogues among Parties to incorporate successful multidisciplinary approaches into national wild meat strategies, with appropriate law enforcement, judiciary, prosecution and legislation capacities.

Figure 2. Example of a Theory of Change Diagram for wild meat based on work undertaken by CIFOR in Cameroon with the Baka Pygmies.



**Fig. 2.** Assumptions - a: Past and present medical records already available in machine-readable formats; b: Data acquisition and database creation supervised by Dr. Laura O'Connor, MMU; c: Support given to existing training programmes undertaken by ZyL; d: Hunters are motivated to support the project and provide data; e: Hunters are encouraged to respect laws in line with project conditionality; f: Women groups encourage mutual collaboration and work towards common goals. Reprinted from: John Fa, CIFOR. (Note: this diagram will be replaced by a generic one in the final version. )