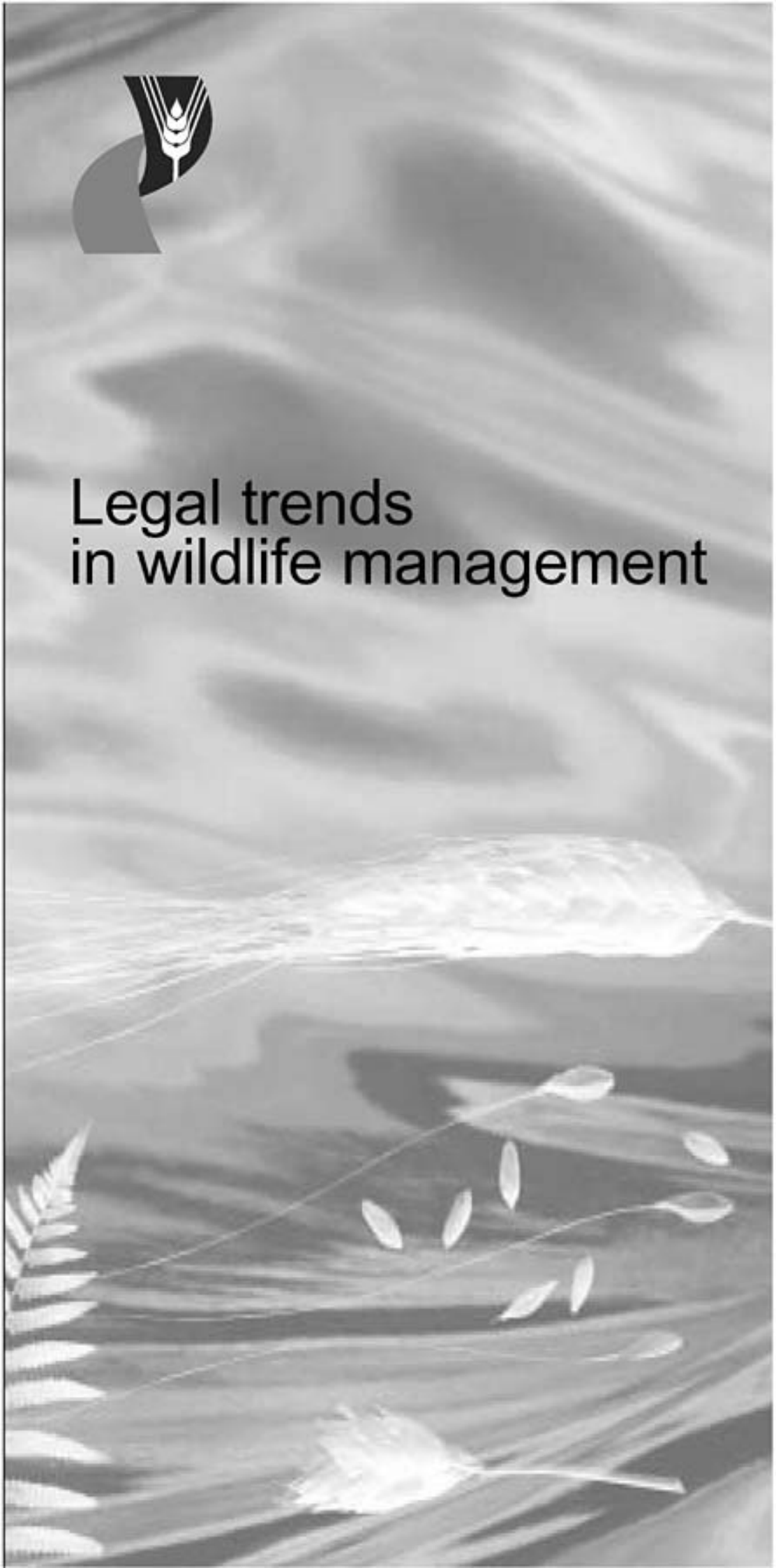

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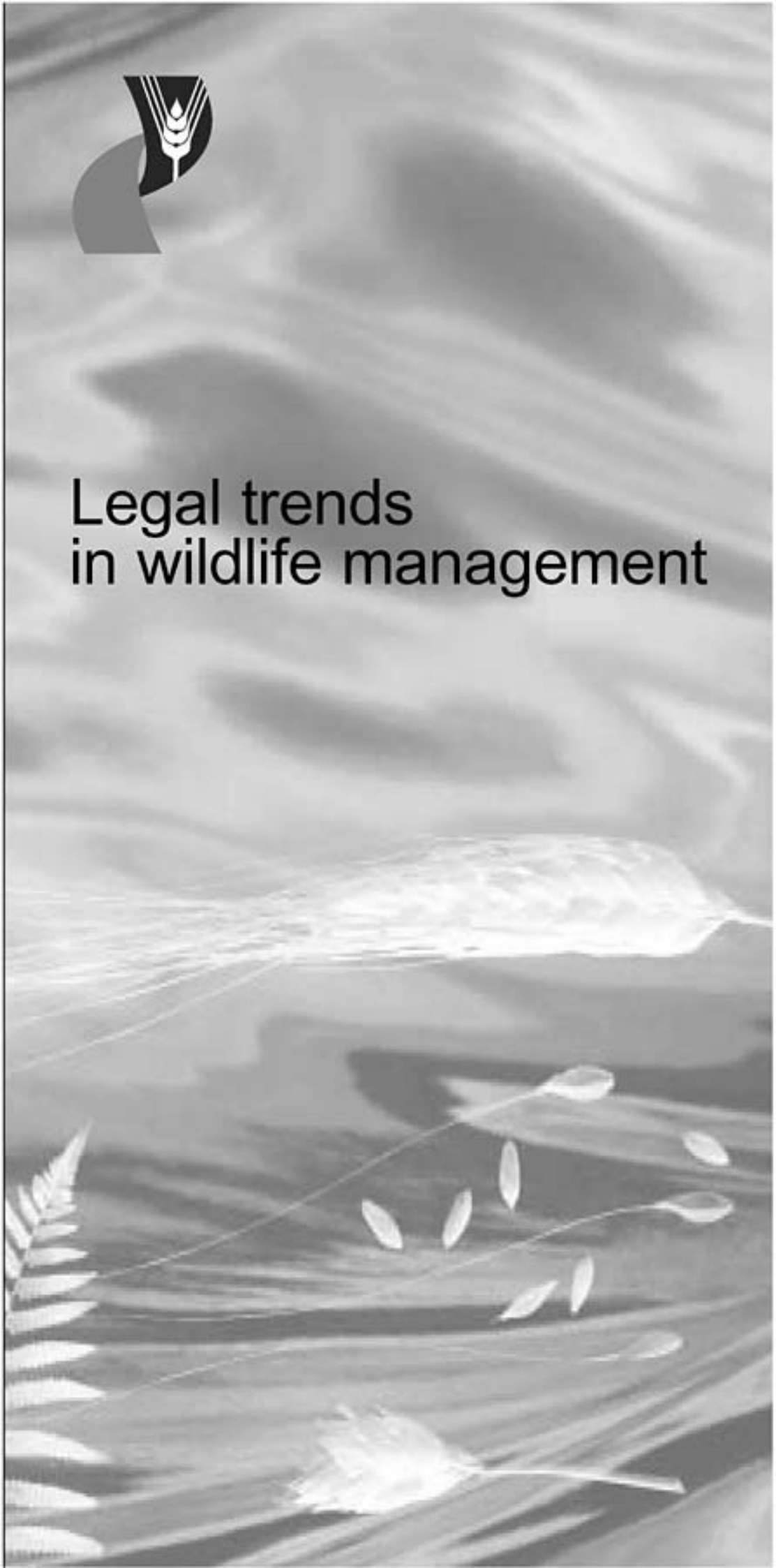
Legal trends in wildlife management



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Legal trends in wildlife management

FOREWORD

In recent years, countries in all parts of the world have significantly revised their existing wildlife legislation, or adopted new legal frameworks for the management and protection of wildlife. The purpose of the present study is to assess the current status of national wildlife laws around the world, with a particular focus on new laws and legal innovations adopted over the last decade.

The legislation examined includes laws which deal specifically with wildlife and hunting, as well as relevant provisions from laws on related matters, such as protected areas, forestry, biodiversity and the environment. Where appropriate, reference is made to subsidiary legislation and, where responsibilities for wildlife management have been wholly or partly transferred to local governments, to local instruments.

Given the breadth of the subject matter, this study is not intended to provide an exhaustive review of all pertinent laws in the countries covered. Rather, it identifies the major discernible trends in wildlife legislation – as well as notable exceptions thereto – by examining the laws of a representative sample of countries.

In so doing, the study assesses how current legislation addresses the central issues concerning wildlife and wildlife habitats, namely: (i) management and protection of wild animals through the use of planning tools, hunting rules, licensing requirements, and game ranching and breeding control; (ii) ownership of wildlife and related rights and obligations, including compensation for damage caused by wildlife and the balance between the rights of hunters and those of the owners of the land where wildlife is found; (iii) protected areas, including provisions on the protection of neighbouring areas and the relationship between wildlife protection and other forms of land use; and (iv) institutions enabling participation in wildlife-related decision-making and economic benefits, including consultations mechanisms, representative wildlife management bodies, agreements between individuals or communities and public institutions, and devolution of authority.

While recent laws usually retain many of the basic elements of earlier laws, they often contain important innovations as well.

First, well-established wildlife protection instruments, such as hunting regulations and the protection of particular species or habitats, tend to be placed in a new context, pursuing broader objectives and taking into account broader needs. To maintain biodiversity more effectively, protected areas are increasingly established as parts of national systems rather than in a patchwork way. Under hunting regimes, greater attention is paid to the subsistence needs of traditional hunting communities.

Second, recent wildlife laws address new issues and envisage new means for wildlife protection and management. In particular, they provide for better protection of biodiversity through clearer consideration of the interdependence between species. Moreover, rather than focusing on control of hunting alone, they deal with broader threats to wildlife, notably by requiring environmental impact assessments of activities potentially harmful to wildlife. They also place greater emphasis on management planning, increasingly subjecting management processes and their basic objectives to the law rather than their depending on the changing initiatives of administrations. Finally, they tend to create rules, institutions and procedures to involve affected persons and stakeholders in wildlife-related decision-making, to allow local communities to participate in the economic benefits deriving from wildlife use, and to consider the socio-cultural dimensions of wildlife management.

While focusing on domestic legislation, the study also briefly examines the main features of international wildlife treaties, paying particular attention to the linkages between international, national and local instruments. As an example of a particularly developed regional system, the legislation and case law of the European Community are analysed.

The study is a joint effort by the Legal Office and the Forestry Department of FAO. It was written by Maria Teresa Cirelli, an FAO legal consultant who has advised a number of countries on wildlife legislation. Technical supervision of the study has been the responsibility of Mohamed Ali Mekouar, Senior Legal Officer in the Development Law Service.

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SUMMARY

This study is based on an analysis of recent legislation of various countries of the world relating to wild animals and aims at the identification of major trends.

The **introduction** briefly refers to trends which had already been identified in the early 1980s in an analysis of African countries' legislation. In comparison with those of the previous generation, the more recent laws of the 1970s tended to take a more comprehensive view of wildlife management, including development as well as conservation aspects.

Chapter II on international, national and local legislation on wildlife management refers to the relations among these various levels of legislative powers, and benefits and complexities deriving from the increase of both international and local initiatives. While the benefits of adopting legislation at different territorial levels as may be appropriate are numerous, there may be some difficulties of coordination and therefore in achieving harmonized implementation of the legislation, for example in the case of international agreements, as well as national provisions, to be implemented at the regional level.

The same chapter includes specific sections on international legislation (limited to a brief description of a few conventions dealing with wildlife) and on European Community (EC) legislation. As regional legal instruments, EC initiatives have had an outstanding impact in shaping the legal framework of the fifteen member countries, particularly as regards environmental matters. A section includes a discussion of the Birds and Habitats Directives, which are the principal legal instruments adopted by the Community regarding wildlife, and a review of how this legislation has been interpreted by the Court of Justice of the European Communities.

Chapter III examines how some significant wildlife management issues are addressed in legislation. Specific sections deal with protection rules, management planning and other management aspects such as hunting, use of licences, and initiatives like game ranching and breeding.

Among the most common protection rules are **limitations to hunting,** which may be by species, area, hunting methods, purposes of hunting, or be based on time limits. Regarding prohibitions to hunt with particular methods, some of them are common to most countries, while others vary depending on local traditions. Some arrangements continue to be allowed by the law because they

have traditionally been considered acceptable, either to contribute to subsistence or to meet the requests and interests of sport hunters. The justification of some methods for sport hunting purposes is however still widely debated in many countries.

Listing of species is a typical tool for the protection of wild animals, which remains common in recent legislation. Frequently there are provisions for the creation of lists of different **categories of animals, which are to receive different degrees of protection**. The effectiveness of these provisions may depend on the flexibility allowed in adapting the lists to sustainability requirements.

Some national laws have started to require the appropriate **management of processes which may have negative impacts on wildlife**, with a view to eliminating or mitigating them. A section on this topic gives some examples.

A number of laws in recent years have reflected the enhanced concern for the protection of **biodiversity** as a whole, rather than simply of significant species of animals and plants. The sub-section on protection of biodiversity briefly reports some examples.

The section on **management planning** describes some provisions which set out wildlife management processes, which may include steps such as collection of relevant data and adoption of various types of management plans. It appears from this analysis that almost all countries have provided some legal basis for management planning, but that the approach remains rather fragmentary, i.e. the laws rarely set out a complete rational framework.

The section on **regulation of hunting** is limited to issues which are not dealt with in other parts (e.g., sections on protection rules, on licences, etc.). It describes some of the political debate on hunting which influences the formulation of legislation. At least three major interest groups frequently take partly conflicting views regarding the regulation of issues such as re-stocking of wildlife, selective hunting, and traditional hunting methods.

Provisions of national laws concerning **licences and permits** are usually meant to contribute to rational wildlife management. The section on this topic notes, however, that this effect is limited, as although most countries set out numerous requirements for licences, they do not tie conditions for their issue to actual management needs, leaving related decisions widely to the discretion of administrations. Some laws set out different types of licences, based on

different degrees of protection of concerned animals, or different size of animals (e.g., small game and big game), or place of residence (e.g., for visitors and foreigners) or objectives for hunting or capturing animals (e.g., sport, subsistence, scientific purposes).

The analysis of provisions regarding game **ranching and breeding** shows that they mainly set out control systems with a view to protecting the environment and biodiversity and preventing negative impacts.

Chapter IV on ownership of wildlife presents some of the different approaches regarding ownership of wildlife resources and related rights and obligations, such as the right to hunt and to draw financial benefits from wildlife and the obligation to manage wildlife and to pay compensation for damage which it may cause. There are two basic trends, i.e. State ownership of wild fauna and ownership by private or communal owners of land.

Chapter V on land use and protected areas presents provisions on the types of protected areas which are specifically devoted to the protection and management of wildlife, including hunting. The following section refers to some of the rare provisions regarding land-based wildlife protection measures applicable outside protected areas in national laws. The final section examines the relationship of wildlife management, which implies some forms of land use, with other land uses within protected areas and in neighbouring areas, and generally with land use policies and planning. This is also a topic which is frequently not addressed in legislation.

Chapter VI discusses provisions on public involvement in wildlife management. Advantages deriving from people's participation in the benefits deriving from wildlife management as well as in decision-making are numerous, including broad-based support to the measures adopted and consequent improved implementation and enforcement.

Countries encourage participation to varying extents and under various approaches. A basic step is to allow access to available wildlife-related information. A further step is generally to require in the law that the interests of concerned people be taken into account. More concrete measures require effective consultation of stake-holders or the public in activities such as adoption of management plans or declaration of protected areas. Another approach is to foresee the creation of people-centred bodies with various wildlife management responsibilities, or the management of areas under agreements between interested people or communities and the administration.

The devolution of legislative and/or administrative powers from the central to the local level is another way in which people may be more directly involved in wildlife management. The chapter examines examples of these various approaches.

The legislation which has been reviewed is listed at the end of the text.

I. INTRODUCTION

Legislation on the protection of wild animals has long existed in most legal systems. In many cases, the original focus of interest was hunting, and the related necessity to protect at least some species or some stages of animals' life. Provisions aiming generally at the protection of wild animals were often introduced for the first time in the sectoral legislation on hunting and were often the product of a compromise among conflicting interests. Sometimes protection was granted also to areas which were particularly significant for the survival of wild animals, by creating specific reserves.

Usually at a later stage, in many countries consideration extended more generally to any significant species' habitats, leading to the adoption of plenty of legislation on various types of protected areas.

Provisions on wild animals and on protected areas may have been combined in a single legal instrument or kept separate, but a common characteristic of legislation of that generation was that it rarely took a comprehensive view of wildlife management, including development as well as conservation aspects.

A study published by FAO in 1984 concerning legislation on wildlife and protected areas in Africa already noted a trend (in the more recent laws of the 1970s rather than those of the previous decades) towards further consideration of **wildlife management and utilization**, as opposed to strict interest for hunting and individual species' protection (FAO, 1984). Legal systems which had originally rested on two distinct elements – hunting and protected areas – then undertook to adopt a real corpus of wildlife law in which wildlife was more appropriately considered as a renewable natural resource. The objective of wildlife policies and legislation then gradually became the appropriate management of the resource for any useful purpose and at the same time without deteriorating it, in line with developments in international and national environmental legislation, which by the end of the 1980s came to a wide acceptance of the principle of sustainable development.

Additional concerns have subsequently emerged and oriented the formulation of more recent laws. These include an enhanced consideration for the role of each species and organisms and therefore for the protection of biodiversity. Further attention has also increasingly been devoted to people-related aspects of wildlife management. This is reflected in increased

consideration of people's views in decision-making and renewed institutional arrangements for this purpose, with an enhancement of local initiatives. At the same time, the international community has devoted increasing attention to environment and nature conservation issues, and the impact of international initiatives has also increased. The following chapters examine these and other main trends.

The national legislation which has been reviewed dates from the 1990s and is listed at the end of the text. These laws (and in some cases regulations) refer either directly to wild animals or simply hunting, or more generally to all wildlife (sometimes including plants) or protection of nature. Some also refer to protected areas, either together with wildlife or exclusively. In the latter case, the principal objective of the analysis remained the identification of trends in legislation concerning wild animals, rather than a more general discussion of protected area legislation.

II. WILDLIFE LAW: INTERNATIONAL AND NATIONAL DIMENSIONS

2.1. Linkages between International, National and Local Legislation

The past decades have witnessed a massive increase of **environmental rules adopted in international fora**, such as global or regional agreements and legislation issued by the European Community (EC), and a consequent increased impact of these sources onto national legal systems.

At the same time, there has been a growing tendency towards the **devolution of powers** of central governments in the environmental sector to local authorities. In States which have a federal or similar decentralized structure, wildlife is often among the subjects on which local authorities at some level are allowed to legislate, either independently or within the framework of legislation issued at the central level.

These parallel processes are both productive approaches for wildlife protection and management. As to **international initiatives**, the harmonization of environmental legislation among different countries is useful because it may bring those which tend to lag behind in the adoption of stringent environmental rules up to the standards of more active ones, while it usually does not prevent the latter from adopting stricter protective measures. The adoption of rules at the international level also makes it possible to protect and manage species whose range extends beyond national boundaries. It may also contribute to fair competition among enterprises, as if harmonized environmental rules are in place, concerned producers are made subject to the same or very similar restrictions, for the benefit also of consumers.

As to the increasing **devolution of powers to the local level**, this process may facilitate consideration of all concerned interests and adequate consultation of their representatives, especially where authorities are democratically elected. It may also facilitate the identification of particular local requirements with regard to indigenous species or particular sites. The more recent international environmental agreements, such as the Convention on Biological Diversity, emphasize area-based measures and planning, which are usually best achieved at the local level. The incorporation of environmental concerns into local planning can considerably contribute to the conservation of habitats outside protected areas. By vesting local authorities with overall responsibilities for the

development of their respective territorial areas, conflicts which often arise among different central authorities responsible for interrelated sectors (for example, wildlife and hunting, agriculture, forestry, environment) may be mitigated, as there is usually a closer integration among branches of the administration at this level. Local authorities, being the closest representatives of the local communities, tend to be in the best position to guarantee their interests in a process of integrated planning.

Both **international and local law-making** and implementation can therefore significantly contribute to wildlife conservation. The **integration of these processes with each other**, however, can be rather complex. Legislation adopted at the international level must usually be implemented by the adoption of specific domestic rules. The legislative power on the relevant subject in a country may have been delegated to one or more levels of local authorities. While the State remains responsible for the obligations to which it subscribed at the international level, harmonized compliance, even within a single country, may be made difficult by the inactivity of some local authorities, or by possible differences in the implementation by them.

The process of implementation of EC legislation, for example, has often been less efficient in the case of required "transposition" of rules regarding subjects reserved to the legislative power of local authorities within Member States. This problem goes beyond the issue of wildlife management legislation, and various approaches are being experimented in EU Member States both to facilitate compliance with international obligations and at the same time to respect the role and activities of local authorities.

The case of Italy provides a number of specific examples. In this country, some legislation has been adopted in the past decades specifically to improve the process of integration of EC legislation into the national legal system. Some of this legislation applies to any subject, while some specifically concerns environmental and wildlife management legislation, and follows a flood of litigation raised by the regions and/or by environmental associations. A decree of 1997[1], for example, specifically regulates the respective powers of central authorities and of

[1] Decree of the President of the Council of Ministers of 27 September 1997. This Decree follows a decision by the Court of Justice of the European Community (WWF/Veneto Region), cited *infra* (2.3.4.), in which the practice followed in Italy concerning derogations was not considered to satisfy the requirements of the Birds Directive.

the regions concerning derogations from the EC Birds Directive. The Directive sets out a list of protected species, but allows Member States to consent to exemptions under specified circumstances (art. 9(1)(c)). Italian regions have tended to freely derogate from the EC rules. The decree reserves to the State the power to establish a uniform regime on derogations. Regional administrations may grant exemptions only in agreement with the Ministries of the environment and of agricultural policies, subject to specified conditions which must be verified by the National Wildlife Institute.

Legislative Decree 112 of 31 March of 1998 spells out, among others, the functions relating to nature protection which are declared to be "of national relevance". These include the implementation of international and EC legislation regarding environmental protection; conservation and enhancement of protected areas which have been recognized as having international or national importance, and protection of biodiversity, fauna and flora which are specifically protected by international and EC legislation; modification of the list of species which may be hunted pursuant to international sources of law, of endangered species, and of dangerous mammals and reptiles; authorization of import and export of indigenous species (art. 69.1(a), (b), (i) and (l)–(n)).

There have also been disputes between central and regional authorities concerning the implementation of the provisions of the national law which allow modifications by the regions of the hunting seasons set out in national legislation (article 19 of the Law on Protection of Warm-blooded Wild Fauna and Hunting). In practice, this possibility has mainly been utilized to allow longer hunting periods in some regions, without taking into due account the opinion of the National Wildlife Institute, which by law is required to be issued – a practice which is greatly criticized by environmental associations.

Adequate international, national and local rules are all essential means for good wildlife management. Addressing issues at the most appropriate territorial level also contributes to the adequacy of these rules. For example, species whose range extends across administrative boundaries are likely to be most appropriately addressed mainly at the national or international level, as a single management approach may be adopted. On the contrary, there are areas or species whose characteristics require more detailed local regulation, which are most appropriately addressed mainly at the local level, although within the framework of international

and national principles. It is also important that arrangements on sharing of legislative and administrative powers among the international, national and local level be clearly made, whether or not they are embodied in specific legislative provisions.

2.2. Overview of Principal International Agreements

Numerous international agreements adopted at the global and regional level concern wildlife or have some potential impact on it. Although the focus of this study are domestic laws, this section briefly outlines the contents of the principal global agreements, as they have widely contributed to the development of national legislation. This has not happened only in the numerous States which have become parties to them but also in other countries whose legislation has been influenced by them, although a process of formal acceptance may not have been undertaken or completed. As to regional initiatives, the peculiar case of EC legislation, which has had an outstanding impact on the law its member countries, is presented separately in the following section.

Among the most significant agreements, **CITES**, the Convention on International Trade in Endangered Species of Wild Flora and Fauna, was adopted at Washington in 1973. The Convention 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. For species subject to national regulation and needing international cooperation for trade control (listed in Appendix III), export permits may be granted for specimens not obtained illegally. Additions and deletions of species from Appendices I and II are made by the Conference of Parties, according to established criteria. In 1994, the Conference adopted new criteria, repealing those long in force. The new criteria encompass general principles such as the precautionary principle, and detailed biological and other requirements.

The Convention requires states to adopt legislation that penalizes trade in and possession of covered species, and to provide for the confiscation or return to the state of illegal exports. In the last decade, the Conference of Parties has adopted several resolutions on enforcement and compliance, such as Resolution 9.9 (1994), recommending confiscation of specimens exported illegally; Resolution 9.10 (Rev.) (1994), on disposal of confiscated specimens or parts or derivatives thereof; and Resolution 11.3 (2000), recommending greater co-ordination between competent authorities, and outlining measures to promote enforcement, such as creating appropriate incentives for local and rural communities. The Conference has also adopted resolutions on trade in specified species, and on ranching and breeding of protected species.[2]

Another significant international agreement is the **Convention on the Conservation of Migratory Species of Wild Animals**, adopted at Bonn in 1979, which requires cooperation among "range" States hosts 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 agreements to maintain or restore concerned species in a favourable conservation status. One post-Rio agreement adopted under the Convention is the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (1995), which provides for concerted actions to be taken by the Range States (117 countries, from the northern reaches of Canada and the Russian Federation to the southernmost tip of Africa) throughout the migration systems of the 172 species of waterbirds to which it applies.

A "Strategy for the Future Development of the Convention" was adopted by the Conference of Parties in 1997, prioritizing objectives for the triennium 1998–2000. In 1999, the Conference adopted the Strategic Plan for 2000–2005, whose objectives include prioritizing conservation actions

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[2] Namely Resolution 11.4 (2000) which provides for a registration procedure for commercial operations to breed Appendix I species, and requires for instance an "assessment of ecological risks" for local ecosystems and species in relation to captive-breeding operations for exotic species; and Resolution 11.16 (2000) on ranching and trade in ranched specimens.

for migratory species (*inter alia* by integrating consideration for migratory species in government policies, by mitigating obstacles to migration, and by identifying priority Appendix II species for the conclusion of agreements under the Convention; promoting accession of targeted countries to the Convention; and facilitating and improving implementation of the Convention, by mobilizing financial resources, rationalizing institutional arrangements and strengthening linkages with other international biodiversity-related arrangements.

While CITES and the Bonn Convention are species-based treaties, the protection of specific habitats important for wildlife is also achieved through area-based treaties, such as the Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar, 1971), and the Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention, Paris, 1972).

Parties to the **Ramsar Convention** 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. "Criteria for Identifying Wetlands of International Importance" were adopted at the 4th, 6th and 7th meetings of the Conference of the Contracting Parties in 1990, 1996 and 1999, respectively. A Strategic Plan 1997–2002 was adopted by the 1996 Conference of Parties, emphasizing the need to integrate wetland protection with sustainable development (considered as synonymous with "wise use"[3]), to promote participation of local communities and involvement of the private sector and to mobilize resources at the international level.

The **World Heritage Convention** provides for the identification and conservation of sites of outstanding universal value from a natural or cultural point of view, to be included in the World Heritage List. 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. At the tome of writing, 721 properties were listed, including 144 natural and 23 mixed (cultural and natural).

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[3] As early as 1980, Recommendation 1.5 of the Conference of Parties stated that "wise use of wetlands involves maintenance of their ecological character, as a basis not only for nature conservation, but for sustainable development" (preamble).

More recently, an increased consideration worldwide of the interaction of species and all other living organisms with each other and with human activities has led to the concern for the protection of biodiversity as a whole – a development reflected in **Convention on Biological Diversity**, adopted at Rio de Janeiro in 1992, and which is being gradually incorporated into national legislation. Under the Convention, conservation and sustainable use of biodiversity are to be pursued by adopting specific strategies and also by incorporating relevant concerns into any plans, programmes and policies (art. 6). Sustainable use of biodiversity must be a consideration in national decision-making (art. 10). Among the obligations for parties are the restoration of threatened species and, specifically, the adoption of legislation for the protection of endangered species (art. 8). Parties are also required to identify and control potential sources of adverse impacts on biodiversity (art. 7), and to regulate and manage them. Environmental impact assessments of projects likely to have "significant adverse effects" on biological diversity are required (art. 14).

De Klemm (1999) argues that, starting in particular from the Bonn Convention and the Biodiversity Convention, two new concepts have appeared in international environmental law. One is the concept of "conservation status", as international law has since progressively required that species or populations must be maintained in a favourable conservation status. The same notion is used, for example, in the EC Habitats Directive. The objective of a favourable conservation status is to be achieved through a number of "*obligations de moyen*", as potentially harmful activities are to be controlled and opposed. The other new concept is that of "potentially harmful process". This is reflected in the provisions of the Biodiversity Convention which require control of sources of adverse impacts and environmental impact assessments (arts. 7 and 14). Emphasis has thus switched from management of species to management of processes which may potentially harm them. Some national laws which reflect this concept are referred to in section 3.1.3.

2.3. European Community Legislation and Case Law

2.3.1. The European Community and Wildlife Law

Among the initiatives taken at the regional level, EC environmental legislation deserves a closer examination, as the **particular nature of the Community's legal system** determines a more rapid and effective

integration of its rules into national legislation compared to international legislation, which generally requires formal acceptance by individual countries before its entry into force. In the treaties establishing the European Communities, EC Member States[4] have subscribed either to the direct application of legislation issued by the Community's institutions, or to take adequate action to implement it. The existence of a judicial system to which all member countries are subject contributes to strengthening the obligations which derive from EC legislation.

As a consequence, the Community's environmental rules have had an outstanding **impact on the legal systems of its member countries**. In the case of some of them, progress in enacting adequate legal frameworks for environmental protection and sustainable natural resource management has been largely the consequence of the Community's initiatives. At the same time, the more progressive environmental legislation adopted or in the course of adoption in some of the Member States has served as an incentive to the Community institutions for the enactment of provisions on the same subjects, further determining a positive impact on the legislation of all member countries.

EC environmental legislation has also produced an impact over the **legislation of third countries**, as for various reasons (requirements of the pre-accession phase, participation in funding programmes to which they may be entitled, etc.) a process of "approximation" of their legislation with that of the EC is underway.

The legislation adopted by the Community concerning nature conservation thus far has limited its scope to specific aspects – mainly protection of species and habitats of particular interest –, without extending to others such as general wildlife management, hunting, and related aspects such as tenurial arrangements, accessibility of private lands for hunting (except as regards prohibited species and methods), size of holdings, etc. The legal instruments most frequently utilized are directives, which allow Member States to decide the form and means of implementation, as long as the common objective is reached. The most significant ones are Council Directive 79/409/EEC, as amended, on the conservation of wild birds, known as the Birds Directive, and Council Directive 92/43/EEC of

[4] Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom.

21 May 1992, as amended, on the conservation of natural habitats and of wild fauna and flora, known as the Habitats Directive.[5]

2.3.2. The Birds Directive

The Birds Directive relates to the conservation of all species of naturally occurring birds in the wild state within the Member States' territory. The Directive requires Member States to take requisite measures to maintain or adapt the population of these species at a level which corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements (art. 2). Species listed in Annex I must be the subject of special conservation measures concerning their habitats, in order to ensure their survival and reproduction in their area of distribution. In this connection, account must be taken of species in danger of extinction, or vulnerable to habitat changes, or rare, or otherwise requiring particular attention because of their habitat's nature. The most suitable territories in number and size for the conservation of these species must be classified as special protection areas (art. 4(1)). Similar measures must be taken for regularly occurring migratory species not listed in Annex I as regards their breeding, moulting and wintering areas and staging posts along their migration routes (art.. 4(2)).

A specific regime is set out for derogations from the provisions of the Directive, allowing them in specified cases, relating mainly to public health and security, protection of fauna and flora and scientific purposes, subject to the indication of all applicable conditions and only "where there is no

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[5] Other legislation concerning wild animals includes the following instruments:

- Council Regulation (EC) No. 338/97 of 9 December 1996 on the protection of species of wild fauna and flora by regulating trade therein, concerning the implementation of CITES within the Community, as amended;
- Commission Decision 97/266/EC of 18 December 1996 concerning a site information format for proposed Natura 2000 sites;
- Council Directive 1999/22/EC of 29 March 1999 relating to the keeping of wild animals in zoos;
- Commission Regulation (EC) No. 1808/2001 of 30 August 2001 laying down certain detailed rules concerning the implementation of Council Regulation (EC) No. 338/97 on the protection of species of wild fauna and flora by regulating trade therein;
- Commission Regulation (EC) No. 2087/2001 of 24 October 2001 suspending the introduction into the Community of specimens of certain species of wild fauna and flora.

other satisfactory solution". Derogations thus authorized by Member States must specify species, means, circumstances of time and place, and responsible authorities (art. 9).

2.3.3. The Habitats Directive

The Habitats Directive is the most comprehensive legislative instrument adopted by the Community regarding wildlife. Its main aim is stated to be "to promote the maintenance of biodiversity, taking account of economic, social, cultural and regional requirements" (preamble). The Directive provides for the designation of special areas of conservation in order to ensure the restoration or maintenance of natural habitats and species of Community interest (respectively listed in Annexes I and II) at a favourable conservation status, with a view to creating a coherent European ecological network, under the title of "Natura 2000". In the case of species ranging over wide areas, sites to be proposed correspond to the places within the natural range of such species which present the physical or biological factors essential to their life and reproduction (art. 4).

On the basis of criteria set out in Annex III of the Directive, the Commission is to establish a draft list of sites of Community importance in agreement with Member States. Pursuant to a specified procedure (set out in article 21), which involves the assistance of a committee made up of representatives of Member States, the list of selected sites, identifying those which host one or more priority natural habitat types or priority species, is adopted (art. 5(2)). Member States must designate such sites as special areas of conservation as soon as possible (art. 4(4)) and establish the necessary conservation measures, including management plans (which may be specific or integrated into other land use plans) as may be appropriate (art. 6(1)).

Natura 2000 is to include also the special protection areas classified by Member States under the Birds Directive (art. 3(1)), which are to be considered part of the network from the moment of their designation, and are not subject to the same procedure for declaration as special areas of conservation envisaged in the Habitats Directive. Authorities who are responsible for its implementation are to adopt necessary conservation measures within six months of their designation.

Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect on it, either individually or in combination with others, is subject to an assessment of

the implications for the site in view of the site's conservation objectives, and the competent authorities may agree to the plan or project only upon verification that it will not affect the integrity of the site concerned. If in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member State must take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected, informing the Commission of the measures adopted. Where the site concerned hosts a natural habitat type and/or a species which pursuant to the Directive are to be considered as a priority habitat type or species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion of the Commission, to other imperative reasons of overriding public interest (art.. 6(2)–(4)).

Arrangements are made for co-financing by the Community of action to be taken by States in relation to special areas of conservation hosting priority habitat types and/or priority species (art. 8).

Member States are also required to endeavour the management of features of the landscape which are of major importance for wildlife, such as those which may be essential for migration, dispersal and genetic exchange, with a view to improving the ecological coherence of the Natura 2000 network (art. 10). Member States are required to ensure surveillance of the conservation status of natural habitats and species of Community interest and particularly priority ones (art. 11).

Some provisions for the protection of specific listed species of animals and plants are included. Member States must ensure that the capture or killing of these species, as well as disturbance, destruction of eggs, of breeding sites and of resting places, and keeping and sale of wild specimens are prohibited (art. 12).

The Directive has numerous positive aspects and implications. Among these was the innovative nature of its objective at the time of its adoption, in that it aims at the integration of the "maintenance of biodiversity" with economic, social, cultural and regional requirements. It also has an appropriately wide scope of application as it covers not only entirely natural areas, but also significant areas in which human action and natural processes have interacted ("semi-natural habitats"). Natura 2000 sites are

thus intended as sites where integrated land use planning incorporates both nature conservation and development objectives.

Another positive effect of the Directive has been to encourage States to formally adopt management plans in relation to sites to be protected, although this may have brought about new concerns in Member States as regards the integration of these plans with other existing or future plans involving some land use (e.g. forestry plans, hunting plans, etc.). The significance of these plans for rational wildlife management is enhanced by the requirements for standardization of data collection throughout Member States. Such requirements, which were further specified in subsequent implementing legislation[6] and have been strengthened by the action of the Court of Justice, which has invariably convicted States which have not adequately complied, have promoted an unprecedented effort by States towards uniform gathering of environmental information relevant to species and sites of Community interest.

Measures to be adopted by Member States within each selected area are widely discretionary, subject to the general requirement to maintain species and habitats at a favourable conservation status. This has tended to be considered a weakness of the Directive by environmental associations, especially where responsible authorities take inappropriate action or tend to remain inactive.[7] On the other hand, the flexibility allowed by the Directive enables management of concerned areas to be adapted to specific local requirements, in light also of economic and social concerns. The text of the Directive moves from the consideration that the maintenance of biodiversity "may in certain cases require the maintenance, or indeed the encouragement, of human activities" (preamble), and there are no such activities which are unconditionally prohibited. The identification of specific prohibitions is left to a case by case determination of the States.

2.3.4. Decisions by the Court of Justice of the European Communities

Decisions by the Court of Justice of the European Communities regarding the implementation of the Birds and Habitats Directive have strengthened the obligations arising from them, requiring punctual implementation by

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[6] Commission Decision 97/266/EC of 18 December 1996 concerning a site information format for proposed Natura 2000 sites.

[7] In this regard, however, see the position of the EC in Commission v. France, in section 2.3.4.

Member States. The Court has almost always upheld the position of the Commission, which has acted rather stringently for the implementation of the Birds and Habitats Directives, in its role as a guardian for the implementation of EC legislation.

In numerous cases, national governments were convicted because their **domestic legislation was found not to adequately meet the requirements of the Directives**. In the case Commission v. France of 2000[8], the French government was found to be in violation of the Habitats Directive, as it had not adopted specific legislation for the implementation of article 6(3) and (4), concerning the assessment of the implications of plans and projects not directly connected with or necessary to the management of the site, but likely to have a significant effect on special areas of conservation. The existence of adequate provisions on environmental impact assessment in the French legal system was not considered to be satisfactory, as none of these provisions prescribes an assessment of the environmental impact in light of a site's specific conservation objectives.

The Commission also claimed that there is an obligation for Member States to adopt express provisions making it compulsory for responsible national authorities to apply the conservation and protection measures envisaged in article 6(1) and (2) in special areas of conservation – a view which is often shared by environmental associations in Member States, concerned by the inactivity of the responsible authorities. The government of France, on the contrary, held that in its legal system a number of measures were already in place which generally ensured the implementation of the objectives of the Directive. On this specific point, however, the Court did not issue a decision, as the question was considered to go beyond the scope of the proceedings as initially defined.

Other national legislation which the Court considered inadequate to meet the requirements of the Birds Directive are provisions which allegedly establish a protective regime simply by maintaining a special protection area under the status of public domain, or as a hunting reserve, in the absence of concrete measures regarding sectors other than hunting.[9] Protection based on

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8 Decision of 6 April 2000, Commission of the European Communities v. Republic of France, case C-256/98.

9 Decision of 18 March 1999, Commission of the European Communities v. Republic of France, case C-166/97.

legislation relating to water management and exclusively dealing with it, as well as protection based on voluntary EC "agro-environmental" measures, have also been considered insufficient to implement the Directive.[10]

In other cases, the Court considered the actual implementation by some Member States, for example the selection of sites, or the submission of required data, inadequate. In Commission v. Netherlands,[11] the Commission claimed the violation by the Netherlands of the Birds Directive as a much lower number of habitats had been classified as special protection areas than suggested by the 1989 Inventory of Important Bird Areas in the European Community (IBA). The government of the Netherlands on the contrary claimed that a review of every single area to consider its possible classification as a special conservation area would have been necessary for the purpose of identifying alleged violations of the Directive. The Court considered the classification made by the Netherlands (23 areas for a total of 327 602 ha, as opposed to 70 areas for a total of 797 920 ha identified in the IBA) manifestly in excess of the discretionary power granted to Member States by the Directive.

The government of the Netherlands stated to have utilized the same criteria as those followed in the IBA, but to have nonetheless reached different results in the classification of special protection areas. However, during the discussion before the Court, the same government admitted that different criteria were in fact utilized. The Court ruled that although this is not in itself unacceptable, as the IBA is not legally binding, the different criteria referred to have not been sufficiently presented and justified. An adequate implementation of the Directive should have been proven by the submission of adequate scientific evidence showing that the classification of a much smaller area than that suggested in the IBA was equally satisfactory. In the same case, the Court emphasized that the designation of the areas which are most appropriate by number and extension for the conservation of species listed in Annex I as special protection areas is an obligation which may not be eluded by the adoption of special conservation measures. Otherwise, the objective of creating a coherent network or areas for the conservation of birds would be nullified (art. 4(3)). Although Member States do enjoy a discretionary power in the designation of concerned areas,

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[10] Decision of 25 November 1999, Commission of the European Communities v. Republic of France, case C-96/98.

[11] Decision of 19 May 1998, Commission of the European Communities v. Kingdom of the Netherlands, case C-3/96.

this power is subject to criteria regarding the importance of areas for birds which are determined in the Directive.[12] It is only the application of these criteria which is left to the discretion of Member States, while the classification as special conservation areas of the sites which may be identified as the most appropriate, on the basis of these criteria, is compulsory.

The acceptable extent of discretion of Member States in the selection of sites was also considered to have been exceeded in the Commission v. France case of 2001.[13] Here the Commission argued that the selection of sites submitted by France under the Habitats Directive and the related information were insufficient, submitting that discretion may not exceed three basic conditions: only scientific criteria must guide the selection; selected sites must ensure uniform coverage of the land area of each State, reflecting the ecological diversity of habitats and species; and habitat types or species listed in annexes to the Directive which exist within the territory of a State must be adequately represented in the list.

In Commission v. Italy,[14] the Court specified that pursuant to the Birds Directive (art. 4(1)) Member States have an obligation to establish special protection areas and special conservation measures for each of the species listed in Annex I. It is not up to the Commission, but rather to Member States, to identify species which are found within each State and take action accordingly. A precise implementation of the Directive is considered to be particularly important in this case, as the management of a common heritage is entrusted to each Member State in respect of its territory.

Among the **claims frequently rejected** by the Court is the justification of a State's action based on economic reasons, as seems to be possible under article 2 of the Birds Directive. In the "Lappel Bank" case,[15] the Court ruled that economic reasons such as those mentioned in article 2 of the Birds Directive may not be considered with regard to the classification of an area (which in this case included the "Lappel Bank" coastal area) as a special

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12 See also the decision of 2 August 1993, Commission of the European Communities v. Kingdom of Spain, case C-355/90, known as "Marismas de Santoña".

13 Decision of 11 September 2001, Commission of the European Communities v. Republic of France, case C-220/99.

14 Decision of 17 January 1991, Commission of the European Communities v. Republic of Italy, case C-334/89.

15 Decision of 11 July 1996, Queen v. Secretary of State for the Environment, *ex parte*: Royal Society for the Protection of Birds, case C-44/95.

protection area, nor with regard to its delimitation. Although it is possible under the Habitats Directive to carry out a plan or project in spite of a negative assessment of the implications for a site, for imperative reasons of overriding public interest, including those of a social or economic nature, with the adoption of appropriate compensatory measures (art. 6(4)), and this provision is made applicable (by article 7 of the Habitats Directive) also within the context of the Birds Directive, this justification does not apply to the initial phase in which areas are selected and classified.

The economic and recreational reasons referred to in article 2 were considered inadequate as reasons for exemptions from the obligations arising from the Directive also in the "Marismas de Santoña" case[16], in which the government of Spain was found to have violated the obligation to adopt special measures of conservation with respect to the Marismas de Santoña area, a wetland of international importance and of high ecological value. In the same case, the Court stated that States' discretionary powers as to the identification of appropriate sites are limited by the ornithological criteria determined in the Directive, such as the existence of birds listed in Annex I and the qualification of an area as a wetland. States do not enjoy the same discretionary powers when modifying or limiting the extent of special protection areas.

In a previous case, Commission v. Germany,[17] the Court had considered the economic and recreational reasons referred to in article 2 to be insufficient to justify the reduction of the size of a special protection area. According to this decision, such a reduction may be justified exclusively by exceptional reasons. While Member States enjoy a certain degree of discretion for the identification of appropriate sites with a view to the creation of special protection areas, their discretionary power is more limited when they wish to reduce the size of existing special protection areas.[18]

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[16] See note 12.

[17] Decision of 28 February 1991, Commission of the European Communities v. Federal Republic of Germany, case C-57/89.

[18] In this particular case, however, the reduction of a special protection area in Germany was considered to be justified, as the purpose was to protect the coastline from the danger of floods by strengthening a dyke and there was the smallest possible reduction of the special protection area.

Some of the Court's decisions give an **interpretation** of controversial provisions in the Directives. In the WWF v. Veneto Region case,[19] the Court specified the interpretation of the provisions concerning derogations from prohibitions to hunt set out in the Birds Directive. Pursuant to these provisions, only species listed in Annex II may be hunted (art. 7(1)), but States may envisage exemptions from this and other restrictions for the reasons specified in article 9, relating mainly to public health and security, protection of fauna and flora and scientific purposes, and specifying all applicable conditions, such as concerned species, authorized methods of hunting and authorities to be responsible (art. 9(2)). There must be no other satisfactory solution.

Being one of the parties in the dispute, WWF alleged the illegitimacy of the derogations set out by the Veneto Region, which had been established without submitting the reasons to justify them. The Court stated that one of the reasons specifically envisaged in article 9 must exist, and the specific formal requirements envisaged in article 9(2), which aim at limiting exemptions to strictly necessary cases and to allowing surveillance by the Commission, must be complied with. In Italy, it is the national framework law on protection of wildlife and hunting which authorizes the regional administrations to legislate on hunting, authorizing generally also the hunting of species which are prohibited under Annex II of the Directive. As the criteria justifying this general exemption were not specified at the national level, nor were the regions required to take into account the Directive's criteria, the Court held that the conditions envisaged in article 9 of the Directive cannot be considered to have been met.[20] The Court also emphasized that as in this field the management of the European common heritage is handed over to individual Member States, it is particularly important to precisely implement the Community Directives.

In interpreting article 7(4) of the Birds Directive in the *Association pour la protection des animaux sauvages et al.* v. *Préfet de Maine-et-Loire* and *Préfet de la Loire Atlantique* case,[21] the Court held that hunting seasons for migratory species and waterfowl must be determined with a view to a complete protection of these species in the period of migration preceding matching. Therefore, the closing date of hunting must coincide with the beginning of

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[19] Decision of 7 March 1996, Italian Association for the World Wildlife Fund *et al.* v. Veneto Region, case C-118/94.

[20] The subsequent Decree of the President of the Council of Ministers of 27 September 1997 revised the Italian legislation in this regard.

[21] Decision of 19 January 1994, case C-435/92.

the migration preceding matching for each species. Any methods leading to excluding a certain percentage of birds from such complete protection may not be considered to comply with the Directive.

The fixing of different closing dates by species is incompatible with the text of article 7(4), third sentence, unless scientific evidence is given that this does not hinder the complete protection of concerned species. If the power to determine hunting seasons is delegated to lower-level authorities, the provisions which delegate such powers must be formulated in such a way that the closing date be fixed with a view to enabling complete protection in the period of migration preceding matching. Dates may vary from one region to another within a single State, as long as this condition is met.

In the "Didier Vergy" case,[22] the Court held that Member States are required to forbid the trade even of species which are not listed in annexes to the Birds Directive, as long as such species have their natural habitat within the Member States' territory, unless exempted pursuant to article 9. It would be incompatible with the Directive for a State to limit protection to species which may be considered its own national heritage, given the importance of ensuring an effective and complete protection of all bird species within the whole Community territory. On the contrary, the Court specifies that the Directive does not apply to birds born and raised in captivity, and Member States remain responsible for regulating trade in such specimens.

In the "Godefridus van der Feesten" decision[23] , the Court further stated that the Birds Directive applies to subspecies of birds naturally occurring in the wild only outside the Member States' territories, if the species they belong to, or other subspecies belonging to the same species, do occur within any of the Member States' territory. The Court considered the Directive equally applicable by all Member States, including those within whose territory certain habitats and species do not occur, extending protection to subspecies which are not found within the Community.

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[22] Decision of 8 February 1996, Criminal proceedings against Didier Vergy, case C-149-94.

[23] Decision of 8 February 1996, Criminal proceedings against Godefridus van der Feesten, case C-202-94.

III. WILDLIFE PROTECTION AND MANAGEMENT

3.1. Protection Rules

3.1.1. Limitations to Hunting

Legal issues related to hunting are addressed in other parts, such as those on regulation of hunting (section 3.3.), on licences (section 3.4.) and on ownership of wildlife (chapter IV). This section is limited to aspects which are not addressed elsewhere.

Among the most common protection rules are those which set out prohibitions applicable to hunting. These prohibitions are of different types. Limitations in the **quantity** of animals which may be hunted (for example under a single licence, or within a certain period) are not common in the principal legislation, as they are more frequently placed in subsidiary legislation periodically adopted or incorporated as licence conditions.

Limitations on **time** are quite common. Most laws prohibit hunting between sunset and sunrise. The fixing of open and closed seasons is also common, although more frequently through subsidiary legislation. At the time of adoption of the current law on hunting in 1992, Italy chose to establish hunting seasons respectively for various species directly in the law, allowing the regions to modify them, subject to certain conditions (art. 18.2.).

As to limits on **places**, the issue is addressed in the chapter V on protected areas, where some examples are given of protected areas which have specific wildlife management purposes, and in chapter IV on ownership of wildlife, as some countries endow landowners with exclusive hunting rights, while others allow hunting by anybody more freely, even on private lands.

Regarding **hunting methods and weapons**, many prohibitions are common to most of the legislation which has been examined. This is the case, for example, regarding the use of drugs, poison, explosives, fire, as well as hunting from moving vehicles. Methods of hunting, however, are a typical part of local traditions and therefore additional prohibitions in this regard may vary greatly from one country to another.

In countries where hunting continues to contribute to subsistence, there are exemptions from prohibitions to hunt to allow **traditional hunting** practices. The Bonn Convention on the Conservation of Migratory Species of Wild Animals of 1979 already allowed exceptions to its regime for purposes which included the needs of traditional subsistence users of protected species (art. 3).

In traditional African societies, prohibitions to hunt were usually not necessary, as hunting was often part of customary management systems which by their nature could rarely produce negative impacts on the conservation of wildlife.[24] Progressive settlement into stable areas brought about the suppression of rotation of hunting areas, but also changes of habitats, increase of agriculture, and subsequently the market economy. This implied also an incentive to destroy "noxious" animals, and generally a loss of respect for game. These various factors, and the tendency to establishing State ownership of land and wildlife resources, have caused the disappearance of traditional regimes of wildlife management and hunting, and have brought about the establishment of legislation setting out a number of hunting prohibitions. Exemptions from such prohibitions to allow traditional hunting practices are currently often limited to specified species (usually small game) and to the areas in which hunters live, excluding commercial purposes.[25]

For example, the 1997 law of Burkina Faso expressly allows subsistence or traditional hunting by local communities to the extent that it is done to ensure their subsistence (art. 115). In Cameroon, traditional hunting (defined as hunting by means of "vegetable" origin) is "free" on any land except within private properties, although within protected areas it may be

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[24] In an interesting analysis of African customary rules applicable to hunting and their evolution, Chardonnet notes that in traditional societies various factors prevented the taking of excessive number of animals, so that even under an apparent absence of regulation wildlife conservation was not negatively affected by hunting. For example, there were particular customs or religious beliefs which prohibited the taking of some species; some areas were inevitably closed because not easily accessible; the number of hunters, whose technical knowledge was passed along through generations of the same families, was limited; and there was a general decrease of interest in hunting during agricultural seasons.

[25] Ly regrets that not all countries in West Africa address traditional hunting in their legislation, an approach which inappropriately neglects to take into account subsistence needs.

subject to specific regulation. Animals obtained from traditional hunting may not be used for commercial purposes (art. 24).

The issue of whether and to what extent particular methods of hunting should be authorized because they are "traditional", although more destructive than most current practices, is also among those widely debated in European countries. For example, in adopting the current legislation in 1992, Italy chose to specify permitted hunting methods, thus phasing out other methods until then traditionally practised, usually within particular areas, to the dissatisfaction of concerned sport hunters. Many still argue that some of the traditional methods would not be in conflict with conservation, and that an assessment of their actual impact on concerned species should be carried out on a case by case basis. The debate is still open and a bill is again under consideration to abolish some current prohibitions.

3.1.2. Protection of Specific Species

Legislation setting out protection rules may limit its scope to more valuable or rare species, or extend to apparently less interesting species, or wildlife or biodiversity as a whole. The legal mechanism for protecting specific species is often to provide for a **classification of animals** which are to receive varying degrees of protection and therefore for the creation of lists. This approach is quite common and in some places remains the principal protection tool. Often, however, it is combined with the **statement of broader conservation principles**.

For example, in the 1997 law of Guinea there is a requirement to ensure conservation of fauna through a favourable environment and sustainable management (art. 4). There is also an obligation to maintain or re-establish sufficiently diverse habitats for this purpose (art. 5), and a specification that rational management implies maintenance of satisfactory population levels. Lists of totally protected and partly protected species are to be set out by the decrees implementing the principal law (arts. 47 and 56). The law of Burkina also envisages a system under which by decree of the Council of Ministers species may be included either into a list "A" of wholly protected species or into a list "B" of partly protected species. Species not included in the lists are in any case partly protected, as they benefit from general measures to safeguard wildlife (arts. 103–111).

In China, the 1988 law expressly aims at the protection of wildlife species which are rare or near extinction, although there is also a general rule to "maintain ecological balances" (art. 1). Other provisions extend protection to species which are beneficial or of important scientific or economic value. There is also provision for the listing of species into two classes, to be proposed by the wildlife administration and approved by the State council. Lists of wildlife under special local protection may also be adopted by provinces, autonomous regions or municipalities (art. 9). In Tajikistan, the law of 1994 requires scientific-based, rational use of wildlife, as well as the preservation of biodiversity (art. 1). Animals under threat of extinction or that are rare are to be listed in a "Red Book" (art. 47).

The 1996 law of Chile establishes a number of categories of wildlife species, which are to be listed by regulations (art. 3). The transfer of a species into a category of which hunting is allowed requires a population study showing that there will not be negative consequences for that species' conservation (art. 27). In Uruguay, a general prohibition to hunt is established, and exception is made for species listed in a decree (Decree 164/996, art. 10). Additional species may be taken subject to further restrictions, as specified in another decree (Decree 165/996). The legislation of Spain (1988, 1997) provides for a national register of endangered species in which fauna to be protected is to be listed in specified categories (arts. 29 and 30).

In some countries the lists of protected species are set out in the principal legislation itself. Examples of this approach may be found in Benin (laws of 1987 and 1993), Mauritania (law of 1997) and Cameroon (law of 1994). In the latter case, the 1995 decree of implementation requires (art. 14) that the classification set out in the law (art. 78) be updated at least every five years. Botswana's 1992 Act lists "protected game animals" and "partially protected game animals" in a schedule (secs. 17 and 18). The general rule is that no animal may be hunted, with the exception of non-designated invertebrates outside national parks and for home consumption (sec. 19). Some laws specify which species of wildlife may (or may not) be hunted, as is in Belgium (1997 law on hunting, article 1 bis, and 1991 decree on hunting of the Flemish region, art. 3) and in Italy (article 2 of the 1992 law), or make provision for their listing, as is done in Albania (article 32 of the 1994 law).

In other cases the laws allow **more flexibility in the determination of species** which require particular protection, stating general principles of

conservation and simply allowing for the declaration of protected species, rather than requiring it. This is the case in Malawi (section 43 of the 1992 Act) and Uganda (section 28 of the 1996 Act). Among the purposes expressly stated in the law of Malawi is the conservation of wildlife so that the abundance and diversity of species are maintained at optimum levels, in order to support sustainable utilization (sec. 3(1)).

The general **tendency to concentrate protection to more valuable, visible species** often implies that species other than mammals receive little or no protection. In the United Kingdom, as regards insects, fish, amphibians and reptiles, there tends to be protection only for endangered or threatened species, with few exceptions for some common reptiles.[26] In contrast to this tendency, the 1997 law of Lithuania defines wildlife as including both vertebrate and invertebrate species (art. 1). Some regions of Italy, such as Emilia Romagna, have adopted specific laws for the protection of "lesser fauna".

It is difficult to tell from an analysis of the legislation alone whether the various examples of provisions which have been reported effectively guarantee the protection of wild animals. There are certainly some risks of ineffectiveness wherever any law has the effect of concentrating protection exclusively on some species, as obviously species should not be considered in isolation from interrelating species and their habitats. Legislation which sets out lists of protected species directly in the principal act particularly risks being ineffective, as the lists may be more difficult to amend than in other cases. Although broad protection principles are usually not missing in laws which set out lists of protected species, the fact that such significant management decisions as the listing of protected species are already made in the law deprives subsequent wildlife management planning of much of its significance. The same could be said about laws which set out open and closed seasons for hunting. Although being subject to the law, management activities

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[26] Harrop (2000) cites lacerta vivipara and anguis fragilis as only cases of reptiles which receive protection, though noting that they may not be killed or injured, but there is no prohibition against their taking. The same author (1999), in an analysis of EC and UK legislation, notes that comprehensive preservation of biological diversity may paradoxically be frustrated by the law dealing with species and habitat conservation, due to the emphasis on some species to the detriment of others, or the failure to address comprehensive interspecies and habitats relationships. Failure to preserve the "commonplace" in biodiversity may determine the loss of key components of ecosystems.

should be progressively adapted to needs which may have to be met to ensure sustainability.

The effectiveness of these rules also depends on the extent to which exceptions are allowed by the law and in practice – whether exemptions are foreseen at the discretion of the administration or for specific purposes (such as scientific research) but without adequate means to prevent abuses. These means could include not only adequate sanctions, but also more appropriate formulation of the laws with a view to preventing violations and abuses. For example, prohibitions could be strengthened by forbidding to possess (rather than only to take) specimens or parts of prohibited species etc. An appropriate definition of hunting, which includes wandering with firearms (as in the laws of Guinea, art. 2, and Mauritania, art. 7) may also help enforcement.

3.1.3. Assessment of Harmful Processes

Reflecting recent developments in international law, a number of domestic laws have started to require the assessment and mitigation of any processes which may be potentially harmful on wildlife, rather than limiting their scope strictly to protection and management. Malawi, for example, requires "wildlife impact assessments" for any "process or activity" which may have an adverse effect on wildlife. Although only the Minister may undertake the assessment, any person who has reason to believe that such an adverse effect will be produced may make a request to undertake it. The process leads to the submission of a report with recommendations on subsequent government action (secs. 23–25). In Uganda, persons wishing to undertake projects which may have a significant effect on any wildlife species or community must undertake an environmental impact assessment (sec. 16). China requires the monitoring of environmental impacts on wildlife and where harm to wildlife may be derived from any activities, the matter must be addressed jointly by the wildlife administration and the other concerned administrations (art. 11).

The 1999 law of Australia requires listing of key threatening processes. The Minister must ensure that a "recovery plan" is in force for each listed threatened species and ecological community, and that a "threat abatement plan" is adopted for key threatening processes where appropriate (sec. 183). Lithuania's law of 1997 requires that in planning and implementing any economic activity, measures must be taken to mitigate impacts on habitats, breeding conditions and migration routes of wildlife (art. 6). Any development

which may have a significant effect on wildlife species or communities is subject to environmental impact assessment (art. 16).

Some countries specifically require environmental impact assessments of actions which may affect protected areas. Cameroon (article 21 of the 1995 decree) and Guinea (art. 40) provide some examples. The EC Habitats Directive requires a specific evaluation of the implications of relevant activities on sites slated for protection under the same Directive. This assessment must be made specifically in view of the site's conservation objectives and therefore this process differs from the general environmental impact assessment process, as regulated in separate legislation.[27]

The EC and Switzerland have also supported non-intensive agricultural practices, with a view to mitigating impact on the environment and wildlife, by providing specific subsidies. Practices which, by reducing impact by agriculture on soil and insects benefit wildlife conservation, are actively pursued in the United Kingdom.[28]

3.1.4. Protection of Biodiversity

The protection and management of biodiversity have started to be addressed in numerous legal systems, either by incorporating relevant objectives in environmental or wildlife management legislation or by adopting separate specific legislation.

Costa Rica is among the countries which adopted a specific law in 1998. The law sets out general principles (art. 9) and provides for the creation of a

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[27] Council Directive 85/337/EEC of 27 June 1985 on the assessment of the environmental effects of certain public and private projects on the environment, as modified. The difference between the general environmental impact assessment process and the evaluation required under the Habitat Directive was emphasized in the Commission v. France case, cited at note 10.

[28] The Game Conservancy Trust, a charity which is widely involved in innovative research and projects regarding farmland ecology, has analyzed the effects of intensification of agriculture on wildlife and the indirect effects of pesticide use on insects and their habitats. As these form the base of many wildlife food chains, the GCT has pioneered farming techniques which benefit game, such as "beetle banks" (mid-field refuges for predatory insects which invade the crop to eat pest species), conservation headlands (areas of outer six metres of cropped areas managed allowing beneficial weeds and insects to thrive with a view to benefiting wildlife), integrated crop farming (www.game-conservancy.org.uk).

national commission to be responsible mainly for policy making and co-ordination among agencies (arts. 14–21). It also provides for the creation of a national system of conservation areas with the related administrative structure (arts. 22–43). Access to genetic and biochemical components of *in situ* and *ex situ* biodiversity is regulated, with a view, among other objectives, to safeguarding the rights of local communities to be adequately informed and, if they wish, object to the operations (arts. 62–76).

In its recent law on environment and biodiversity, Australia encourages the identification and monitoring of biodiversity, for the purpose of identifying and monitoring components that are important for its conservation and sustainable use, or that are inadequately understood, or of collecting other useful information, providing financial and other assistance for this purpose (sec. 171).

The law particularly focuses on planning, setting out various types of plans which must or may be adopted. "Bioregional plans" which may be prepared include provisions on the components and the status of biodiversity, important economic and social values, as well as objectives relating to biodiversity and other values, and set out priorities to be achieved. The responsible minister must have regard to these plans in making any decision to which they are relevant (sec. 176). "Recovery plans" must be adopted for listed threatened species and "threat abatement plans" may be adopted for listed key threatening processes (sec. 183). "Wildlife conservation plans" may be adopted for listed migratory species, listed marine species, cetaceans that occur in the Australian Whale Sanctuary and conservation dependent species (sec. 285).

There are also many examples of countries which have incorporated obligations to protect biodiversity into legislation on environmental protection, or wildlife, or protected areas, including Cameroon, Spain and Ireland.

One problem which should be prevented in the adoption of legislation on biodiversity is the possible overlap and conflict with sectoral legislation on individual natural resources, which are themselves elements of biodiversity. As far as plans and authorizations relating to natural resources, including fauna, are concerned, the law of Costa Rica appropriately requires that any central or local institution issuing them must take into account the conservation of biodiversity (art. 52). As to the specific provisions on access to genetic resources, however, some overlap seems to be inevitable.

3.2. Management Planning

Most recent wildlife laws devote some provisions to management planning, spelling out the basic dynamics of the management process and addressing protection as well as sustainable exploitation. They often require the surveying of animal populations and habitats and the formal adoption of management plans. The following are some examples.

The Spanish law includes basic principles for the management of natural resources and biodiversity. It requires competent administrations to formulate natural resource management plans, with specified contents, and which are to prevail over any other planning instruments which may apply over the same areas (arts. 4 and 5). Hunting is subject to a "technical plan" aiming at the protection of game, to be adopted in accordance with regional legislation (art. 33).

In Portugal, the Framework Law on Hunting requires the adoption of hunting management plans for areas which may be considered as a biological unit for determined game populations and in the case of significant passage of migratory species (art. 13). It also requires that the hunting seasons be fixed based on the breeding periods of each species (art. 8).

Cameroon's decree of 1995 envisages the possible preparation of management plans for the sustainable utilization of one or more wildlife resources (art. 2(3)). It also envisages hunting plans which more specifically set out allowed hunting quotas and other conditions for hunting (art. 2(4)). Pursuant to the law of Guinea, species whose state allows it may be hunted in accordance with management rules which ensure the development or the maintenance of existing populations (art. 42).

In Albania, the law provides for the preparation of wildlife management plans, based on scientific criteria, on which the yearly hunting plan should be based (art. 13). In Lithuania, a national wildlife "cadastre" with relevant information on species, conditions, utilization etc., must be kept in order to ensure the rational use of wildlife (art. 25). In Tajikistan, the law requires that action be based on monitoring and available data, some of which are to be supplied by "users of objects of the animal world", as users have, among others, an obligation to register number and conditions of specimens taken or utilized (art. 38).

In Malawi, the Minister must ensure that measures taken under the law be based on the results of scientific investigation, including the monitoring of the conditions of species and habitats (sec. 3(2)). The grant of any right to use wildlife is subject to the applicable management plans (sec. 33.3(c)). The law of China generally requires surveys of the state of wildlife (art. 15), as well as monitoring of any environmental impacts on wildlife. There is also a requirement in the regulations to determine species which may be hunted based on the current situation of non-protected species and subject to the principle of sustainable utilization (reg. 16).

In France, pursuant to a law of 1993, a "national inventory of the biological heritage", along with inventories at the local level, are kept (art. 23). The provisions of the rural code concerning hunting require the adoption of a *schéma départemental de gestion cynégétique*, with the cooperation of owners, managers and users. The scheme is to include hunting and management plans, maximum number of animals allowed to be hunted, action to be taken with respect to predators, habitat conservation etc. (art. L-221). For some species, plans are to be adopted at the national level (art. L-225).

In Italy, the National Wildlife Institute, a body established by law with research, training and advisory functions to the State and the local authorities, is in charge of surveying the state of wild fauna and its evolution and relations with other environmental components (article 7 of the 1992 law). All agro-sylvo-pastoral lands are subject to wildlife/hunting management planning, to be carried out by local authorities. Planning, however, is not expressly required to be linked to the results of the surveys. Furthermore, the law already establishes dates within which hunting of listed species may be practised every year, so little space seems to be left to planning in this regard. Modifications of such dates by the regions are allowed, however, in light of particular local requirements, subject to a positive opinion of the National Wildlife Institute and the prior adoption of adequate management plans (article 18(1) and (2) of the same law).

This analysis shows that, in comparison with older laws which limit wildlife management provisions to basic prohibitions applicable to hunting, which were typical of previous years, considerable progress has been made. The laws referred to in these examples may act as significant management instruments, as they tend to guide administrations to adopt relevant decisions in a rational and transparent manner. However, sometimes the laws include the relevant requirements only in a fragmentary manner rather than in a logical sequence. The process would have to move from an

assessment of the state of the resources, followed by the adoption of plans based on up-to-date findings and by management subject to the plans' contents, but these simple steps are not always all clearly set out in the legislation. Another weakness is that some countries limit management planning requirements to hunting purposes and animals which may be hunted rather than extending to an overall wildlife management perspective.

3.3. Regulation of Hunting

Hunting plays an important economic and social role in many countries, where it may be a significant source of food and revenue. Even where this is not the case, it often remains a popular sport. In many European countries in which hunting is supported by powerful interest groups, wildlife management and therefore the adoption of relevant legislation tends to be the subject of a lively political debate. Often the issues at stake simply come down to the question of whether hunting should be allowed or not, whether generally or, more often, with respect to certain species or in particular areas or at certain times of the year. This has in practice tended to **limit wildlife management to the dichotomy between hunting and non-hunting**.

Although this is an inadequate approach, it is still reflected in some of these countries' legislation, which in spite of formally addressing general wildlife protection, continues to concentrate mainly on species which are of interest for hunting. An example of this approach is the law of Italy, which formally addresses the protection of wild animals and hunting, but focuses on the latter and in any case is expressly limited to warm-blooded animals. However, a comprehensive law on wildlife management in under consideration.

Other European countries, among which are some of the Austrian *Länder*, Denmark, Finland and Germany, have distinct laws in place respectively on the protection of nature and on hunting. In these cases, ideally the general provisions on wildlife protection and management usually included in the former should be adequately integrated with the provisions on hunting. In some cases, however, the two pieces of legislation seem to act in isolation from each other, i.e. the one on wildlife protection operates under an express exclusion of species which may be hunted.

There have been, however, improvements of legal frameworks in this respect in recent years. [29] It is interesting to note, for example, that in the Austrian *Land* of Styria the Law on the Protection of Nature, until an amendment of 2000, still conceived animal protection as separate from game management, establishing that wild animals which were under the threat of extinction or otherwise required protection should be protected, but expressly excluded game animals (art. 13).

In any case, wildlife management regulation remains subject to **pressures by at least three traditional lobbies**, i.e. those of hunters, farmers and environmentalists. Among the subjects of debate are various practices usually supported by hunters (whose interests may sometimes coincide with those of farmers as regards hunting of species which are noxious for crops), and sometimes allowed by the legislation. One example is the debate over traditional hunting methods and the extent to which they should be authorized in sport hunting (see section 3.1.1. above).

Other examples are the management of wildlife with a view to producing the best trophies, e.g. by establishing trophy-oriented hunting seasons, or game feeding, which causes the impairment of habitats by introducing nutrients, nibbling of forest regeneration, etc. (Späth, 2000).

Another example is the practice of re-stocking of wildlife for hunting purposes, which tends to be allowed fairly frequently, while increase in wildlife populations should rather be obtained through a general improvement of wildlife and environmental management.

One last example is that of selective hunting (or culling) of particular species, even in protected areas, which could be justified in particular situations, but only as an exceptional option, to be kept under strict scientific control. In Italy, selective hunting may be authorized in protected areas – where hunting is generally prohibited – by authorized hunters, preferably local hunters, who must have followed a specific training course. The latter requirement, established by a 1998 amendment of the Framework Law on Protected Areas, helps to ensure that capable persons

[29] Du Saussay (FAO, 1980), in examining the laws of some European countries, found that all of them still consisted "of texts which have been added one to the other on the basis of hunting laws while legislators have never examined the needs for protecting wildlife in a global manner".

are involved; but as precise scientific criteria are missing, the issue remains subject to heavy political pressure.

3.4. Use of Licences

3.4.1. Licences as a Management Instrument

Licences or other kinds of permits are a typical administrative instrument for the management of natural resources and are utilized also in relation to wild animals, to authorize hunting or other kinds of uses. Licences can contribute to management where they are effectively used to limit the number of animals which may be taken under a single licence, based on a periodical assessment of sustainable levels of exploitation and adequate plans. Provisions which clearly **relate the number of animals allowed to be taken under licences to surveys or management plans**, however, are rare, while ample discretion tends to be left to the administration in this regard. One example in which the administration's discretion is to be guided by "the interests of wildlife management" is the law of Malawi, which allows the Chief Parks and Wildlife Officer to refuse a licence if he/she is satisfied that such interests "will be better served by a temporary freeze in issuing licences of that class" (sec. 54 (1)(e)).

Although not necessarily in co-ordination with the evolution of the state of wildlife, **limits to the number of animals which may be hunted** frequently exist. The law of Guinea provides for the issue of subsidiary legislation to set them (arts. 83 and 86).

One way in which licensing systems may contribute to adequate management is to require holders of licences to supply **data** gathered while acting under a licence **for monitoring and statistical purposes**. Guinea's law, for instance, requires holders of every kind of licence to keep a register in which all relevant information must be reported daily (arts. 84, 88, 96 and 104), and other countries have similar requirements.

The issue of a licence may be subject to a **test of the applicants' knowledge and abilities**. This may be a significant barrier to inadequate hunting practices and violations of the law which may be due simply to ignorance of biological or legal information. It is not uncommon for principal legislation to envisage the requirement of an examination, specifying subjects and other details, as is done in the laws of Italy and Germany. The possibility of testing applicants' abilities is left to the

discretion of licensing officers in Botswana (sec. 31(2)(b)). In Cameroon, the law requires applicants for a hunting licence to declare that they are acquainted with the legislation and that they undertake to abide by it (art. 38).

Similar purposes are pursued by requirements **for supervision of some categories of hunters, in particular big game hunters, by hunting guides, who in turn need a special permit**. The law of Guinea requires every tourism hunting expedition to be accompanied by a licensed guide, who must have passed a specific examination. Similar rules apply in Botswana, where a more ample discretion is left to the Director of Wildlife, who "may" require applicants to pass an examination. A professional hunter must take all reasonable steps to ensure that hunters assisted by him understand and respect the terms and conditions of licences or permits issued to them as well as the applicable legislation, and the burden of proving that he has complied with this obligation rests on him (secs. 43 and 44).

3.4.2. Licences for Hunting

Most countries require some kind of authorization for **hunting**, and in some cases different kinds of hunting licences are set out in the legislation. Categories are not uniform. Some are based on different degrees of protection granted to the animals concerned or on different types and size of animals. There may also be different licences depending on the purpose of hunting (whether for recreation or tradition/subsistence), and licences for visitors as opposed to residents.

In Guinea, "small hunting permits", which are required for recreational and traditional hunting (arts. 81–84), are distinguished from "big hunting permits", which must be obtained to hunt partly protected animals (arts. 85–88). Botswana distinguishes between "bird licences", "single game licences", "small game licences" and "special game licences" (secs. 26–38), the latter of which may be issued to citizens "who are principally dependent on hunting and gathering veld produce for their food" (sec. 30). Malawi makes a distinction between "bird licences" (sec. 50) and "game licences" (sec. 51), while a specific "visitors' licence" must be obtained by visitors, whether to take birds or hunt game (sec. 52), and "hunting" licences refer only to hunting of protected species in protected areas at specified conditions (sec. 54).

Most countries also require some permit or licence for **carrying hunting weapons**. Rules and conditions for the issue of such a permit, however, are rarely included in wildlife management or hunting legislation, as the possession of such a permit is often considered as a prerequisite for the issue of licences to hunt. Guinea, for example, requires applicants for hunting permits to attach their permit to bear arms to their application (art. 77), and Botswana allows licensing officers, before the issue of any licence, to require proof that the applicant holds arms certificates or permits (sec. 31(2)).

3.4.3. Other Types of Licences

Taking of animals for **scientific or educational** purposes is also usually subject to a specific type of authorization. This is referred to as "special licence" in Malawi (sec. 53) and "scientific permit" in Guinea (arts. 99–105), and exists also in Botswana (sec. 39(1)(a). The latter country requires these permits to be issued by the Director rather than any licensing officer, and the conditions set out in Guinea are even more restrictive, as scientific permits may be issued only to people belonging to scientific institutions, and no hunting must be involved, unless related to the objective of the research and duly authorized under a permit.

Trade in wild animals, whether or not taken under a permit, is sometimes forbidden, as happens in Italy with respect to game, or sometimes requires a separate authorization, as happens in Guinea (arts. 89–98), where there is also a further distinction for the case of "*oisellerie*" (i.e. the taking of live birds) and in Botswana (sec. 39(1)(c)).

Import and export of live or dead specimens of wild animals are usually regulated by specific provisions which require some authorization. Uganda requires a permit to import and export any wild animal or part of them (sec. 6). Guinea prohibits the export of totally protected species, except for scientific or conservation purposes (arts. 49, 50, 53–55) and refers to regulations regarding import and export of partly protected animals (arts. 57, 59 and 60).

Permit systems regarding import and export of animals are usually in connection with the implementation of CITES in countries which are parties to it. Relevant provisions may be in the same legislation as that regarding wildlife management and hunting, but are frequently found in specific legislation for the implementation of CITES.

3.4.4. Other Purposes of Licensing Systems

In addition to contributing to wildlife management, there are other purposes pursued through licensing systems. Licensing may facilitate **enforcement** of the legislation. Through the issue of licences hunters may be more easily identified. The suspension or cancellation of licences in the case of commission of offences may be useful means for preventing them or eliminating their consequences.

Where **insurance** is required to cover damage which may be caused by hunters, the law may require that it should be purchased at the time of application for or issue of a particular licence. Examples are found in the law of Guinea, which requires applicants for some hunting permits to give proof of having already obtained insurance through the Director of forests and wildlife (art. 78), as well as in the 1992 law of Italy (art. 12(8)). In Guinea, hunting guides must also be covered by a specific insurance regarding damage which may be caused by their clients *vis-à-vis* third parties during hunting (arts. 110–120).

Finally, licences practically everywhere and in every sector are a **source of revenue**, as a fee is usually charged when they are issued or renewed. Higher fees are often charged to foreigners for hunting or photographic safaris. Fees are also frequently charged for admission into protected areas.

3.5. Game Ranching and Breeding

Game ranching and breeding can be important contributors to food availability and revenues in rural areas. They may also have a significant impact on the environment and particularly other animals and generally biodiversity. It is therefore important for the applicable legal framework to take both concerns into account, attempting to strike a balance between the encouragement of these initiatives and conservation concerns. The following are some examples of relevant provisions in the legislation which has been examined.

The recent law (2000) of Colombia regarding wildlife management concentrates mainly on the creation and operation of "*zoocriaderos*", whether "open" (i.e. in which animals are periodically taken from the wild and introduced with a view to their exploitation), or "closed" (i.e. in which only an initial couple is introduced), or "mixed". Numerous rules are set out tending to ensure that such structures have adequate conditions for the

development of animals both from the technical and the environmental point of view, with details on licensing and enforcement (arts. 7–28).

In Burkina Faso, both game ranching and breeding are subject to an "authorization". Within ranches, wildlife populations are to be monitored either by the rancher or by the wildlife administration, with a view to a rational management of captures. Areas utilized for breeding wild animals in captivity or semi-captivity must be fenced. Animals are not subject to the restrictions established for hunting and are declared to be the property of the breeder. For totally protected species, capture and sale are subject to specific conditions to be specified in subsidiary legislation (arts. 142–152).

In Botswana, a "permission" is required to farm or ranch game animals. Fencing may be required. "Protected" and "partially protected" game animals may be farmed or ranched only under a specific authorization. If the area is fenced, there is no limit to the number of animals of specified species which may be taken. Otherwise, culling is subject to a permit. A permit is also required for sale of animals, meat or trophies (sec. 24).

In Cameroon, a "licence" is required for both game ranches – protected areas managed for the purpose of repopulation and possible exploitation for food or other purposes (art. 2(11)) and for game farming – raising of animals taken from the wild in a controlled environment for commercial purposes (arts. 2(12) and 53).

In Mauritania, the law allows the creation of ranches and specific *aménagements* for wildlife breeding, for purposes of wildlife development, subject to the condition that they do not endanger surrounding areas and any others which may be specified by decree (art. 20).

In China, the breeding of animals is stated to be encouraged in the law (art. 17), but the only other relevant provisions are rules on the issue of licences, which are required for animals under special protection by the State pursuant to the "Regulations for the implementation of the law on the protection of terrestrial wildlife" (reg. 22).

The law of Albania requires an authorization for the breeding of wild animals, whether on public or private land. There is an obligation to provide 10 percent of the annual production of animals for the repopulation of forest areas, without compensation (art. 15).

The above rules most frequently aim at **meeting environmental and biodiversity concerns** in the regulation of ranching and breeding, almost systematically making these activities subject to authorizations. There is also a justified concern for the ranching and breeding of protected species, as gaps in the control system could facilitate violations of the law regarding the same species occurring in the wild.

Provided that these needs are adequately addressed, it would be useful if the legal frameworks were made generally more conducive to private or community initiatives in ranching and breeding of wild animals, avoiding unnecessary prohibitions. Appropriate exemptions may have to be set out for animals obtained from ranching and breeding, as making them subject exactly to the same rules as those found in the wild easily results in a disincentive. The law could also foresee incentives to the utilization of State lands for this purpose, as well as financial or other incentives. Among the rare examples of supportive provisions are those of the law of Burkina Faso, which exempts animals obtained from ranching and breeding from the restrictions established for hunting and makes them the property of the breeder. Similar provisions are found in Botswana.

IV. OWNERSHIP OF WILDLIFE AND RELATED RIGHTS AND OBLIGATIONS

4.1. Legislative Approaches to Ownership of Wildlife

Most legal systems address the issue of ownership of wildlife, which has significant practical implications. There is a variety of approaches, but generally wildlife is regarded either as a part of the rights of ownership over land or as State property. In some laws wild animals fall under the definition of "forest produce" and may be subject to the same or a similar regime as regards their ownership, despite the difference in their nature.

Ownership either by the State or by private people or communities usually entails related benefits, such as entitlement to hunting rights and revenue derived from viewing or hunting tourism. It also usually entails some obligations, such as management responsibilities and liability for damage which may be caused by animals. However, these rights and obligations are not always automatic consequences of ownership. The examples in the following subsections present some of the possible variables.

There are also examples of countries where wildlife is considered as *res nullius*, as in Morocco (Mekouar, 1999). Pursuant to the law of Lithuania, wild animals found within fenced areas belong to the owner of the area, while animals in the wild may not be considered the property of any natural or legal person (arts. 3 and 4). Landowners may make personal use of wildlife found on their land, subject to obligation not to upset the balance of natural communities and to adopt protection measures (art. 14).

4.1.1. Wildlife as State Property

There are many countries where wildlife is State property, ranging throughout continents. In Uganda, ownership of wild animals and plants is vested in the government on behalf of and for the benefit of the people (sec. 4). Pursuant to the law of Tajikistan, animals are State ownership, as well as "common property of all citizens" (art. 2). In China, wildlife is also the property of the State (art. 3).

Where wildlife belongs to the State, either because this is the general rule or because it occurs on State lands, some customary rights to hunt may be recognized to traditional holders. This is the case in a number of African

countries, but also in Norway, where wide areas of "State common lands" are open to hunting by indigenous people (Bouckaert, 1999).

In other countries, although ownership of wildlife is vested in the State, hunting rights on private land remain reserved to their owners. In Burkina Faso, for example, forests, fauna and fish are declared to be part of the national estate (art. 4), but owners have the exclusive right to hunt on their own land (art. 129). On the other hand, pursuant to the legislation of Chile (1996), which amended the civil code in this regard, hunting is allowed only on a person's own land, or on others' lands with the permission of the owner.

In Botswana, landowners or other specified lawful occupiers hold the right to hunt without a licence on their land, subject to restrictions on the number of animals hunted and the payment of fees (sec. 20). A right of ownership in animals, however, is expressly recognized to the owner of land only in the case of animals kept or confined within a game proof fence (sec. 83). Owners may authorize third parties to hunt on their land upon approval of the administration, in which case they must also keep records of animals hunted (sec. 24). Hunting without the permission of the landowner or occupier is an offence (sec. 49)

In Malawi, the ownership of wild animals, as well as plants, is vested in the President, on behalf of and for the benefit of the people (sec. 4(1)), but specimens lawfully taken pursuant to a licence become the property of the licensee (sec. 4(3)), and entering private land without permission is not allowed even in the pursuit of wounded animals. The prohibition applies although there is a general obligation to use all reasonable endeavours to kill wounded animals. In this case, a report must be made to the owner, who has sole authority to decide whether to allow access into his land (sec. 79).

In other legal systems, the ownership of wildlife by the State, coupled with considerable hunting pressure, has determined **significant limitations of the rights of private land owners**, by allowing access of hunters into any private land. This is the case in Italy, where unlike in most other European countries wildlife is declared to be State property and to be protected in the interest of the national and international community (article 1(1) of the 1992 law). Hunting as well as free access of hunters have traditionally been allowed on any land, including private ones, unless fenced. With an innovation introduced by the law of 1992, landowners may apply to have their lands exempted from the general free accessibility of hunters, but

must submit specific reasons, and may be granted the exemption "provided that it does not hinder the implementation of wildlife management plans". An exemption may also be granted on the basis of regional legislation, for particular economic, social or environmental reasons, such as experimental agriculture undertakings (article 15(3) and (4) of the same law). In any case, access to lands under current cultivation as well as to lands with a fence of a minimum height of 1.20 m is generally prohibited to wandering hunters (art. 15(7) and (8)). The situation was similar in Portugal, where a "right of non-hunting" has only recently been recognized to the owners by the Framework Law on Hunting of 1999 (art. 3).

Ownership of wildlife usually carries the obligation to **compensate damage** caused by it, although frequently with some limitations; for example, only to damage caused by protected species, only to cases in which adequate precautions have been taken, etc. In Italy a fund is established for this purpose in every region, and compensation is also due to private landowners whose lands are utilized pursuant to hunting management plans (article 15(1) of the 1992 law). In China, local governments are called upon to compensate damage which may have been caused by protected species of wildlife. However, people have an obligation to adopt appropriate precautionary measures to prevent such damage (reg. 10). In Romania, damage caused by wildlife must be compensated by the "manager" of the concerned hunting area (article 13 of the 1996 law).

Sometimes there is even an express general exemption from liability. This is the case for any loss of life or property "sustained by any person in Botswana by reason of the presence, action or depredations of any non-captive animal", whether or not within protected areas (sec. 87), although in the same country damage caused to livestock by specified animals (such as lions, leopards etc), if they have escaped into a national park before they could be killed, may be compensated (sec. 46(4)).

Many countries have found it difficult to address increasing **pressures for compensation**, whether or not their laws envisage it. Such pressures are frequently coupled with dissatisfaction regarding the considerable revenue which is or could be derived from wildlife and is reserved to the State, or simply with pressures to use wildlife resources for personal consumption. This has led to an increase of encroachment and illegal activities. In West Africa, concentration of ownership of wildlife and management responsibilities by the State authorities has also caused a tendency to expect a solution to all wildlife-related conflicts from them (FAO, 2001). These

were among the reasons which caused an evolution in the policies of some countries, leading to the **transfer of ownership** from the State to the owners of land on which wildlife is found, as well as to more participatory approaches in wildlife management. An example is Zimbabwe, where the Parks and Wildlife Act of 1975 granted ownership of wildlife resources by "the owners or occupiers of alienated land".

The law of Mexico goes beyond the issue of mere compensation of damage caused by wild animals, requiring the administration to set out appropriate "mechanisms" to compensate local communities for the costs associated with environmental and biodiversity conservation and exploitation (art. 20(d)). The law does not automatically place related costs on any particular entity, and questions remain open in this respect, as the same law recognizes a right of landowners to sustainable exploitation of wildlife within their land, along with an obligation to contribute to the conservation of habitats, and liability of owners for "negative effects" on wildlife and habitats which may derive from exploitation (arts. 4 and 18). Landowners might therefore be expected to substantially contribute to the compensation of local communities. The studies which the administration is expressly required to carry out for the assessment and internalization of environmental costs (art. 20(c)) may contribute ideas in this regard.

In other places, such as Kenya and West Africa, the process seems to have gone in the opposite direction of Zimbabwe, i.e. the government has increasingly taken upon itself responsibility for wildlife. In the Kajiado districts of Kenya in the 1970s, hunting concessions had been successfully organized on some group ranches. Funds from hunting were used to build schools and other purposes generally appreciated by the community, which could thus obtain direct benefits from wildlife. However, this practice has not been continued (FAO, 2001; Kenya Wildlife Fund Trustees and United Nations Environment Programme, 1988).

4.1.2. Wildlife as Property of Landowners

As to countries where **ownership of wildlife** is vested in landowners, the example of **Zimbabwe**, where the abandonment of the principle of royal game has opened the way to a significant experience of participatory wildlife management, has already been referred to. At first, in this country a distinction was made between privately and communally held lands, as ownership of wildlife was first granted only in the former, and therefore

only to white farmers and ranchers, and in practice not even to small-scale black farmers. With a view to expanding the successful development of wildlife experienced in private areas, an amendment of the Act in 1982 extended the management rights status given to commercial farmers to include also communal land. However, communal farmers did not have formal claim to the land, so ownership and management responsibilities were given to district councils rather than directly to customary holders. The amendment established that appropriate authority status could be given to any rural district council which demonstrated a commitment to the local level management of wildlife, thus giving the council the same use rights of wildlife as enjoyed by private landowners. This was the basis for the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE).[30]

In theory CAMPFIRE included all natural resources but its focus has been on wildlife, as this resource in the concerned areas is among the most appropriate to provide a direct financial return, through safari hunting, photographic tourism, cropping, lodges, etc.[31] Since 1989 the programme developed successfully, combining in the same wildlife units ownership, management, cost and benefit (Kalèn and Trägårdh, 1998). However, several problems with the tenurial set-up have been reported: it is thought that communities still do not have appropriate authority, that councils which have been given authority, being simply administrative units, are not necessarily competent in wildlife management, and that the fact that the tenurial situation of farmers in communal lands remains less secure

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[30] Several institutions and NGOs, grouped in the CAMPFIRE Collaborating Group, are engaged, including the Departments of Environment and Tourism, Local Government and Rural and Urban Development, National Parks and Wildlife Management, the Centre of Applied Social Sciences of the University, WWF, Zimbabwe Trust, African Resource Trust (Kalèn and Trägårdh, 1998).

[31] Communal lands are the richest in spectacular wildlife species, particularly elephants. Holders of communal lands have progressively been involved in the business of safari hunting, which can be very lucrative (a trophy fee of US$ 7 500, plus a fee of US$ 1 000 per day for a hunt which usually lasts three weeks is envisaged). Each district develops a sustainable hunting quota in collaboration with the Wildlife Department. The quota is sold on the open market by the district council to a safari company which has capital and skill to find international clients, usually offering a concession of three/five years. Revenue now goes mainly to district councils and then to the rural communities where an animal is shot (now 80 percent) – so the majority of revenues goes to the community that bore the costs (Kalèn and Trägårdh, 1998).

undermines the effectiveness of arrangements in these areas. Further evolution towards resource management as common property remains one of the objectives of CAMPFIRE.

Countries where the ownership of wildlife is vested in landowners are the majority in **Western Europe**. Here a distinction has been drawn between those in which the automatic right to hunt is granted to the owner, as the United Kingdom and Norway, and those in which such a right is not automatic, as France, Belgium and Spain (Bouckaert, 1999). A consequence of these arrangements is that owners are generally responsible for wildlife management within their land. As this is inappropriate in the areas where holdings are very small, various countries such as Belgium, France, Germany and Norway require a minimum size of land as a condition for their owners to exercise hunting rights (Burhenne, 1999).

There may also be other arrangements to facilitate appropriate management by landowners. In Belgium, for example, owners may hunt only if their property is above a certain size – in general 25 and 40 hectares respectively for the Walloon and Flemish Regions. The Flemish Region, in its decree on hunting of 1991, encourages the voluntary grouping of land into hunting areas, envisaging funding for this purpose (art. 12). In Germany, hunting areas may be private – in which case a minimum size of 75 hectares is generally required to be able to hunt (art. 7) – or "communal" – i.e. created upon initiative of a commune on any land not comprised within private hunting areas. In this case, the minimum size to be able to hunt is 150 hectares (art. 8).

In France, a minimum size was traditionally not required, but the "Verdeille Law" of 1964 envisaged the compulsory grouping of owners of areas smaller than 20 ha, with automatic devolution of hunting rights to the Communal Hunting Association (*Association communale de chasse agréée*) thus created. Within the concerned areas, all specified hunters, such as concerned landowners and other local residents, may hunt. A provision which allows individual owners to exempt their lands from such arrangements, without having to submit specific reasons, has been introduced by an amendment to article 222 of the Rural Code in 2000. Owners who have been exempted remain responsible for damage caused by wild animals coming from their land (art. L.222-10-5). The introduction of these new provisions follows a decision by the European Court of

Human Rights[32] in which the previous French legislation, which made it compulsory for landowners to join hunting associations and allow hunting on the concerned land, was considered to be in violation of the European Convention on Human Rights, namely of article 11 on freedom of association, and of article 1 of Protocol 1 on the right of ownership. The latter authorizes the expropriation of a right of ownership exclusively for reasons of public interest, while in the Court's view hunting interests may not be considered as such.

4.2. Protection of Persons and Property

Ownership of wildlife should be connected with liability for damage caused by wild animals to people or property. Countries take different approaches as to compensation which may be due by wildlife owners (for example by the State), and sometimes limit it depending on whether or not the persons who have suffered damage have taken adequate action to prevent it or limit it. They also take different approaches regarding **action which is allowed to be taken against wild animals which may threaten people or property**. Killing of wild animals for this purpose is allowed more widely in defence of people than of property, but in any case various conditions are usually specified. Some of them appropriately aim at preventing abuses – for example those which require notification to an officer prior to killing animals or promptly afterwards.

In Uganda, for example, killing of animals is generally allowed in defence of people, while for the case of animals which may endanger property killing is allowed as a last resort, if it does not endanger the survival of a species, following notification to an officer, who must determine the necessary action (sec. 62).

Botswana recognizes a right of owners or occupiers of land to kill animals which threaten persons or crops or other property on their land. Circumstances must be reported as soon as possible to the wildlife administration. The law goes into some detail for the case in which specified animals such as lions, leopards, cheetahs, etc., which have caused damage, escape into protected areas, where killing them is prohibited. In this case, the Minister may pay compensation to any person who has suffered damage, unless the person has failed to kill the animal without reasonable cause (sec. 46).

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[32] Decision of 29 April 1999, Chassagnou *et al. v.* France.

Hunting for defence of people or protection of cultivated fields or livestock is allowed by the law of Mauritania without authorization, but immediate notice of any action taken must be given to authorized officials (art. 26). In Malawi, protected animals may be killed in defence of people, property, crops or domestic animals, "if immediately and absolutely necessary" (sec. 74). Facts must be reported to an officer. Wounded protected animals which enter private land may not be followed except upon authorization of the owner (sec. 79). Pursuant to the Flemish decree on hunting, the owner of property which may be significantly damaged by wild animals may drive them back or kill them, if he/she can give proof that no other measure is viable and holds an insurance against third parties' liability, upon prior notice to the holder of hunting rights and the designated government official (art. 22).

It is less common to expressly authorize organized actions by the administration against animals which cause damage, although to prevent abuse this approach may be preferable to action by individual people. It may also be a way to protect animals where, with the more effective means which may be at the disposal of the administration, specimens which constitute a threat to people or property may be captured and moved elsewhere. *Battues de destruction* of noxious animals may be authorized exceptionally pursuant to the law of Guinea, must be reported in detail to the national Director of forests and fauna and meat resulting from them must be left to the local people who have suffered damage (arts. 174 and 175).

Less recent legislation sometimes included specific provisions to authorize the indiscriminate killing of "noxious" animals, such as poisonous snakes. Given the increased consideration of the role of every species, the concept of harmful animal or vermin had already come to be gradually abandoned in legislation in the early 1980s, and even aggressive behaviour of animals now tends to be justified on the basis of the modifications of their natural habitats and decreased availability of food. An example of a modern law which allows the destruction of noxious animals limits it to actually dangerous ones (poisonous snakes), and in any case prohibits it within national parks and nature reserves (Guinea, art. 176).

V. WILDLIFE, PROTECTED AREAS AND LAND USE

5.1. Protected Areas for Wildlife Management Purposes

A traditional means for pursuing wildlife conservation is the establishment of protected areas, in which human activities are prohibited or controlled with a view to safeguarding particular species or species' habitats. More recently the creation of protected areas has been conceived as part of a "**national system**", or even in the framework of an international network, rather than in a "patchwork" fashion, so that objectives of overall biodiversity protection can more effectively be pursued. This is an express requirement in the Convention on Biological Diversity, which among the obligations for *in situ* conservation lists the creation of a system of protected areas, although this is to be done "so far as possible and appropriate" (art. 8).

Examples of provisions which require the setting up of a national system are in the 1998 law of Bulgaria (art. 3), in the 1995 law of Romania on environmental protection (art.. 56), in the 1997 law of Peru (art. 6), in the 1987 law on the environmental of Portugal (art. 29), and in the National Integrated Protected Area System Act of 1992 of the Philippines.

Whether or not a "system" is set up, usually legislation concerning protected areas foresees various types of areas to be slated for protection for various purposes. In most cases, these include the protection and management of wild animals among the possible purposes for their creation, although some laws set out some **types of protected areas** which are more specifically devoted to this purpose. The following are some examples.

The law of Botswana envisages game reserves or sanctuaries that may be established with respect to specified species, which may be captured within these areas only for scientific purposes (sec. 12). There may also be "private game reserves" created upon a request of the owner, in which the hunting or capturing of all or specified species is allowed only by him/her or persons authorized by him/her, at specified conditions (sec. 13). Hunting or capturing of animals may be practised in "wildlife management areas" and "controlled hunting areas" – in the latter case only under a specific endorsement on a hunting licence and upon payment of a fee.

Burkina Faso has whole or partial "fauna reserves" – where the hunting of respectively all or some species is prohibited –, "local refuges" – which may be reserved by local authorities on behalf of local communities to facilitate reproduction and exploitation of wild animals (art. 95) – and "village hunting areas" (*zones villageoises d'intérêt cynégétique*). Guinea has "fauna sanctuaries" for endangered species (arts. 26–28), and "*zones d'intérêt cynégétique*" either for hunting or for scientific purposes (arts. 29–31). Mauritania has natural reserves, which are devoted to the sustainable management of animals, and "*zones d'intérêt cynégétique*", which are managed for tourism or hunting purposes under licences, subject to prescribed conditions (art. 6).

Cameroon's law envisages "fauna reserves" and "*zones cynégétiques*" among protected areas. The former are slated for conservation, management and reproduction of fauna and its habitats, and hunting may only be authorized by the Minister in the framework of authorized management operations. The latter are reserved to hunting, and may be managed by the wildlife administration or a local authority or any person, and hunting within them is subject to the payment of a fee (art. 3(1)). The law also envisages *territoires de chasse* – any area where hunting is allowed and regulated (art. 2(18)) – and *territoires de chasse communautaire* – areas of State land managed by a local community under a management agreement (art. 2(19)).

The law of Albania foresees repopulation zones, hunting reserves and fauna reserves – the latter for strict protection (arts. 8 and 9). Portugal envisages various kinds of areas related to hunting and wildlife management in its law on hunting: hunting refuges for the conservation of some species and the development of others which may be hunted (art. 7) and four types of "hunting areas" of national interest, of municipal interest, of tourist interest and of interest for associations. The latter may be managed under agreements with associations of hunters, farmers or environmentalists, or with local authorities (art. 14). In Italy, the 1992 law envisages "protection reserves" (*oasi di protezione*), "repopulation and capture zones" (*zone di ripopolamento e cattura*), and "public and private centres for the reproduction of fauna in the wild" (*centri pubblici e privati di riproduzione della fauna allo stato naturale*).

5.2. Protection Measures Outside Protected Areas

There is general agreement that, for the restoration and maintenance of biological diversity, consideration must be extended also to areas **other than "protected" ones**. This aspect, however, is still rarely reflected in

legislation regarding wildlife management. The environmental improvement measures envisaged by the European Community under the plan of action referred to as "Agenda 2000" reflect this trend in the relevant legislation (which is mainly to set out funding opportunities), by particularly referring to non-protected areas.

The legislation of Switzerland also goes beyond the approach concentrating on the protection of selected areas by requiring, if possible, the protection of indigenous flora and fauna by an "appropriate agricultural and sylvicultural exploitation of their vital space (biotope)". It also requires cooperation among responsible authorities – agriculture, forestry and protection of nature and landscape – for this purpose (1996 law on the protection of nature and landscape, art. 13). A list of species *indicatrices des milieux naturels* is annexed to the law. The list, however, is not meant to be exhaustive, as *Cantons* may adapt it to local conditions, and it must be integrated in various specified ways. A mechanism called "compensation" (art. 15) aims at connecting isolated biotopes to each other by creating additional ones. The Federal government provides subsidies in specified percentages for regional and local biotopes (art. 18). Specific subsidies are to be provided for "ecological" agricultural practices under separate legislation (art. 19).

A regional law of Tuscany, Italy, in implementing the EC Birds and Habitats Directives at the regional level, requires the integration of the system of "sites of Community importance" with "sites of Regional importance", and also takes into consideration, among other features, ecological corridors (*aree di collegamento ecologico funzionale*) between the two types of sites.

5.3. Measures Addressing Wildlife Management and other Land Uses

A concern related to the declaration and management of protected areas is to address the **relationship of wildlife management**, which implies some forms of land use, **with other land uses** within protected areas and in neighbouring areas, and generally with land use policies and planning. This may have important implications generally on the development of a country and in some cases even on livelihood security.

The creation of protected areas for the protection of African wildlife has had a progressively strong **impact on human activities**. Until approximately

the 1950s this impact was relatively small. Populations did not need to be displaced, and until recently continuation of most human activities within reserves was possible. However, population pressure has been growing, land use patterns have changed, and competing land uses such as agriculture and livestock grazing have increasingly encroached with each other and into protected areas. Some communities have come to depend on semi-arid lands, despite their low potential for cropping. These, however, are often also dispersal areas for wildlife, and conservation of wildlife even within protected areas is actually often dependent on regular migration of wildlife into these areas (Kenya Wildlife Fund Trustees and United Nations Environment Programme, 1988).

Countries' **land use policies** do not always adequately address these issues. The national policies which have sometimes encouraged the subdivision of land among the many members of a group in semi-arid areas have often brought about other problems. The resulting economic subunits are more likely to be overgrazed, and in the end the environment is destroyed for both livestock and wildlife. Subdivision also encourages fencing of individual parcels, blocking wildlife migration routes and preventing flexibility of movement for livestock, which is a survival strategy. This process is likely to eliminate wildlife from rangelands and confine it to parks, but also to endanger livelihood security (Kenya Wildlife Fund Trustees and United Nations Environment Programme, 1988). Sometimes conflicts have been caused by contradictory policies which encourage one land use – for example the opening up of new land for food production frequently supported in agricultural policies – to the detriment of others, such as land use for wildlife conservation supported in wildlife policies.

There are **few provisions which directly deal with these issues** in the legislation which has been examined. The law of Uganda considers wildlife management as a form of land use, expressly aiming at the maintenance of optimum levels of diversity "commensurate with other forms of land use, in order to support sustainable utilization of wildlife" (sec. 3). In Kenya, the preamble of the law requires that full account be taken of the varied forms of land use and the interrelationship between wildlife conservation and management and other forms of land use. The law of Italy regarding hunting, mainly in an attempt to limit the latter, sets out fixed percentages of land areas to be devoted to the various relevant purposes: twenty to thirty percent of the agro-sylvo-pastoral land area in every region must be devoted to wildlife protection, while the rest of the land area is open for hunting under management plans (art. 10(3) and (4)).

One way to address issues of competing land uses in legislation is to envisage compensation to landowners for damage caused by wildlife. This, however, is only a palliative measure, and its practical implementation may be the source of additional strain in situations of escalating human-wildlife conflicts and scant financial resources. A more fruitful approach is to increase the involvement of local populations in economic activities related to wildlife, as discussed in the following chapter. To the extent that a significant portion of the deriving revenues remains at the local level and provides benefits to the local people, as a compensation for the presence of wild animals, these programmes are likely to be successful. Often, however, this has not been the case.

VI. INSTITUTIONS, PEOPLE AND WILDLIFE

6.1. Approaches to People's Involvement in Wildlife Management

It is widely recognized that where opportunities for public participation in wildlife utilization are increased, and resulting benefits are made available to participants, the public is likely to be more willing to contribute to the costs of controlling wildlife, rather than considering wildlife as a competitor for resources.[33] Other advantages deriving from public participation in decision-making and implementation are common to the management of other natural resources, including people's support to the measures adopted and consequent improved implementation and enforcement. In line with these considerations, most recent laws envisage some involvement of the interested or concerned public in wildlife management, as well as protected area creation and/or management.

Various approaches may be taken. A basic prerequisite is that relevant available information must be made accessible to the public. Some of the laws which have been examined expressly require this. Tajikistan, for example, establishes that citizens have a right to obtain complete information "on the conditions of the animal world", and that the administration must arrange for the periodical publication of information in this regard (art. 14).

In some cases **the interests of concerned people are simply required to be taken into account**, without further specifications as to how such

[33] As noted in the previous chapter, arrangements aiming at obtaining economic benefits from sustainable wildlife-related activities, through the involvement of interested people, have a much better chance of success if the same people may receive direct financial benefits. In Zimbabwe, thanks to income generated from wildlife, conflicts between wildlife and human activities such as livestock and agriculture have been at least reduced. But this is not always the case. In Kenya, for example, the policy has been to retain most of the revenue at the central level in a consolidated fund (Kenya Wildlife Fund Trustees and United Nations Environment Programme, 1988). In other cases, the sharing of benefits has been inequitable, with large amounts appropriated only by large-scale farmers – whether or not they are exposed to problems caused by wildlife or involved in wildlife-related activities – to the detriment of small ones. Among the ways to improve the compensation system to meet the needs of small farmers, arrangements such as compensation with food, utilization of a proportion of funds generated from tourism in wildlife areas for insurance for crop and livestock damage are suggested by Kenya Wildlife Fund Trustees and United Nations Environment Programme.

interests should be identified and interpreted. The regulations of China on nature reserves, for example, require that local economic activities and the "every day life" of residents must be properly considered in the creation and management of nature reserves, in addition to requiring initiative by local authorities in the selection of areas (reg. 14).

In other cases, the law may require consultation of stake-holders or the public, or foresees the creation of people-centred bodies with various wildlife management responsibilities, or the possibility of managing areas under agreements between interested people or communities and the administration. The devolution of legislative and/or administrative powers from the central to the local level is another way in which people may be involved in wildlife management. The following sections are respectively devoted to these various options.

6.2. Public Consultation

In numerous countries the law requires some form of consultation of the public or of specified stake-holders in wildlife-related decision-making, such as adoption of plans or the declaration of protected areas**,** establishing that there must be adequate publicity of proposals, that some time is to be allowed to submit comments and that such comments must be considered or specifically addressed by the authorities.

In Botswana, public notice of proposals and subsequent confirmation by Parliament must be given for the declaration of national parks (sec. 5). Consultation of the public or even concerned owners does not seem to be required for the creation of other types of protected areas, regardless of the fact that "any" lands (and therefore not only public lands) may be concerned. The administration is however required to consult with land boards and district councils in the management of wildlife management areas (sec. 15).

In Uganda, public participation in wildlife management is an objective expressly set out in the law (sec. 3). Management plans for each wildlife protected area must be prepared following consultation of the public and

of the concerned istrict (sec. 14).[34] In Australia, in adopting recovery plans for listed threatened species and ecological communities and "threat abatement plans", regard must be given to the role and interests of indigenous people in the conservation of the country's biodiversity (secs. 270 and 271). Draft plans must be publicized in a number of specified ways (sec. 275), and comments received must be considered (sec. 276). Similar provisions apply to "wildlife conservation plans" (secs. 287, 290 and 291).

The EC Habitats Directive, in setting out the process of assessment of the implications which a plan or project may have on a site of Community importance in view of the site's conservation objectives, establishes that, "if appropriate", the competent national authorities must obtain "the opinion of the general public" during this process (art. 6(3)).

In other cases, consultation is required by creating **specific bodies, which include representation of interested associations and people, with advisory functions**. In Portugal, under the law on hunting, there is an obligation for the State to consult with the various interest groups and local authorities for the formulation of the national policy on hunting and hunting management plans (art. 4(c) and (d)). Local hunting and fauna conservation councils (*Conselhos cinegéticos e da conservaçao da fauna*) are created to advise municipal authorities with a view to balancing hunting interests with agriculture, forestry, grazing and nature conservation, and enhancing the contribution of hunting to rural development (art. 44). A "General council for hunting and the conservation of nature" is also in place with advisory functions (art. 43). These councils include representatives of environmental, hunters' and farmers' associations, as specified in the Decree-Law of 2000 which implements the Framework Act.

In Australia, there is both a Biological Diversity Advisory Committee (sec. 504) and an Indigenous Advisory Committee (sec. 505). The

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[34] Williams, Masoud, and Othman note that throughout Africa there is a range of community participation approaches, with increasing levels of participation, custodianship of resources, and exposure to economic costs and benefits. The following are some examples given:

- Community service and out-reach programmes (Tanzania National Parks Community Service);
- Integrated conservation with development projects (East Usambara Forest in Tanzania; Impenetrable Forest in Uganda);
- Community based conservation programmes (ADMADE in Zambia; CAMPFIRE in Zimbabwe).

composition of the former must include representation of conservation organizations, the scientific community, rural communities and indigenous people. The latter is "to advise the Minister on the operation of the Act, taking into account the significance of indigenous peoples' knowledge of the management of land and the conservation and sustainable use of biodiversity". There may also be other advisory committees established on request of the Minister (sec. 511).

In Mexico, a Technical Advisory Council for Conservation and Sustainable Development of Wildlife (*Consejo Técnico Consultivo Nacional para la Conservación y Aprovechamiento Sustentable de la Vida Silvestre*), with representatives of academic institutions, non-governmental organizations and concerned entrepreneurs, may advise on species protection, rehabilitation projects etc. (art. 15). In Romania, a National Council of Hunting including members of the associations, authorities and prosecutors is created as an advisory body on these matters (art. 9).

In Malawi, a Wildlife Research and Management Board, whose members are appointed by the Minister to represent the general public, is in place to advise on wildlife management, including import and export of wildlife specimens and declaration of protected areas (secs. 17–19). The Board also arranges for the conduct of wildlife impact assessments, upon request of the Minister, which may follow the request of any person who has reason to believe that any proposed or existing process or activity, whether public or private, may have an adverse effect on wildlife.

6.3. Creation of People-centred Bodies for Wildlife Management

Some countries foresee the creation of people-centred bodies with specific responsibilities in the management of wildlife, which may be additional to the simple submission of advice which these bodies may be allowed to offer. Among these is Mauritania, which envisages the creation of wildlife management associations within each commune, for the express purpose of enabling people's participation in wildlife management. The associations participate in the definition of policies, monitoring and surveillance of wildlife, establishment of hunting seasons and of allowed species and quotas, etc. (art. 3). For their funding, they are entitled to a share (20 percent) of the moneys earned under the law (art. 21).

In Italy, a model for collective management of hunting areas by entities in which most concerned interests are represented was introduced by the law

of 1992 and has been rather successful. Hunting areas within every region are divided into a number of units (*ambiti territoriali di caccia*). The managing bodies of these areas must be made up by representatives of hunters' and farmers' associations (60 percent), of environmental associations (20 percent), and of local authorities (20 percent). They are made responsible for a number of relevant activities such as monitoring the state of the resources, planning habitat improvement, and allocation of funds to farmers for their participation in such activities (art. 14(11)).

In France, the *Féderations départementales des chasseurs,* which comprise all hunters within a department, as well as managers of hunting areas, contribute to management of wildlife and to law enforcement, formulating a *schéma départemental de gestion cynégétique* to be approved by the Department's Prefect. There is also an advisory body *(Conseil départemental de la chasse et de la faune sauvage)*, which must issue its opinion regarding the *schéma.* The *Associations communales de chasse agréées,* co-ordinated by the *Féderation départementale,* are created especially where properties are fragmented into small parcels, joining landowners with a view to ensuring appropriate technical management of hunting. They address issues such as maintenance of appropriate wildlife populations levels, training, control of dangerous animals, surveillance of compliance with hunting plans, contribution of hunters to the maintenance of habitats, etc. Owners may object to the inclusion of their land into those falling under the activity of any "*Association*" (Guibert, 2000).

6.4. Agreements between People and Administrations

Numerous laws envisage the possibility for interested individuals or communities to enter into agreements for the management of areas or resources for wildlife-related purposes which may or may not include economic exploitation. Pursuant to the Albanian law, the State promotes private investments aiming at the preservation and management of fauna. The administration may enter into agreements with any persons concerning wild animal breeding, tourist hunting or other activities related to the implementation of the law (art. 14).

In Romania, the law refers to "contracts", whose minimum contents are set out, granting the right to manage hunting areas, subject to criteria to be specified (arts. 8 and 13). The law of Guinea envisages the possibility for the administration to enter into management agreements for protected areas, particularly with local communities and associations (art. 11).

The law of Uganda also recognizes a role for local or private initiatives through "Community wildlife areas", i.e. areas in which holders of property rights in land may carry out activities for the sustainable management of wildlife, subject to land use measures which may be prescribed (sec. 19(8)).

In Portugal, the State may hand over the management of hunting areas of national interest or of unclassified hunting areas to associations or local authorities (article 14 of the Framework Law on Hunting). In Australia, "conservation agreements" may be entered into by the Minister and indigenous people or body corporates established by them or for their benefit, regarding protection, conservation and management of any listed species or ecological communities, or their habitats, and mitigation or avoidance of actions that might adversely affect biodiversity (art. 305).

A concern sometimes shown in the laws is to **ensure that such arrangements are set up in an equitable manner**, with equal opportunities offered to all members of communities and fair distribution of benefits. For example, in Cameroon, free technical assistance is offered by the wildlife administration to local communities for the formulation of agreements for the management of community hunting areas (article 25 of the decree on hunting). A meeting of the community, supervised by the concerned technical administration, must be held for the designation of a person to be responsible for the initiative. All participants must sign the report of the meeting (art. 27).

A similar objective is pursued by the law of Uganda. Where the applicant for a wildlife use right is a community or part of it, it must supply a statement explaining how the community has been made aware of the proposal and specifying the role and proposed functions of the body which will manage the activity for which the application is submitted (sec. 32(3)).

In Burkina Faso, local authorities may benefit from the technical assistance of local wildlife services, and all possible measures must be adopted to ensure the participation of representatives of local communities in the management of "local refuges" (arts. 96–98). "Village hunting areas" may be created by communities, with approval of the competent local authority, and may be managed by village associations or any other legal persons, including professionals, even for commercial purposes (art. 100). In any case, revenue and taxes deriving from local

refuges and village hunting areas must be distributed between local budgets and village wildlife management organizations (art. 102).

6.5. Devolution of Authority

There are numerous examples of countries with a federal or similarly decentralized structure which have delegated some legislative powers in the wildlife management sector to local authorities. This has happened for example with *Länder* of Austria and Germany, *cantons* of Switzerland, *comunidades autónomas* of Spain and regions of Italy. The 2000 law of Mexico expressly makes wildlife a shared responsibility of the Federal Government, States and Communes (art. 6). In most cases, local authorities are enabled to legislate within the framework set out by national legislation.

Sometimes powers given for the adoption of legislation at the local level are mainly for the regulation of local initiatives. The law of Burkina Faso, for example, refers to local administrations (*collectivités territoriales décentralisées*) to determine activities which are allowed within "local refuges" (art. 95) and to local communities (*communautés de base*) to determine activities which are allowed in "village hunting areas" (art. 101).

In Zimbabwe the adoption of by-laws by district councils, enabled by legislation of 1988, has enhanced the implementation of the CAMPFIRE programme. In this case, by-laws frequently revamped traditional, often wise rules for the management of natural resources, restoring also community identity. However, this system has been criticized for the insufficient consultation of local people before the adoption of the by-laws and the excessively lengthy and complex procedure for their official adoption, which requires publication in the official journal of laws (Kalèn and Trägårdh, 1998).[35]

A further level of devolution experienced in some countries has been **to endow the protected area management entities with powers to determine applicable rules** within their concerned areas. The experience of formulation of management plans for Italian protected areas, including "national" parks shows an active involvement of the local authorities in whose territory the park is located, as well as of other entities (e.g. environmental associations), which has proven to be quite

[35] On CAMPFIRE, see section 4.1.2. above.

fruitful. Pursuant to the framework law on protected areas of 1991 (art. 12(7)), these plans prevail over any other planning instruments which might otherwise apply over the same area.

Some recent laws allow the definition of the **respective responsibilities of the central government and local governments through agreements between them**. In Australia the Commonwealth and the States or self-governing territories may enter into agreements concerning environmental protection, sustainable use of natural resources and effectiveness of environmental impact assessment processes through co-ordination of Commonwealth and State procedures (secs. 44–65A). In Mexico, after setting out respective responsibilities, the law similarly allows agreements regarding specified matters for better co-ordination (art. 11).

There are also cases in which local bye-laws have an **unclear legal status**, but still significantly contribute to appropriate wildlife management, as local support is a useful pre-requisite of successful implementation. In the experience of Zanzibar, for example, the issue of decreasing antelope populations was addressed mainly by the adoption of by-laws, in addition to the enhancement of the participation of hunters in management. Although the by-laws in some cases simply reinstated existing laws which were not adequately enforced, through their adoption as local laws they received a much better implementation. The perception of antelope as an open-access resource was thus replaced by that of a resource belonging to the villages, which felt responsible for their management (Williams, Masoud and Othman, 1998). The uncertain legal status of bye-laws under the existing legislation of Zanzibar, however, undermines the stability of these arrangements.

6.6. Wildlife Management and Cultural Issues

An increasing number of laws show a concern to preserve and enhance **cultural and social aspects as being part of wildlife management**. This is also a sign of greater consideration of the role of people and their interests, lifestyles, etc. The law of Burkina Faso, for example, expressly aims at harmonizing the protection of resources with the need to meet economic, social and cultural requirements (art. 2). Respect for cultural diversity generally tends to be further emphasized in legislation on biodiversity. For example, it is one of four "general principles" expressly set out in the Costa Rican law on biodiversity (art. 9). In France, hunting is defined as an "environmental, cultural, social and economic activity" and

contributes to agro-sylvo-wildlife balance (c*ode rural*, art. L.220-1). In the law of Mauritania, classification of land into some category of protected area or declassification is authorized only if the advantages from the ecological, social, economic and cultural point of view exceed possible disadvantages (art. 19).

Consideration of cultural aspects may add value to opportunities for sustainable economic development offered by wildlife and protected areas. Some laws conceive protected areas as places where the whole local heritage is to be enhanced, in its natural, historic cultural or anthropological aspects. These objectives are pursued, for example, in the significant revisions adopted in 1998 of the 1992 Italian law on protected areas. Pursuant to these revisions, management of protected areas is expected to bring out the value of local agro-sylvo-pastoral uses and traditions. The individual regulations for each park are to be conceived, rather than as a series of prohibitions, as a means to focus on local characteristics and values and sustainably manage them. With a similar approach, pursuant to the law of Bulgaria national parks are to be managed for purposes, among others, of "sustainable use of the renewable natural resources while preserving traditional forms of livelihood, and provision of conditions for the development of tourism" (art. 29(2)).

VII. CONCLUSIONS

Among the most significant features of recent laws in many countries is the provision of a legal basis for wildlife management planning. Most laws envisage the formulation of wildlife-related management plans of various kinds: from general "wildlife management plans" and even "bioregional management plans" and "natural resource management plans" to "recovery plans", "threat abatement plans". Provisions related to management planning may include requirements for the administration to collect data and/or for concerned people to supply them, publication of the plans in draft form to obtain comments from stake-holders, description of the required minimum contents of the plans. Management measures stated in the law or required to be adopted in the plans are almost always made subject to sustainability principles.

These provisions show that management processes and basic objectives of these processes are increasingly guided by the law in their basic steps, rather than being left to changing administrations' initiatives. Important aspects of this approach are the increasing importance recognized to the collection of scientific data for management purposes, and the incorporation of the principle of sustainable development in national legislation.

The emerging trend is undoubtedly a general improvement of legal bases for wildlife management. Other elements which have tended to be incorporated into recent legislation, i.e. provisions on protection of biodiversity and on the assessment and mitigation of potentially harmful processes on wildlife, contribute to such improvement.

Many laws could be further improved by more clearly linking the adoption of management measures to the planning process and in particular to the results of surveys. However, not all laws include in a logical progression the basic steps for appropriate management planning, so their approach remains fragmentary. Another weakness is the tendency to concentrate on the most significant species and areas, risking to lose basic (although perhaps less spectacular) biodiversity elements.

Regarding **ownership of wildlife and hunting rights**, legislation is usually the product of long-established traditions, combined with developments determined by interest groups' pressures, courts' decisions and international initiatives. Some of these developments taking place in different countries go in the same direction. For example, there seems to be a tendency to

extend the prerogatives of private landowners by reducing limitations regarding wildlife found on their land. This is happening even in countries where landowners' rights have traditionally been restricted, allowing free access of hunters on any land, namely for the purpose of safeguarding wildlife by entrusting it to the State, but more often simply to support hunting interests. However, there remain significant differences among legal systems in their approaches to wildlife ownership, entitlement to hunting rights, compensation of damage caused by wild animals, and management obligations of landowners. In these respects, there does not seem to be a tendency to harmonization. This aspect does not in itself prevent adequate protection and management of wildlife, as the adoption of appropriate measures is possible under different tenurial situations, adapting approaches to local characteristics and traditions.

Provisions on **wildlife and protected areas** sometimes include innovative aspects in recent legislation, such as those aiming to enhance significant local values in wildlife and protected area management, including natural, historic, anthropological and cultural aspects. A related example is the devolution of decision-making powers, including powers to adopt applicable rules, to the local level and particularly to protected area-managing authorities. These provisions, however, are not frequent, and they cannot be considered a sign of a general evolution in that direction.

As to **people's role** in wildlife management, its significance and usefulness are increasingly recognized. Legal requirements for various forms of public participation are quite common.

The basic challenge of **balancing the interests of people on the one hand and wildlife and protected areas on the other**, however, continues to require efforts to identify innovative solutions in practice and in institutional and legal arrangements. At present, few laws address issues of competing land uses and integration of wildlife management with other activities taking place in rural areas. Compensation of damage caused by wild animals is rarely a satisfactory solution where pressures to utilize wildlife resources has led to encroachment and illegal activities.

A contribution to the solution of wildlife-related conflicts may come from initiatives which may bring practical benefits to people, whether undertaken privately or under collaborative arrangements with the administration, such as management of particular areas for repopulation and/or hunting purposes, game ranching and breeding. Recent legislation does foresee

some of these arrangements, but does little to encourage them, sometimes simply establishing applicable limitations. However, such arrangements can be important opportunities for development, as they may provide economic benefits and empowerment of local communities, with a view also to making wildlife "pay its way".

LEGISLATION REVIEWED

ALBANIA
Law on Hunting and Protection of Wildlife (Act No. 7875, 23 November 1994)

ARMENIA
Law on Nature Reserves (17 December 1991)

AUSTRALIA
Environment Protection and Biodiversity Conservation Act (Act No. 91, 16 July 1999)

AUSTRIA
Law on the Protection of Nature of Styria (30 June 1976, amended by Law of 21 January 2000)

BELGIUM
Loi sur la chasse (28 February 1882, as consolidated on 6 August 1997)
Décret sur la chasse (Flemish Region) (24 July1991)
Arrêté du gouvernement wallon relatif aux permis et licences de chasse (4 May 1995)
Arrêté du gouvernement wallon fixant les conditions et la procédure d'agrément des conseils cynégétiques (30 May 1996)
Décret concernant la conservation de la nature et le milieu naturel (Flemish Region) (21 October 1997)

BENIN
Loi portant réglementation de la protection de la nature et de l'exercice de la chasse (Act No. 87-014, 21 September 1987)
Loi portant conditions d'exercice de la chasse et du tourisme de vision (Act No. 93-111, 3 August 1993)

BOTSWANA
Wildlife Conservation and National Parks Act (Act No. 28 of 1992, as amended by Acts No. 60 of 1992 and No. 16 of 1993)

BULGARIA
Protected Areas Law (30 October 1998)

BURKINA FASO
Loi portant code forestier (Law No. 006/97/ADP, 31 January 1997)

CAMEROON
Loi portant régime des forêts, de la faune et de la pêche (Law No. 94/01, 20 January 1994)
Décret fixant les modalités d'application du régime de la faune (Decree No. 95/466/PM, 20 July 1995)

CHILE
Ley que sustituye el texto de la Ley N° 4601, sobre caza, y el artículo 609 del Código Civil (Law No. 19473, 4 September 1996)

CHINA
Law on the Protection of Wildlife (8 November 1988)
Regulations for the Implementation of the Law on the Protection of Terrestrial Wildlife (12 February 1992)
Regulations on Nature Reserves (9 October 1994)

COLOMBIA
Normas para el manejo sostenible de especies de fauna silvestre y acuática (Law No. 611, 17 August 2000)

COSTA RICA
Ley de Biodiversidad (Law No. 7788, 23 April 1998)
Ley de Conservación de la Vida Silvestre (Law No. 7317, 30 October 1992)

DENMARK
Protection of Nature Act (No. 9, 3 January 1992, consolidated until 23 February 2000)
Hunting and Wildlife Management Act (No. 114, 28 January 1997)

FINLAND
Law on the Protection of Nature (Law No. 615, 28 July 1993)
Law on Hunting (Law No. 1096, 20 December 1996)

FRANCE
Code de l'environnement, articles L429-1–L429-40 *(chasse)*
Code rural, articles R221–R229 *(chasse)*
Code rural, articles L211–L215 and R211–R215 *(protection de la faune et de la flore)*
Loi sur la protection et mise en valeur des paysages (No. 93-24, 8 January 1993)

GERMANY
Federal Nature Conservation Act (21 September 1998)
Federal Hunting Act (29 September 1976, as amended until Law of 26 January 1998)

GUINEA
Loi adoptant et promulguant le code de protection de la faune sauvage et réglementation de la chasse (Law L/97/038/An, 9 December 1997)

ITALY
Law on Protection of Warm-blooded Wild Fauna and Hunting (Law No. 157, 11 February 1992)
Framework Law on Protected Areas (Law No. 394, 6 December 1991, as amended until Law No. 426, 9 December 1998)
Decree of the President of the Council of Ministers on Implementation of the Provisions on Derogations under article 9 of Directive 79/409/EEC on Conservation of Wild Birds (27 September 1997)
Legislative Decree concerning the Transfer of State Administrative Functions to Regions and Local Authorities (Decree No. 112, 31 March 1998)
Regional Law (Tuscany) on Conservation of Natural and Semi-natural Habitats and Wild Flora and Fauna (Law No. 56, 6 April 2000)

KENYA
Wildlife (Conservation and Management) Act 1976, as amended in 1989 (Act No. 1, 10 February 1976 and Act No. 16, 6 December 1989)

LITHUANIA
Law on Wildlife (Law No. VIII-498, 6 November 1997)

MALAWI
National Parks and Wildlife Act (Act No. 11, 15 April 1992)

MALI
Loi fixant les conditions de gestion de la faune sauvage et de son habitat (Law No. 95-031, 20 March 1995)
Décret déterminant les modalités et conditions d'exercice des droits conférés par les titres de chasse (Decree No. 97-052/P-RM, 31 January 1997)

MAURITANIA
Loi abrogeant et remplaçant la loi n° 75-003 du 15 janvier 1975 portant code de la chasse et de la protection de la nature (Law No. 97-006, 20 January 1997)

MEXICO
Ley General de vida silvestre (Law of 20 April 2000)

NETHERLANDS
Flora and Fauna Act (25 May 1998)

PERU
Ley de Áreas Naturales Protegidas (Law No. 26834, 30 June 1997)

PHILIPPINES
National Integrated Protected Areas System Act (Act No. 75, 1 June 1992)

PORTUGAL
Framework Law on Hunting (*Lei de Bases Gerais da Caça*) (Law No. 173/99, 21 September 1999)
Decree-Law implementing the Framework Law on Hunting (No. 227-B/2000, 15 September 2000)
Framework Law on the Environment (*Lei de Bases do Ambiente*) (Law 11/87, 7 April 1987)

ROMANIA
Law on Hunting and the Protection of Game (Law No. 103, 23 September 1996)
Law on Environmental Protection (Law No. 157, 29 December 1995)

SPAIN
Ley de Conservación de los Espacios Naturales y de la Flora y Fauna Silvestre and *Ley por la que se modifica la Ley de Conservación de los Espacios Naturales y de la Flora y Fauna Silvestre* (Law No. 4, 27 March 1989 and Law No. 41, 5 November 1997)

SWITZERLAND
Ordonnance sur la protection de la nature et du paysage (16 January 1991, with amendments up to 1 April 1996)

TAJIKISTAN
Law on the Protection and Use of the Animal World (Law No. 989, 20 July 1994)

UGANDA
Uganda Wildlife Statute (Act No. 14 , 14 May 1996)

URUGUAY
Decreto que mantiene la prohibición de la caza, tenencia, transporte, comercialización e industrialización de especies zoológicas silvestres y sus productos (Decree 164/996, 2 May 1996)
Decreto que autoriza la caza deportiva y el transporte por el cazador habilitado de ejemplares que se determinan (Decree 165/996, 2 May 1996).

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