

# Principles for Developing Sustainable Wildlife Management Laws

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## Introduction

*Wildlife management* is the process of keeping certain wildlife populations, including endangered species, at desirable levels on the basis of scientific, technical and traditional knowledge. *Sustainable* wildlife management adds to this objective the aim of balancing the economic, ecological and social values of wildlife, with a view to protecting the interests of present and future generations. Thus, this concept goes beyond the protection of interests related to hunting and protection for individual species, and rather focuses on wildlife as a renewable natural resource in a holistic way.

Law is a key tool to achieve sustainable wildlife management. It sets the parameters for protection and use of wild animals. Over time, legislation has shifted from narrow command and control, to a more comprehensive approach based on broader concepts such as the conservation and sustainable use of biodiversity. This trend is informed by a number of factors, among them, first the recognition of the interdependence among different species and the direct and indirect threats to wildlife, and second the broad appeal of a people-centred approach to wildlife management —meaning, the participation of concerned individuals in wildlife-related decision-making, the involvement of local communities in wildlife management and the sharing of its benefits.

Against this background, in 2006, FAO and the International Council for Game and Wildlife Conservation (CIC) organized a workshop on “Policy and Institutions for Sustainable Use and Conservation of Wildlife Resources” in Western and Central Asia. The workshop, which was sponsored by the Government of the Czech Republic, concluded that countries in the Western and Central Asian region should undertake an urgent review of existing wildlife legislation, paying due attention to regional and global trends and international best practices. To this end, FAO and CIC produced in 2008 a regional study entitled “Developing Sustainable Wildlife Management Laws in Western and Central Asia.” The regional study included a series of legislative design principles and international best practices for sustainable wildlife management and hunting (Part I), as well as an analysis of hunting laws, wildlife conservation laws, and wildlife-relevant provisions in environmental, forestry, land and tourism laws in ten countries of the region (Part II).

A draft of the regional study was discussed during the workshop “Review and validation of FAO/CIC draft legislative study on Developing Sustainable Wildlife Management Laws in Western and Central Asia” (Antalya, Turkey, 12-16 May 2008), which was convened by the FAO Sub-regional Office for Central Asia and the Turkish Ministry of Environment and Forestry. Comments and suggestions made during the workshop enriched the final version of the regional study, which will be published in late 2008 by CIC.

The present paper has been elaborated on the basis of Part I of the regional study. It illustrates the relevant international framework and comprises a set of design principles on how to develop effective national legislation on wildlife management. The objective of this paper is to share the results of the consultations with wildlife stakeholders from Western and Central Asia to other countries. It is hoped that these design principles can be further refined taking into account the challenges faced and lessons learnt by wildlife legislators in different regions of the world.

## **International legal framework**

Wildlife management has long been regulated at the international level. Initially this was done through a focus on the protection of certain species or on the protection of certain wildlife habitats. More recently, the focus has shifted to more comprehensive approaches, epitomised by the innovative features of the Convention on Biological Diversity. All of these international legally binding agreements are of key importance for the review and drafting of effective national legislation on sustainable wildlife management, either because they pose limits to the sovereignty of countries in regulating wildlife use and protection, or because they call for the operationalization of specific principles, methods and processes for the management, protection and use of wildlife. In addition, a recent international agreement to address cross-cutting environmental issues – thus implicitly including wildlife management – requires States to make provision for public participation in the design of national laws. This is the Aarhus Convention on Access to Information, Public Participation and Access to Justice in Environmental Matters.

### ***a) Species-based international agreements***

Endangered species legislation involves a specialized legal approach to wildlife management. It focuses exclusively on the identification and restoration of species that have reached critically low population levels, on the basis of defined criteria and procedures for listing these species and at least two general mechanisms designed to ensure recovery of individual species. Listing criteria and procedures are based on science-based definitions of “threatened” and/or “endangered,” both of which imply an assessment of the status of the species and the threats to their continued survival. The primary mechanism for recovery is the requirement that government agencies and private developers consider listed species in designing and constructing projects and include adequate protection measures to minimize or mitigate project impacts and ensure the species long-term survival or recovery. The second mechanism is the prohibition of direct and/or incidental “take” of the species in question. “Take” includes the killing of such species by whatever means (not just hunting), as well as any actions that remove a species from its habitat, destroy critical habitat, or otherwise harm, harass, or injure the species (see the definition provided by the Convention on Migratory Species in Box 2).

Two major international wildlife agreements are species-based and focus on the immediate protection of certain species by the adoption of lists, differentiating according to the degree of threat. These lists usually take the form of Appendixes to the Convention, some of which cover most endangered species for which the use is prohibited (albeit with certain exceptions), while others cover less endangered species, the use of which is allowed but should be controlled. These Appendixes are regularly updated by the parties to the Conventions. International listings are usually combined with a permit system, thus requiring the enactment of national legislation to this effect.<sup>1</sup>

**The Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES, Washington, 1973)**, aims to ensure that international trade in specimens of wild animals and plants does not threaten their survival. CITES therefore protects endangered species by restricting and regulating their international trade through export permit systems. For species threatened with extinction which are or may be affected by trade (listed in Appendix I to the Convention), export permits may be granted only in exceptional circumstances and subject to strict requirements. The importation of these species also requires a permit, while trade for primarily commercial purposes is not allowed. For species which may become endangered if their trade is not subject to strict regulation (listed in Appendix II), export permits (including for commercial trade) can only be granted if export is not detrimental to the survival of that species and if other requirements are met. A third list concerns species subject to national regulation and needing international co-operation for trade control (listed in Appendix III): in this case, export permits may be granted for specimens not obtained illegally. Additions and deletions of species from Appendixes I and II are made by the Conference of Parties (COP), according to established criteria. There are approximately 5,000 fauna species and 28,000 flora species protected under the three CITES Appendixes.

**Box 1: CITES listing criteria**

In 1994, the COP adopted updated criteria for listing species, repealing those long in force. The new criteria encompass general principles such as

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<sup>1</sup> Birnie, P. and Boyle, A. 2002. *International Law and the Environment*, Oxford University Press (hereinafter, Birnie and Boyle).

the precautionary principle, which implies that in case of uncertainty either as regards the status of a species or the impact of trade on the conservation of a species, parties should act in the best interest of the conservation of the species concerned and adopt measures that are proportionate to the anticipated risks to the species.<sup>2</sup>

Accordingly, a species **“is or may be affected by trade”** if:

- i) it is known to be in trade (using the definition of ‘trade’ in Article I of the Convention), and that trade has or may have a detrimental impact on the status of the species; or
- ii) it is suspected to be in trade, or there is demonstrable potential international demand for the species, that may be detrimental to its survival in the wild.

In addition, a species is considered to be **“threatened with extinction”** if it meets, or is likely to meet, at least one of the following criteria:

A. The wild population is small, and is characterized by at least one of the following:

- i) an observed, inferred or projected decline in the number of individuals or the area and quality of habitat; or
- ii) each subpopulation being very small; or
- iii) a majority of individuals being concentrated geographically during one or more life-history phases; or
- iv) large short-term fluctuations in population size; or
- v) a high vulnerability to either intrinsic or extrinsic factors.

B. The wild population has a restricted area of distribution and is characterized by at least one of the following:

- i) fragmentation or occurrence at very few locations; or
- ii) large fluctuations in the area of distribution or the number of subpopulations; or
- iii) a high vulnerability to either intrinsic or extrinsic factors; or
- iv) an observed, inferred or projected decrease in any one of the following:
  - the area of distribution; or

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<sup>2</sup> CITES Conf. 9.24 (Rev. COP14).

- the area of habitat; or
- the number of subpopulations; or
- the number of individuals; or
- the quality of habitat; or
- the recruitment.

C. A marked decline in the population size in the wild, which has been either:

- i) observed as ongoing or as having occurred in the past (but with a potential to resume); or
- ii) inferred or projected on the basis of any one of the following:
  - a decrease in area of habitat; or
  - a decrease in quality of habitat; or
  - levels or patterns of exploitation; or
  - a high vulnerability to either intrinsic or extrinsic factors; or
  - a decreasing recruitment.

The Convention requires States to adopt legislation that:

- i) designates at least one Management Authority and one Scientific Authority;
- ii) prohibits trade in specimens in violation of the Convention;
- iii) penalizes such trade; or
- iv) calls for the confiscation of specimens illegally traded or possessed.

In the last decade, the COP has adopted several resolutions on enforcement and compliance, recommending confiscation of specimens exported illegally;<sup>3</sup> on disposal of confiscated specimens or their parts or derivatives;<sup>4</sup> and on greater coordination between competent authorities, and outlining measures to promote enforcement, such as creating appropriate incentives for local and rural communities.<sup>5</sup> The COP has also adopted resolutions on trade in specified species, and on ranching and breeding of protected species. Compliance and the adequacy of legislation has recently been enshrined in CITES Strategic Vision 2008-2013.<sup>6</sup> Parties are called to comply with their

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<sup>3</sup> CITES Resolution 9.9 (1994).

<sup>4</sup> CITES Resolution 9.10 (Rev.) (1994).

<sup>5</sup> CITES Resolution 11.3 (2000).

<sup>6</sup> CITES Conf. 14.2: CITES Strategic Vision: 2008-2013.

obligations under the Convention through appropriate policies and legislation, by establishing transparent, practical, coherent and user-friendly administrative procedures, and reducing unnecessary administrative burdens. In addition, it is stressed that implementation of the Convention at the national level must be consistent with decisions adopted by the Conference of the Parties. National drafters, law enforcement officers and wildlife managers should, therefore, keep abreast of the periodic decision-making by the Conference of the Parties.

It should be noted that CITES specifically provides that its provisions do not affect the right of Parties to adopt stricter domestic measures regarding the conditions for trade, taking, possession or transport of specimens of species included in Appendices I, II and III, or the complete prohibition thereof; or domestic measures restricting or prohibiting trade, taking, possession or transport of species not included in Appendix I, II or III (art. 14).

**The Convention on the Conservation of Migratory Species of Wild Animals (CMS, Bonn, 1979)** aims to conserve terrestrial, marine and avian migratory species throughout their range, thus requiring cooperation among “range” States host to migratory species regularly crossing international boundaries. With regard to species considered as endangered (listed in Appendix I), States must conserve and restore their habitats; prevent, remove or minimize impediments to their migration; prevent, reduce and control factors endangering them; and prohibit their taking. With regard to other species which have an unfavourable conservation status (listed in Appendix II), range States undertake to conclude global or regional agreements to maintain or restore concerned species in a favourable conservation status. These agreements may range from legally binding treaties (called Agreements) to less formal instruments, such as Memoranda of Understanding (MoU), and can be adapted to the requirements of particular regions. Similarly to CITES, the CMS explicitly states that its provisions do not affect the right of Parties to adopt stricter domestic measures concerning the conservation of migratory species listed in Appendices I and II or to adopt domestic measures concerning the conservation of species not listed in Appendices I and II (art. 12).

***b) Area-based international agreements***

Another specific approach in wildlife conservation legislation is that of identifying specific areas that are critical for the survival of certain wildlife species (migration routes, feeding or breeding grounds, etc.), once again through a listing system. This legal approach, therefore, prioritizes the protection of habitats as special conservation areas for wildlife. The main area-based treaties are the Convention on Wetlands (Ramsar Convention, Ramsar, 1971), and the Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention, Paris, 1972). Area-based international obligations are usually implemented at the national level through the creation of protected areas legislation (national parks, nature reserves, etc.), as well as with legislation ensuring the prevention or minimization of negative interferences in or near these areas. It should be recalled that species-based treaties also call on parties to protect endangered wildlife habitats, along with other management measures.

According to the **Ramsar Convention**, Parties must designate wetlands in their territory for inclusion in a List of Wetlands of International Importance, and promote their conservation and wise use, for example by establishing nature reserves. “**Wetlands**” are defined as “areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres” (Art. 1). The concept of “**wise use**” does not forbid or regulate the taking of species for any purpose, but at least such use must not affect the ecological characteristics of wetlands.<sup>7</sup> Wise use refers to the “sustainable utilization for the benefit of humankind in a way compatible with the maintenance of the natural properties of the ecosystem.”<sup>8</sup> Selection for the Ramsar List should be based on the wetland’s significance in terms of ecology, botany, zoology, limnology, or hydrology. Parties are also to promote sites conservation, including, where appropriate, their wise use; and have also a general obligation to include wetland conservation considerations in their national land-use planning. It is worth noting that the Ramsar Convention has undergone a significant evolution: it was originally named “Convention on Wetlands of International Importance especially as Waterfowl Habitat”, in line with its original emphasis on the conservation and wise use of wetlands primarily to provide habitat for

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<sup>7</sup> Birnie and Boyle, at 618.

<sup>8</sup> Ramsar Convention COP, Rec. C.3.3 (rev.).

waterbirds. Parties to the Convention now recognize that the Convention is applicable to all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities.

The **World Heritage Convention** provides for the identification and conservation of sites of outstanding universal value from a natural or cultural point of view, which are included in the World Heritage List. Natural habitats may include areas which constitute the habitat of threatened species of animals of outstanding universal value from the point of view of science or conservation (Art. 2). The site has to fulfil conditions of integrity, so it has to be large enough to comprehend the essential components of the support system it represents and be sustainable.<sup>9</sup> While responsibility for conservation is primarily vested in the State where the site is located, the Convention also provides for international assistance funded by the World Heritage Fund. Parties to the Convention are obliged to ensure the identification, protection and transmission of natural heritage to future generations. They must adopt protective policies, put in place management services for conservation and take appropriate measures to remove threats (arts. 4-5).

*c) Biodiversity protection and sustainable use*

As opposed to the sectoral approach of the species- or area-based international treaties, the **Convention on Biological Diversity (CBD, Rio de Janeiro, 1992)** reflects the increased global awareness of the interdependence among species. The Convention is not limited to particular species or habitats, but provides for the conservation and sustainable use of biodiversity, defined as “the variability among living organisms”, including “diversity within species, between species and of ecosystems” (art. 2). Although successive to the other wildlife-related international agreements described above, the CBD has become the “umbrella” for the overall biodiversity-related international regime and has significantly contributed to the evolution of pre-existing treaties and to continued coordination of their activities with the CBD. With regards to its State parties, the Convention provides guiding principles that should be taken into account in developing national policy and laws.<sup>10</sup>

The CBD has three objectives, which include not only the conservation, but also the **sustainable use** of biodiversity components (thereby including

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<sup>9</sup> Birnie and Boyle, at 621.

<sup>10</sup> Ibid at 599.

wildlife), as well as the fair and equitable sharing of the benefits arising out of the utilization of genetic resources (art. 1). Sustainable use is defined as using biodiversity components in a way and at a rate that does not lead to the long-term decline of biological diversity, thus meeting the needs and aspirations of present and future generations (art. 2). This concept is particularly relevant for the sustainable management of wildlife as it entails, at a minimum, that countries monitor use, manage resources on a flexible basis, adopt a holistic approach, and base measures on scientific research.<sup>11</sup>

**Box 3: Relevant definitions from the CBD Article 2**

“**Biological diversity**“ means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

“**Biological resources**“ includes genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity.

“**Ecosystem**“ means a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.

“**Ex-situ conservation**“ means the conservation of components of biological diversity outside their natural habitats.

“**Habitat**“ means the place or type of site where an organism or population naturally occurs.

“**In-situ conservation**“ means the conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties.

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<sup>11</sup> Ibid at 638.

“**Protected area**“ means a geographically defined area which is designated or regulated and managed to achieve specific conservation objectives.

“**Sustainable use**“ means the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.

Biodiversity conservation and sustainable use are to be pursued by adopting specific strategies, plans and programmes and by incorporating relevant concerns into any plans, programmes and policies (art. 6). Sustainable use of biodiversity must also be a consideration in national decision-making (art. 10(a)). Parties must establish a system of protected areas, rehabilitate and restore degraded ecosystems and promote recovery of threatened species. To this effect, the role of national legislation is emphasized (art. 8). The threats to biodiversity are not limited to deliberate killing (e.g., hunting): parties are required to identify and control all potential sources of adverse impacts on biodiversity, and to carry out environmental impact assessments of projects likely to have “significant adverse effects” on biological diversity (art. 14). The Convention further calls attention to conservation of animals outside their natural habitats (“ex-situ conservation”, such as in zoos, parks, etc.), with a view to facilitating recovery and rehabilitation of threatened species and for their reintroduction into their natural habitats under appropriate conditions, while at the same time avoiding threatening ecosystems and in-situ populations of species (art. 9).

Another salient feature of the CBD is the importance attached to **people**, in particular local and indigenous communities and their relationship with biodiversity (including wildlife). Particularly with reference to sustainable use, the Convention calls for cooperation between national authorities and indigenous communities and the private sector. In addition, parties are to protect and encourage the customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements. They must also support local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced (art. 10). Finally, the Convention has a pivotal role

in promoting the respect, preservation and maintenance of traditional knowledge and practices relevant for the conservation and sustainable use of biological diversity. It calls upon national governments to ensure communities' approval and involvement when such knowledge is applied, as well as the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices (art. 8(j)).

As can be gleaned from the previous paragraph, the CBD is mostly expressed as overall goals, rather than precisely defined obligations, thus allowing a variety of flexible approaches at the national and local level, so long as the goals are achieved. This reflects the recognition that the requirement for resources conservation must be built around the interests of the individuals, communities and governments concerned in the specific circumstances of the country, as well as the importance of building incentives into conservation and sustainable use objectives (art. 11). Nonetheless, the innovative features of the Convention most often require a major reconsideration of the role of national law in the sustainable management of wildlife, among other things.

As is the case of the other international agreements relevant to wildlife, the CBD provisions are further defined by the decisions of the periodic meetings of its Conference of the Parties (COP). The CBD COP, for example, adopted Decisions V/6 (2000) and VII/11 (2004), calling on parties to apply an **ecosystem approach**, while not precluding other conservation approaches, be they area-based or species-based. Ecosystem in this context is defined as "a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit", without determining the spatial scale of that unit. The ecosystem approach is considered the primary framework for action under the Convention, as its application is expected to help to reach a balance of the three objectives of the Convention. The ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. Furthermore, the ecosystem approach entails a social process: different interested communities must be involved through the development of efficient and effective structures and processes for decision-making and management. The above-mentioned Decision formulates guiding principles in this regard, including decentralization, consideration of adjacent and other ecosystems, long-term objectives and integration of use and conservation.

In the framework of the ecosystem approach, the parties to the CBD have further adopted specific principles and operational guidelines on sustainable use (Decision VII/14: **the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity**), which provide guidance to ensure that the use of the components of biodiversity will not lead to the long-term decline of biological diversity. The Addis Ababa Principles and Guidelines have been drafted with a view to generating incentives for the conservation and restoration of biodiversity because of the social, cultural and economic benefits that people derive from it, and are considered as applying to both consumptive and non-consumptive use of biodiversity. Although not legally binding, these guidelines comprise several elements that may inspire national legislators in regulating the use of wildlife to ensure its sustainability, although the operationalization of these elements will require a flexible and adaptable legal and policy framework adjustable to local realities and specific ecosystems. Indeed, Principle 1 stresses the important role of legislation in ensuring sustainable use. Furthermore, the Principles call for the consideration of local customs and traditions when drafting new legislation and regulations, and the development of new supportive incentives measures. They, moreover, underline the need to resolve any overlaps, omissions and contradictions in existing laws and policies; and highlight the benefits of creating cooperative and supportive linkages between all levels of governance in order to avoid duplication of efforts or inconsistencies. In the following section on design principles for sustainable wildlife management legislation, specific principles and their operational guidelines will be discussed more in detail when appropriate.

**Box 4: Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity: an overview of their practical principles<sup>12</sup>**

**Practical principle 1:** Supportive policies, laws, and institutions are in place at all levels of governance and there are effective linkages between these levels.

**Practical principle 2:** Recognizing the need for a governing framework consistent with international and national laws, local users of biodiversity components should be sufficiently empowered and

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<sup>12</sup> <http://www.cbd.int/programmes/socio-eco/use/addis.asp>.

supported by rights to be responsible and accountable for use of the resources concerned.

**Practical principle 3:** International, national policies, laws and regulations that distort markets which contribute to habitat degradation or otherwise generate perverse incentives that undermine conservation and sustainable use of biodiversity, should be identified and removed or mitigated.

**Practical principle 4:** Adaptive management should be practiced, based on:

1. Science and traditional and local knowledge;
2. Iterative, timely and transparent feedback derived from monitoring the use, environmental, socio-economic impacts, and the status of the resource being used; and
3. Adjusting management based on timely feedback from the monitoring procedures.

**Practical principle 5:** Sustainable use management goals and practices should avoid or minimize adverse impacts on ecosystem services, structure and functions as well as other components of ecosystems.

**Practical principle 6:** Interdisciplinary research into all aspects of the use and conservation of biological diversity should be promoted and supported.

**Practical principle 7:** The spatial and temporal scale of management should be compatible with the ecological and socio-economic scales of the use and its impact.

**Practical principle 8:** There should be arrangements for international cooperation where multinational decision-making and coordination are needed.

**Practical principle 9:** An interdisciplinary, participatory approach should be applied at the appropriate levels of management and governance related to the use.

**Practical principle 10:** International, national policies should take into account:

1. Current and potential values derived from the use of biological diversity;
2. Intrinsic and other non-economic values of biological diversity and
3. Market forces affecting the values and use.

**Practical principle 11:** Users of biodiversity components should seek to minimize waste and adverse environmental impact and optimize benefits from uses.

**Practical principle 12:** The needs of indigenous and local communities who live with and are affected by the use and conservation of biological diversity, along with their contributions to its conservation and sustainable use, should be reflected in the equitable distribution of the benefits from the use of those resources.

**Practical principle 13:** The costs of management and conservation of biological diversity should be internalized within the area of management and reflected in the distribution of the benefits from the use.

**Practical principle 14:** Education and public awareness programmes on conservation and sustainable use should be implemented and more effective methods of communications should be developed between and among stakeholders and managers.

The full text of the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity is annexed to this study.

*d) Public participation*

**The Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention)** was adopted under the aegis of the UN Economic Commission for Europe. It was signed on 25 June 1998 in Aarhus, Denmark, and entered into force on 30 October 2001. Although regional in scope, the Convention is considered global in its significance, namely in the recognition that sustainable development can be achieved only through the involvement of all stakeholders. The global character of the Convention is also reflected in its provisions on accession. Any State may become a party to the Convention: in the case of States that are not members of the UN Economic Commission for Europe, their accession is subject to the approval of the Convention Meeting of the Parties (art. 19). The Convention established three sets of rights for the public (and corresponding international obligations for member countries), which should be implemented through appropriate legislation and regulatory instruments.

First of all, the Convention creates an obligation for public authorities to provide environmental information upon request from the public (art. 4), as well as an obligation to proactively collect and disseminate available environmental information to the public (art. 5). Secondly, the Convention creates an obligation for public authorities to establish transparent and fair procedures allowing public participation in environmental decision-making (art. 6), including in the preparation of plans and programmes relating to the environment (art. 7) or in the drafting of executive regulations and other generally applicable legally binding rules that may have a significant effect on the environment (art. 8). Thirdly, the Convention creates an obligation for public authorities to establish procedures guaranteeing public access to justice (a review procedure before a court of law or another independent and impartial body established by law) in case of denial of access to information or public participation or to challenge acts and omissions by private persons and public authorities which contravene provisions of its national law relating to the environment (art. 9).

The Aarhus Convention applies to every government body performing duties, activities or services related to the environment and possessing environment-related information, thus applying also to authorities dealing with wildlife management. The detailed rules of the Aarhus Convention thus provide useful

specifications for the implementation of more general public participation principles supported by the biodiversity-related conventions.

**Box 5: Relevant definitions of the Aarhus Convention Article 2**

**“Public authority”** means:

- (a) Government at national, regional and other level;
- (b) Natural or legal persons performing public administrative functions under national law, including specific duties, activities or services in relation to the environment;
- (c) Any other natural or legal persons having public responsibilities or functions, or providing public services, in relation to the environment, under the control of a body or person falling within subparagraphs (a) or (b) above;
- (d) The institutions of any regional economic integration organization referred to in article 17 which is a Party to this Convention.

This definition does not include bodies or institutions acting in a judicial or legislative capacity.

**“Environmental information”** means any information in written, visual, aural, electronic or any other material form on:

- (a) The state of elements of the environment, such as air and atmosphere, water, soil, land, landscape and natural sites, biological diversity and its components, including genetically modified organisms, and the interaction among these elements;
- (b) Factors, such as substances, energy, noise and radiation, and activities or measures, including administrative measures, environmental agreements, policies, legislation, plans and programmes, affecting or likely to affect the elements of the environment within the scope of subparagraph (a) above, and cost-benefit and other economic analyses and assumptions used in environmental decision-making;
- (c) The state of human health and safety, conditions of human life, cultural sites and built structures, inasmuch as they are or may be affected by the state of the elements of the environment or, through these elements, by the factors, activities or measures referred to in subparagraph (b) above.

**“The public”** means one or more natural or legal persons, and, in accordance with national legislation or practice, their associations, organizations or groups.

**“The public concerned”** means the public affected or likely to be affected by, or having an interest in, the environmental decision-making; for the purposes of this definition, non-governmental organizations promoting environmental protection and meeting any requirements under national law shall be deemed to have an interest.

### *Concluding remarks*

The international obligations and standards illustrated in this section are either applicable to specific wildlife species or their habitats, or to a holistic concept of sustainable wildlife management as part of each country’s efforts to preserve biodiversity and ensure the sustainable use of its components. Some obligations pose significant limits to the sovereignty of countries in regulating wildlife use and conservation (as in the case of CITES and CMS Appendix-I listed species), so state parties have limited, if any, flexibility in translating them into national legislation. On the other hand, others international commitments are of a more general nature, because they call for the operationalization of broad principles, methods and processes (most notably, the Biodiversity Convention), so state parties have a variety of options in implementing them at the national level. Nonetheless, these broad principles and general obligations may have a highly innovative impact on the design of national legislation, particularly when introducing new concepts in a national legal framework (for instance, the participatory approach).

It should be noted that countries in the region may also be party to bilateral or regional agreements having a bearing on wildlife management. In addition, national legislators and wildlife managers may find it useful to draw upon the instruments elaborated by the International Union for the Conservation of Nature (IUCN), an international organization whose members are both governmental and non-governmental in nature. With regards to wildlife, two specific instruments may be consulted:

- The IUCN Red List of Threatened Species assesses the conservation status of species, subspecies, varieties and even selected subpopulations on a global scale

in order to highlight taxa threatened with extinction, and therefore promote their conservation. Thus, the main purpose of the IUCN Red List is to catalogue and highlight those taxa that are facing a higher risk of global extinction (i.e. those listed as Critically Endangered, Endangered and Vulnerable). The IUCN Red List also includes information on taxa that are categorized as Extinct or Extinct in the Wild; on taxa that cannot be evaluated because of insufficient information (i.e. are Data Deficient); and on taxa that are either close to meeting the threatened thresholds or that would be threatened were it not for an ongoing taxon-specific conservation programme (i.e. are Near Threatened);<sup>13</sup>

- The IUCN Protected Area Management Categories aim to establish greater understanding among all concerned about the different categories of protected areas. The categories are defined by the objectives of management, not by the title of the area nor by the effectiveness of management in meeting those objectives. Each category implies a different gradation of human intervention. They are expected to be used by those planning to set up new protected areas, and by those reviewing existing ones, with a view to meeting objectives consistent with national, local or private goals and needs. The Categories defined in 1994 include areas managed mainly for: I strict protection [Ia) strict nature reserve and Ib) wilderness area]; II ecosystem conservation and protection (i.e. national park); III conservation of natural features (i.e. natural monument); IV conservation through active management (i.e. habitat/species management area); V landscape/seascape conservation and recreation (i.e. protected landscape/ seascape); and VI sustainable use of natural resources (i.e. managed resource protected area).<sup>14</sup>

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On the basis of the international legal framework on wildlife management, the following section will identify principles for the design of effective legal frameworks on sustainable wildlife management. These principles are based on the experience of the FAO in advising member countries in the review of existing and drafting of new legislation on renewable natural resources.<sup>15</sup>

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<sup>13</sup> <http://www.iucnredlist.org/>.

<sup>14</sup> The guidelines for applying protected area management categories are currently under revision: [http://www.parksnet.org/files/1/2/89267\\_documents\\_document\\_file\\_1282.doc](http://www.parksnet.org/files/1/2/89267_documents_document_file_1282.doc).

<sup>15</sup> See, for instance, the following LEGN publications: Cirelli, M.T. 2002. *Legal Trends in Wildlife Management*, FAO Legislative Study #74; Lindsay, J. 2004. *Legal frameworks and access to common pool resources*, Legal Paper Online #39; and Rosenbaum, K. L. 2007. *Legislative drafting guide: A practitioner's view*, Legal Paper Online #64. The Legal Papers Online are available at <http://www.fao.org/Legal/prs-ol/full.htm>.

## **Design principles for sustainable wildlife management laws**

The following principles for the design of sustainable wildlife management laws first address general approaches to good legal drafting that are applicable to laws on renewable natural resources in general. Then, they address specifically wildlife management planning as an overarching mechanism for wildlife conservation and sustainable use. This is followed by principles on conservation and sustainable use in turn; and finally by principles related to strengthening law enforcement. Where appropriate, attention is drawn to underlying international obligations and standards.

### ***General principles***

#### **Principle 1: Developing a wildlife policy/strategy**

A policy (or strategy) provides a set of orientations and principles of actions to guide and determine future decisions in relation to the conservation and sustainable use of natural resources for the benefit of society from a social, economic and environmental viewpoint. A wildlife policy specifically provides guidance for planning, resource allocation as well as legal reforms related to the wildlife sector. The policy represents the consensus among all relevant stakeholders on wildlife management objectives in the country. While the national wildlife authority will most likely lead the process of policy development, the responsibility to undertake activities to reach the identified policy objectives may be allocated to different governmental and non-governmental actors. The national wildlife authority will remain in charge of overseeing that the policy goals are achieved.

The policy process will start with the identification of the relevant stakeholders, and of existing constraints and prospects for the development of the wildlife sector, including legal bottlenecks and opportunities. On the basis of the problems identified, the policy will identify possible solutions that will be discussed by different stakeholders having an interest in, or being potentially affected by, wildlife management, with a view to defining the goals of wildlife management in a medium- to long-term period. For each goal, implementation tools will then be identified, including capacity building and training, public education and awareness raising, technical work, revision of legislation and of the institutional set-up. This exercise will finally conclude

with a determination of responsibilities, timeframes and resources necessary for policy implementation. Thus, a wildlife policy helps to determine through a participatory and inter-sectoral manner how legislation should be adapted or reformed in order to achieve medium- and long-term goals for the wildlife sector. Wildlife policy may also remedy existing problems, while at the same time indicating where instruments other than legislation may be preferable to attain certain specific objectives.

## **Principle 2: Drafting clear and understandable legislation in a participatory way**

Complying with restrictions in the legislation and exercising rights effectively requires a general understanding of the legislation and its application. Therefore, to ensure that legislation will be respected and will actually impact on social behaviors, legal instruments must be user-friendly. Legal drafting should be undertaken from the perspective of end users. The general public, as well as wildlife management professionals need to have clear understanding of their rights and responsibilities under the law. This will also avoid or minimize doubts or conflicts in the interpretation of legislation by national courts.

The process by which legislation is written can indeed facilitate or obstruct efforts to reduce illegal activities. To ensure that legislation reflects reality and is subsequently understood by those affected by it, new legal provisions should be drafted in a participatory manner to build capacity among stakeholders in the knowledge and use of the law and in the exercise of their rights. Participatory legislative drafting involves the genuine involvement of all categories of stakeholders at the central and local level, in urban and rural contexts (government and non-governmental institutions, central and local institutions, local communities and traditional wildlife users, private sector organizations, farmers, environmental NGOs and hunters' associations). It also requires a true commitment to understand the needs, objectives, insights and capacities of intended users of the law and to find ways to accommodate multiple interests at stake. Participatory legislative drafting greatly contributes to the quality and clarity of legislation, thanks to the information and perspectives gathered through public consultations. As a result of the sense of ownership and legitimacy nurtured by the legislative process, public acceptance and compliance with legislation will be increased.

For parties to the Aarhus Convention ensuring public participation in wildlife law-making is also a matter of fulfilling an international obligation. In addition, in accordance with the Convention on Biological Diversity, participatory legislative drafting provides an avenue for bringing on board the concerns of local and indigenous communities, particularly their traditional use of wildlife, as well as traditional knowledge and practices related to wildlife conservation. Accordingly, the Addis Ababa Principles and Guidelines invite decision makers to consider local customs and customary law when drafting new legislation.<sup>16</sup>

### **Principle 3: Adopting an integrated and multi-disciplinary approach**

Legislation should never be adopted in a vacuum. A new law should complement other laws and sectoral strategies. Drafting sustainable wildlife management legislation is no exception. Adopting an integrated approach that takes into account other sectoral laws (environment, protected areas, land, forest, agriculture, arms, and tourism) is critical for the effectiveness of wildlife legislation.

Before developing new legislation, therefore, it is essential to identify and analyse all of the existing legal provisions that are directly or indirectly related to wildlife management. This helps determine the range of reforms that will be necessary, while outlining the parameters within which any new regulation will take place. The analysis will aim at identifying gaps where no rules exist on specific aspects of wildlife management, or where are insufficient or outdated. It will also identify inconsistencies within the wildlife-specific legal framework, or between that framework and other related laws. Finally, it will also identify areas where the laws have proven difficult or even impossible to implement or enforce. Carrying out an initial analysis of the existing framework serves, therefore, to map the scope of legal reforms needed: the preparation of a new legal instrument, or in other cases, only amendments to existing legal instruments, for example to add a few specific obligations or to enhance coordination.<sup>17</sup>

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<sup>16</sup> Addis Ababa Principles and Guidelines, practical principle 1, first operational guideline.

<sup>17</sup> Inspired by FAO, 2005. *Perspectives and guidelines on food legislation, with a new model food law*, Legislative Study 87, Chapter 5.

This approach is also supported by the Addis Ababa Principles and Guidelines for the Sustainable use of Biodiversity (Addis Ababa Principles and Guidelines), that call for “identify[ing] any overlaps, omissions and contradictions in existing laws and policies, and initiating concrete actions to resolve them.”<sup>18</sup> In addition, other laws of general application should be taken into account (first and foremost the Constitution, and then property laws, civil and criminal law, tax law, etc.). With regard to the appropriate level of wildlife management, it will also be important to take into account local government laws. In this respect, the Addis Ababa Principles and Guidelines call for “strengthen[ing] and/or creat[ing] cooperative and supportive linkages between all levels of governance in order to avoid duplication of efforts or inconsistencies.”<sup>19</sup> These recommendations also justify the need for wildlife legal drafters to make appropriate references to other applicable legislation. When intending to derogate from more general rules, the law should expressly state so.

#### **Principle 4: Avoiding legislative overreaching**

Legislation should be realistic: to ensure compliance, legislation should provide for obligations that people can reasonably comply with, taking into account the capacity of public authorities and other stakeholders. This is also reflected in the Addis Ababa Principles and Guidelines, where reference is made to the need to “avoid unnecessary and inadequate regulations ...because they can increase costs, foreclose opportunities and encourage unregulated uses, thus decreasing the sustainability of use.”<sup>20</sup>

This is not to say that legislation should not introduce changes in management practices. That is of course the point of making changes – to introduce new management concepts and practices as a way of filling gaps or aligning national legislation with international standards and obligations. When the proposed changes have to face little implementation capacity, legal requirements could still be introduced in an incremental fashion, and be reviewed in time as capacity increases.

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<sup>18</sup> Addis Ababa Principles and Guidelines, practical principle 1, third operational guideline.

<sup>19</sup> Ibid, fourth operational guideline.

<sup>20</sup> Ibid. practical principle 3, third operational guideline.

**Legal options:** where certain wildlife management goals are not immediately achievable, it may be useful to look for ways to “phase in” or create “trigger” legal provisions. In other words, treat legislation as preliminary and target timeframes or events that are most likely needed before a given legal requirement can be imposed. Structuring the law this way will create an immediate potential but ensure that prerequisites first be met before rights may be exercised.

For example, if community management of a trophy hunting concession is the desired goal, it may be useful to establish a legal requirement that trophy hunting will only be allowed where:

- scientific evidence demonstrates that a viable wildlife population exists to support such hunting (example of a “trigger”); and
- the community has initiated specific management activities and entered into an agreement for collaborative management with the appropriate agency (example of a “trigger”).

An example of a “phase-in” approach to handle a new concept is the use of “grace periods” where existing practices may continue for a specified period of time before some other requirement must be fulfilled. Thus the law may state:

- that hunting in a given area may continue for a period of three years from the date the law becomes effective, after which a management plan covering the area and targeted wildlife must be in place;
- that areas failing to meet the requirement will have hunting rights terminated until the requirement is fulfilled.

This allows for the gradual implementation of the law in a manner more likely to receive compliance than an immediate obligation that neither government agencies, nor local communities are prepared to assume. The same may be done with a number of tools, including the use of wildlife surveys, the establishment of hunting quotas and the determination of hunting seasons and hunting methods, etc. Another option may be to use pilot experiences to test new legal approaches within a restricted geographical area. In light of lessons learnt, national legislators may decide to opt for new legal tools that meet local circumstances and capacities.

In light of the chronic lack of or delayed enactment of implementing regulations in many countries in the world, drafters need also to consider

carefully the the essential provisions in the framework law and whether some areas should be instead left to subsidiary legislation (rules, decrees, bylaws, regulations, etc.). It should be ensured that the level of detail in the law suffices for it to be operational on its own, in the delays of developing and adopting implementing regulations. To avoid these difficulties, it is necessary for the framework law to spell out at a minimum the *rights* and *obligations* it creates (or rather *powers* and *responsibilities*, when public authorities are concerned), and the basic objectives and principles for the processes to implement them. This should not result in an overly detailed law, but rather clarify the mandate for, and facilitate enactment of subsidiary legislation. Technical specifications should generally be left to subsidiary legislation.

### **Principle 5: Ensuring clarity in the institutional set-up and inter-institutional coordination**

Another general principle for good legal drafting, which is also applicable to wildlife management laws, is that the law should clarify the mandate and functions of all public authorities related to wildlife management. “Legal mandates” refer to legal provisions requiring or allowing government agencies or persons to engage in activities affecting the resource or its components. This is a deliberately broad concept that encompasses all possible actions, activities, permissions, or even prohibitions. Usually, legal mandates are framed in general terms, thus resulting of difficult practical application, with no guidance as to the exercise of powers, limits to discretion or procedures for decision-making. Possibly, the law should provide some *guidance to the exercise of public discretion*, in order to increase the legitimacy and accountability of public authorities.<sup>21</sup> Furthermore, with a view to enhancing the accountability of wildlife authorities and avoiding conflict of interests, the law should avoid the possibility of *mixing management/commercial activities and control functions* in the same (public or private) body.

#### ***Legal options:***

- In order to facilitate and legitimize the work of wildlife authorities, the law should define at a minimum the powers and responsibilities of each level of authority, in order to clarify their respective mandates and division of labour.

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<sup>21</sup> This is also encouraged from an ecosystem approach perspective: see CBD Decision VII/11 (2004) on the Ecosystem approach (hereinafter, CBD Decision VII/11), Annex, principle 1.6.

To this end, the law should establish which key government service is responsible to users, and identify discrete components of the mandate of government services at the central and local levels;

- the law should specify the criteria according to which powers should be exercised (for example, by requiring that they are compatible with wildlife management plans, or with overall objectives for a particular type of wildlife);
- the law should ensure that the actions of public authorities are open to public scrutiny and that their decisions can be judged against measurable criteria, to avoid any abuse of authority;
- the law should allocate management/commercial activities and control functions to different public bodies or other entities.

In addition, as wildlife legislation does not exist in a vacuum but must be coordinated with legislation in other relevant areas, so wildlife authorities need to coordinate their activities with other line government agencies in related areas of work. Laws sometimes limit themselves to short or scant provisions on coordination, without prescribing coordinated planning or joint-decision making. There is therefore a need to *institutionalize coordination* with other public bodies, and clarify how and when inter-institutional coordination should be sought. This is particularly important when it is not possible, for political or other reason, to have one main body responsible for wildlife management, so that relevant legal mandates are and will likely remain scattered among different institutions.

***Legal options:***

- the law should spell out in detail in which cases or on which matters institutional coordination should be sought;
- the law should also define the procedures or mechanism through which coordination can be achieved, for instance by:
  - creating a duty to exchange information on matters of common concern, and/or request the prior consent or advice of interested government bodies;
  - setting up joint decision-making procedures,
  - creating a coordination body composed of government and possibly non-governmental representatives.

## **Principle 6: Involving local communities and the private sector in wildlife management**

History has demonstrated that focusing exclusively on the control functions of government authorities related to natural resources law has a limited impact on social behaviour. The extent to which law encourages and enables positive behaviour may be more effective in ensuring sustainable wildlife management. Without the involvement of local people and the creation of a significant stake in the management of wildlife resources for them, the efforts of officials to protect and ensure the sustainable use of wildlife will often be futile. Absence of stake reduces incentives of local people to comply with the law and prevents them from instating on the compliance of outsiders, including government officials themselves. This is reflected in the Addis Ababa Principles and Guidelines, which call for “recognizing the need for a governing framework, consistent with international laws, in which local users of biodiversity should be sufficiently empowered and supported by rights to be responsible and accountable for the use of the resource concerned.”<sup>22</sup>

*Legal options* include:

- adopting measures that aim toward delegating rights, responsibilities, and accountability of those who use and manage resources, taking into account local custom, traditions and customary laws;<sup>23</sup>
- providing for the equitable distribution of benefits deriving from the use of wildlife resources among local communities who live or are affected by such use or wildlife conservation, in light of their needs and contributions to wildlife conservation and sustainable use.<sup>24</sup> To this end, the law could:
  - promote economic incentives (job opportunities, for instance);<sup>25</sup>
  - promote alternative non-consumptive uses of wildlife,<sup>26</sup> or provide assistance to have access to alternatives;<sup>27</sup>
  - involve local stakeholders in the management of wildlife and provide with equitable compensation for their efforts;<sup>28</sup>
  - ensure that an equitable share of benefits remain with local people when foreign investment is concerned.<sup>29</sup>

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<sup>22</sup> Addis Ababa Principles and Guidelines, practical principle 2.

<sup>23</sup> Ibid, first and second operational guideline., <sup>24</sup> Ibid, practical principle 12.

<sup>25</sup> Ibid, first operational guideline., <sup>26</sup> Ibid, fourth operational guideline.

<sup>27</sup> Ibid, seventh operational guideline., <sup>28</sup> Ibid, fourth operational guideline.

<sup>29</sup> Ibid, fifth operational guideline.

## **Principle 7: Guaranteeing public participation in decision-making**

International standards on sustainable development and environmental protection emphasize the need for public participation. The assumption is that greater public participation can improve the quality of decisions, improve the public's respect for those decisions and improve public perception of government. In this regard, it should be noted that public perceptions may vary among different non-governmental stakeholders, depending on the level of consultations. Thus, public participation should be ensured both at the central and at the local level, particularly involving rural communities.

Provisions on public participation are initially considered burdensome by government officials who are worried that the process of plan adoption or regulatory reform will be slowed by an avalanche of comments. Such fears, however, are usually exaggerated and the process can serve pragmatic purposes, such as greater public ownership, increasing acceptance and higher level of compliance. Another reason for governments' scepticism regarding participatory approaches is the fear of losing power, although a participatory process does not undermine the government's role in balancing (and prioritising) competing interests. It rather calls for transparency in such process, and for the need to justify decisions in light of the public concerns represented in the consultative process. Participation thus brings more legitimacy to the decision-making process, and may lead to a better public image of decision-makers.

Wildlife legislation, as all resource allocation laws, can and should contribute to the creation of such transparent decision-making. The appropriate means of achieving this transparency will certainly vary depending on the resource, the managing authority, and local traditions. Even when public participation provisions exist in the law, these may be very difficult to apply in practice because they have been framed in very general terms, without a guaranteed and specified process for obtaining their fulfilment. However, there are a number of sub-principles within this subject that have been accepted internationally in the context of the Aarhus Convention and that can effectively inspire national legislators. The following options will indicate how wildlife legislation can support public participation and be framed in such a way as to ensure its immediate application, even in the delays of enacting implementing regulations.

**Legal options:** First of all, the law could identify the subject areas where transparency is considered critical. These could include:

- management planning exercises directly affecting wildlife (i.e., plans for specific species) or related to wildlife habitat conservation (i.e., forestry, national parks, wetlands, etc.);
- listing and delisting of species under national endangered species legislation and under hunting laws;
- development and amendment of hunting regulations;
- opening and closing of hunting areas;
- allocation of hunting concessions (regardless of whether these are government or private concessions);
- creation and renewal of community-based hunting agreements (these may concern individual members of communities, households, the community as a whole);
- all scientific data related to wildlife, including population studies, study methods, results from hunter return forms, numbers of and types of permits issued, estimated harvest levels for specific areas, etc);
- annual setting of hunting quotas (with the requirement that the scientific authority use the best available scientific information);
- accounting of all hunting revenues; and
- legal proceedings related to any of the foregoing or any violation of hunting and wildlife management legislation.

To ensure that these areas have been adequately addressed, it may be sufficient in organic legislation to reference Aarhus-compliant legislation and to identify the additional requirements and procedures applicable to the subjects listed above. If Aarhus-compliant legislation is not available, sustainable wildlife laws should spell out modalities to facilitate public access to information specifically related to wildlife.

**Legal options:**

- Establishing a public right to access wildlife-related information: this requires a mechanism by which concerned citizens can obtain upon request information in an easy, adequate and timely fashion. The law, therefore, needs to go beyond the “right to seek and receive information” formulation, and rather (as suggested, for example, by the Aarhus Convention Article 4):
  - spell out how the information should be requested (from which public authority information can be obtained or where the information is deposited);

- provide for minimal fees or exemptions to fees to obtain the information,
  - specify the grounds for refusing information and maximum timelines for providing the information requested,
  - set penalties for improperly withholding information, and/or
  - create judicial mechanisms for challenging denial of requests.
- Creating a duty to inform the public: alternatively or in addition to the right to access information, the law can impose a duty to inform the public upon wildlife authorities. Thus, the law can require as a matter of routine the publication of certain types of information whether or not requested by the public. In this case, the law needs to specify:
    - what kind of information should be made public,
    - in what forms and in what timeframes information should be made public, and
    - which public authority is responsible for informing the public.

Similarly, wildlife laws should provide the minimum requirements for public participation in wildlife-related decision making, both at the central and local levels.

**Legal options:** Several options can be taken into account in this regard:

- Regular admittance to government meetings: the law may simply allow the public, or relevant stakeholders, to participate in government meetings called for wildlife-related decision-making;
- Legally mandated consultations: with a more proactive approach, the law may establish a duty for public authorities to use a public notice and comment period prior to the adoption of a wildlife-related decision. These consultations may be convened at the central and/or local level, depending on the foreseen effects of the decision to be made. This will entail:
  - the publication of proposed rules or decisions;
  - publication of information on the process for receiving and reviewing comments at a reasonably early time;
  - the obligation for public authorities to take into account the comments received; and
  - the obligation for public authorities to provide reasons in writing about the decision made, to allow public scrutiny over how comments have been taken into account.
- Establishment of a public oversight body: the law may create an *ad hoc* body to allow ongoing public participation in wildlife decision-making as well as monitoring decisions implementation. One such body could be a “forum”

with permanent legal status or central and regional “advisory committees.” In either case, the law should provide guidance as to their composition, powers, placement in the government structure. More importantly, the law should establish the obligation for the authority to consider and respond to the advice of this oversight body. It should be noted that the same body could also facilitate institutional cooperation through a mixed composition of government and non-governmental stakeholders.

In accordance with Article 9 of the Aarhus Convention, members of the public should have access to administrative and/or judicial procedures to challenge acts and omissions by private persons and public authorities which contravene provisions of national law relating to the environment, as well as in the specific case in which their rights to access environmental information were ignored, wrongfully refused, or inadequately answered. Along the same lines, in the specific framework of wildlife legislation, the public should be given access to justice both against private persons and public authorities. Usually, laws simply refer to the possibility to recur to the general means for dispute resolution, but there may be a need for more detailed provisions to ensure a fair and efficient process for resolving disputes not only between users, but also between users and government entities. The latter would function as a public monitoring mechanism over the wildlife regulatory system, including a right to challenge government decisions at administrative and judicial levels.

***Legal options:***

- Administrative appeals: A mechanism for the review of conduct of government officials at a higher level of the same government authority that allocated or denied certain rights. It will be necessary for the law to indicate the responsible authority and provide some minimum principles;
- Recourse to independent administrative courts: this should be considered an additional avenue for the resolution of conflicts of interest between forest users and the authority that allocated or denied such use rights;
- Means for resolving disputes between wildlife users: besides recourse to the general court system, users could benefit from alternative dispute settlement mechanisms (out of the court system). For example, users groups could create an internal dispute resolution system. In this case, the law should detail requirement to form a dispute resolution body, and provide for a right to appeal such decisions to a court of first instance.

## *Management planning*

The essential condition for sustainable wildlife management is planning: the process whereby information on the status of wildlife resources, their habitats, their interactions and their economic, social and environmental values is gathered, regularly updated (through a wildlife inventory, assessment, survey, or register/cadastre) and used for planning in time and space the objectives and actions of both wildlife protection and sustainable use (through management plans). This fundamental approach is considered a cornerstone for the sustainable management of natural resources, and should be reflected in wildlife laws. Indeed, the wildlife legal framework should spell out the basic dynamics of the process:

- its objectives and components,
- the logical sequences of steps in the process,
- the need for regular updating, and
- its legal consequences (for example, limits to quantity and to time/place for hunting).

In accordance with global trends and international standards, management planning should be based on the most reliable scientific information and on a precautionary approach. It should be fair and transparent and should take into account social, cultural, religious, economic and ecological considerations affecting wildlife management. Traditional knowledge and practices, should also be taken into account at the planning stage. All this is expected to promote rational and transparent decisions with regards to the protection and sustainable use of wildlife: the law is a fundamental tool to ensure that this process reaches its objectives.

Sustainable management planning is thus a process that focuses not only on technical and scientific issues, but equally on the diverse needs of sustainable development (not only economic, but also social and environmental aspects), allowing for flexibility and local decision-making. It is important to underline here that management planning should not be over-regulated, but rather reflect a practical approach that responds to the capacity and resources of a country's authorities. Different/simplified planning could be envisaged in case of community-based management.

Wildlife management planning is an instrument for the operationalization of the concept of adaptive management advocated by the Addis Ababa Principles

and Guidelines<sup>30</sup> and the ecosystem approach. Natural resources, especially wildlife, are dynamic. In other words, wildlife population levels are rarely the same from year to year, and can be affected by any number of natural and human-caused events – drought, heavy snow, disease, habitat destruction from human development, over-hunting, etc. Legal structures for decision making need to allow for decisions and changes to be made that will reflect the needs of the resource. Because of the complexity of the systems being managed, in this instance wildlife, and the number of users or activities having some impact on the resource, it simply is not possible to know everything in advance. The management solution relies on monitoring, analysis, and adaptation to make the adjustments as necessary. For example, hunting seasons can be shortened, extended, or even cancelled based on new information on the status of the target population. The same is true for a number of other wildlife-related decisions including –but not limited to– listing and delisting of endangered species, hunting quotas, open and close areas, etc. The overarching lesson within this principle is that while legislation can provide guidance (standards) for decisions, it cannot and should not try to make these decisions itself.

***Legal options:*** Generally speaking, embedding flexibility in a legal framework will require the use of provisions that:

- first, specifically identify those decisions requiring flexibility (i.e., seasons, hunting quotas for specific species and populations, etc.);
- second, establish the framework and basis for the decision (i.e., who will make the decisions, when, using what information, and who will be allowed to participate); and
- finally, provide for the expedient resolution of disputes that may arise, including both administrative and judicial venues where appropriate.

These decisions will need to be tied to monitoring efforts that will supply the data necessary for the basis of the decision. In this vein, traditional and local knowledge should not be forgotten or ignored. Indeed, in many societies, it is this knowledge that has allowed for the sustainable use of resources over long periods of time.

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<sup>30</sup> Addis Ababa Principles and Guidelines, practical principle 4.

## **Principle 8: Establishing a system for information-gathering and monitoring**

As highlighted above, the basis for effective wildlife management planning based on an ecosystem approach<sup>31</sup> is accurate and updated information on wildlife resources, their status and their use, environmental and socio-economic impacts, and their interactions with their habitats and with local communities. All sources of information are relevant in deciding about resource management. Science-based information should be privileged, while at the same time allowing for consideration of traditional and local knowledge.<sup>32</sup> Information should be constantly or at least regularly updated: iterative, timely and transparent feedback from monitoring should be ensured.

The importance of information gathering and monitoring has been highlighted by the CBD in the context of the ecosystem approach: reporting performance and results of a certain management approach is considered indispensable for adapting management decisions and developing responsive management capacity.<sup>33</sup> Adaptive management, therefore, is based on active learning derived from monitoring the outcomes of planned interventions and on that basis formulate appropriate responses to disturbances.<sup>34</sup>

Wildlife laws, therefore, need to assign relevant responsibilities and establish the basic elements of the information system feeding into wildlife management planning.

**Legal options:** Wildlife laws should at a minimum provide the basics for a system of continuous information-gathering and monitoring. Legal options include:

- clarifying how the information will be collected and records kept, and setting the criteria to be taken into account in the development of such records (so as to covering social, economic and environmental functions of wildlife, including impact on local populations);
- specifying who at the government level is responsible for information gathering: which government entity should ensure the collection and analysis

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<sup>31</sup> CBD Decision VII/11, Annex, para. 16.

<sup>32</sup> Addis Ababa Principles and Guidelines, practical principle 4; CBD Decision VII/11, Annex, principle 11.

<sup>33</sup> CBD Decision VII/11, Annex, para. 17.

<sup>34</sup> *Ibid*, principle 6.

of information, the frequency and breadth of such collection and its analysis, and forms of inter-institutional cooperation as appropriate. This could entail assigning the responsibility for preparing periodic wildlife inventories or assessments covering the whole of the country's territory to a certain central government agency, and specifying how local government agencies can contribute with information gathered at the local level;

- creating specific obligations to provide information to the government authority for individuals that engage in wildlife conservation and/or sustainable use (as a general obligation, as a condition of licences and concessions, etc.);
- specifying how traditional knowledge can be integrated in the information gathering and analysis process, by facilitating the participation of local communities. In this respect, in accordance with the Addis Ababa Principles and Guidelines, the law should also ensure that the approval of the holder of traditional knowledge is sought before including such knowledge in wildlife assessments and inventories;
- specifying how the larger public can access information on wildlife and contribute with additional information on a voluntary basis.<sup>35</sup>

The ultimate goal of managing wildlife, as with any natural resource, is to maintain the resource so that it provides a benefit to present and future generations. To achieve this goal, managers need the best available scientific information available. What types of studies will be required and when will depend on several factors including for example the species involved, distribution of the species in country and in the region, types of use, international standards, etc. It is therefore not advisable to attempt to dictate in the law exactly what science will be used. However, the law can serve an important role in strengthening the use and availability of scientific information for decision makers.

***Legal options:*** The law can do an effective job of strengthening the use of science in wildlife management by:

- requiring the use of standardized information sources. The type of information and sources required for quota setting should be standardized to the extent possible to allow for the comparison of data across areas and years;

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<sup>35</sup> Ibid, principle 11.1.

- providing for the timely and thorough analysis of collected data (i.e. sufficiently in advance of seasons of use, to allow for review and distribution of licenses and permits);
- using multiple sources of information and data, including indices such as population size, status and trends, sex ratios, frequency of sightings, catch effort and trophy quality (i.e. size);
- where available or necessary, using information and data relevant to a specified hunting block or concession to ensure that science is scaled to the ecology and use;
- using hunt return forms that provide data on a range of important issues, such as effort vs. success rates, the quality of trophies and off-take rates;<sup>36</sup>
- to avoid at least one form of legislative overreaching, require the use of simple data reporting formats, streamlined to facilitate the collection of data from all stakeholders.

The interdisciplinary nature of scientific inquiry must be stressed.<sup>37</sup> Wildlife is part of a complex natural system that cannot be understood if questions and concerns are looked at in isolation. In other words, if managers want to understand why a given population of wildlife is decreasing, then just counting the animals will not be enough. Depending on the species, area, local and possibly even international uses and events, any number of factors will need to be studied – many of which may not be within the expertise of wildlife biologists. To draw one example, decreasing populations of wild sheep may be a function of hunting pressure (for which local knowledge may help), disease (requiring the assistance of wildlife veterinarians), or grazing pressure and competition for forage between domestic stock and wildlife (a study that can and should be aided by the expertise of rangeland specialists) – or any number of other issues and/or combinations of them.

**Legal options:** interdisciplinary approaches to scientific inquiries can be supported by:

- requiring and encouraging active collaboration between scientific researchers and people with local and traditional knowledge;<sup>38</sup>

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<sup>36</sup> On a related note, an effective means to ensure that hunt return information is regularly submitted is to require proof of submission as the basis for applications for trophy export permits. Similarly, compliance with hunt return regulations should form part of the requirement for renewing hunting permits and licenses.

<sup>37</sup> Addis Ababa Principles and Guidelines, practical principle 6.

<sup>38</sup> *Ibid*, practical principle 6, third operational guideline.

- requiring that population studies be designed not only to look at the current status of species in question, but also undertake studies designed to understand reasons behind observed trends;
- if possible, including provisions that require investment in related research and studies that will promote both consumptive and non-consumptive uses (wildlife viewing in national parks, wildlife reserves);
- developing cooperation between researchers and biodiversity users (private or local communities), in particular, involving indigenous and local communities as research partners and using their expertise to assess management methods and technologies;<sup>39</sup>
- making research results available in a form which decision makers, users, and other stakeholders can apply;<sup>40</sup>
- promoting exchange programs in scientific and technical areas.<sup>41</sup>

### **Principle 9: Requiring management planning as a prerequisite to formal management**

As for all natural resources, the management plan is the instrument in which all the ingredients for active management are described – which organizations will undertake what responsibilities and what actions to achieve what ends. However, despite being a primary tool, management plans often go unused. While there are many reasons for this, in the legal world this lack of use can most likely be blamed on two problems – 1) legislative overreaching and 2) a failure to tie the creation and adequacy of the plan to a specific consequence – in other words, the law requires it, but failing to produce one or meet some standard of adequacy has no repercussion. Another important aspect is for the wildlife management plan not to be developed in isolation, but rather in a way (participatory and inter-disciplinary) that ensures its consistency with other natural resources plans, such as forest and wetlands management plans.

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<sup>39</sup> Ibid, fifth operational guideline.

<sup>40</sup> Ibid, eighth operational guideline.

<sup>41</sup> Ibid, ninth operational guideline.

**Legal options:** Beyond simply requiring the development of management planning (where possible, on a species-by-species basis, with separate sections on identifiable populations), some practical legal tools include:

- Tailoring the level of planning to the capacities of the agencies and communities involved. Management planning should be a practical tool – one that can be created in simple form and built upon over time. Appropriately designed legislation can assist in establishing an achievable requirement;
- Stating specifically what information must be included for the plan to be adequate. This may include at a minimum:
  - a legal description of the area covered (whether national, provincial, local, or some other designation). A “legal” description may include or officially recognize customary land boundaries and/or natural boundaries (e.g., rivers, river basins, mountain ranges, etc.);
  - the species covered by the plan;
  - the time period for which the plan is valid;
  - a brief statement of the wildlife management goals and objectives;
  - a description of habitat types, amounts, and plant composition (where possible);
  - a description of history of land use, habitat manipulation and wildlife management;
  - data on historical wildlife harvests where such information is available;
  - approved survey methods to be used for determining population density. Indicate date when current year’s survey data will be submitted;
  - an approved method for determining harvest levels; and
- recommendations for habitat conservation for the species.
- requiring updating this plan for local hunting management planning and activities;
- clarifying the legal implications of management plans: who should comply with them, which legal tools should be in line with management plans (such as allocation of quotas and conditions for permits and concessions);
- restricting the establishment of quotas for any area or species where there is no management planning in place;
- specifically granting the court or other authority the power to stay any agency action for a given area where it is alleged and shown that there is no management plan or that the plan does not meet adequacy requirements;
- requiring public participation should be provided for, before the adoption of the management plan.

In connection with adaptive management and the precautionary approach, those managing wildlife will have to look at the impacts of the use not only on one resource, but on the ecosystem generally.<sup>42</sup> An example specific to wildlife conservation would be considering the disturbance of a particular harvest quota for any given species on other species that depend on its existence or share its habitat. The decline or loss of one species leads to what is called “cascade effects” – i.e., what happens to other species or the environment generally when one species declines to the point it no longer serves its role in the ecosystem by providing a source of food and/or shelter, altering vegetation composition, or serving additional functions that affect the survival of other species. Some of the effects might include prey switching by predators, due to declining prey base; or to a situation in which smaller predator population increases due to a decline or loss of large predators, which in turn can lead to declines in small prey species.

***Legal options:*** Avoiding such negative consequences may involve:

- allowing for changes to be made to seasons, quotas, and areas as new information comes to light, which may include the temporary prohibition of setting seasons, open areas and quotas until a reliable monitoring system is in place and impacts better understood;
- linking responsibility and accountability to the spatial and temporal scale of use, and designing monitoring systems of a temporal scale sufficient to ensure that information about the status of wildlife and its ecosystem is available to inform management. For hunting seasons, for example, this implies legally mandating that monitoring results and quota setting be accomplished sufficiently in advance of the season to allow for review, amendments as necessary, and distribution licenses or permits;
- monitoring guidelines that require managing bodies to consider aggregate and cumulative impacts of activities on a target species and well as related species or ecosystem;<sup>43</sup>
- aiming at avoiding or minimizing adverse impacts on wildlife and its ecosystems,<sup>44</sup> by requiring – when the use of additional resources is justified by necessity – the formulation and implementation of contingency action plans and, where previous impacts have degraded and reduced biodiversity, remedial action plans.<sup>45</sup>

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<sup>42</sup> Adapted from Addis Ababa Principles and Guidelines.

<sup>43</sup> Addis Ababa Principles and Guidelines, practical principle 5, fifth operational guideline.

<sup>44</sup> Ibid, practical principle 5.

<sup>45</sup> Ibid, sixth operational guideline; CBD Art. 10(d).

## **Principle 10:**

### **Sharing management responsibilities between central and local authorities and with local communities**

The law should match the scale management requirements with the ecology of the resource and the economies of use, in accordance with Practical Principle 2 of the Addis Ababa Principles and Guidelines. Along the same lines, according to the ecosystem approach, management should be decentralized to the lowest appropriate level, because “the closer management is to the ecosystem, the greater the responsibility, ownership, accountability, participation and use of local knowledge.”<sup>46</sup> Applied to hunting and wildlife conservation, this principle would recognize that where hunting of a trophy animal occurs only in a given area, then the communities that live in and government agencies responsible for that region should be responsible for the management of that particular wildlife population (subject, of course, to any governing legislation at the national or sub-national level). The ecology of the resource is a particular area, and the economy of use is local. This principle, therefore, on one side, advocates for the decentralization and/or the delegation of some management responsibilities to local government entities, in light of their vicinity to the resource and to the users.

***Legal options:*** Design options that incorporate a certain degree of decentralization may include the following:

- where management decisions concern a specific area, local government structures should be empowered with the possibility to make such decisions and with their implementation;
- where wildlife occurs in several areas or migrates between political borders within the country, delegate responsibility to coordinate joint management efforts to regional and local authorities;
- delegating local authorities to legislate on certain aspects of wildlife management (regulation of local initiatives), within the limits set by national legislation;
- delegating protected areas management entities with powers to determine applicable rules within their concerned areas;
- creating the possibility for the central government to conclude “agreements” with local governments to specify which wildlife management responsibilities can be exercised at the local level.

In all these cases, communication and information sharing among the different levels of management should be ensured.

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<sup>46</sup> CBD Decision VII/11, Annex, principle 2.

On the other hand, the principle under discussion recognizes the fact that management of natural resources is strongest when both local communities and responsible government agencies are involved. While local communities are often in the best position to affect local management, they often lack fundamental capacities that can be improved with the help of responsible government agencies and through appropriately selected policies and actions. Government agencies acting alone have a strong tendency to manage the resource for interests that ignore the realities of local needs and uses. Such marginalized communities become competing users of the resource and declines in species populations are most often the result.

**Legal options:** If a sharing of responsibilities is desired, the balance of power also needs to be defined and achieved for management to succeed. Relative to wildlife management, this principle can take several forms, including:

- joint decision making requirements, supported by the provision of all information available both to local communities and government managers. The Aarhus Convention establishes agreed upon international principles of environmental management that can either be referenced or incorporated into appropriate legislation;
- shared monitoring responsibilities. This is a task that can be shared with local communities and provide substantial data for use in adapting management decisions to the needs of the resource;
- delegation of enforcement authority to local communities. This last option has been used in some countries, but is sometimes constrained to reporting requirements and/or incentives;
- establishment of a negotiated process where feasible that allows for: 1) the use of different instruments, including contracts, memoranda of understanding, collaborative management agreements, etc, to formally recognize the kind of sharing that will occur, and 2) the changing of responsibilities as experience dictates without requiring a change in the law;
- provision of adequate channels of negotiations and conflict prevention/resolution that is appropriate, understandable and easily accessible by local communities.<sup>47</sup>

Overall, local communities and other stakeholders should be engaged at different administrative and decision-making levels.<sup>48</sup>

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<sup>47</sup> Inspired by Addis Ababa Principles and Guidelines, practical principle 9, seventh operational guideline.

<sup>48</sup> CDB Decision VII/11, Annex, principle 7.4.

**Principle 11:**  
**Providing for international cooperation where multinational decision-making and coordination are needed**

This principle echoes Practical Principle #8 of the Addis Ababa Principles and Guidelines, which states that adequate management of a given species will require cooperative efforts (typically embodied in bi-lateral and multi-lateral agreements) between states to determine how resources will be used. Past experience shows that the absence of such agreements results in piecemeal management, which fails to prevent the over-utilization of a resource.

*Legal options* Capturing this principle in law will require an adaptive and iterative approach on an international level, for example by:

- requiring the managing authority to identify wildlife populations that migrate into neighboring countries and engage in cooperation with those countries. This may take the form of requiring the responsible agency to identify existing multi-lateral treaties to which they may become a party,
- granting the power to the managing authority to propose and develop bilateral or multilateral agreements between or among the states for the sustainable use of transboundary wildlife resources;
- for transboundary wildlife populations, making it the responsibility of the appropriate agency or agencies to establish formal and informal links with those countries to undertake joint management of the resource where necessary;
- legally requiring that funding be made available to promote multinational technical committees to prepare recommendations for the sustainable use of transboundary wildlife resources;
- strengthening the legal force of such agreement and initiatives by explicitly recognizing and incorporating them by reference into domestic legislation. The latter may automatically be accomplished through a monist legal system<sup>49</sup> approach mandated in the constitution. To strengthen interpretations, reference to the appropriate section in the constitution should be made.

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<sup>49</sup> In a monist legal system, the constitution of the country in question recognizes the existence of a single legal system and explicitly states that international treaties to which the country is a signatory become law to the extent not inconsistent with the constitution.

## ***Conservation***

As highlighted by the Addis Ababa Principles and Guidelines, sustainable use cannot be achieved without effective conservation measures.<sup>50</sup> Conservation is indeed the “priority target” of the ecosystem approach.<sup>51</sup> There are several legal tools that can be used to support wildlife conservation. The law can frame general principles that should guide public authorities, as well as individuals and communities. The law can also use more specific techniques, namely species-based conservation, area-based conservation, as well as the protection of wildlife from harmful processes (indirect threats). It should further be noted that sustainable use also contributes to conservation, creating incentives for stakeholder active involvement and contributing to poverty reduction and sustainable development.<sup>52</sup> All these aspects will have to be taken into consideration for wildlife management planning, in order to ensure that interactions among species and their habitats are accounted for, and that there is the possibility to regularly review and updated specific approaches.

### **Principle 12: Using a species-based approach**

Species-based approaches have long been accepted as an appropriate method for wildlife conservation. The advantage of the method is that it focuses attention on the conservation status of the species regardless of where it occurs, and allows for management activities to be formulated on the broadest possible scale. As a matter of course, this approach has the strong tendency to compel inter-agency and cross-border initiatives. It should be stressed that wildlife laws should not go into listing protected species, as this will basically deprive of all significance the management planning process, and overall would impede all flexibility in the face of new scientific knowledge or changed international obligations. The law should, therefore, rather establish the responsibility, principles and processes for coming to these decisions.

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<sup>50</sup> Addis Ababa Principles and Guidelines, preambular para. 2.

<sup>51</sup> CBD Decision VII/11, Annex, principle 5.

<sup>52</sup> World Summit on Sustainable Development, Plan of Implementation (2002), para. 44(d). See also IUCN Policy Statement on Sustainable Use (Resolution 2.29, 2000), para 7a): “Use of living wild resources, if sustainable, is an important conservation tool because the social and economic benefits derived from such use provide incentives for people to conserve them.”

**Legal options:** Domestic laws should:

- require the responsible authority to develop species-based management plans that investigate not only status, trade, and habitat, but all uses and processes that may affect the conservation status of the species in question;
- include specific conservation requirements for listed species into area-based management planning. This is most likely to occur in the context of forest management plans and protected area management plans, but may also find use in other planning exercises as well, such as wildlife reserves, transboundary initiatives, etc.;
- develop a listing system for species affording higher levels of protection for species whose “conservation status” is unfavourable. This is most often referred to as endangered species legislation and may be separately drafted or included within an overall wildlife conservation law. These lists should be regularly updated, on the basis of recent scientific information and in accordance with international listings (such as those of CITES and CMS, when a country is party to these international agreements).

To be effective, the law should provide regulatory direction for listing/delisting of species and criteria for how conservation of a listed species will occur. The goal of listing a given species as endangered is to trigger the implementation of additional protection requirements beyond those applicable to all wildlife. These additional requirements need to apply to both government and private actors alike.

**Legal options:** The following should be considered in the design of endangered species legislation:

- specifically listing what types of protection will be instituted for each level of listing, ensuring that if listed, a species may be further protected by increased disincentives to poaching and incidental take;
- clearly stating what conservation objectives must be achieved before a delisting will occur;
- where warranted, allowing for the treatment of separate populations of the same species differently to account for differences in both the status and trends;
- requiring the responsible authorities to develop a species recovery plan in consultation with the national scientific authority, local governments, and the public;
- ensuring that the legal requirements for listing and delisting are first and

- foremost a scientific decision. This means protecting against review by non-scientific bodies – a format that is in line with CITES requirements that the scientific authority is the final decider of quotas for Appendix I and II species;
- using terms and definitions that clearly target both the status and the trend in the population of the species (rare vs. threatened);
  - establishing transparent procedures for listing and delisting that require, in addition to scientific research, public notice and comment processes.

### **Principle 13: Using an area-based approach**

This principle also takes its lead from international conventions and is mentioned here both for its focus on a fundamental component of wildlife conservation (habitat protection), but also because the focus on habitat again has the tendency to ignore political boundaries and thus force a degree of local, regional, and international cooperation.

*Legal options:* Area-based approaches to wildlife management typically find expression within domestic legislation in three ways:

- a mandate within protected area legislation to create a protected area system that includes areas identified as critical wildlife habitat;
- a mandate to the primary wildlife management authority to designate areas outside the protected area system that should benefit from wildlife-specific protection measures; and finally
- the establishment of an area-based hunting scheme that opens only certain areas to hunting and sets criteria for their designation and management.

Once again, flexibility should be retained in the law, so that the list of protected habitats can be easily updated in light of new scientific knowledge, local needs, or changed international obligations.

### **Principle 14: Involving local stakeholders in wildlife conservation**

It is increasingly recognized that without local communities having a significant stake in the management of local resources (that is, by empowering stakeholders and making them accountable), the efforts of under-staffed and poorly financed officials to patrol and protect wildlife will often be futile. The absence of such a stake both reduces the incentives of local communities to comply with the

law, and prevents them from insisting on the compliance of outsiders, including government officials. Therefore, the needs of local communities who live with and are affected by the use and conservation of biological diversity, along with their contributions to its conservation, should be reflected in the equitable distribution of the benefits from the conservation of those resources.

***Legal options:***

- Involve local stakeholders, including indigenous and local communities, in the management of any natural resource and provide those involved with equitable compensation for their efforts, taking into account monetary and non-monetary benefits;<sup>53</sup>
- Promote other economic incentives that will guarantee additional benefits to indigenous and local communities and stakeholders who are involved in the management of any biodiversity components, e.g., job opportunities for local peoples, training and capacity building, equal distribution of returns amongst locals and outside investors;<sup>54</sup>
- Ensure that an equitable share of the benefits remain with the local people in those cases where foreign investment is involved;<sup>55</sup>
- involve local communities in the decision-making and actual management of protected areas. Where compatible with the conservation objectives, allow local communities' traditional use of certain resources in the protected area. Limitation to traditional use for wildlife conservation purposes should be compensated;
- allocating a portion of fines applied to poaching to local community members that contribute to detect and stop illegal activities.

**Principle 15:  
Protecting wildlife from harmful processes and negative impacts of other land uses**

Wildlife conservation does not only entail the protection of species or of their habitats from activities directly affecting them (such as off-take and trade), but also protecting them from activities that may indirectly impact on them in a negative way. This is the case of industrial developments, construction, tourism and mining operations that may result in a serious disturbance to wildlife species or in the destruction of their habitat. In addition, competing land uses (forestry

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<sup>53</sup> Addis Ababa Principles and Guidelines, practical principle 12, sixth operational guideline.

<sup>54</sup> Ibid, first operational guideline.

<sup>55</sup> Ibid, fifth operational guideline.

or agriculture) may also affect wildlife, and usually different pieces of legislation may regulate in different (and sometimes conflicting) ways their impacts on wildlife. This is in recognition of the fact that actual or potential effects of human activities may concern adjacent or other ecosystems.<sup>56</sup> Indeed, in accordance with the Convention on Biological Diversity, countries are required to identify and control all potential sources of adverse impacts on biodiversity, and to carry out environmental impact assessments of projects likely to have “significant adverse effects” on biodiversity (art. 14). Wildlife laws, therefore, should take these impacts into account when providing for the conservation of wildlife, by providing tools for the detection and mitigation of these impacts.

**Legal options:** There are several stages at which the law can play a role in protecting wildlife from harmful processes or impacts of other land uses, such as:

- requesting the assessment of any processes that may be harmful on wildlife (usually through an environmental impact assessment), specifying all steps and minimum requirements (such as the need of considering all alternatives). The law should also specify whether such assessment would be necessary for any economic, administrative or other activities directly or indirectly impacting on wildlife and their habitats. The law should further allow the public to request such as assessment, and to participate with information or comments in the assessment requested by public authorities. The law should in addition specify the legal implication of these assessment – for example, whether expected negative impacts would impede the carrying out of the proposed activity altogether, or whether the activity would be carried out but only in accordance with specific requirements necessary to minimizing negative effects or remedy to them. Another alternative is to impose restrictions on the types of activities that can be undertaken, prohibiting any activities that are likely to cause irreversible damage to the environment. If general environmental legislation already provides rules applicable to wildlife, it may still be advisable for wildlife law to clarify the link with general rules on environmental impact assessment, to avoid legislative conflicts and difficulties in interpretation;
- taking into account the possible negative impacts on wildlife of competing land uses (by referring to restrictions and other requirements under legislation regulating the forestry, agriculture, mining and tourism sectors, for example);
- establishing a general obligation for mitigation of harmful activities;
- listing key threatening processes and requesting a recovery plan for affected wildlife.

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<sup>56</sup> CBD Decision VII/11, Annex, principle 3.

## *Sustainable Use*

The law plays a fundamental role in regulating different uses of wildlife and ensuring that these are sustainable. Besides the need for accordance with management planning (see Principle 9 above), there are several specific legal tools that can be used to ensure sustainable use by regulating hunting, recreational, traditional/subsistence and scientific use of wildlife, as well as trade. These tools include the use of administrative instruments (quotas, licences/permits and concessions) or contractual arrangements (agreements) to be adapted on a case-by-case basis, as well as general provisions on the regulation of the quantity, time and methods for specific uses.

The word “take” usually refers to both the direct extraction of a given specimen through collection (i.e., harvesting, trapping, hunting, etc.) or the indirect extraction or harming in a significant way (i.e., the destruction of habitat from agricultural practices, mining, or industrial development – already addressed in Principle 15 above). The first part of the definition is typically regulated through hunting legislation, although there is often overlap with endangered species regulation. For clarity, this section outlines the principles for regulating take in the context of hunting game animals, and not endangered species. More specifically, we discuss those elements of law designed to control what species may be harvested, how harvest levels for particular populations and areas are determined, as well as hunting seasons, payments types and amounts, and harvest methods.

Providing a secure environment for the conservation of endangered species and reducing the potential for illegal hunting includes the elimination of market opportunities and incentives to international and national trade. In virtually all countries, a flourishing domestic and international market for wildlife products exists targeting several species some of which are internationally recognised as endangered or threatened with extinction. Most laws apply few, if any, controls on domestic wildlife trade and only limited control on international trade, reducing the chances that a hunting and wildlife conservation regime will be successful.

## **Principle 16: Defining and regulating different types of wildlife use and of hunting**

According to the ecosystem approach, the objectives of sustainable use should be determined in order to provide policy guidance, and inform management and planning.<sup>57</sup> Defining and regulating different types of wildlife use including hunting (i.e., subsistence/cultural, recreational, and scientific) and non-hunting uses (such as eco-tourism, game ranching and breeding) is common in regulatory schemes, but regrettably rarely useful. The most frequent problem is the failure of the distinctions to make a connection between the defined types of use, the procedural mechanisms that implement them, and the associated values, quotas, and areas where they may take place.

With specific reference to hunting types, it is not enough to simply define subsistence hunting as “customary and traditional” uses without also establishing a specialized management regime. In other words, the definition of any hunting type should result in specific limits and controls targeting a specific area and particular individuals belonging to an identified group. With reference to non-consumptive uses, consideration should be given, on the one hand, to incentives (or otherwise encouraging legal measures) and conservation concerns (in order to avoid potential adverse impacts on other species or the environment).

### ***Legal options:***

- Where the law considers the use of different *hunting* types:
  - Define each type;
  - Attach specific procedures for the determination of which individuals may hunt for which purposes;
  - Require the appropriate government agency to establish limits and controls for each type of hunting.
- Furthermore, the law should also recognise *non-consumptive uses* of wildlife, while providing minimum requirements to ensure that such use does not negatively affect biodiversity or the environment (such as wildlife disturbance avoidance,<sup>58</sup> cautions for eco-tourism, general obligation for

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<sup>57</sup> Ibid, principle 10.6.

<sup>58</sup> Council Directive 79/409/EEC (EU Birds Directive), Arts. 4(4) and 5(d), with special reference to the “Risk of Disturbance” in the Commission’s Guidance Document under: [http://ec.europa.eu/environment/nature/conservation/wildbirds/hunting/docs/hunting\\_guide\\_en.pdf](http://ec.europa.eu/environment/nature/conservation/wildbirds/hunting/docs/hunting_guide_en.pdf) (at 28 ff.).

operators to monitor and prevent negative impacts on the environment). Specific permitting requirements for operators involved in facilitating third parties' non-consumptive uses should also be provided for.

**Principle 17:**  
**Accurately identifying game and non-game species**

To avoid confusion, international best practice dictates that hunting legislation should specifically identify (using common names and scientific names) not only what can be hunted, but also what cannot. Many hunting regulations use only common names and catchall categories that can result in confusion and possible management gaps. This is especially true for birds where catch-all categories such as “waterfowl” or “ducks and geese” are used to regulate hunting of all birds that fall within that category. In either of these examples, the category includes several species some of which may be globally threatened and/or listed in a particular country as endangered. A failure to make the necessary distinctions may inadvertently result in legally authorizing the take of species not intended by the drafters.

Often, trophy animals are missing from hunting laws and handled separately through high-level decrees or ministerial orders. The result is a parallel set of hunting law that typically does not have the level of detail provided by organic legislation, and can result in confusion and conflicts.

**Legal options:** This principle can be incorporated using the following:

- including all common names (if known by different communities under different names) and the scientific name for the species;
- where there is only one common name for different species, adding definitions that more specifically identify the species. This may include legal descriptions of where the species occurs and/or drawings of the species incorporated into regulations for distribution;
- specifically listing all species that may be hunted and state that any unlisted species may not be hunted. This type of provision can help close the door on activities authorized by other forms of legislation;
- explicitly clarifying that different hunting types are subject to different rules.

## **Principle 18: Providing for an adaptive, science-based determination of hunting quotas**

One of the typical legal tools for ensuring the sustainability of hunting is setting up a well-structured, flexible and science-based system for setting limits to the quantity of animals to be harvested. Legislation typically does not mandate specific scientific methods, but rather sets a process, together with standards or guidelines that should be followed to ensure that hunting activities conform to the management objectives of the species and area in question. For example, if the objective within a buffer zone is to increase a given species population, quantitative limits should be set at a level that, according to the best available scientific information, achieve this goal. Quotas should be assessed periodically, and state with specificity the number of animals and, where appropriate, which sex may be hunted in a given area, per hunter. The same system should also be capable of stating which animals may not be hunted and the reasons for this; i.e. population declines, breeding or migratory route, international or national protection status, etc.

The primary lesson learned in many countries is that often the determination and setting of quotas is less science-based and more demand-driven. In a typical legal format, the law requires political sub-divisions or organizations to submit requests for harvest quotas. These requests are later reviewed by a scientific authority, but generally no scientific study forms the basis either for the request or the review. For trophy animals, the demand-driven nature of the process is even more apparent, where high-level government entities (e.g., a Cabinet Ministry or Minister) have the authority to set quotas for all trophy species at levels greater than those authorized by the scientific authority. Furthermore, as highlighted by the Addis Ababa Principles and Guidelines, the law should ensure that quotas are set according to scientific information that is regularly updated through a monitoring system, and should not be based on the economic needs of management planning.<sup>59</sup>

In order to ensure that quantitative limitations to hunting are understood and respected by users, quota-setting systems should be transparent and participatory, with a view to including consideration of traditional knowledge. In addition, the participation of wildlife users in this type of decision-making

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<sup>59</sup> Addis Ababa Principles and Guidelines, practical principle 13, second operational guideline.

may help them better understand the long-term aims of setting quantitative restrictions. Legal options presented below should, therefore, be read in conjunction with Principle 23.

**Legal options:** It is a difficult task to conduct accurate and reliable assessments for wildlife populations. It is, however, a fundamental principle for the sustainable harvest of any natural resource that a limit needs to be set that will not negatively affect the continued viability of the resource. Flexibility should therefore be retained in the law. Legislative options that can help achieve this task include:

- Clearly delineating a transparent, science-based and accountable process and procedure for establishing periodic hunting quotas (drawing on the Aarhus Convention). There may be different policies or procedures for different species or stakeholders (private landowners, communal land areas or concessions), but in all cases quota-setting requirements should be established according to a set procedure and under some kind of supervisory control by central government, while involving key stakeholders;
- Linking quota setting with management planning and its monitoring system;
- Legally requiring the incorporation of local knowledge in the assessment and determination of harvest levels;
- Empowering local stakeholders to contribute to wildlife assessments where sufficient capacity exists.

### **Principle 19: Establishing procedural mechanisms for flexible and adaptive hunting seasons**

Based on the concept of adaptive management, the length of seasons may be periodically adjusted with a view to controlling hunting activities that may have negative impacts on declining species. Seasons are thus usually reviewed on an annual basis to assess the impact on wildlife population levels and the ability of the management regime to meet defined population management goals for specific areas.

Experience has shown that hunting seasons typically have three notable problems. First, many hunting seasons are statutorily defined and thus inherently inflexible. Because hunting seasons are defined directly in the legislation, they are unlikely to be changed on an annual basis (or even mid-

season) and certainly not with the speed necessary to react in a timely manner to a changing resource. Second, where the authority to alter seasons has been granted, this authority is often arbitrarily limited to a specific time frame. Often, it has not been granted and therefore this opportunity for flexibility is lost. Third, many seasons are directed at species only and not at specific populations.

***Legal options:*** Managers should enjoy a certain degree of authority to shorten or extend seasons to manage populations and hunting impacts as needed, on the basis of scientific assessments. Ultimately, managing authorities also need the right to institute a “total ban” on hunting. Seasons can and should be defined for specific populations within a specific region. Population-based seasons can better account for the individual management needs in specific areas. This is a particular concern in areas with reduced populations or special management objectives, such as national parks.

Overall, the law should be explicit in all elements of the procedure and basis for setting seasons, i.e. defining:

- how and when seasons will be defined,
- which organization will be responsible,
- the basis for establishing such seasons (science-based approach with due account of traditional practices), and
- appropriate inter-governmental dispute resolution mechanisms that ensure fair administration of the process.

Regulation of effort is another legislative method within the concept of seasons. It limits the amount of time that may be spent in a given area for hunting. The premise is that scarce resources mean greater effort (i.e., more days spent hunting) must be expended to reach quotas. Limiting level of effort can therefore limit the number of animals harvested and serves to automatically react to changing population levels not predictable in advance of the season. It is not, however, an easily recommended provision as it is far more difficult to enforce than generally applicable hunting seasons, which can serve the same purpose (i.e., shorter seasons applicable to all hunters will result in fewer animals harvested). Level of effort is in essence a “season” personal to the hunter and can only be enforced if there are adequate methods for monitoring individual activities. Should this legal tool be adopted, legislation should also delegate authority to the appropriate agency to set levels of effort as needed.

## **Principle 20: Clearly defining hunting areas**

Hunting area regulation typically defines both areas that are open to hunting and areas closed to it. Hunting areas are defined in the law using the form and method of legally describing property boundaries customary in the country, typically in text form. Critical to the resource user and law enforcement is the publication of a map consistent with the legal descriptions and available for use in the field. Further regulation establishes the types, volumes, seasons, and species that may be hunted within the hunting area. Closed areas are similarly defined, but remain closed to hunting in any form regardless of the species or season. Closed areas are typically selected for their importance to wildlife as breeding grounds, migratory routes, and over-wintering areas, as well as for safety concerns for local communities. Closure results in a “zero-take” management strategy for the area, but is also used to prevent undue disturbance of wildlife during critical times to enhance overall survival rates and increase population levels.

***Legal options:*** In general, the legal creation of hunting areas should also stipulate that the following must be in place prior to operating:

- a clearly defined area,
- sufficient resources to support the type of hunting permitted,
- a designated management authority, whether government, a private operator or a local community,
- trained managers within those organizations, and
- a management plan with clearly defined requirements for its development, renewal, and legal status.

A final note should be added with regards to hunting areas on privately owned land. Private land owners should have a say about the inclusion of their land into hunting areas. The law should therefore recognize land owners the right to close their land to hunting. By the same token, private land owners must agree to the initial inclusion of their lands into a private hunting area.

## **Principle 21: Regulating hunting methods**

Hunting laws around the world typically prohibit various techniques that are likely to result in higher harvest levels. Among them is the use of automatic weapons, pursuing animals by vehicle, destroying nests or dens, and the use

of pits, triggered guns, fishing nets, chemicals, explosives, or other indiscriminate hunting techniques. To provide an additional layer of protection, laws may prohibit not only the use of these techniques, but also the possession of these instruments when a person is on hunting grounds. While these restrictions may be considered appropriate and clearly outlined under the regulatory framework, concerns are often raised over the need for adequate enforcement of the legislation.

***Legal options:*** In addition to these standard prohibitions are a few additional restrictions commonly accepted internationally that can be used to decrease the effect of hunting pressure. They are not as easy to use and are likely best included in a regulation with reference by organic legislation. These include:

- establishing size limits where appropriate to avoid taking animals that are too young. Size limits are often applied in fishing regulations. They may also be effectively used for other species, where the existence and/or size of antlers can be determined and used to restrict the take of female or young, or where size can be roughly estimated to control the take of either younger or older members of the population. Using size limits effectively will require some scientific basis for their determination. The law can require the determination of appropriate size limits and delegate the authority to impose harvest restrictions based on them;
- instituting sex-based limitations: sex-based limitations concern the number of male or female animals that may be taken by a given hunter;
- to avoid placing too great a burden on the implementing agency, allowing a grace period for the determination of either of the above and leave their use entirely up to the implementing agency.

## **Principle 22: Ensuring a transparent and effective allocation of hunting rights**

Wildlife laws should, first and foremost, clearly recognize property rights over wildlife resources. Such recognition should comprise the allocation of responsibility for damage caused by wildlife to third parties' property, as well as responsibility for the sustainable management of the resources.

Once property has been clearly identified in wildlife laws, hunting rights over wildlife should be regulated. There are several instruments that can be used to allocate these rights, and the choice may depend on whether there is public or private property over resources. Usually, permits or licences are used to

allocate the right to hunt certain species (“right to hunt”), whereas concessions are used for longer-term rights over a certain area and the wildlife resources that can be found there. Whatever the instrument, or combination of instruments, available for allocating hunting rights, wildlife laws should ensure that the process for their allocation is transparent based on certain guarantees, linked to management planning and quota-setting, and provides some degree of security for the right holders. Indeed, there can be no long-term interest in the sustainable use of a resource, which is one of the ultimate goals of the sustainable wildlife management, in the absence of security of allocated rights. The law should specify clearly the rights and obligations of wildlife users, as well as the causes for the suspension, termination or renewal of their permits/licenses/concessions. The concession holder needs a reasonably long term to recoup investments made in developing the concession. On the other hand, the laws should ensure that the government can exercise control over the concession holder’s performance.

***Legal options*** include the following:

- Wildlife laws should specify the rights and duties of hunting rights holders (be they rights to hunt or rights to manage hunting resources/areas), with a view to creating a situation of shared responsibility among wildlife managers, users and authorities. Authorities should be responsible for ensuring the conditions (necessary legal and administrative action) under which managers and users can sustainably use wildlife resources, as well as provide technical advice when necessary. Users should be specifically called upon to respect certain social and environmental requirements in the exercise of their rights.
- In allocating hunting rights, the law should require consideration of third parties’ rights, with a view to preventing future conflicts, including any existing use rights to use the concerned land to hunt or for any other relevant purposes (use of wood and non-wood forests products, grazing, tourism, fishing etc.).

Specifically with regards to hunting concessions:

- The law should develop a transparent mechanism for the allocation of hunting concessions (for the right to manage hunting resources/areas). The mechanism should allow for public participation, thus responding to the need to consider possible impacts of these allocations on the livelihoods of communities living in or near hunting areas, traditional use of wildlife or

other interested stakeholders, to avoid future conflicts. Failure to adopt a transparent and fully accountable process for the allocation of hunting concessions in government or communal land areas inevitably invites allegations of corruption, cronyism or mismanagement. The allocation of hunting concessions should respect wildlife management plans.

- Concession tender processes should allow for a high degree of competition between operators and be designed to ensure maximum financial/social benefit to public/community landowners, foreclosing on any potential for ‘back door’ arrangements or deals that end up rewarding individuals rather than government and/or communal stakeholders. Open tender processes and public auctions have been used successfully in different countries in the region and should be encouraged.
- The law should require demonstrable management capacity as a prerequisite to obtaining hunting management rights. For concessions, there is a need to ensure that viable and demonstrable management capacity exists for each hunting concession area. This requirement is especially important in instances whereby private sector concession holders are allowed to set and approve their own quotas for hunted animals and have ownership rights over their own resources.
- Develop screening criteria for hunting operators and provide for training courses. To ensure that potential hunting operators are well-qualified to finance and conduct professional hunting operations, and that they will adhere to sustainable hunting practices, a series of screening criteria should be applied to all applicants who seek allocation of a concession. Application of both technical and financial criteria would necessarily make certain players ineligible for consideration. Screening practices should ensure that individuals who have violated rules and regulations in the past no longer are eligible for obtaining a concession. Linked to the screening criteria is the question of whether concessions can be transferred: the law should specifically address this point, and in case it allows such transfers, it would be wise to request prior governmental approval to ensure that the new operator also complies with minimum criteria comparable to the screening ones.
- Set hunting tenures either by law or regulations or both - The length of time that individual hunting concessions are held and the security associated with such tenure has a direct bearing on the amount operators are willing to invest in the protection of the concession and the development of community-based natural resource management programs. Long-term tenure commitments

should be encouraged to promote maximum investment in the resource base and local communities. The state should be able to cancel a concession for poor performance by the concession holder. The concession holder should be allowed to withdraw due to unanticipated changes in circumstances, such as fire, disease, or other disaster destroying the value of the concession. Perhaps the government should be able to cancel a concession or demand assurances from the holder if the holder's financial condition suggests that it may soon be unable to continue management.

- The law may also wish to give guidance on how damage caused by game should be measured and who should decide the amount. It may want to declare a minimum level of damage below which there is no compensation. It may want to explain whether damage awards depend in any way on demonstrating that the game manager was at fault or that the injured person took reasonable steps to avoid or minimise the damage. It may want to discuss how to determine whether damage outside hunting areas is compensable. It should make clear whether the responsibility for paying damages rests with the concession holder, the central authority, or some other person. It could set up systems that make it more likely that funds are available to pay damages. These could include requiring concession holders to obtain insurance against liabilities or setting up some sort of Wildlife Damage Fund supported by the national budget, by money set aside from concession income, by money from hunting licensing fees, or by separate annual payments from hunters or concession holders;

With specific reference to the “right to hunt”.

- The law should require demonstrable capacity as a prerequisite to obtaining hunting rights. To obtain a permit or a license, the applicant should demonstrate his/her capacity to respect hunting restrictions. For instance, legislation should ensure that individuals who have violated rules and regulations in the past no longer are eligible for license/permit to hunt.
- The law should establish standards for professional hunters through comprehensive programs offering both theoretical and practical training and/or examinations. Hunters that pass these examinations and/or successfully serve an apprenticeship should become registered with the national hunting association and government before being allowed to conduct hunts professionally.

Wildlife law drafters should avoid unnecessary requirements for the allocation of hunting rights. The complexity of license requirements are usually to blame for lack of compliance generally, and especially by remote communities. Often, licenses and tags are only available in central government institutions or issued through hunting societies, that are not easily accessible to all users of the resource. In general, the cost of travelling to and from license distribution centres, when weighed against the low likelihood of being caught, is too great. Most individuals faced with this problem hunt without a license and the requirements go ignored.

**Legal options:** The prevalence of this problem in countries with large rural populations makes this a particularly important area to concentrate on. Examples of best practices include:

- creating a subsistence category for hunting in rural populations where licenses are not required, but where seasons are set so short that they act as a deterrent to over-harvests;
- setting licensing costs at a level sufficient to cover the adequate distribution of licenses;
- tying the use of licenses, where instituted, to specific penalties and fines sufficient to encourage use/discourage poaching.

In ‘best case’ scenarios, recreational hunting is an important industry that underpins the conservation of species and their habitats as viable land uses which contribute to the livelihoods of many people and the national economies of sport hunting countries. Benefits from this industry are increasingly being distributed to rural poor through community-based natural resource management programs and those communities are showing a greater commitment to the conservation of wildlife.

On the other hand, the management of the industry is, in many cases, still poor and open to abuse and corruption. Several elements need to be addressed in legislation before these efforts will begin to achieve what is hoped. The role of law in this respect can be that of establishing recreational hunting quality standards.

**Legal options:** The following are designed to address the particular needs of the recreational hunting industry, again with the assumption that all prior principles are incorporated herein.

- Provide a direct conservation benefit for the species and area used, (e.g.

preventing habitat conversion or settlement in the hunting area) – This is to ensure that hunting forms designed to generate income do not simply become another extractive use without benefit either to the community or the resource. So for example, instead of merely returning funds the establishment of a trophy hunting concession may also carry with it the creation of development restrictions and a requirement that concessionaires provide personnel to monitor and enforce such restrictions.

- Establish minimum trophy sizes for designated species – The lack of long-term tenure security over many hunting rights has prompted unsustainable over-hunting of certain lucrative species, resulting in inferior trophy quality animals, especially in state and communal land concession areas. Where they do not exist, trophy quality sizes and standards need to be established. There are a number of international organizations that can provide a basis for establishing trophy size limits. As a function of legislation, drafters should consider establishing default minimums, and in the interests of flexibility, delegating authority to the relevant agency to adjust from time to time as necessary.

**Principle 23:**  
**Involving local communities in the sustainable use of wildlife**

The legal reality in many countries is that local communities often have no exclusive right to use hunting resources. They compete with, and often complain of, hunters coming in from outside the community for subsistence, recreational/trophy hunting exploiting a resource on which they are to some extent dependent. It is increasingly recognized that without local people having a significant stake in the management of local resources, the efforts of under-staffed and poorly financed officials to patrol and protect wildlife will often be futile. The absence of such a stake both reduces the incentives of local people to comply with the law, and prevents them from insisting on the compliance of outsiders, including government officials. Therefore, the needs of local communities who live with and are affected by the use and conservation of biological diversity, along with their contributions to its conservation and sustainable use, should be reflected in the equitable distribution of the benefits from the use of those resources.

***Legal options:***

- where possible, adopt means that aim toward delegating rights, responsibility, and accountability to the local communities who use and/or manage biological resources;
- ensure that an equitable share of the benefits remain with the local people in those cases where foreign investment is involved.<sup>60</sup> A useful contribution to the enhancement of local social conditions would be to encourage potential managers who are willing to offer specific advantages in this regard. For example, in selecting applicants through tenders, preference could be given to those who undertake to involve and benefit local people to the largest possible extent. Proposed “social” obligations of applicants could then become binding conditions in the contract entered into with the winner;
- in the event that management dictates a reduction in harvest levels, to the extent practicable assistance should be provided for local stakeholders, including indigenous and local communities, who are directly dependent on the resource to have access to alternatives;<sup>61</sup>
- provide training and extension services to enhance the capacity of local communities to enter into effective decision-making arrangements as well as in implementation of sustainable use methods;
- protect and encourage customary use of wildlife that is sustainable, in accordance with traditional and cultural practices;<sup>62</sup>
- establish a preferential legal discipline applying to local community members –as opposed to private companies – for managing hunting areas. Such differentiation would be justified in light of their different interests, capacities and potential role for sustainable wildlife management. In this case, such difference should be spelt out by:
  - attaching priority to local communities in the tender process for allocating hunting concessions (on the basis of geographical limitations and requirement for actual residency in areas with or adjacent to hunting grounds) and providing for more favourable concession conditions (for example, termination of the concession will only be justified when more than one violation of its conditions has taken place, rather than at the first occurrence);
  - in establishing a different legal instrument specifically targeting community-based wildlife management (management agreements, for

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<sup>60</sup> Addis Ababa Principles and Guidelines, principle 12, fifth operational guideline.

<sup>61</sup> Ibid, seventh operational guideline.

<sup>62</sup> Ibid, principle 2, fifth operational guideline; CBD, Article 10(c).

example). In this case, the law should spell out the basic elements of this instruments, as well as a transparent and equitable process for their negotiation on a case by case basis;

- Especially as regards areas which are not attractive for commercial hunting, it would be useful if interested groups of local residents were encouraged by the administration to directly undertake the management of local wildlife in specified areas. The administration could provide necessary technical assistance and support to these collaborative wildlife management efforts. This could relieve the administration of some enforcement responsibilities, as local residents themselves would perceive compliance with management rules as being in their own interest. Legislation could encourage this type of arrangement where tender procedures have not led to the identification of interested commercial managers.

### **Principle 24: Provide for the regulation of both national and international wildlife trade**

Both international and national trade must be regulated to maximize enforcement potential and ensure that neither trade type undermines conservation efforts. Most national wildlife laws focus only on the actual hunting and not the subsequent use, possession, or sale of the animal. In other words, once an animal or part enters the market, enforcement becomes impossible. This presents a significant management gap that makes it possible for wildlife traders to engage in activities that only become illegal at the moment they cross an international border. Once they cross that border, however, and the origin of the specimen can no longer be determined, the failure of national law to regulate trade converts the illegal venture again into a legal one. In most countries (if not all), porous international borders present little to no obstacle and wildlife trade continues to thrive.

***Legal options:*** Other than fully implementing CITES for those countries that are party to it, there are at least a few legal tools that can improve the regulation of trade nationally and internationally. These are:

- apply the same or similar restrictions and requirements to national trade that apply to international trade: i.e.,
  - requiring special permits for the transportation, possession, and trade of a wild animal or part by anyone other than the permitted hunter;

- creating registration requirements and procedures for existing wildlife specimens;
- setting out additional fines for violation of national trade restrictions;
- setting trade quotas where applicable, etc;
- create a legal grace period during which existing wildlife products may be registered to ease implementation;
- apply for special listing under Appendix III and thereby gain cooperation from other member states for species of concern in a given country that are not listed in CITES Appendix I or II.

### ***Implementation and law enforcement***

In several instances, lack of law enforcement is considered a key reason why various resource management initiatives fail. It is important, however, when looking at the legal framework to seriously consider whether the law has adequately addressed enforcement needs. More often than might be assumed, legal frameworks do a reasonably good job (perhaps too good) of providing for enforcement activities. Even very short laws grant specific and sufficient powers of investigation and arrest to enforcement bodies and set out relatively long lists of prohibitions for which penalties apply. National and local officials sometimes describe themselves as enforcers and frequently exercise enforcement rights. Government reports often focus on enforcement issues - i.e., so many arrests, this amount fined and collected, etc. Adding to this, attention should be drawn to the legal authorization to use fines as a source of income for seriously under-funded agencies and staff. While enforcement is a problem in many countries, governing legislation itself cannot as automatically be criticized for not making enforcement a priority.

These principles look at the primary elements that can help significantly improve the implementation and enforcement of wildlife legislation, focusing not only on a repressive approach, but also on an incentive-based one.

### **Principle 25: Providing incentives for complying with the law**

The Addis Ababa Principles and Guidelines, in accordance with the ecosystem approach,<sup>63</sup> stress that laws and regulations that distort markets can contribute to habitat degradation or otherwise generate perverse incentives that undermine

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<sup>63</sup> CBD Decision VII/11, Annex, principle 4.

conservation and sustainable use of wildlife, and of biodiversity more generally. Against this background, the Addis Ababa Principles and Guidelines call for the identification, removal or mitigation of these perverse incentives.<sup>64</sup> By the same token, the Biodiversity Convention draws attention to the benefits of positive incentives, that should be economically and socially sound (art. 11).

***Legal options:***

- identify and eliminate perverse incentives (economic mechanisms, subsidies) that have a negative impact on the potential sustainability of wildlife uses;
- integrate economic valuations studies of wildlife resources in decision-making, and consider them in land/use or habitat conversion tradeoffs;<sup>65</sup>
- provide economic incentives for resource managers, users and local communities that invest in developing and/or using environmentally friendly techniques (such as tax exemptions, lower loan interest rates, certifications for accessing new markets) or that use more efficient, ethical and humane use of wildlife resources and that reduce collateral damage to biodiversity;<sup>66</sup>
- provide incentives (monetary and non-monetary) for individuals that help authorities in the prevention and detection of wildlife law violations;
- provide for the free-of-charge technical cooperation to guarantee the transfer of improved technologies to communities.<sup>67</sup>

**Principle 26:  
Returning financial resources to improved wildlife management**

Addis Ababa Practical Principle 13 states: “[t]he costs of management and conservation of biological diversity should be internalized within the area of management and reflected in the distribution of the benefits from the use.”

The principle is premised on the following lessons:

- The management and conservation of natural resources incur[s] costs. If these costs are not adequately covered then management will decline and the amount and value of the natural resources may also decline. It is necessary to ensure that some of the benefits from use flow to the local natural resource management authorities so that essential management to sustain the resources is maintained.

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<sup>64</sup> Addis Ababa Principles and Guidelines, practical principle 3.

<sup>65</sup> Ibid, practical principle 10, first to third operational guidelines.

<sup>66</sup> Ibid, practical principle 11, first operational guideline.

<sup>67</sup> Ibid, second and seventh operational guidelines.

- The promise of hunting revenues (in particular trophy hunting) to simultaneously make use of and generate adequate funding for wildlife management is the subject of many articles and studies around the world. Literature is not without examples where sport and trophy hunting have had positive impacts including, increasing revenues for wildlife conservation, decreased poaching, and conservation of habitat for species. The formula is simple: because the species has and generates recognizable value – managing authorities, local communities, and projects have been able to implement real conservation efforts; i.e., expanding and linking different types of conservation areas providing numerous benefits to other species that share or are dependent on such habitat.

But there are also examples where the accounting loop associated with recreational/trophy hunting do not return funds to the management of the resource and in the worst case scenarios are nothing more than a business, put money in the pockets of a few wealthy individuals, have no positive effect on wildlife management or habitat conservation, and in the end represent one more extractive use of a dwindling resource with potentially serious consequences.

**Legal options:** On a practical level, there are at least two ways a government can cover the costs of wildlife management – either through direct payments in the form of license, permit, or other fee (i.e., a one time payment by the user for a specific use)<sup>68</sup> or through indirect payments typically in the form of taxes for particular types of uses.<sup>69</sup> Another, additional option is that of transferring management responsibilities to stakeholders, so that the costs of wildlife management will be partly sustained by stakeholders rather than by the government alone.

Costs of hunting management are often covered through direct payment schemes where the user pays a license fee directly to the managing authority. It is not always true, however, that these direct payments stay with the

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<sup>68</sup> Licenses and permits are sometimes (not always) “direct payments” paid by the user to the managing authority and retained by that authority to cover costs. For example, an entrance fee paid to and used by a national park is a direct payment.

<sup>69</sup> Taxes constitute “indirect payments” paid to a national treasury and from their distributed to managing authorities. These may include the application of a general percentage of all taxes paid for natural resource related management activities or taxes for specific uses (e.g., taxes for resource use such as a stumpage tax for timber harvests).

managing authority. Instead, budgeting laws require that they be channeled to a central budget for redistribution. With chronic budget shortfalls in many areas, the risk is that users pay for the use of a lucrative wildlife resource (i.e., trophy hunting), but those funds are then not made fully available for the management of the resource.

To guard against this, there are really only a few legal options that may be included in wildlife and hunting legislation. More important will likely be amendments to budgeting laws that may prevent such efforts from being implemented. These include:

- providing guidelines for resource managers to calculate and report the real cost of management in their plans;
- creating “earmark” provisions that require a return of equivalent sums to the managing authority for the management of the resource;
- requiring that fees be returned to the management of the resource usually carries with it the expectation that the resource should “pay for itself.” This is rarely possible in a developing system.

The start-up costs for the creation of wildlife management system will typically exceed initial revenues. To narrow the gap between costs and revenues, there is a strong tendency among managers to set harvest quotas according to the economic needs of the system and not scientific monitoring results. To avoid this, the final decision making authority for quotas must rest with a scientific authority and be based on the best scientific information available.

### **Principle 27: Striking a balance between service provision and law enforcement mechanisms**

Sometimes laws fail to provide a detailed picture of the rights and duties of public officers in charge of wildlife law enforcement. As a result of this approach, enforcement officers operate in a situation of uncertainty which hinders their effectiveness and undermines their legitimacy in the eyes of wildlife users. Officers should be, for example, provided with sufficient powers to apprehend, detain and prosecute alleged offenders, seize allegedly illegal products, undertake routine inspections on vehicles transporting wildlife products, and suspend allegedly illegal operations. All these powers should be exercised in an overarching framework of fairness, as the legitimacy of forest guards depends on the extent to which they are perceived to operate

transparently and fairly. Another issue that should be mentioned, with a view to enhancing the accountability of wildlife authorities regards the mix of management/commercial activities and public control functions at the central or local level, in order to avoid conflict of interests. Furthermore, in situations in which different authorities play a role in law enforcement – when for example hunting guards are also involved with inspection, while there are other public officers dealing with forest inspection, animal health inspection, and environmental inspection – there should be cooperation between hunting inspectors and other institutions.

***Legal options:***

- clearly setting out the powers of inspectors, providing for certain limits to their discretion as well as for certain duties;
- expressly requiring that inspectors have proper qualifications;
- ensuring cooperation (exchange of information, joint inspections, etc.) among law enforcement institutions;
- limiting possible conflicts of interest by prohibiting that the same entity mixes commercial activities and public functions related to ensuring sustainable management and law compliance either at the central or at the local level.

The legal fixation on enforcement and the failure of public authorities to provide a recognizable service to resource users makes management more difficult. Thus, law enforcement officials are often perceived as those intent on fining violations to supplement income, rather than deterring violators. In the extreme, law enforcement officials may often wait for a violation to occur just to be able to collect the fine. The impact on management is a generalized resistance by locals to all management efforts, not just enforcement. To strike a balance, legal provisions need to be included that address not only what types of actions will result in fines and penalties for civilians, but also the repercussions on officials for failure to provide promised services. This relates to issues of transparency and accountability.

***Legal options:*** Establishing repercussions for public officers in wildlife law may include:

- identifying the types of services described in the law;
- determining which types of disincentives will act both as a deterrent to the targeted behaviour and as a means of correcting the failed service or harm caused.

Generally, sanctions should be severe enough to act as a deterrent (resulting in a major increase in the cost of doing business for those who violate the law), but not too severe or out of proportion to the nature of the offence so that courts and other enforcement bodies may be reluctant to apply the penalty at all, allowing the crime to go unpunished. The law may also trigger the amount of sanctions to the gravity of the violation and the severity of the damage caused (thus possibly including compensation for damage to public good, and confiscation of illegal produce and equipment). The additional point to make here is that sanctions should always be consistent with relevant legislation. In order to ensure the continued relevance of sanctions in time, the law may provide for flexibility in setting the amount of sanctions, for example by defining classes of sanctions in the law while leaving amounts to be defined by subsidiary legislation. Here we are also referring to the penalties and procedures that come into play in the event of a violation of the law.

**Legal options:** Such mechanisms may be enhanced by evaluating the penalties with the following questions in mind:

- The primary justification for the application of fines is their ability to: 1) act as a strong disincentive for the targeted behaviour, and 2) compensate the State for the damage caused. Regardless of the resource in question, small fines do neither and quickly become a simple cost of doing business. For enforcement to have meaning, the fines applied must be sufficient to deter and compensate from year to year.
- The law should provide for the timely and easy modification of penalties to take into account the effects of inflation. A number of countries have included indexing provisions in their laws, to allow for the automatic updating of penalties rather than requiring legislative action for every penalty increase.
- The law should allow for consideration of the severity of the damage done in determining the penalty. In addition to fixing a flat penalty for a specific offence, some laws also require the offender to reimburse government for the cost of damages done to the forest estate.
- It is also essential to evaluate the procedures by which laws are enforced:
  - Expedited procedures should be available for minor offences, thus, on the one hand, helping ensure that a case does not simply get lost in the backlog of lower court cases, while on the other hand freeing up courts to focus on more severe breaches of the law. The difficulties and delays associated with public prosecutions can, in many cases, discourage forest officers from pressing forward with a case.

- The law could provide for compounding minor offences, that is, the payment of a prescribed fine as a way of disposing of uncontested cases without the need to pursue full prosecution.
- The law could provide for the possibility of resolving cases outside of the court system, through administrative tribunals or alternative dispute resolution mechanisms.

Finally, offences and sanctions should be coupled with provisions on mitigation, remediation, compensation and rehabilitation<sup>70</sup> where damage is caused to wildlife, to their habitat or to other components of the environment, as a result of violations of wildlife law and when biodiversity loss results from over-use.

### **Principle 28: Provide physical tools to aid in monitoring of harvests and trade**

Beyond licensing (Principle 22 above), the most commonly used and accepted tool for monitoring harvests and trade involves the “tagging” of harvested wildlife. Under this system, the license or permit purchased by the hunter must be dated when an animal is harvested in a manner that cannot be changed (typically by cutting out the month and day) and is “attached” to the animal immediately upon harvest like a tag. A failure to tag the animal is a violation equivalent to poaching whether or not the hunter has purchased a license. The act of “tagging” results in the use of the license in a manner that prevents reuse of the same license at a later date.

The other common system in use is self-reporting. With self-reporting, the law requires that hunters write in harvest values on a specialized form when hunting and produce the form to inspectors upon request. The form is not attached to the animal and therefore does not serve the same function as a “tag.” The system is often unused or abused by hunters who write in pencil and later erase if they are not inspected. If inspections are rare, the risks of cheating are negligible rendering the system essentially ineffective.

Tagging is preferred over self-reporting requirements because it requires the use of the license and because it immediately becomes a monitoring and enforcement tool – whether or not inspected. It is not, however, a perfect system. Problems associated with it include prohibitive implementation costs; compliance difficulties due to a lack of distribution or inability to travel to distribution centers by hunters; and corruption, where tags become another

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<sup>70</sup> Introduction to the Addis Ababa Principles and Guidelines.

form of currency sold to the highest bidder at the local level and are no longer available for the intended groups.

***Legal options:***

- Use self-reporting requirements. This is not the preferred option, but may be the only one available in many countries given capacity and funding constraints.
- The preferred option would be to include a tagging system in the law with the following minimum standard elements:
  - delegation to the appropriate agency the authority to create hunting tags that must be validated in such a way that it cannot be reused; this requirement typically applies only to big game species and does not include fish or birds;
  - a requirement that the properly validated tag shall remain with the meat until consumed;
  - a requirement that tag remain attached to the hide of any game animal harvested for its skin until the hide has been tanned; and
  - a requirement that all shippers of wildlife, or parts thereof, label all packages offered for shipment by whatever means including specifications for the description of the contents.

## **Annex: Full text of the Addis Ababa Principles and Guidelines<sup>71</sup>**

Sustainability in the use of biological diversity will be enhanced if the following practical principles and related operational guidelines are applied:

### **Practical principle 1:**

**Supportive policies, laws, and institutions are in place at all levels of governance and there are effective linkages between these levels.**

### **Rationale:**

There is need to have congruence in policies and laws at all levels of governance associated with a particular use. For example, when an international agreement adopts a policy regarding use of biodiversity, national<sup>(1)</sup> laws must be compatible if sustainability is to be enhanced. There must be clear and effective linkages between different jurisdictional levels to enable a “pathway” to be developed which allows timely and effective response to unsustainable use and allows sustainable use of a resource to proceed from collection or harvest through to final use without unnecessary impediment. In most cases the primary means for achieving congruence between local and international levels of governance should be through national governments.

### **Operational guidelines**

- Consider local customs and traditions (and customary law where recognized) when drafting new legislation and regulations;
- Identify existing and develop new supportive incentives measures, policies, laws and institutions, as required, within the jurisdiction in which a use will take place, also taking into account Articles 8(j) and 10(c), as appropriate;
- Identify any overlaps, omissions and contradictions in existing laws and policies and initiate concrete actions to resolve them;
- Strengthen and/or create cooperative and supportive linkages between all levels of governance in order to avoid duplication of efforts or inconsistencies.

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<sup>71</sup> <http://www.cbd.int/sustainable/addis-principles.shtml>.

## **Practical principle 2:**

**Recognizing the need for a governing framework consistent with international/national<sup>(2)</sup> laws, local users of biodiversity components should be sufficiently empowered and supported by rights to be responsible and accountable for use of the resources concerned.** <sup>(3)</sup>

### **Rationale:**

Uncontrolled access to biodiversity components often leads to over-utilization as people try to maximize their personal benefits from the resource while it is available. Resources for which individuals or communities have use, non-use, or transfer rights are usually used more responsibly because they no longer need to maximise benefits before someone else removes the resources. Therefore sustainability is generally enhanced if Governments recognize and respect the “rights” or “stewardship” authority, responsibility and accountability to the people who use and manage the resource, which may include indigenous and local communities, private landowners, conservation organizations and the business sector. Moreover, to reinforce local rights or stewardship of biological diversity and responsibility for its conservation, resource users should participate in making decisions about the resource use and have the authority to carry out any actions arising from those decisions.

### **Operational guidelines**

- Where possible adopt means that aim toward delegating rights, responsibility, and accountability to those who use and/or manage biological resources;
- Review existing regulations to see if they can be used for delegating rights; amend regulations where needed and possible; and/or draft new regulations where needed. Throughout local customs and traditions (including customary law where recognized) should be considered;
- Refer to the programme of work related to the implementation of Article 8(j) with regard to indigenous and local community issues (decision V/16), implement and integrate tasks relevant for the sustainable use of biodiversity components, in particular element 3, tasks 6, 13 and 14;
- Provide training and extension services to enhance the capacity of people to enter into effective decision-making arrangements as well as in implementation of sustainable use methods;
- Protect and encourage customary use of biological resources that is sustainable, in accordance with traditional and cultural practices (Article 10(c)).

**Practical principle 3:**

**International, national policies, laws and regulations that distort markets which contribute to habitat degradation or otherwise generate perverse incentives that undermine conservation and sustainable use of biodiversity, should be identified and removed or mitigated.<sup>(4)</sup>**

**Rationale:**

Some policies or practices induce unsustainable behaviours that reduce biodiversity, often as unanticipated side effects as they were initially designed to attain other objectives. For example, some policies that encourage domestic over production often generate perverse incentives that undermine the conservation and sustainable use of biological diversity. Eliminating subsidies that contribute to illegal, unreported and unregulated fishing and to over-capacity, as required by the WSSD Plan of Implementation in order to achieve sustainable fisheries, is a further instance of the recognition of the need to remove perverse incentives.

**Operational guidelines**

- Identify economic mechanisms, including incentive systems and subsidies at international, national levels that are having a negative impact on the potential sustainability of uses of biological diversity;
- Remove those systems leading to market distortions that result in unsustainable uses of biodiversity components;
- Avoid unnecessary and inadequate regulations of uses of biological diversity because they can increase costs, foreclose opportunities, and encourage unregulated uses thus decreasing the sustainability of the use.

**Practical principle 4:**

**Adaptive management should be practiced, based on:**

- a. Science and traditional and local knowledge;
- b. Iterative, timely and transparent feedback derived from monitoring the use, environmental, socio-economic impacts, and the status of the resource being used; and
- c. Adjusting management based on timely feedback from the monitoring procedures.<sup>(5)</sup>

## **Rationale:**

Biological systems and the economic and social factors that can affect the sustainability of use of biological diversity are highly variable. It is not possible to have knowledge of all aspects of such systems before a use of biological diversity begins. Therefore, it is necessary for the management to monitor the effects of that use and allow adjustment of the use as appropriate, including modification, and if necessary suspension of unsustainable practices. In this context, it is preferable to use all sources of information about a resource when deciding how it can be used. In many societies traditional and local knowledge has led to much use of biological diversity being sustainable over long time-periods without detriment to the environment or the resource. Incorporation of such knowledge into modern use systems can do much to avoid inappropriate use and enhance sustainable use of components of biodiversity.

## **Operational guidelines**

- Ensure that for particular uses adaptive management schemes are in place;
- Require adaptive management plans to incorporate systems to generate sustainable revenue, where the benefits go to indigenous and local communities and local stakeholders to support successful implementation;
- Provide extension assistance in setting up and maintaining monitoring and feedback systems;
- Include clear descriptions of their adaptive management system, which includes means to assess uncertainties;
- Respond quickly to unsustainable practices;
- Design monitoring system on a temporal scale sufficient to ensure that information about the status of the resource and ecosystem is available to inform management decisions to ensure that the resource is conserved;
- When using traditional and local knowledge, ensure that approval of the holder of that knowledge has been obtained.

### **Practical principle 5:**

**Sustainable use management goals and practices should avoid or minimize adverse impacts on ecosystem services, structure and functions as well as other components of ecosystems.** <sup>(6)</sup>

#### **Rationale:**

For use of any resource there is a need to take into account the functions that resource may fulfil within the ecosystem in which it occurs, and that use must not adversely affect ecosystem functions. For example, clear felling in a watershed could lead to erosion of soil and impairment of the water filtration function of the ecosystem. Avoidance of this situation would involve setting conservative cutting quotas with appropriate harvesting techniques and monitoring the effects of the harvest as it occurs. As another example, the shrimping industry has developed nets that can separate out juveniles and by-catch and also reduce negative effects on benthic and other associated communities.

#### **Operational guidelines**

- Ensure management practices do not impair the capacity of ecosystems to deliver goods and services that may be needed some distance from the site of use. For example, selective cutting of timber in a watershed would help maintain the ecosystem's capacity to prevent soil erosion and provide clean water;
- Ensure that consumptive and non-consumptive use does not impair the long-term sustainability of that use by negatively impacting the ecosystem and species on which the use depends, paying special attention to the needs of threatened components of biological diversity;
- Apply a precautionary approach in management decisions in accordance with principle 15 of the Rio Declaration on Environment and Development;
- Identify successful experiences of management of biodiversity components in other countries in order to adapt and incorporate this knowledge in their efforts to resolve their own difficulties;
- Where possible consider the aggregate and cumulative impact of activities on the target species or ecosystem in management decisions related to that species or ecosystem;
- Where previous impacts have degraded and reduced biodiversity, support formulation and implementation of remedial action plans (Article 10(d)).

**Practical principle 6:**

**Interdisciplinary research into all aspects of the use and conservation of biological diversity should be promoted and supported.**

**Rationale:**

International conventions and national decisions that affect use should always apply the best information on which to base decisions and be aware of the local circumstances where a use is undertaken. In addition, there is need to ensure that research is supported into the biological and ecological requirements of the species to ensure that the use remains within the capacity of the species and ecosystem to sustain that use. Further, to enhance incentives that promote sustainability, there would be value in investing in research to open up new economic opportunities for stakeholders.

**Operational guidelines**

- Ensure that the results of research inform and guide international, national policies and decisions;
- Invest in research into techniques and technologies of management of biodiversity components that promote sustainability in both consumptive and non-consumptive uses of biodiversity;
- Encourage active collaboration between scientific researchers and people with local and traditional knowledge;
- Encourage international support and technology transfer, relating to both consumptive and non-consumptive uses of biodiversity;
- Develop cooperation between researchers and biodiversity users (private or local communities), in particular, involve indigenous and local communities as research partners and use their expertise to assess management methods and technologies;
- Investigate and develop effective ways to improve environmental education and awareness, to encourage public participation and to stimulate the involvement of stakeholders in biodiversity management and sustainable use of resources;
- Investigate and develop means of ensuring rights of access and methods for helping to ensure that the benefits derived from using components of biodiversity are equitably shared;
- Make research results available in a form which decision makers, users, and other stakeholders can apply;
- Promote exchange programmes in scientific and technical areas.

**Practical principle 7:**

**The spatial and temporal scale of management should be compatible with the ecological and socio-economic scales of the use and its impact.** <sup>(7)</sup>

**Rationale:**

Management of sustainable use activities should be scaled to the ecological and socio-economic needs of the use. If, for example, fish are harvested from a lake, the owner of the lake should be in charge of, and accountable for, the management of the lake subject to national or, as appropriate, subnational policy and legislation.

**Operational guidelines**

- Link responsibility and accountability to the spatial and temporal scale of use;
- Define the management objectives for the resource being used;
- Enable full public participation in preparation of management plans to best ensure ecological and socio-economic sustainability.
- In case of transboundary resources, it is advisable that appropriate representation from those states participate in the management and decisions about the resources.

**Practical principle 8:**

**There should be arrangements for international cooperation where multinational decision-making and coordination are needed.**

**Rationale:**

If a biodiversity resource is transboundary between two or more countries then it is advisable to have a bilateral or multilateral agreement between those states to determine how the resource will be used and in what amounts. Absence of such agreements can lead to each state implementing separate management regimes which, when taken together, may mean that the resource is over-utilized.

## **Operational guidelines**

- Make arrangements for international cooperation when the distribution of populations or communities/habitats being used span two or more nations;
- Promote multinational technical committees to prepare recommendations for the sustainable use of transboundary resources;
- Have bilateral or multilateral agreements between or among the States for the sustainable use of transboundary resources;
- Establish mechanisms involving the collaborating states to ensure that sustainable use of transboundary resources does not negatively impact the ecosystem capacity and resilience.

### **Practical principle 9:**

**An interdisciplinary, participatory approach should be applied at the appropriate levels of management and governance related to the use.**

### **Rationale:**

Sustainability of use depends on biological parameters of the resources being utilized. However, it is recognized that social, cultural, political and economic factors are equally important. It is therefore necessary to take such factors into consideration and involve indigenous and local communities and stakeholders, including and the private sector, and the people experienced in these different fields, at all levels of the decision making process.

## **Operational guidelines**

- Consider providing mechanisms that encourage interdisciplinary cooperation in management of biodiversity components;
- Set standards for resource management activities that promote interdisciplinary consultations;
- Facilitate communication and exchange of information between all levels of decision-making;
- Identify all relevant stakeholders and seek their participation in planning and executing of management activities;
- Take account of socio-economic, political, biological, ecological, institutional, religious and cultural factors that could influence the sustainability of the management;

- Seek guidance from local, traditional and technical specialists in designing the management plan;
- Provide adequate channels of negotiations so that potential conflicts arising from the participatory involvement of all people can be quickly and satisfactorily resolved.

**Practical principle 10:**

**International, national policies should take into account:**

Current and potential values derived from the use of biological diversity;  
Intrinsic and other non-economic values of biological diversity and  
Market forces affecting the values and use.

**Rationale:**

Recent work in calculating the potential costs of replacing natural systems with man-made alternatives has shown that such natural systems should be valued very highly. It follows that international and national policies that guide trade and development should compare the real value of natural systems against any intended replacement uses before such development is undertaken. For instance, mangroves have the function of fish-spawning and nursery sites, erosion and storm-surge alleviation and carbon sequestration. Coral reefs provide protection for juvenile fish and many species, as well as coastal zone protection.

**Operational guidelines**

- Promote economic valuation studies of the environmental services of natural ecosystems; \*Incorporate this information in policy and decision making processes, as well as educational applications;
- Consider this principle in relation to land use/habitat conversion tradeoffs. Recognize that market forces are not always sufficient to improve living conditions or increase sustainability in the use of components of biological diversity;
- Encourage governments to take into account biodiversity values in their national accounts;
- Encourage and facilitate capacity building for decision makers about concepts related to economic valuation of biodiversity.

**Practical principle 11:**

**Users of biodiversity components should seek to minimize waste and adverse environmental impact and optimize benefits from uses.**

**Rationale:**

Users should seek to optimize management and to improve selectivity of extractive uses through environmentally friendly techniques, so that waste and environmental impacts are minimized, and socio-economic and ecological benefits from uses are optimized.

**Operational guidelines**

- Eliminate perverse incentives and provide economic incentives for resource managers to invest in development and/or use of more environmentally friendly techniques, e.g., tax exemptions, funds available for productive practices, lower loan interest rates, certification for accessing new markets;
- Establish technical cooperation mechanisms in order to guarantee the transfer of improved technologies to communities;
- Endeavour to have an independent review of harvests to ensure that greater efficiencies in harvest or other extractive uses do not have a deleterious impact on the status of the resource being used or its ecosystem;
- Identify inefficiencies and costs in current methods;
- Conduct research and development into improved methods;
- Promote or encourage establishment of agreed industry and third party quality standards of biodiversity component processing and management at the international and national levels;
- Promote more efficient, ethical and humane use of components of biodiversity, within local and national contexts, and reduce collateral damage to biodiversity.

**Practical principle 12:**

**The needs of indigenous and local communities who live with and are affected by the use and conservation of biological diversity, along with their contributions to its conservation and sustainable use, should be reflected in the equitable distribution of the benefits from the use of those resources.**

**Rationale:**

Indigenous and local communities and local stakeholders often shoulder significant costs or forgo benefits of potential use of biological diversity, in order to ensure or enhance benefits accruing to others. Many resources (e.g., timber, fisheries) are over-exploited because regulations are ignored and not enforced. When local people are involved as stakeholders such violations are generally reduced. Management regimes are enhanced when constructive programmes that benefit local communities are implemented, such as capacity training that can provide income alternatives, or assistance in diversifying their management capacities.

**Operational guidelines**

- Promote economic incentives that will guarantee additional benefits to indigenous and local communities and stakeholders who are involved in the management of any biodiversity components, e.g., job opportunities for local peoples, equal distribution of returns amongst locals and outside investors/co-management;
- Adopt policies and regulations that ensure that indigenous and local communities and local stakeholders who are engaged in the management of a resource for sustainable use receive an equitable share of any benefits derived from that use;
- Ensure that national policies and regulation for sustainable use recognize and account for non-monetary values of natural resources;
- Consider ways to bring uncontrolled use of biological resources into a legal and sustainable use framework, including promoting alternative non-consumptive uses of these resources;
- Ensure that an equitable share of the benefits remain with the local people in those cases where foreign investment is involved;
- Involve local stakeholders, including indigenous and local communities, in the management of any natural resource and provide those involved with equitable compensation for their efforts, taking into account monetary and non-monetary benefits;

- In the event that management dictates a reduction in harvest levels, to the extent practicable assistance should be provided for local stakeholders, including indigenous and local communities, who are directly dependent on the resource to have access to alternatives.

**Practical principle 13:**

**The costs of management and conservation of biological diversity should be internalized within the area of management and reflected in the distribution of the benefits from the use.** <sup>(8)</sup>

**Rationale:**

The management and conservation of natural resources incurs costs. If these costs are not adequately covered then management will decline and the amount and value of the natural resources may also decline. It is necessary to ensure that some of the benefits from use flow to the local natural resource management authorities so that essential management to sustain the resources is maintained. Such benefits may be direct, such as entrance fees from visitors to a national park paid directly to, and retained by, the park management authority or indirect, such as stumpage tax revenue from timber harvesting paid by loggers that flows through a national treasury to a local forest service. In some cases licence fees for fishing rights are paid directly to the management authority, or to the national treasury.

**Operational guidelines**

- Ensure that national policies do not provide subsidies that mask true costs of management;
- Ensure that harvest levels and quotas are set according to information provided by the monitoring system, not the economic needs of the management system;
- Provide guidelines for resource managers to calculate and report the real cost of management in their business plans;
- Create other alternative mechanisms to invest revenues from biodiversity management;
- Provide economic incentives for managers who have already internalized environmental costs, e.g., certification to access new markets, waiver or deferral of taxes in lieu of environmental investment, promotion of “green-labelling” for marketing.

**Practical principle 14:**

**Education and public awareness programmes on conservation and sustainable use should be implemented and more effective methods of communications should be developed between and among stakeholders and managers.**

**Rationale:**

To ensure that people are aware of the connectivity between different parts of biological diversity, its relevance to human life, and the effects of uses it is advisable to provide means to engage people in education and awareness of the opportunities and constraints of sustainable use. It is also important to educate people on the relationship of sustainable use and the other two objectives of the Convention. An important way to achieve sustainable use of biological diversity would be to have in place effective means for communications between all stakeholders. Such communications will also facilitate availability of the best (and new) information about the resource.

**Operational guidelines**

- Plan education and public-awareness activities concerning: management, values of sustainable use, changing consumptive patterns and the value of biodiversity in the lives of people;
- Ensure that public-awareness programmes also inform and guide decision makers;
- Target all levels of the chain of production and consumption with such communications;
- Report lessons learned about sustainable use activities to the clearing-house mechanism of the Convention on Biological Diversity;
- Encourage and facilitate communication of lessons learned and best practices to other nations;
- Ensure that resource users report to government on their activities in a manner that facilitates broader communications;
- Increase awareness of the contributions of knowledge, practices and innovations of indigenous and local communities for the sustainable use of biological diversity.

**Notes:**

- (<sup>1</sup>) It is recognized that, throughout the principles, rationale and operational guidelines, the term “national” may mean either national or, as appropriate in some countries, subnational
- (<sup>2</sup>) Where consistency with international law is referred to this recognizes: a) that there are cases where a country will not be a party to a specific international convention and accordingly that law will not apply directly to them; and b) that from time to time countries are not able to achieve full compliance with the conventions to which they are a party and may need assistance
- (<sup>3</sup>) See principle 2 of the ecosystem approach
- (<sup>4</sup>) See principle 4 of the ecosystem approach
- (<sup>5</sup>) See principles 9 and 11 of the ecosystem approach
- (<sup>6</sup>) See principles 3, 5 and 6 of the ecosystem approach
- (<sup>7</sup>) See principles 2 and 7 of the ecosystem approach
- (<sup>8</sup>) See the operational guidance for the application of the ecosystem approach (decision V/6, annex, section C, para. 11).

