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### SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND TECHNOLOGICAL ADVICE

Twenty-third meeting  
Montreal, Canada, 25-29 November 2019  
Item 6 of the provisional agenda\*

### **RESULTS OF THE SURVEY ON SUSTAINABLE WILDLIFE MANAGEMENT**

*Note by the Executive Secretary*

#### **I. INTRODUCTION**

1. At its fourteenth meeting, the Conference of the Parties adopted decision [14/7](#) on sustainable wildlife management and welcomed the voluntary guidance for a sustainable wild meat sector, annexed to that decision. The Conference of the Parties also recognized the contribution of the sustainable use of biodiversity, including management of wild species, to the achievement of several Aichi Biodiversity Targets and Sustainable Development Goals, as well as the implications of human population growth, unsustainable consumption of resources and urbanization for biodiversity conservation and land management.

2. While welcoming the voluntary guidance for a sustainable wild meat sector, the Conference of the Parties called for a number of actions to be taken by Parties, other Governments, relevant organizations, indigenous peoples and local communities, members of the Collaborative Partnership on Sustainable Wildlife Management (CPW), and the Executive Secretary.

3. In decision 14/7, the Conference of the Parties requested the Executive Secretary to do the following:

- (a) Compile submissions on results arising from the consideration of the voluntary guidance (para. 8);
- (b) Identify areas that may require complementary guidance and to explore ways to apply such guidance to other geographical areas, other species and other uses (para. 9(a));
- (c) Promote and facilitate the use of monitoring tools and databases (para. 9(b));

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\* [CBD/SBSTTA/23/1](#).

(d) Further evaluate multidisciplinary approaches to combining better knowledge of the use of and trade in wildlife (para. 9(c));

(e) Communicate with the Executive Secretary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) to disseminate the outcomes of the assessment on sustainable use and conservation of biodiversity (para. 9(d)).

4. The present note aims to offer insights in response to the requests in paragraphs 3(a) to 3(d) above by providing a compilation of the results of the survey on sustainable wildlife management disseminated through notification [2019-064](#).

## **II. OVERALL RESULTS OF THE SURVEY ON SUSTAINABLE WILDLIFE MANAGEMENT AND PROFILE OF RESPONDENTS**

5. The Secretariat collected information from countries and organizations on the consideration of the voluntary guidance for a sustainable wild meat sector, identification of areas for complementary guidance, monitoring tools and databases, and multidisciplinary approaches on sustainable wildlife management, through an online survey. The online survey was disseminated through [notification 2019-064](#) and was available from 31 July to 20 September 2019. The Secretariat invited Parties, other Governments, relevant organizations and indigenous peoples and local communities to complete the online survey.

6. The online electronic survey consisted of seven parts. Part one contained questions about the respondent's contact information and profile. Part two asked respondents about the consideration of the voluntary guidance for a sustainable wild meat sector, focusing on the three main actions recommended in the guidance: (a) ensure that the supply of wild meat is sustainably and legally managed at the source, (b) reduce the demand for unsustainably managed and/or illegal wild meat in towns and cities, and (c) create an enabling environment for the sustainable management of wild meat. Part three asked respondents about their views on the coverage of the voluntary guidance concerning their national needs and circumstances, as well as the identification of areas that may require complementary guidance, focusing on geographical areas, species and uses outside the scope of the voluntary guidance. Part four presented questions regarding the use of monitoring tools and databases on sustainable wildlife management. Part five explored the application of multidisciplinary approaches in sustainable wildlife management. Part six explored the views of survey respondents on sustainable wildlife management in the context of the post-2020 global biodiversity framework. Finally, part 7 inquired about survey respondents' interest in participating in the poster session on sustainable wildlife management<sup>1</sup> running in parallel with this third meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA 23).

7. For the present note, the Secretariat is presenting the results of questions in parts one through five.

8. A total of 32 respondents submitted information through the online survey, an email or a letter to the Secretariat. One survey respondent submitted the responses through an offline version of the survey. A full list of survey respondents is included in the Annex. Hereinafter, all

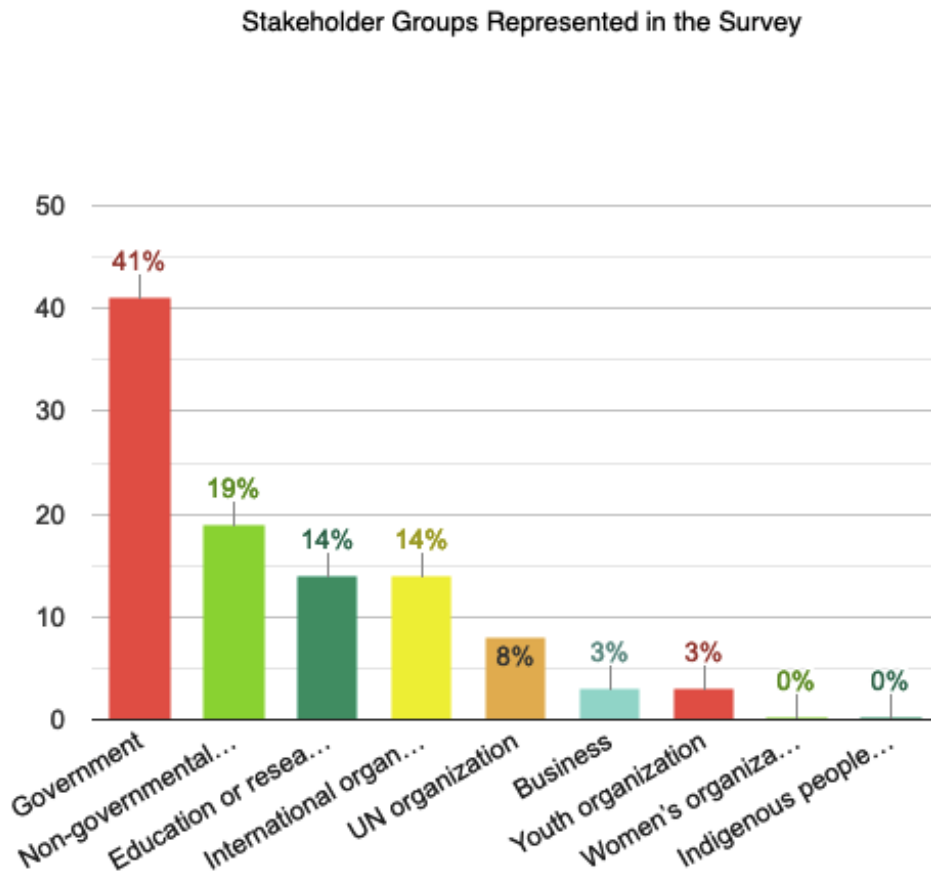
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<sup>1</sup> For more information on the poster session, please see notification [2019-091](#) of 17 October.

submitters of information, either through the electronic survey or other means, are referred to as “survey respondents” or “respondents”.

9. Over 60% of respondents represented organizations, while 40% represented Parties and other governments (see Figure 1). No indigenous peoples and local communities (IPLCs) or women’s groups responded to the survey. The majority of survey respondents (55%) identified themselves as male, while the remaining proportion identified themselves as female (45%).

10. The results presented in this note used a participatory approach, including all responses regardless of whether survey respondents completed all the questions in the survey or not.

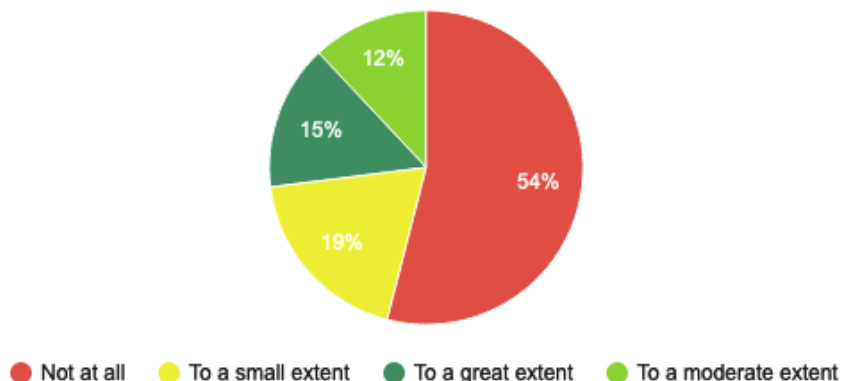


**Figure 1.** Group of stakeholders represented by the respondents of the survey on sustainable wildlife management. From left to right, the groups read government, non-governmental organization, education or research institution, international organization, UN organization, business, youth organization, women’s organization indigenous peoples and local communities.

### **III. CONSIDERATION OF THE VOLUNTARY GUIDANCE FOR A SUSTAINABLE WILD MEAT SECTOR**

11. The majority of survey respondents (54%) have not considered the voluntary guidance for a sustainable wild meat sector while 31% have considered it to a small or moderate extent, and 15% considered it to a great extent (see Figure 2).

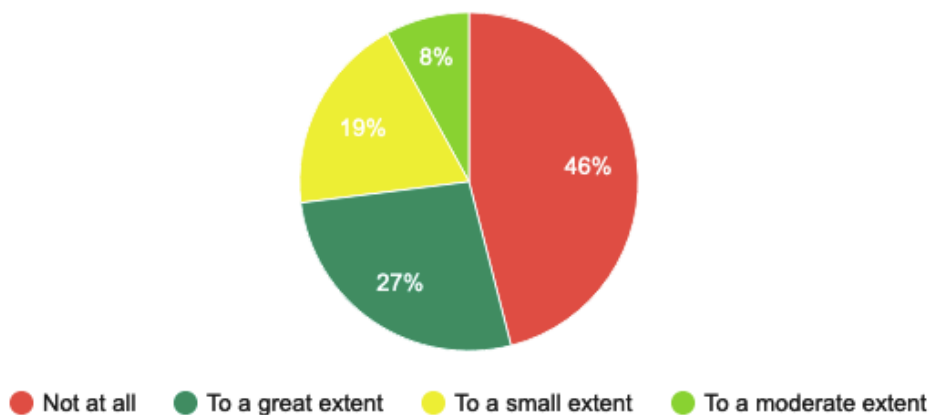
Consideration of the voluntary guidance for a sustainable wild meat sector



**Figure 2.** The extent to which the voluntary guidance for a sustainable wild meat sector was applied or used by survey respondents, varying from greatly applied or used to not applied or used at all.

12. The majority of survey respondents (54%) promoted the voluntary guidance for a sustainable wild meat sector to a great, moderate or small extent, while 46% has not promoted the voluntary guidance at all (see Figure 3).

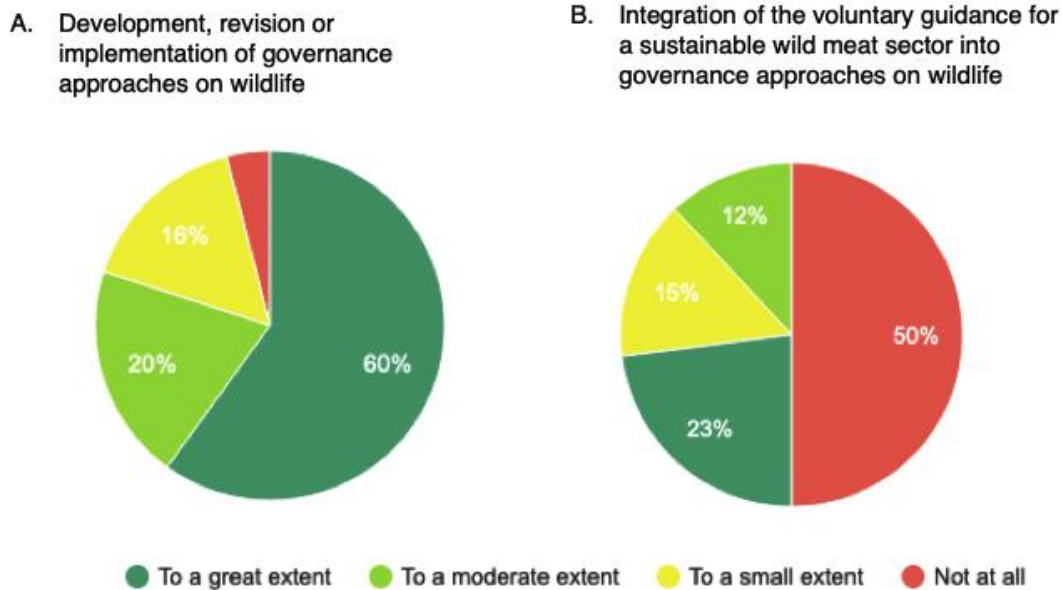
Promotion the voluntary guidance for a sustainable wild meat sector



**Figure 3.** Extent to which the voluntary guidance for a sustainable wild meat sector was promoted by survey respondents, varying from greatly promoted to not promoted at all.

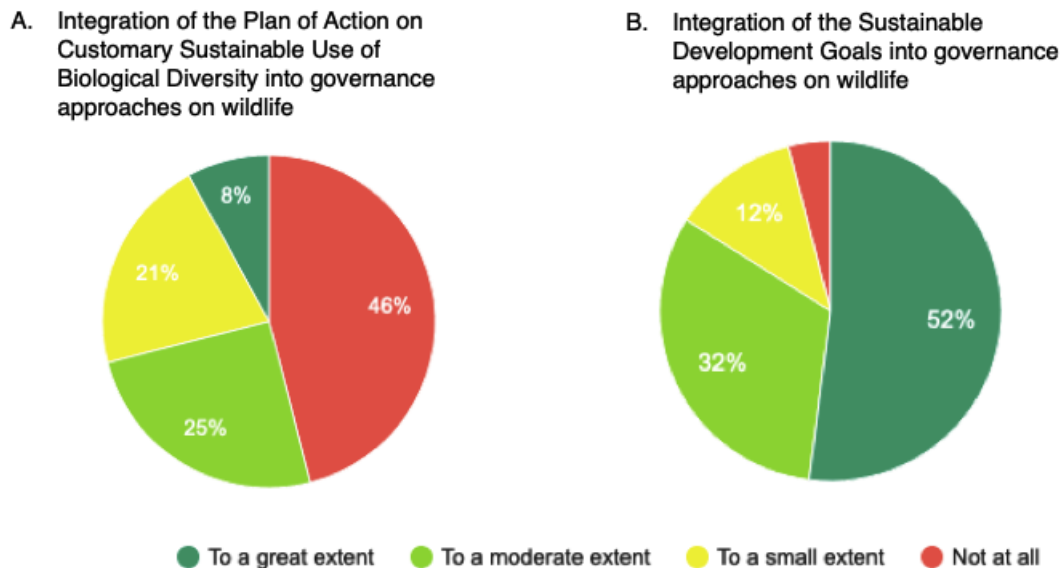
13. In terms of governance approaches on wildlife, the vast majority (96%) of survey respondents have developed, revised or implemented governance approaches on wildlife to a great, moderate or small extent (see Figure 4 (A)). However, half of the survey respondents (50%) have not integrated the voluntary guidance for a sustainable wild meat into these

governance approaches on wildlife. The other 27% of survey respondents integrated the voluntary guidance into these approaches to a moderate or small extent, and 23% of survey respondents integrated the voluntary into these approaches to a great extent (see Figure 4 (B)).



**Figure 4.** The extent to which survey respondents developed, revised or implemented governance approaches on wildlife (A) and integrated the voluntary guidance for a sustainable wild meat sector (B) into these approaches, varying from to a great extent to not at all.

14. The majority of survey respondents (54%) have integrated the Plan of Action on Customary Sustainable Use of Biological Diversity into governance approaches on wildlife to a great, moderate or small extent, while 45% have not integrated the Plan of Action into such approaches at all (see Figure 5 (A)). The vast majority (96%) of survey respondents have integrated the Sustainable Development Goals into governance approaches on wildlife (see Figure 5 (B)).



**Figure 5.** The extent to which the Plan of Action on Customary Sustainable Use of Biological Diversity (A) and the Sustainable Development Goals (B) was integrated into governance approaches on wildlife, varying from to a great extent to not at all.

15. In terms of applying, using or promoting gender equality and women’s empowerment concerning the voluntary guidance for a sustainable wild meat sector, survey respondents highlighted the following topics:

- (a) The importance of the role of women in sustainable management of natural resources, including wildlife;
- (b) Programs, projects, and initiatives that increase the participation of women in male-dominant areas such as wildlife management, trade, and research;
- (c) Women engagement in wildlife management, with one mention of sustainable apiculture;
- (d) The need for development of capacity-building activities targeted at women;
- (e) Development of media campaigns targeting women and encouraging their participation in wildlife management.

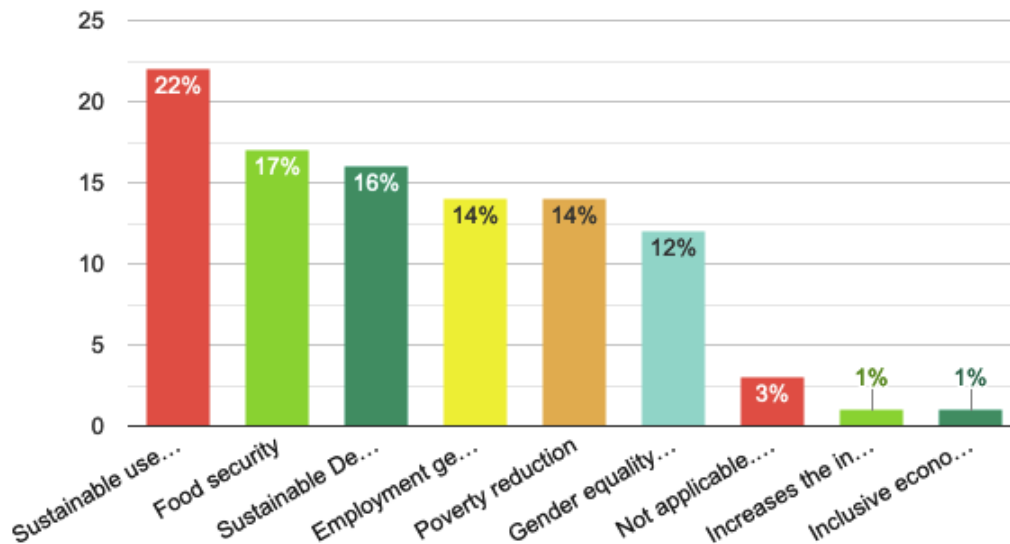
16. In terms of best practices on sustainable wildlife management, particularly wild meat, survey respondents mentioned their involvement with the following activities or initiatives:

- (a) Revision of laws and strengthening of law enforcement;
- (b) Regulation of wild meat and wildlife trade;
- (c) Capacity-building and awareness-raising activities;
- (d) Reconciliation between aspects of conservation with the reality that wild animals are used for food and as a means of income generation;
- (e) Empowerment of indigenous peoples and local communities to manage natural resources, including wildlife, and respect for their rights;

- (f) Promotion of sustainable hunting/harvesting and fishing practices, and engagement of hunting associations;
- (g) Bilateral and trilateral cooperation with developing countries;
- (h) The [Model of Welfare Act](#);
- (i) Hunting quota for indigenous peoples and local communities;
- (j) Creation of management plans for the main hunted species;
- (k) The [Sustainable Wildlife Management Programme](#);
- (l) [Non-Detriment Finding](#) (NDF) of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

17. According to survey respondents, the activities and initiatives listed in paragraph 16 above, contribute with the sustainable use of biodiversity, food security, the Sustainable Development Goals, employment generation, poverty reduction, and gender equality (see Figure 6).

Contribution of best practices to the sustainable use of biodiversity and the Sustainable Development Goals

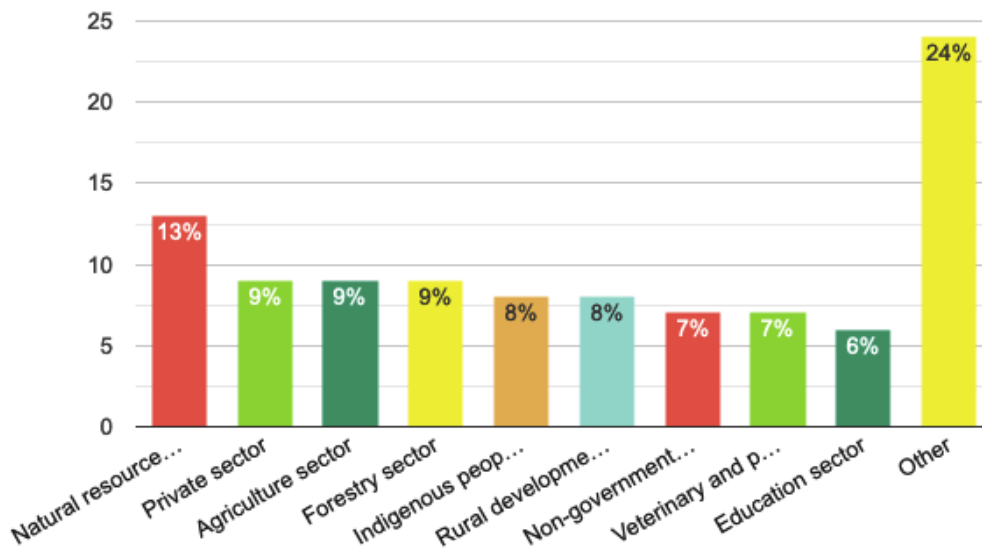


**Figure 6.** The best practices that contribute to the sustainable development agenda mentioned by survey respondents are sustainable use of biological diversity, food security, Sustainable Development Goals, employment generation, poverty reduction, and gender equality and women's empowerment.

18. Specific activities conducted by survey respondents to promote the voluntary guidance included dialogues with different sectors and stakeholders. Sectors and stakeholders involved were natural resources, private, agriculture, forestry, and rural development sectors, and indigenous peoples and local communities, and non-governmental organizations (see Figure 7). Other activities and initiatives highlighted by survey respondents include:

- (a) Law enforcement and Spatial Monitoring and Reporting Tool (SMART);
- (b) The [taste of game website](#), including an education program covering schools, the general public, and professionals such as caterers and food businesses;
- (c) Guidance to correct handling and processing of harvested game meat;
- (d) Game management measures;
- (e) Promotion of knowledge-sharing among wildlife experts;
- (f) Social science surveys to gather ideas and opinions of indigenous peoples and local communities to tailor and improve conservation projects from their perspectives;
- (g) Media campaigns that promote the responsible consumption of wild meat from legal and sustainable sources;
- (h) Strengthening of subsistence hunting through law revision;
- (i) Initiatives that provide alternative sources of protein to indigenous peoples and local communities;
- (j) Community agreements for the sustainable use of wild meat;
- (k) Promotion of the voluntary guidance at the processes of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Diffent sectors and stakeholders involved in dialogues, training or capacity-building activities to promote the voluntary guidance for a sustainable wild meat sector



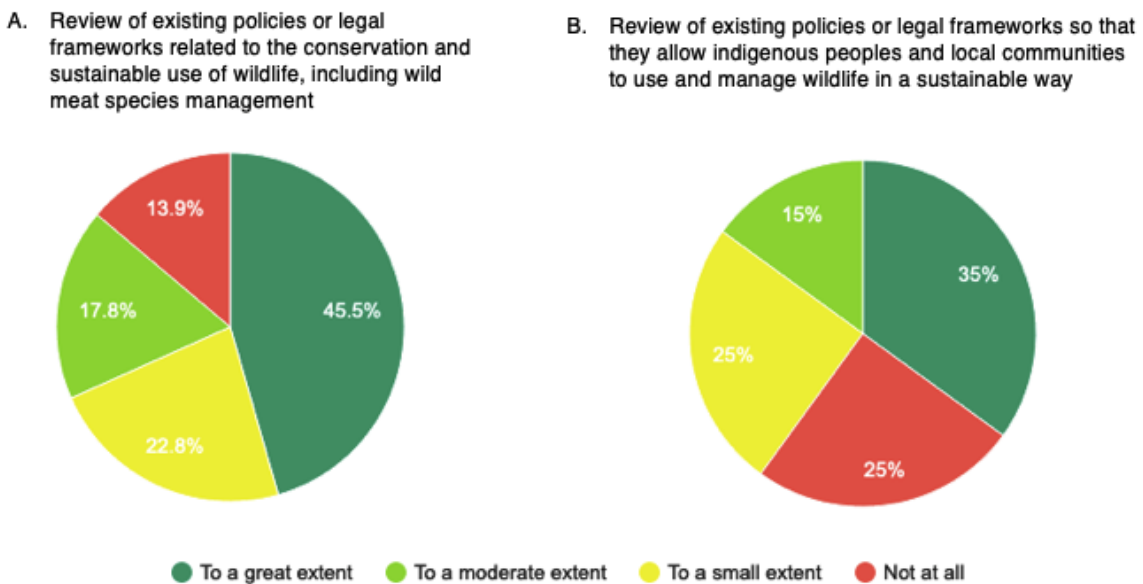
**Figure 7.** From left to right, sector and stakeholders read natural resources sector, private sector, agriculture sector, forestry sector, indigenous peoples and local communities, rural development sector, non-governmental organizations, veterinary and public health sector, education sector, and others (not specified by survey respondents).



19. The voluntary guidance for a sustainable wild meat sector presents a set of steps to improve the sustainability of wild meat supply, to reduce the demand for unsustainably managed wild meat, and to create enabling conditions for legal, regulated, and sustainable wild meat sector. The next sections present the extent to which survey respondents have taken actions concerning these three steps.

**A. Managing and improving the sustainability of wild meat supply at the source**

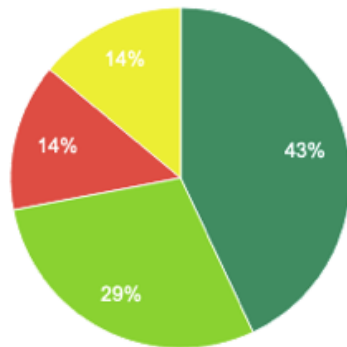
20. When asked about the review of existing wildlife policies associated with the conservation and sustainable use of wildlife, the overwhelming majority (86.1%) of survey respondents stated that they have reviewed existing policies or legal frameworks to a great, moderate or a small extent. (see Figure 8 (A)). Also, the overwhelming majority (75%) of survey respondents stated that the review of policies and legal frameworks allow indigenous peoples and local communities to sustainably use and manage wildlife (see Figure 8 (B)).



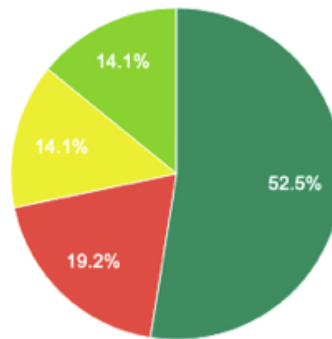
**Figure 8.** Review of policies and legal frameworks associated with the conservation and sustainable use of wildlife.

21. About actions taken at the species level, the overwhelming majority (86 %) of survey respondents have identified the species that can or cannot tolerate harvesting (see Figure 9 (A)). Furthermore, the overwhelming majority (80.7%) of survey respondents have developed or strengthened quotas or other regulatory mechanisms based on the identification of species that can or cannot tolerate harvesting (see Figure 9 (B)).

A. Identification of species that can or cannot tolerate harvesting



B. Development or strengthening of quotas or other regulatory mechanisms based on the identification of species that can or cannot tolerate harvesting

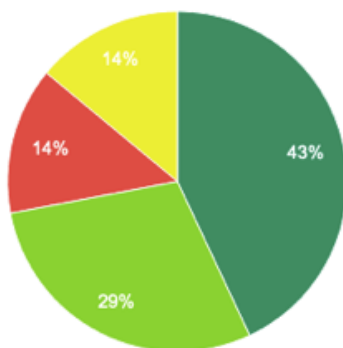


● To a great extent ● To a moderate extent ● To a small extent ● Not at all

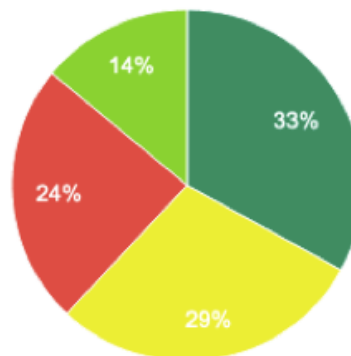
Figure 9. Actions taken by survey respondents at the species level.

22. In terms of capacity-building, the overwhelming majority of survey respondents (86%) have developed or strengthened law enforcement capacity (see Figure 10 (A)). Additionally, the overwhelming majority of survey respondents (76%) have developed or strengthened the capacity of fiscal, legal, and judicial personnel on legal and sustainable use and management of wildlife, including wild meat species (see Figure 10 (B)).

A. Development or strengthening of law enforcement capacity



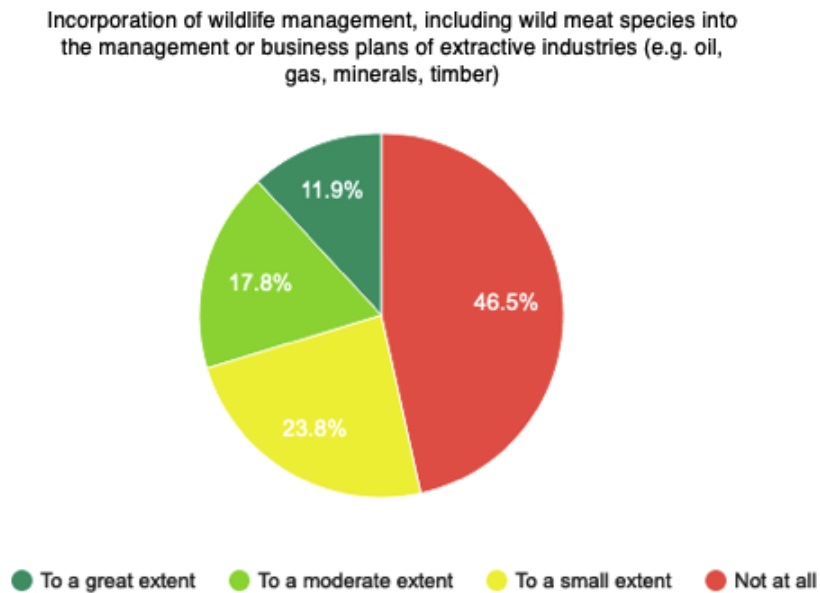
B. Development or strengthening of the capacity of fiscal, legal, and judicial personnel on legal and sustainable use and management of wildlife, including wild meat species



● To a great extent ● To a moderate extent ● To a small extent ● Not at all

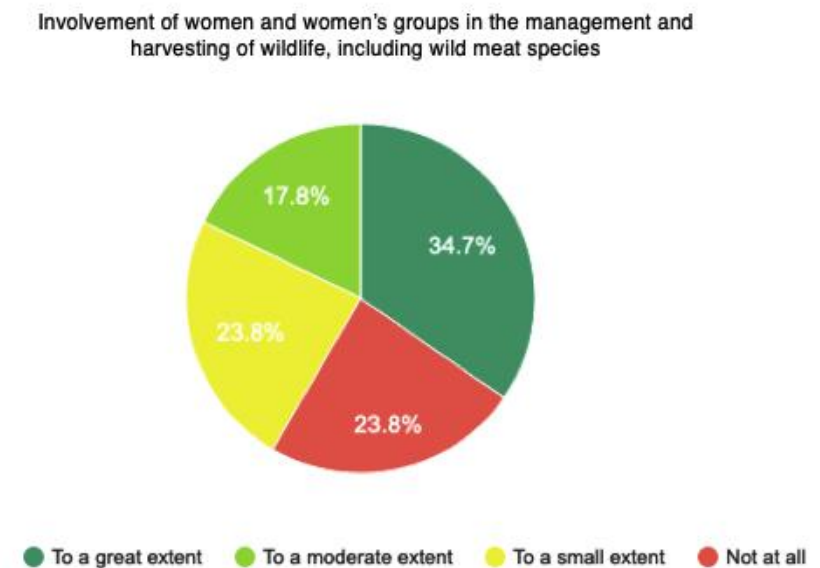
Figure 10. Actions taken by survey respondents to build capacity.

23. In what concerns the mainstreaming of wildlife into different sectors, the bare majority of survey respondents (53.5%) have incorporated wildlife management into the management or plans of extractive industries (see Figure 11).



**Figure 11.** Actions taken by survey respondents to mainstream wildlife into different sectors.

24. When asked about the participation of women, the large majority of survey respondents (76.3%) have involved women and women’s groups in the management and harvesting of wildlife, including wild meat species (see Figure 12).



**Figure 12.** Participation of women in wildlife management and harvesting.

25. In terms of the participation of indigenous peoples and local communities, the overwhelming majority of survey respondents (80%) have collaborated with indigenous peoples and local communities in enforcing national wildlife laws (see Figure 13 (A)). Moreover, the overwhelming majority of survey respondents (78%) have involved indigenous peoples and local communities in the management and harvesting of wildlife (see Figure 13 (B)), and the large majority of survey respondents (68.4%) have enhanced measures to protect the rights of indigenous peoples and local communities in activities of national wildlife law enforcement (see Figure 13 (C)).

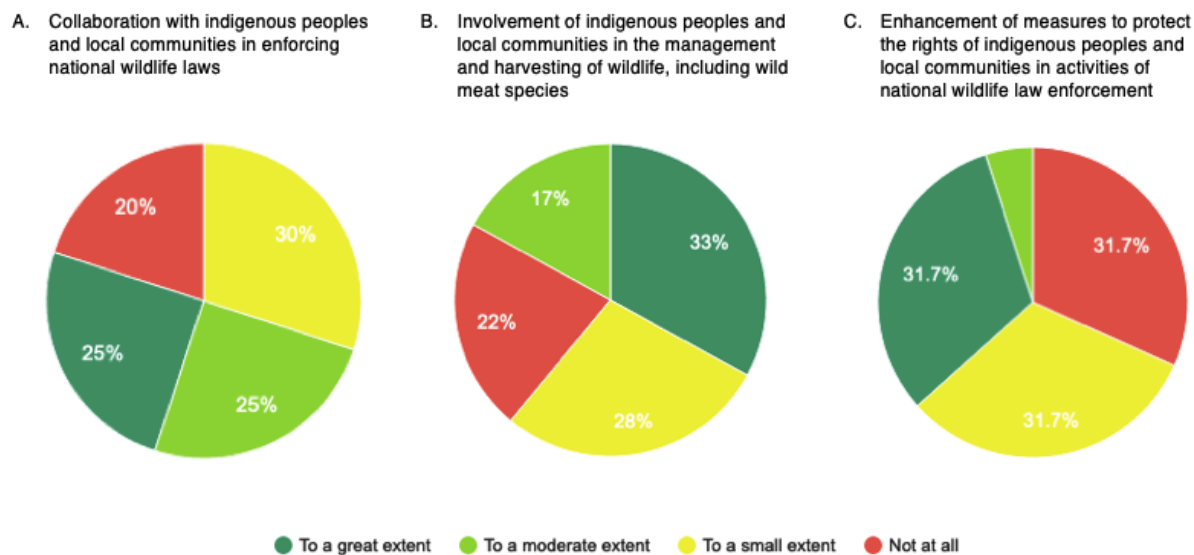
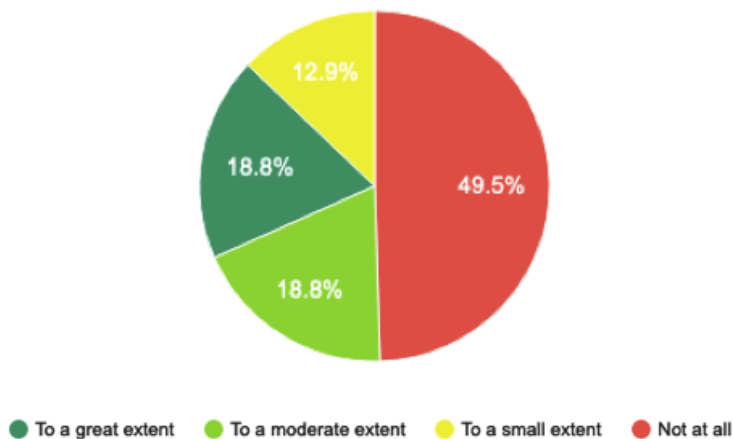


Figure 13. Participation of indigenous peoples and local communities in wildlife management and harvesting.

### B. Reducing demand for unsustainably managed and/or illegal wild meat in cities and towns

26. In what concerns the demand-reduction strategies, the bare majority of survey respondents (50.5%) have developed demand-reduction strategies for unsustainably managed wildlife focusing on towns and cities, that take into consideration the consumption patterns of both women and men (see Figure 14).

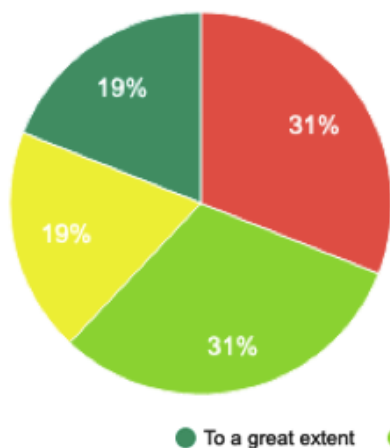
Development of demand-reduction strategies for unsustainably managed wildlife focusing on towns and cities, that take into consideration the consumption patterns of both women and men



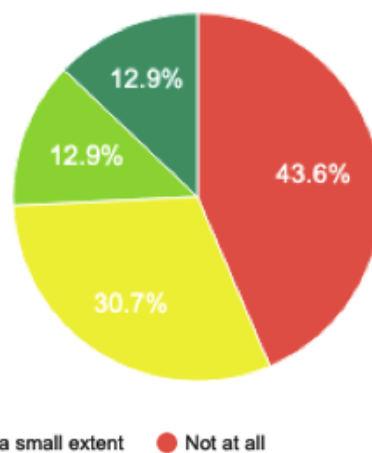
**Figure 14.** Actions taken by survey respondents to develop strategies that reduce the demand for unsustainably managed wildlife.

27. In terms of the availability of wild meat, the large majority of survey respondents (69%) has increased the availability of sustainably produced and sustainably harvested substitutes (see Figure 15 A)), while the small majority of survey respondents (56.5%) has decreased the availability and demand for unsustainably produced wild meat (see Figure 15 (B)).

**A.** Increase in the availability of sustainably produced and sustainably-harvested substitutes



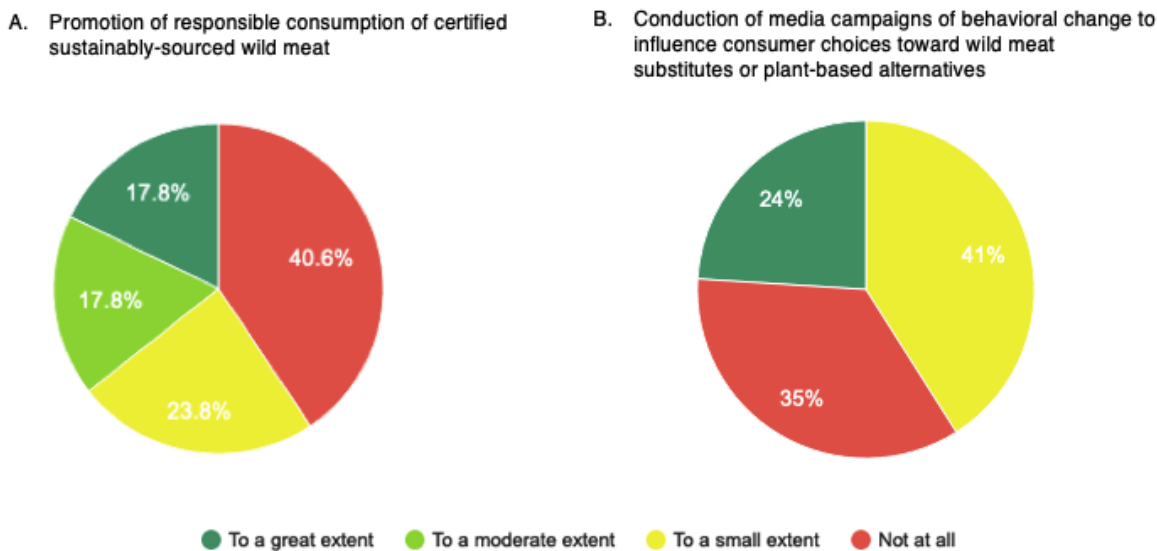
**B.** Decrease in the availability and demand for unsustainably produced wild meat



**Figure 15.** Actions taken by survey respondents to increase/decrease the availability of wild meat.

28. When asked about promoting a more sustainable consumption of wild meat, the small majority of survey respondents (59.4%) have promoted responsible consumption of certified,

sustainably-sourced wild meat (see Figure 16 (A)), while the large majority of survey respondents (65%) has conducted media campaigns of behavioral change to influence consumer choices toward wild meat substitutes or plant-based alternatives (see Figure 16 (B)).



**Figure 16.** Actions taken by survey respondents to promote sustainable consumption of wild meat.

**C. Creating enabling conditions for a legal, regulated and sustainable wild meat sector**

29. In terms of international cooperation, the vast majority of survey respondents (94%) have increased international collaboration among focal points of biodiversity-related conventions such as CITES, CBD, and CMS (see Figure 17 (A)). Also, the large majority of survey respondents (69%) have increased international collaboration by supporting transboundary action to address illegal hunting of and trade in wild meat (see Figure 17 (B)).

A. Increase international collaboration by enhancing cooperation among focal points of biodiversity-related conventions such as CITES, CBD, CMS

B. Increase international collaboration by supporting transboundary action to address illegal hunting of and trade in wild meat

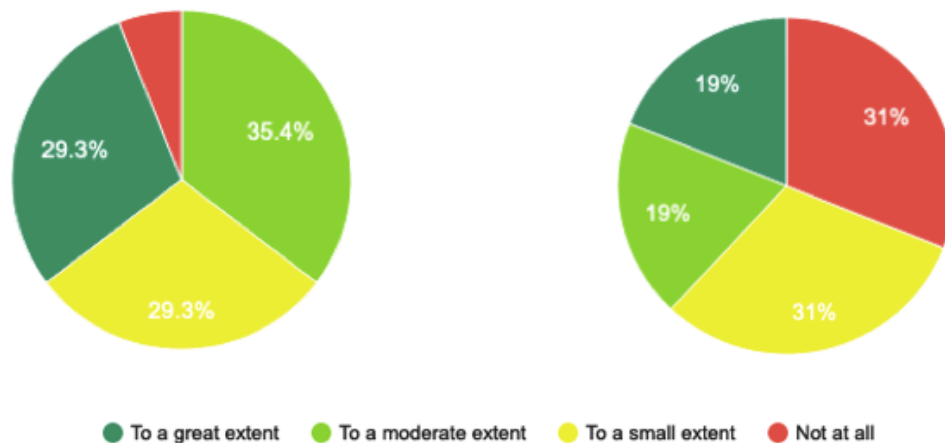


Figure 17. Actions taken by survey respondents to increase international collaboration for a more sustainable wild meat sector.

30. Concerning the livelihoods of indigenous peoples and local communities, the overwhelming majority of survey respondents (78%) have addressed illegal wildlife trade hand-in-hand with issues of food security and sustainable livelihoods of indigenous peoples and local communities (see Figure 18 (A)). Furthermore, the large majority of survey respondents (67%) have assessed the role of wildlife consumption in livelihoods (see Figure 18 (B)).

A. Address poaching and illegal wildlife trade hand-in-hand with issues of food security and sustainable livelihoods of indigenous people and local communities.

B. Assess the role of wildlife consumption in livelihoods

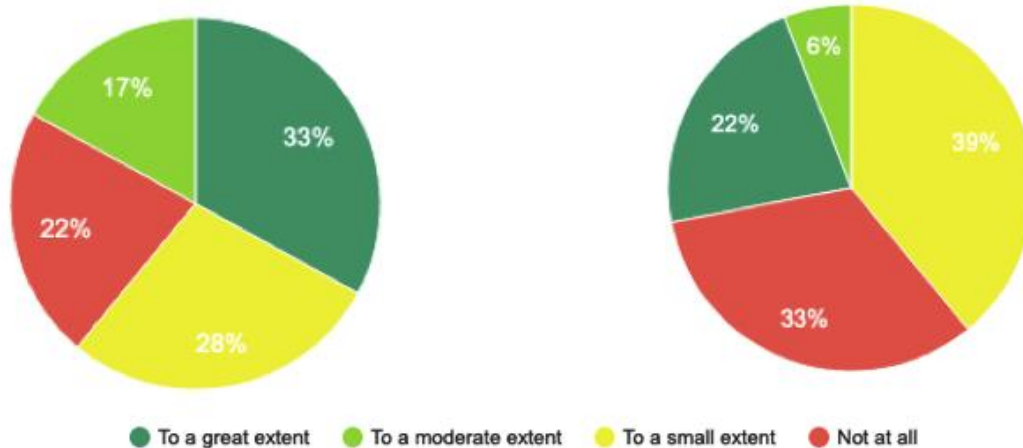
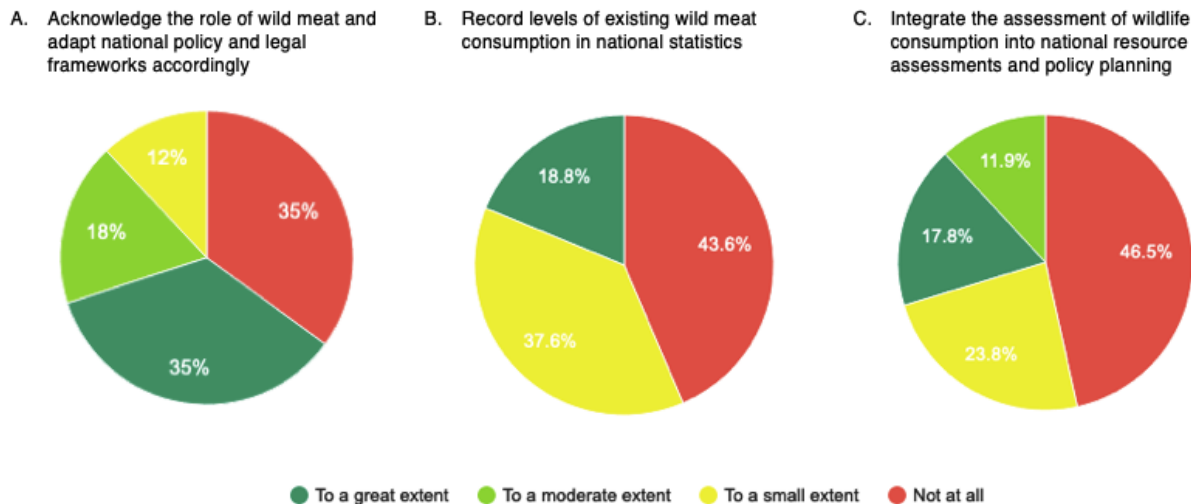


Figure 18. Actions taken by survey respondents to support the livelihoods of indigenous peoples and local communities.

31. In what concerns the integration of wild meat management and consumption into national policies and processes, the large majority of survey respondents (65%) have acknowledged the role of wild meat and adapted national policies and legal frameworks accordingly (see Figure 19

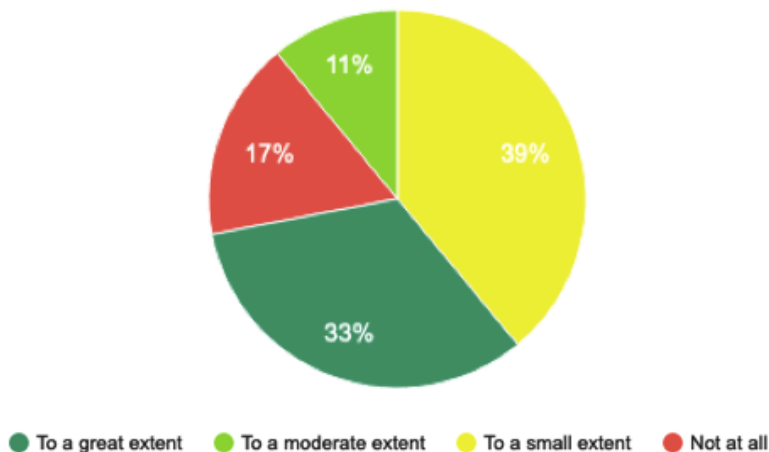
(A)), while the small majority of survey respondents (53.5%) have integrated the assessment of wildlife consumption into national resource assessments and policy planning (see Figure 19 (C)). Furthermore, the small majority of survey respondents (56.4%) have recorded levels of existing wild meat consumption in national statistics (see Figure 19 (B)).



**Figure 19.** Actions taken by survey respondents to integrate wild meat management and consumption into national policies and processes.

32. In relation to educational programmes, training and awareness-raising, the overwhelming majority of survey respondents (83%) have developed educational programs, training, awareness-raising campaigns that take into account the preferences, needs, and priorities of both women and men, to increase the understanding and support of sustainable wildlife management policies (see Figure 20).

Develop educational programs, training, and awareness-raising campaigns that take into account the preferences, needs, and priorities of both women and men, to increase the understanding and support of sustainable wildlife management policies



**Figure 20.** Actions taken by survey respondents to develop educational programs, training, and awareness-raising campaigns.



#### IV. IDENTIFICATION OF COMPLEMENTARY GUIDANCE

33. While 42.9% of survey respondents expressed that the voluntary guidance covers or greatly covers their geographical area, priority species, biomes, ecosystems, and uses, 28.6% expressed that the voluntary guidance partially or does not cover these aspects. Over 28% of survey respondents have stated that the question is not applicable (see Figure 21).

Coverage of the voluntary guidance for a sustainable wild meat sector in relation to national circumstances and needs

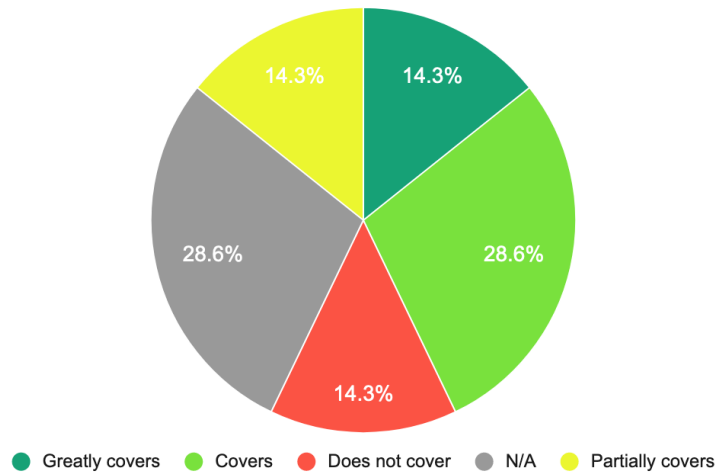


Figure 21. Coverage of the voluntary guidance for a sustainable wild meat sector.

34. While 67% of survey respondents expressed that complementary guidance is needed, 33% responded that it is not needed (see Figure 22).

Need for complementary guidance

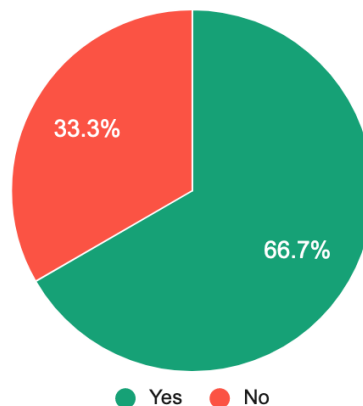


Figure 22. Views of survey respondents about the need for complementary guidance.

35. When asked about what other geographical areas, habitats, and biomes complementary guidance should cover, survey respondents mentioned the following:

- (a) Marine ecosystems;
- (b) Different areas of overwintering for migratory birds;
- (c) Desert and semi-desert ecosystems in East Africa and Southern Africa, as well as the Desert Southwest of the US and northern Baja, Mexico;
- (d) All Mexico's regions other than tropical and subtropical;
- (e) Northern countries;
- (f) All areas in Sudan.

36. In terms of other species to be covered by complementary guidance, survey respondents have listed the following:

- (a) Fishes, sharks, rays, dugongs and other marine species;
- (b) Migratory birds;
- (c) All species.

37. In what concerns other uses of wildlife to be covered by complementary guidance, survey respondents suggested the following:

- (a) Pet trade;
- (b) Recreational hunting;
- (c) Trophy hunting;
- (d) Products and sub-products of trade (e.g. leather).

38. Additional thoughts provided by survey respondents on the identification of complementary guidance for a sustainable wild meat sector:

(a) Complementary guidance would be needed, however, at a later stage. The existing voluntary guidance is a good starting point;

(b) Finland has been generally applying several similar aspects in the sector of wildlife management mentioned in the voluntary guidance. However, as such, the guidance does not cover the geographical areas of Finland and as such is not integrated into the country's wild meat sector governance. The wildlife management use in Finland covers the use as a food, however, it is mainly for sustainable recreational uses. The objective of game management is to increase, conserve, or improve a game animal population and the balance among different animal populations. Game management measures include regulating the size of game animal populations to the levels which are socially appointed, as well as preserving or improving their living conditions.

(c) The voluntary guidance does not cover Norway's geographical area and national situation. As Norway already has a long-term and well-functioning system and framework for wildlife management, it has not been taken up at the national level.

(d) There is a need to analyze the key/priority species to focus on.

(e) Hunting of wild animals is a common practice in rural populations of Venezuela (indigenous communities enjoy a special regime), both for subsistence and traditional purposes,

including local and regional customs, traditional medicine and religious aspects. This subsistence hunt occurs mainly in the rural areas of the country, in virtually all states. This hunt is weakly regulated since it is not a central program, however, it responds to the immediate needs of food or resources by a segment of the population. However, it is considered that this use is not sustainable since it additionally responds to illegal factors, such as the prohibited sale of meat to restaurants and illegal wildlife trafficking, among others. For the entire population, except indigenous ethnic groups (non-migrants), subsistence hunting is restricted to the areas under special administration regime (e.g. national parks, wildlife sanctuaries, etc.);

(f) The guidance gives the direction to manage wildlife species through sustainable use which is control hunting. Botswana had hunting suspension effective 2014, however, hunting was allowed in private game ranches, which supplies community/private meat outlets with wild meat. The ban was guided by animal counts which indicated that there was a decline in the population of some species. Furthermore, during this hunting suspension the use of wild meat for medicinal and religious purposes, communities were advised to get help from private game ranches. For other by-products such as skins and hides for royal use, which need predator skins, they were acquired from the state, skins, and hides of killed problem animals which are normally disposed through auction sales. Issues of illegal offtake are well managed because high-value trophy hunts (e.g. elephants) are escorted by wildlife ranger and when it happens within community concession area a community escorts such hunt. For every individual hunt at the end of the hunt, the hunter submits returns to wildlife officers, which show the size, sex, age, date, and place of kill. This also helps to manage and regulate off-take of species. The Government of Botswana now has opened hunting on the 3 September, closing on 30 November 2019. Hunting will be managed through a quota and permits system. There will be individual quota disposed through raffle, community concession quota which is given to community trusts with hunting concessions and special elephant quota which is mainly used for addressing human-wildlife conflict in hot spots areas. Priority species such as predators (e.g. leopard and lions), rare and endangered and species with low number populations are not hunted as per the Wildlife Conservation and National Parks Act of 1992, which specifies protected and partly protected species.

(g) Specific guidance on the making of [Non-Detriment Findings](#) (NDFs) has been made available to CITES Parties since 2000 and the demand for, and the development of additional or more specific support for making NDFs, had gained significant momentum since then. One of the more comprehensive initiatives in this regard was the hosting by Mexico of an [International Expert Workshop on CITES Non-Detriment Findings](#) in Cancun in 2008, which generated guidance on NDFs for a wide range of CITES-listed taxa. Since that time and following the adoption of Resolution Conf. 16.7 on Non-detriment findings in 2013, Parties have frequently decided that further species- and taxon-specific guidance for the making of NDFs was needed (e.g. for trade in queen conch, sharks, snakes, tortoises and freshwater turtles, timber and agarwood). An increasing number of research projects have been undertaken aimed at assisting Parties in the making of NDFs. As a result, CITES CoP18 has given a mandate to the CITES Secretariat to undertake a gap analysis to identify any specific taxa that may require updated or additional guidance.

(h) The practices developed over centuries to ensure the sustainability of the use of wild species for meat in northern countries have not been considered adequately in the development of strategies for southern countries.

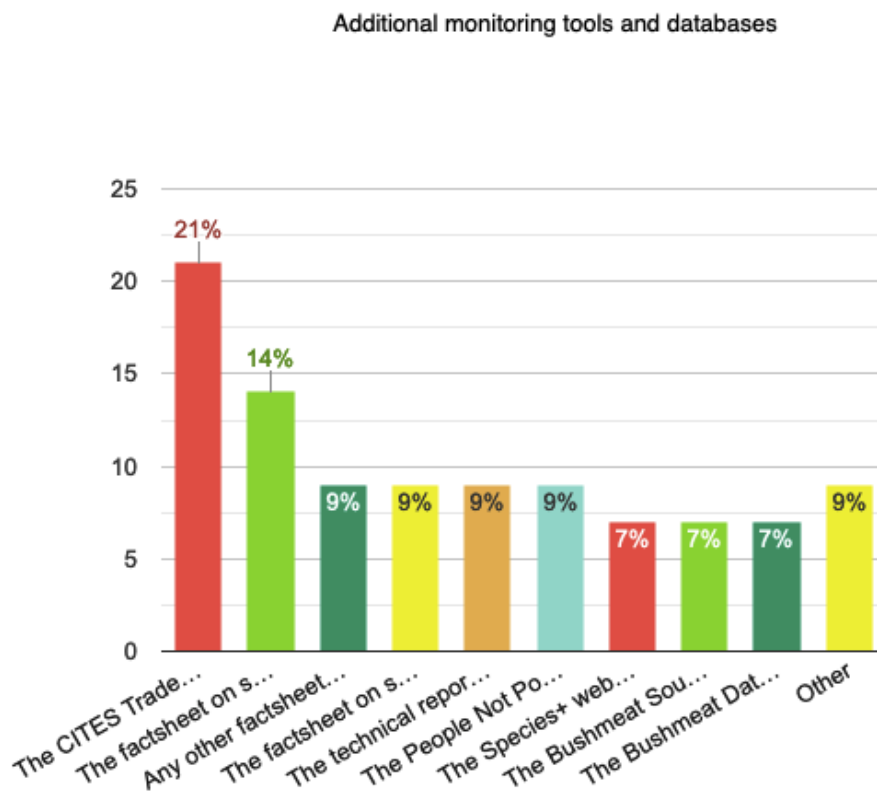
(i) Most of the meat is used for food, especially in war and conflict areas because there is no food. The uses of wild meat in Sudan are not many, however, they are exported abroad mostly during the hunting season. There is no culture of using wild meat in Sudan.

## V. MONITORING TOOLS AND DATABASES

39. Monitoring tools and databases used by survey respondents include:

- (a) Hunting databases, including annual hunting statistics databases;
- (b) GIS/mapping tools;
- (c) Wildlife surveys – terrestrial, aerial, camera traps;
- (d) Wildlife trade databases;
- (e) Hunting/participatory quotas;
- (f) Human-wildlife conflict monitoring tools;
- (g) Spatial Monitoring and Reporting Tool (SMART);
- (h) Management Oriented Monitoring System (MOMS), a monitoring tool used to capture data on animal sightings within protected area and in wildlife management areas;
- (i) Management Units for the Conservation of Wildlife (UMAs) database;
- (j) Sustainable use protocols (for example crocodiles' ranching);
- (k) Management plans for key species;
- (l) Library/database to understand the status of the wildlife economy, including wild meat production and trade, across Africa.
- (m) Tool for compiling normative texts relevant to sustainable wildlife management. This matrix, while showing the existing relationship between these texts, facilitates the identification of those policies/laws which are currently missing implementing laws/regulations and/or where this relation is not straightforward;
- (n) Diagnostic tool for assessing compliance of sustainable wildlife management relevant normative framework with international conventions. The statutory law tools for assessing the compliance of national legal framework with the obligations deriving from the relevant international conventions ratified by the country, namely: CMS, CITES, CBD, RAMSAR, Convention on World Heritage;
- (o) Diagnostic tool for consistency and gap analysis of normative texts applicable to sustainable wildlife management relevant sectors. The tool will be used to assess the legal consistency, as well as strengths/weaknesses, in relation to the legal framework applicable to sustainable wildlife management along all existing wildlife use value chains;
- (p) Diagnostic tool to assess customary law applicable to wild meat use. The customary law tool for assessing existing customary law applicable at site level to sustainable wildlife management;
- (q) KoBo Toolbox tool, which is a free open-source tool and allows to collect data in the field using mobile devices, as well as with paper or computers, is being used by several sustainable wildlife management pilot sites. Training sessions on how to use the tool were carried out in several sites during the first implementation year.

40. Additional monitoring tools and databases used by survey respondents are illustrated in Figure 23. The two monitoring tools and databases most used by survey respondents are the CITES Trade Database and Dashboards developed and maintained by the UN Environment World Conservation Monitoring Centre (WCMC) and the factsheet on sustainable wildlife management and wild meat developed by the Collaborative Partnership on Sustainable Wildlife Management (CPW). Tools and databases not used by survey respondents include the technical report “Towards a sustainable, participatory and inclusive wild meat sector”, a joint product of the Center for International Forestry Research (CIFOR) and the CBD Secretariat, the WILDLEX database of wildlife-related law operated by the International Union for Conservation of Nature (IUCN), and the Crime, Conservation and Communities Database hosted by the International Institute for Environment and Development (IIED).



**Figure 23.** Additional monitoring tools and databases used by survey respondents. From left to right: the CITES Trade Database and Dashboards developed and maintained by the UN Environment World Conservation Monitoring Centre (WCMC), the factsheet on sustainable wildlife management and wild meat developed by the Collaborative Partnership on Sustainable Wildlife Management (CPW), any other factsheet developed by the Collaborative Partnership on Sustainable Wildlife Management (CPW), the factsheet on sustainable wildlife the technical report “Wild Life, Wild Livelihoods: Involving Communities in Sustainable Wildlife Management”, developed by UN Environment, the International Union for Conservation of Nature (IUCN), and the International Institute for Environment and Development (IIED) management and gender developed by the Collaborative Partnership on Sustainable Wildlife Management (CPW), the People Not Poaching platform led by the IUCN Sustainable Use and Livelihoods Specialist Group (SULi), the Species+ website designed by the UN Environment World Conservation Monitoring Centre (WCMC) and the CITES Secretariat, the Bushmeat Sourcebook developed by the Collaborative Partnership on Sustainable Wildlife Management (CPW), and the Bushmeat Database of the Center for International Forestry Research (CIFOR). Other options of monitoring tools and databases not used by survey respondents included the technical report “Towards a sustainable, participatory and inclusive wild meat sector”, a joint product of the Center for International Forestry Research (CIFOR) and the CBD Secretariat, the WILDLEX database of wildlife-related law operated by the International Union for Conservation of Nature (IUCN), and the Crime, Conservation and Communities Database hosted by the International Institute for Environment and Development (IIED).

41. When asked to describe their experiences in using such monitoring tools and databases, survey respondents mentioned the following:

(a) CITES database is cumbersome to use; data extracted can be misleading based on the manner that it is recorded (e.g. body parts from a single animal can be counted many times giving the impression that many more animals are traded);

(b) Botswana uses the CITES related databases and they have proven to be very useful. Concerning the others listed, the country does not use them in part because they did not know about them;

(c) The CITES trade database is unfriendly with the user and some terms of trade are confusing for the non-connoisseur. You could try to present the information in an integrated way according to the query, which allows an overview. For more detailed analyses, complete databases are useful knowing the real terms and background of the trade;

(d) The CITES database provides valuable information on exports;

(e) Finland has been supporting the founding of Collaborative Partnership on Sustainable;

(f) The Species + website is very friendly, concise and with accessible information on the legal status, CITES appendices, and quotas authorized by CITES. All of it is useful for the national process of import and export permits;

(g) The United States has used CPW handouts for outreach and to inform their outreach;

(h) The SULi resource is really extensive and well-curated;

(i) The Sustainable Wildlife Management Programme mostly refer to the [FAOLEX](#), a specific legal database with normative texts regulating all sectors relevant to sustainable wildlife management;

(j) The monitoring tools and databases are useful to start a research project or programme;

(k) The databases are of great use. Baseline data allows for comparisons of changes over time to be made, the establishment of causes and solutions to address the situation. It is based on the results of these exploitation databases that tools for awareness-raising of decision-makers are made so that informed decision-making in favor of sustainable conservation is developed.

(l) These tools are ok for use by English-fluent staff in IGOs. For use within countries, a greater emphasis on multilingual delivery is needed.

42. When asked how the information on the sustainable use and management of wildlife could be improved and made available globally and what stakeholders should be involved, survey respondents expressed the following:

(a) The need for facilitation and training, assignment of roles and action plans;

(b) The limitations of databases held at the government level but not accessible to all stakeholders. Moreover, it is not clear whether these are meticulously maintained, or could be improved. Rarely are they thoroughly interrogated to provide reports. This would identify where there are weaknesses and where they could be improved;

(c) The need for documenting wildlife use at the community and village level to be able to generate an accurate amount of wildlife consumption. Databases to allow participatory data collection, analysis, monitoring and planning will be beneficial for all stakeholders;

(d) The need to frame a target for wildlife management, followed by action plans and timeframes;

(e) The need for improving the information on hunting governance globally. The Hunting Bag – statistics should be improved and made available globally as well;

(f) The need for a resource that collates the resources available across the globe. Much of the information used at the global level is found through IUCN SULi, which is a wonderful resource, and sometimes information via CITES;

(g) The CPW is looking to reshape its approach, aiming for a wider reach through additional/alternative channels, to share more effectively with the public and relevant stakeholders;

(h) Perhaps, the most important needs to improve the sustainable use of wildlife is to have specialized bibliography, including wildlife management theory, essays on sustainability of different types of exploitation and, above all, the dissemination of successful experiences in this area, but based on "hard" scientific data and biological models, no qualitative speculations and subjective impressions on the use of wildlife. In summary, successful experiences involving management approaches, easy-to-apply technology packages, on-site tests, and direct data;

(i) In Venezuela, statistics on the use and sustainable management of wildlife are based on authorized harvests and the number of animals mobilized in practice, and such information is stored through supported databases. As it is a highly centralized process, obtaining the information depends on the authorization processes (licenses, mobilization guides) issued by the Ministry of Popular Power for Ecosocialism (Ministerio del Poder Popular para Ecosocialismo – MINEC);

(j) The need for availability of harvest statistics and their estimates in tons of meat for public consultation, through an official website. Among the key actors that should be part of the sources of information are wholesale traders, who through their accounts would help verify the volumes of meat produced and marketed. Any discrepancy with the authorized and commercialized would be an alarm about the provision of illegal sources;

(k) In the case of Burundi, a basis for monitoring human-wildlife conflicts, including data on illegal hunting under current regulations is required. Data collection should involve surveys that would involve communities and local government as well as protected area managers;

(l) Problems of fragmentation of information/data within the government, especially biodiversity conservation, need to be addressed. Data is lying in different government sectors, hence a need for integrated systems that can be interfaced with individual systems for easy retrieval;

(m) It would be very useful to have a database similar to that of WCMC but that includes non-CITES species. Also, at the national level, the quality of information could be strengthened and a common format with comparable units should be used.

(n) Financial resources are needed to create and maintain a database of open access monitoring of wildlife management. The Belarus Ministry of Forestry, the Ministry of Natural

Resources and Environmental Protection, the National Academy of Sciences are the main involved organizations;

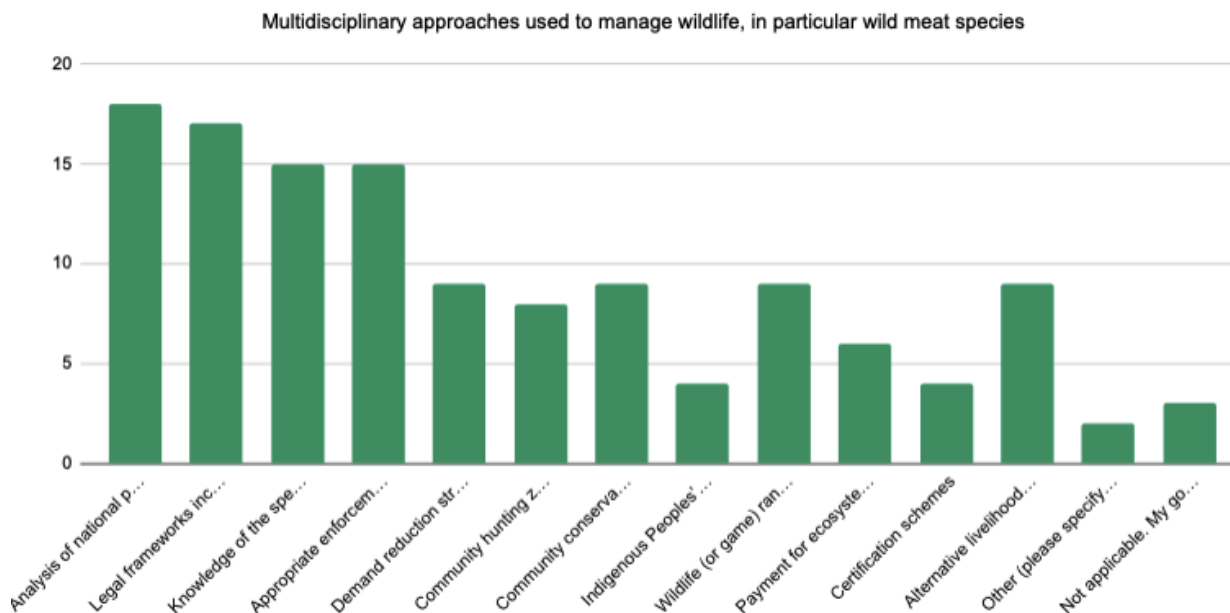
(o) South Africa has established an [online library](#), however, the country is noa seeking resources to staff up the capacity to build the library. They are most keen to play a role as an information hub for Africa;

(p) Switzerland mentioned funding for translation by those in their volunteer group, improvement of the networking software which they use, and capacity-building for its use at local levels. Governments and NGOs could help with this, and a motion to that effect has been submitted for IUCN World Conservation Congress (WCC) 7;

(q) Key stakeholders would include species working groups and subcommittees, hunter associations and companies, export companies, farm owners, zoos, local citizens, and research centers.

## VI. MULTIDISCIPLINARY APPROACHES ON SUSTAINABLE WILDLIFE MANAGEMENT

43. Multidisciplinary approaches on sustainable manage wildlife, in particular, wild meat species, used by survey respondents are illustrated in Figure 24. The two approaches most used by survey respondents are the analysis of national policies and legal frameworks incentivizing and enabling sustainable management of wildlife, while the two less used approaches are Indigenous Peoples' and Community Conserved Territories and Areas (ICCAs) and payment for ecosystem services.



**Figure 24.** Multidisciplinary approaches used to manage wildlife, in particular, wild meat species, mentioned by survey respondents. From left to right, the approaches read: analysis of national policies, legal frameworks incentivizing and enabling sustainable management of wildlife, knowledge of the species used for wild meat, including its ecology, use, and trade, appropriate enforcement capacity, demand reduction strategies, notably in collaboration with different sectors and stakeholders (e.g. health, food, agriculture, business, development, economy, finance, infrastructure, education, experts in the fields of consumer behavior change), community hunting zones, community conservancies, Indigenous Peoples' and Community Conserved Territories and Areas (ICCAs), wildlife (or game) ranching, payment for ecosystem services, certification schemes, alternative livelihoods, other (please specify), and not applicable. My group does not hunt.



Conserved Territories and Areas (ICCAs), wildlife (or game) ranching, payment for ecosystem services, certification schemes, alternative livelihoods approach (e.g. provide communities with an alternative source of protein or form of income generation), other, and not applicable meaning that the survey respondent has not used any approach to manage wildlife in a more sustainable way.

44. When asked to describe their experiences with these approaches, survey respondents highlighted the following:

(a) Collaboration between wildlife authorities and local community organizations to improve wildlife management practices;

(b) Enforcement, village communities' practice of vegetarianism, local capacity building;

(c) The importance of involving local communities and all relevant stakeholders in the preparation processes of wildlife management. There is a great need for relevant scientific data for the wildlife ecology and distributing this data to the general public;

(d) In Venezuela, the programs mentioned as an example (baba and capybara), are from their inception integrated and multidisciplinary approaches to manage wildlife, since it not only responds to market demand, but its fundamental base is the ecological sustainability of the resource, which deprives about the desires of consumers. For this, both programs focus on biological, ecological, sociocultural, macro and microeconomic information, all to regulate them for the highest feasible profitability with the highest possible sustainability. If populations do not increase, neither will harvest quotas.

(e) Burundi recognizes that sustainable management of biodiversity can only be effective when all stakeholders including communities, the administration, the security forces, researchers, sectoral leaders, etc. are involved and work together;

(f) Community-Based Natural Resources Management (CBNRM), where communities have custodianship of natural resources found in their areas, and they are utilizing them to improve their livelihood;

(g) The Wildlife Producer Association, an association of game ranchers trading on game products especially game meat and its by-products;

(h) Mexico's development of action plans for the conservation and sustainable use and trade of priority wild species with the participation of a wide array of stakeholders from all along the productive/trade chains (since the harvest points to the end-markets);

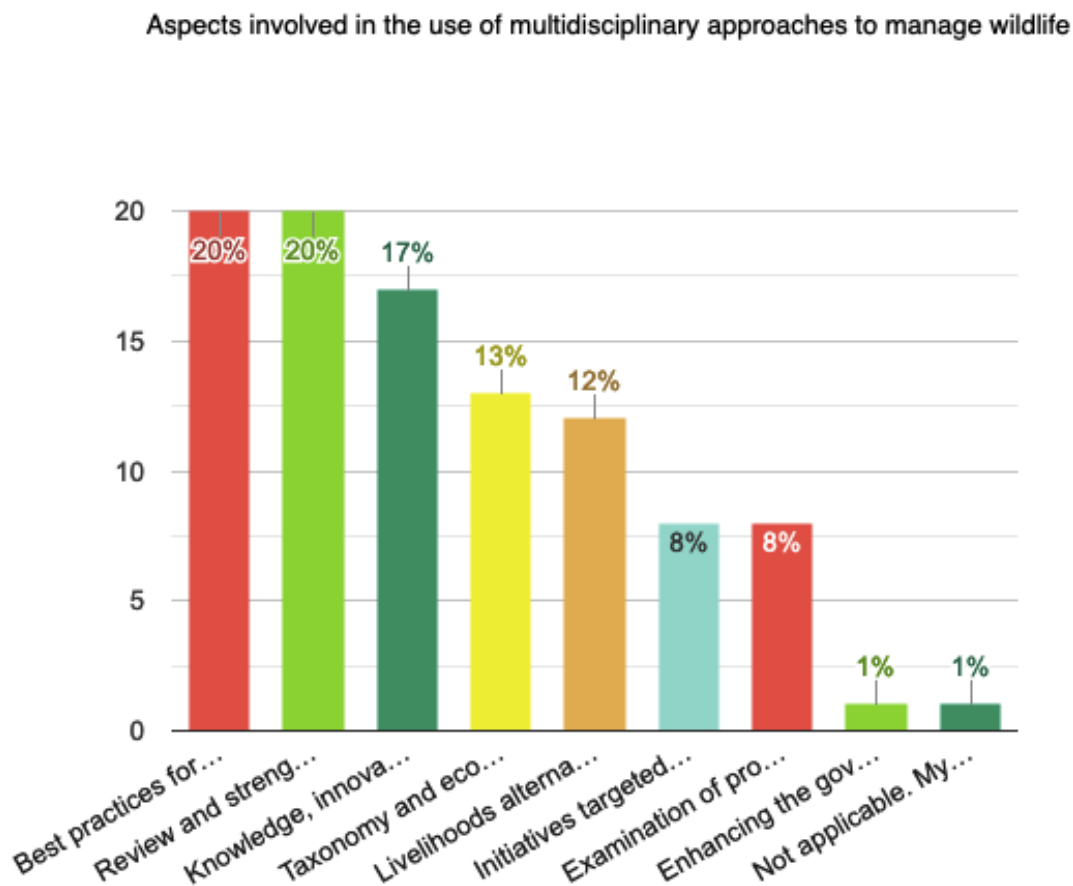
(i) Hunting in Belarus is carried out under the current rules and acts of legislation on the protection and use of wildlife. Users of hunting grounds are obliged to plan and implement a set of measures aimed at protecting hunting animals, preserving and improving the population of these animals, sustainable use of their resources, while ensuring biodiversity conservation. For example, when developing hunting documentation, the data on the protected habitats of wild animals and the habitats of wild plants included in the Red Book of the Republic of Belarus are taken into account. Under the legislation, the user of hunting grounds is subject to appropriate restrictions on business activities.

(j) The selected approaches are being used in the Sustainable Wildlife Management Programme. However, evaluation of the approaches in terms of usefulness and effectiveness is not possible since the programme is in the early stage of implementation;

(k) Establishment of an interagency committee to combat wildlife crime at the national level which has proved to be effective through the use of multidisciplinary laws;

(l) South Africa’s approach is multidisciplinary as reflected in its vision of a world in which wildlife management, production, utilization, and trade support inclusive, sustainable development in Africa.

45. When asked what aspects were involved in the use of multidisciplinary approaches on sustainable wildlife management, the two aspects most mentioned by survey respondents were best practices for sustainable management and use, and review and strengthening of legal frameworks (see Figure 25).



**Figure 25.** Aspects involved in the use of multidisciplinary approaches. From left to right, the approaches read: best practices for sustainable management and use, review and strengthening of legal frameworks, knowledge, innovations, and best practices of indigenous peoples and local communities, taxonomy and ecology of the target species, livelihoods alternatives for the customary sustainable use of wildlife, initiatives targeted at women’s empowerment or gender equality, examination of provisions of food and livelihood alternatives relating to customary sustainable use of wildlife, enhancing the governance of wildlife economies, and not applicable meaning that the survey respondent has not used any integrated or multidisciplinary approaches to manage wildlife in a more sustainable way.

## VII. FINAL CONSIDERATIONS

46. The survey results provide a useful overview of where countries and organizations stand in terms of the application of the voluntary guidance for a sustainable wild meat sector and

additional actions requested to the Executive Secretary described in paragraphs 9(a) to 9(c) of decision 14/7. However, it is noted that the sample size of survey respondents is small in comparison to the number of Parties, other governments, and stakeholders of the Convention on Biological Diversity. The survey may be continued, improved and further disseminated to allow a great number of participation, notably from countries, indigenous peoples and local communities, and women's groups.

47. It is also important to highlight that the use of an online survey may not be the best method to reach indigenous peoples and local communities. Alternative methods may be explored in future efforts to collect information on sustainable wildlife management.

48. Another consideration is that in many countries, the management of natural resources, including wildlife, is performed at the sub-national level. Future efforts to collect information should target participants at the city and sub-national level as well.

49. Although the small majority of survey respondents (54%) has not considered the voluntary guidance (see Figure 2), substantial progress appears to have been made towards the steps to improve the sustainability of the wild meat sector described in sections A, B, and C of the voluntary guidance. This seems particularly relevant for steps associated with the management and improvement of the sustainability of wild meat supply at the source, and creation enablement of conditions for a legal, regulated and sustainable wild meat sector. However, steps associated with the reduction of demand for unsustainably managed and/or illegal wild meat in cities and towns could benefit from more efforts to be put into practice.

50. Considering this, the involvement of cities and sub-national governments in the application of the voluntary guidance seems of crucial relevance.

51. Finally, it is important that future efforts to collect information on the application of the voluntary guidance for a sustainable wild meat sector go beyond the overall idea of the voluntary guidance and break it down into the different elements and steps presented in the guidance. This will allow for a more accurate representation of the progress being made.

*Annex*

**LIST OF PARTIES, OTHER GOVERNMENT, AND ORGANIZATIONS THAT PARTICIPATED IN THE SURVEY ON SUSTAINABLE WILDLIFE MANAGEMENT**

**Parties and other governments**

1. Belarus
2. Botswana
3. Brazil
4. Burundi
5. Canada
6. Ecuador
7. Finland
8. Guyana
9. Liberia
10. Malawi
11. Mexico
12. Norway
13. Oman
14. Senegal
15. Sudan
16. United States of America
17. Venezuela (Bolivarian Republic of)

**Organizations**

1. British Association for Shooting & Conservation, United Kingdom
  2. Federico Villarreal National University, Peru
  3. Food and Agriculture Organization of the United Nations
  4. Global Youth Biodiversity Network, India
  5. Independent Wildlife Management Consultant, Zimbabwe
  6. International Council for Game and Wildlife Conservation (CIC), Hungary
  7. International Union for Conservation of Nature (IUCN), Switzerland
  8. Scientific Council of the Convention on the Conservation of Migratory Species of Wild Animals (CMS), Australia
  9. Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
  10. Stellenbosch University, South Africa
  11. The Living Desert Zoo and Gardens, US
  12. University of Abomey-Calavi, Benin
  13. Wildlife Conservation Society, Global
  14. Wildlife Conservation Society, Greater Mekong Region, Myanmar
  15. World Animal Net, United States
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