

# **Compensation for damage caused by wild animals**

by Cyrille de Klemm

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**SECRETARIAT NOTE**

At its 14th meeting (20-24 March 1995), the Standing Committee of the Bern Convention on the Conservation of European Wildlife and Natural Habitats included in its Programme of Activities for 1995 the preparation of the present report (Doc. T-PVS (95) 26 of 24 March 1995, point 8.3). Its author was commissioned to analyse the compensation systems used by Contracting Parties to the Bern Convention and states having the status of observer at the meetings of the Standing Committee in the event of damage caused by wild animals to arable cultivation, farm animals, forestry and livestock breeding. He was also requested to submit proposals to improve the effectiveness of the compensation system.

## FOREWORD

This report has been prepared from replies to a questionnaire (reprinted in the Appendix) which was sent by the Secretariat of the Bern Convention to States which are Parties to the Convention and to those which have observer status to the Convention\*. It is also based on information available from the IUCN Environmental Law Centre in Bonn.

A relatively large number of Parties and observers did not reply to the questionnaire, however, and several of those who did only gave the briefest of answers. It follows that even for those countries for which information was available, this was usually restricted to the legislative and regulatory texts in force. These instruments alone are often not nearly enough to give a sufficiently detailed picture of how a particular country handles the compensation of damage caused by wild animals. Since this is an issue which frequently gives rise to legal proceedings, familiarity with the case law is essential if one is to understand how the legal texts are applied in practice. Moreover, in the absence of specific studies which were not available from most of the countries questioned, it is difficult to evaluate the operation of existing compensation mechanisms, particularly with regard to the species causing damage which is compensated, the amounts involved and, more generally, the problems encountered.

After a brief introduction, the first part of this report contains as detailed an analysis as possible of the situation in each of the countries for which information was available. The second part attempts to present a synthesis of the available information, from which a certain number of conclusions are drawn.

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\*. The replies to the said questionnaire are collated in Document Council of Europe (Bern Convention) T-PVS (96) 11, of 24 January 1996, "Replies to the Questionnaire on compensation for damage caused by wild animals to agriculture, forestry, fish-breeding and stock-farming".

## I. INTRODUCTION

Since time immemorial, man has had to defend himself against the depredations of wild animals. This right of self-defence has always been taken for granted, together with the right to eliminate species which competed with man, whether these were large herbivores<sup>1</sup> or carnivores who attacked the game sought by hunters. This undisputed right of self-defence was sometimes backed up by extermination campaigns. It is not so very long ago that the Falklands "wolf", *Dusicyon australis*, and the Carolina parrot, *Conuropsis carolinensis*<sup>2</sup>, were exterminated because of the damage that they respectively caused to livestock and crops. Over time, this situation was exacerbated by State interventions such as the organisation of beats (*battues*) or the payment of bounties for the extermination of certain animals deemed to be "pests". There was no question of compensation and this is still the position in quite a large number of countries, for the most part outside Europe.

In contrast, game animals benefited fairly early on from preferential treatment because of their hunting, economic and social interest. Since it was impossible to exterminate game species which damaged crops or forests without depriving hunters of the very object of their activity, the decision had to be taken to compensate the victims of these animals. Hunters were usually called on for this purpose. This created a situation whereby game animals only had the right of survival because they were hunted, which meant that hunters were naturally held responsible for any damage they might cause. With regard to species protected by law, it is only very recently and only in a few countries that the State has undertaken to compensate the damage they cause on the grounds that the victims can no longer exercise the right of self-defence.

There are of course cases where the holder of hunting rights or the landowner allows one species to proliferate to the point where it causes significant damage and is rightly held liable in civil law. In the majority of cases, however, it is nature which is primarily if not solely responsible for such damage. The animals responsible have long been threatened with the death sentence. However, from the time when the protection of the species to which these animals belong became a social objective sanctioned by legislation, compensation mechanisms have gradually been established for reasons of fairness, because it would have been unjust to impose the cost of conservation on a tiny proportion of the population, and also for pragmatic reasons, insofar as it would otherwise often have been impossible to prevent victims from continuing to exercise their right of self-defence, even if this was no longer lawful.

Nonetheless, it is clear that however essential compensation of damage may be in many cases, it is only one component of a package of measures which must be implemented in order to manage as comprehensively as possible the risk presented by the presence of wild predatory animals in a largely man-made rural environment.

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<sup>1</sup>. Such as the quagga and certain antelopes during the colonisation of South Africa by Europeans.

<sup>2</sup>. This species was found throughout the south-east of the United States from south Virginia to the Gulf of Mexico and extended westwards beyond the Mississippi. It was particularly fond of fruit and cereal crops. It became extinct between 1920 and 1940 (Greenway, James C.Jr, *Extinct and Vanishing Birds of the World*, New York, 1958).

This report only addresses damage caused by wild animals to crops, forests, livestock and fish farms in accordance with the mission entrusted to the expert by the Standing Committee. However, these are not the only kinds of damage which give rise to problems of compensation. Damage resulting from collisions between large animals and motor vehicles is not usually compensated. The same is true for damage to nature itself, which may for example put protected species at risk. This type of damage can result from the proliferation of certain species, such as gulls which are encouraged by human activities, or from the introduction of exotic species. In this kind of situation, the issue is not usually one of compensation, although this may sometimes be available, but almost exclusively one of risk management.

## II. REVIEW OF AVAILABLE LEGISLATION

### — Algeria

Article 36 of the Hunting Act of 21 August 1982 provides that damage to property caused by game and protected animals is covered by the Minister with responsibility for hunting.

### — Austria

In Austria, federal authorities do not have jurisdiction over hunting or nature protection. These matters are therefore governed exclusively by the legislation of the *Länder*.

As in Germany, some species are governed by nature protection legislation and others by the law on hunting. Again as in Germany, it does not seem to be possible to compensate damage caused by species protected under nature protection legislation. However, most of the species liable to cause damage to agriculture, forestry or livestock are those which are still covered by hunting legislation, even though they have not been hunted for many years and are now strictly protected. Compensation for damage caused by these species is possible.

A recent text, the Hunting Act of the *Land* of Salzburg of 15 May 1993, may be cited as an example. This text is applicable not only to species which may lawfully be hunted but also to a relatively large number of species which continue to be classified as game but which are protected, most of them since many years. These include, in particular, the wolf, *Canis lupus*, the bear, *Ursus arctos*, the wild cat, *Felis silvestris*, the otter, *Lutra lutra*, the beaver, *Castor fiber*, and diurnal and nocturnal birds of prey such as the golden eagle, *Aquila chrysaetos*, the peregrine falcon, *Falco peregrinus*, the bearded vulture *Gypaetus barbatus*, the griffon vulture, *Gyps fulvus*, and the eagle owl, *Bubo bubo* (article 91.3).

Damage caused to crops by game animals which are protected throughout the year is compensated by the *Land*. The latter is substituted for the holder of the hunting rights with regard to liability for such damage (article 91.3). Along the same lines, damage caused by game in the area surrounding the Hohe Tauern National Park as a result of the special hunting controls applicable within this protected area is compensated by the National Park Fund of the *Land* of Salzburg. The Fund is substituted for the holder of the hunting rights when it comes to compensating such damage.

Damage to domestic animals by carnivorous mammals or birds of prey for which the hunting season is closed throughout the year is compensated by the *Land*, which is again deemed to be liable in civil law in such cases.

On the other hand, the holder of hunting rights is liable for damage caused by species which may lawfully be hunted, including that inflicted by animals which have escaped from enclosures or by birds used in falconry. Damage caused by wild boars forms an exception to this rule unless it occurs on land included within the hunting area.

Where damage is caused by game to orchards, vegetable gardens and pleasure gardens or valuable plantations and crops, such as nurseries or cultivated flowers, which are outside the hunting area, compensation is only payable if the owner can prove that he has taken appropriate preventive measures.

Where damage is inflicted by game despite measures to keep it out, this must be compensated by the holder of the hunting rights unless he can prove that the damage resulted from the victim's action. In the absence of a special agreement between the landowner and the holder of the hunting rights, the latter must make good any damage to arable land and crops in the hunting area whilst the hunting season is open and during the period of his hunting lease. The person who is bound to compensate the damage may bring an action against the person who was actually responsible for it.

Where damage is caused to crops which are not yet ripe, the value to be taken into account is that which the products concerned would have had when harvested. Any expenses that the victim would have incurred in cultivating the crop until harvest time must be deducted from the amount to be paid. The same goes for any losses which might have been sustained for other reasons, such as bad weather. It must also be determined whether the damage might have been reduced or compensated by replanting the plots of land affected.

Where the damage is so extensive that it is impossible to wait until harvest time to sow new crops, the holder of the hunting rights must pay for the costs (purchase of seeds, labour) of this sowing.

Damage caused by game to standing crops or to agricultural products which have already been harvested will only be compensated where the victim has taken reasonable precautions to prevent such damage.

The assessment of the damage is based on the market value of the domestic animals or damaged or destroyed arable produce, if the victim and the holder of the hunting rights fail to reach a friendly agreement on the level of compensation.

In order to assess forestry damage caused by game, the Government of the *Land* sets out guidelines in a regulation after consulting the Salzburg Hunting Society and the Chamber of Agriculture.

An application for compensation must be presented to the holder of the hunting rights within one week from the date on which the victim became aware of the crop damage caused by game. If the parties are unable to reach agreement within two weeks, the victim asserts his right before a special commission established in each district. After reviewing the circumstances of the case, the commission will try to secure a friendly agreement between the parties. Where it is unable to do so, it will publish a decision stating the merits of the application for compensation and, where this is favourable, fixing the level of compensation and expenses. The decision of the commission is final. However, if one of the parties contests this decision, it may bring an action for compensation of the damage before the competent civil court. Referral of a matter to the court automatically renders the commission's decision null and void.

— **Belgium**

*Flemish Region*

The Hunting Decree of 24 July 1991 provides that damage caused by game species for which the hunting season has been closed for more than five years may be compensated from a fund of the Flemish Community. The same applies to damage caused by game originating from a forest reserve or a nature reserve in which hunting is prohibited by a public authority (article 25 of the Decree).

Compensation for damage caused by other species of game, with the exception of rabbits, is payable in accordance with the principle of strict liability (article 24 of the Decree). It is no longer necessary, as was the case in the past, to prove fault on the part of the holder of the hunting rights. It is now enough that the damage has been properly ascertained and assessed and its cause established for compensation to be payable. With regard to rabbits, fault still has to be proved<sup>3</sup>.

*Walloon Region*

There are no compensation measures for damage caused by protected species.

An Act of 14 July 1961 governs the compensation of damage by large game to fields, fruit and crops, which excludes forestry damage. The species concerned are the red deer, the roe deer, the fallow deer, the mouflon and the wild boar (article 1 of the Act of 1961). Compensation is also available under the Hunting Act for damage caused by rabbits to fruit and crops (Act of 28 February 1882, as applied to the Walloon Region on 1 July 1995, article 7bis).

The holder of hunting rights is liable for damage caused by large game where the latter originates from woodland within his hunting area.

Proceedings must be brought within six months of the damage occurring and, where it relates to crops, before harvesting begins. These may be brought against the owner of the land from which the animals originated, who may join the holder of the hunting rights as a third party (article 3, Act of 14 July 1961).

The aggrieved person presents the justice of the peace with a request, which may be oral or in writing, stating the subject-matter and merits of his application. If the application is made in person, the justice of the peace will take statements. In either case, he will then appoint an expert within eight days and will then make a site visit accompanied by this expert.

If the defendant refuses to pay the amount determined by the expert on the spot, the judge refers the case to a hearing. At this hearing, each party simply states its case and the judge makes a ruling.

The judge must rule equitably, taking account of any factor which might sway his judgment. Where appropriate, he may split the cost of compensation if the animals originated from hunts run by several holders of hunting rights (article 2, Act of 14 July 1961).

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<sup>3</sup>. Ministry of the Flemish Community, 1992, "*Bref aperçu du décret sur la chasse du 24 juillet 1991*" (Overview of the Hunting Decree of 24 July 1991).

Where damage caused by big game is involved, the holder of the hunting rights is deemed to be liable. The basis adopted is that of strict or no-fault liability, which is particularly rigorous since it is not even possible to exclude liability by blaming the damage on an accident or *force majeure*, or by submitting proof that everything possible was done to destroy the game. However, if the holder of the hunting rights can prove that the game came from one or more hunting areas other than his own, he can join the holder(s) of the hunting rights over these other areas as third parties. The latter may be required to compensate all or part of the damage (article 1, Act of 14 July 1961).

The holder of the hunting rights may submit proof that the victim committed a fault which contributed to the damage in respect of which the action has been brought. The plaintiff may in consequence have to pay for part of the damage in such cases. By way of example, the failure to take measures to protect one's crops from subsequent damage after having already observed early damage constitutes a fault on the part of the victim<sup>4</sup>.

Liability for damage caused by rabbits to fruits and crops is confined to that based on fault. The victim must submit proof to the court of the existence of the damage, the fault committed by the holder of hunting rights and a causal link between this fault and the damage. Article 7bis of the Hunting Act provides that compensation payments for damage caused by these animals shall be doubled.

However, the courts only award compensation for abnormal damage, whether this consists of damage caused by rabbits or big game. This precedent is based on the finding that "the natural and normal activity of game existing in reasonable numbers in a given area does not constitute damage, or at least not damage justifying compensation, otherwise one would be forced to conclude that any big game in the open must be killed because it is liable to cause damage"<sup>5</sup>.

#### — Cyprus

There is no legislation which specifically provides for compensation for damage caused to agriculture, forestry, fish farming or livestock by protected species or game species. However, the reply of the Cyprus authorities to the questionnaire indicates that a mechanism to compensate fishermen who suffer damage caused by dolphins is now being developed.

#### — Czech Republic

Compensation for damage caused by wild animals is governed by the Hunting Act n° 512/1992.

Compensation is payable for damage caused by the 68 species of game listed in this Act. Payments are most frequently made for damage caused by bears, red deer, fallow deer, roe deer, moose, chamois, ibex, mouflons, wild boar, hares and wild rabbits, as well as by geese of the genera *Anser* and *Branta*.

Some of these game species are protected throughout the year, which means that the State must compensate any damages which they may cause.

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<sup>4</sup>. Henry de Radzitzky d'Ostrowick, "Dégâts de gibier: dommage, provenance et faute" (Damage by game: damage, source and fault) in *Chasse et nature*, n° 4, May 1995, pp.15-20.

<sup>5</sup>. *Ibid.*

The holder of hunting rights, usually the tenant of such rights, must make good the damage caused by game in his hunting area. The user of a game enclosure is liable for any damage caused by animals which escape from his enclosure.

Compensation is payable in respect of damage caused to crops, vines and forests as well as that caused by bears to livestock and beehives. Damages to crops which have not yet been gathered in after the usual harvest season is not compensated. This is also true for products which have been harvested but which have been left on the ground within the hunting area. Certain types of damage caused outside the hunting area, in particular to orchards and market gardens which are not fenced, are also not compensated.

Where damage has occurred, the victim and the holder of hunting rights must first attempt to reach a friendly settlement. If they cannot do so, a commission answerable to the local administrative authority handles the resolution of the dispute. Where agricultural damage is involved, the victim must notify the Commission within 14 days of the damage occurring. Damage to forests must be declared within a period of 30 days. The victim must describe the measures which he had taken to prevent the damage. The decision of the Commission is executory and may, where necessary, be enforced by the courts.

The owner of the land concerned must, for his part, take reasonable measures to prevent damage by game. Where he fails to do so, the level of compensation which he receives is reduced in proportion to his fault.

— **Denmark**

Chapter 6 (article 37 onwards) of the Hunting Act of 6 May 1993 covers damage caused by game. The Act empowers the Minister of the Environment to make regulations for the destruction of game to prevent danger to persons and health and the risk of epidemics and animal disease, protect flora and fauna and avert major damage to buildings, crops, domestic animals, forestry, fish farming and fishing areas. There is no reference to compensation for damage in the Act of 1993 or in the Regulation of 21 January 1994 which specifically deals with game animals which cause damage and the measures that may be taken to kill them.

— **Finland**

Article 87 of the Hunting Act of 28 June 1993 provides that compensation is only payable by the State budget, subject to the availability of funds allocated for this purpose, in respect of damage caused by species of deer classified as game species, the bear, *Ursos arctos*, the wolf, *Canis lupus*, the lynx, *Lynx lynx*, the wolverine, *Gulo gulo*, the grey seal, *Halichoerus grypus*, and the Baltic marbled seal, *Phoca hispida*. The types of damage compensated include damage caused to agriculture, forestry, fisheries, livestock and motor vehicles. In exceptional circumstances, a decree may provide for compensation to be paid for damage caused by other species of game.

A Decree of 28 March 1986 sets out the procedure for the compensation of damage caused by bears, wolves, lynx or wolverines to agriculture and livestock, subject to the availability of funds provided specifically for this purpose in the national budget.

The complainant who seeks compensation must declare the damage to the police within thirty days of its occurrence. The victim must indicate the place and date of the damage, its nature and extent and, where appropriate, if he has taken out insurance.



After receiving the victim's application, the police inform the local hunters' association and conducts an inquiry into the damage, in which the victim and a representative of the association may take part. The police establish a detailed report of the damage and sends the documents to the administrative authority of the area in which the damage occurred. The latter then handles the payment of compensation.

The amount of compensation is equal to the monetary value of the animals killed, from which is deducted the value of any derivative products which are still usable. Where an animal was merely wounded, compensation includes the reimbursement of veterinary expenses and any loss of profit arising from the damage inflicted. However, the amount paid may in no circumstances exceed the monetary value of the animal. Any payments which may be received pursuant to an insurance policy must be deducted from the sums paid.

Where crop damage is involved, it is the loss of profit which is taken into account when the damage is assessed.

In all cases, compensation will be refused, wholly or in part, where the victim is shown to have been negligent in looking after his domestic animals, to have refused without good reason to contribute to preventive measures or to have kept domestic animals without due authorisation in the area where the damage occurred. No compensation is payable if the total loss sustained amounts to less than 500 Finnish Marks in the course of a single year within the territory of the same district.

A special Act, dated 23 November 1956, governs the compensation of damage to reindeer by carnivorous animals. Compensation is paid out of public funds, within the limits of the annual budget allocation provided for this purpose, and is paid to reindeer breeding cooperatives. Where weather conditions or difficulties on the ground make it impossible to conduct a sufficiently detailed inquiry, the compensation paid is limited to 50 % of the possible damage. Compensation decisions are taken by the Ministry of Agriculture, on the basis of recommendations by the Administrative Council of the Association of Reindeer Breeding Cooperatives.

#### — France

French legislation does not provide for the payment of compensation for damage caused by animals belonging to protected species and the *Conseil d'Etat*, namely the supreme administrative court, has up to now consistently refused to hold the State liable in any way for damage caused by such animals. The legal basis for its stance is the Nature Protection Act of 10 July 1976, which affirms that the protection of wild animals is of general interest. The *Conseil d'Etat* has concluded from this provision that the legislator intended to exclude any liability on the part of the State for damage of this kind.

The State has nevertheless set up compensation arrangements in a few limited cases. These mechanisms relate to damage caused by bears, lynx and wolves. They are not institutionalised by any legislative or regulatory instrument.

Damage caused by bears was originally compensated by the Association of Mountain Hunters and then, from 1955 onwards, by the *Conseil supérieur de la chasse*<sup>6</sup> which paid the premiums of an insurance policy taken out for this purpose. Since 1981, the National Park

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<sup>6</sup>. This body had consultative, research and management powers in respect of game; it was replaced in 1972 by the *Conseil national de la chasse et de la faune sauvage* (National Council on Hunting and Wildlife), which has a purely consultative role, and the *Office national de la chasse* (National Hunting Office) which is responsible for the management of hunting and game.

of the Pyrenees has taken on this task. The method adopted for the lynx, and also for wolves within the Mercantour National Park, consists of subsidising associations which then handle the payment of compensation.

However, a recent judgment (1994) of the Administrative Court of Appeal in Lyon has for the first time called on the State to compensate damage caused by the greater flamingo, *Phoenicopterus ruber*, to rice fields in the Camargue. The Minister of the Environment has lodged an appeal against this judgment which departs from the precedent established by administrative courts on this point.

The Minister of the Environment has also recently established a working group to examine all aspects of the question of damage caused by protected species, in order to assess the socio-economic issues concerned and their likely evolution in the medium term, for the purpose of proposing equitable solutions.

Where damage is caused by species which may lawfully be hunted, the general rule is to apply the articles of the Civil Code which provide for fault-based liability. An Act adopted on 24 July 1937 on this legal basis sets out a rapid compensation procedure which is also free. This system was completed by an Act of 27 December 1968 which establishes an administrative procedure, based on risk, in respect of damage to standing crops which is caused by certain species of big game: wild boar, red deer, roe deer, fallow deer, mouflon and chamois.

With regard to fault-based liability, the liability of the holder of the hunting rights or the owner of the land from which the game originated is derived from articles 1382 and 1383 of the Civil Code. The victim of the damage must not only prove material damage and its cause but also fault on the part of the holder of the hunting rights or the landowner. The owner of the land on which the game lives will therefore only be liable for the damage it causes if the game is present in excessively large numbers and if he has intentionally or negligently encouraged its proliferation or omitted to take the appropriate measures to secure its destruction<sup>7</sup>.

The Act of 1937 institutes a judicial procedure for the notification and compensation of crop damage by any species which may lawfully be hunted (articles L.226-7 and L.226-8; articles R.226-20 to R.226-29 of the Rural Code). The Act and the case law specify that it is the liability of the landowner, rather than the hunter, which is incurred when damage is caused to another's crops. Where the game originates from the State's public domain and the management of this land is called into question, the administrative courts have jurisdiction<sup>8</sup>.

Proceedings for compensation are brought before the civil court of first instance (*tribunal d'instance*) (article R.226-20 onwards of the Rural Code). The limitation period for such proceedings is six months from the date on which the damage was caused. The judge of first instance firstly summons the parties to a conciliation hearing. If this fails, the judge appoints an expert to assess the state of the crops and the extent of the damage caused by

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<sup>7</sup>. See: *Cour de Cassation*, 19 December 1960; *Cass. civ.*, 22 December 1969; *Civ.II*, 25 June 1975; *Cass. civ.*, 26 April 1976; also see *Bulletin administratif et juridique*, n° 9, special edition of 1981; *Bulletin mensuel de l'Office national de la chasse*, n° 128, Paris, October 1988.

<sup>8</sup>. See: *Tribunal des conflits*, 22 April 1985, M. Belouet and others (*Actualité juridique de droit administratif*, 20 September 1985, p. 507; see also *Conseil d'Etat*, 8 July 1987, Minister of the Environment v. M. Herpin and M. Gidouin; Court of Appeal of Versailles, 13 January 1989 (*Bulletin mensuel de l'Office national de la chasse*, n° 136, Paris, June 1989).

the game. The expert must also determine where the game came from, identify the cause of the damage and ascertain whether the game were present in excessive numbers. At the request of the parties, the assessment of damage may be postponed until harvest time.

Where damage by wild boars and big game is involved, on the other hand, article 14-V of the Act of 27 December 1968 provides for an unusual system of quasi-automatic compensation based on a compensation fund. The victim simply has to prove material damage and show that it was caused by wild animals belonging to species covered by this mechanism: it is not necessary to prove fault. Compensation is limited to crop damage. This means that it would not, for instance, be possible to apply for reimbursement of the cost of installing a fence to prevent such damage<sup>9</sup>.

The victim must apply to the *Office national de la chasse* (article L.226-1 of the Rural Code). This body is a Government public agency, set up in 1972, whose statutory duty is to maintain and improve the stock of animals for hunting and to contribute to the development of hunting (article R.221-8 onwards of the Rural Code). A fund created within this organisation handles the payment of compensation. This fund is financed by game fees paid by hunters to the State, taxes paid by the beneficiaries of individual hunting plans and contributions levied on the departmental hunters' federations in proportion to the special subscriptions which they collect from their members (article R.226-1 onwards of the Rural Code).

Any person seeking to obtain compensation for crop damage by wild boar or big game must send a declaration to the president of the departmental hunters' federation, which has delegated authority for this purpose from the *Office national de la chasse*. Where possible, this declaration should indicate the species responsible for the damage and the presumed place of origin of the animals except in respect of wild boar. No-one may claim compensation for damage caused by game originating from his own land. The victim must also specify the extent and location of the damage. Damage caused to forestry plantations is not compensated by the fund.

The *Office national de la chasse* appoints an assessor to compile an expert report of the damage. The assessor first summons the complainants and is then required to record the condition of the site and crops, the level of damage inflicted, the cause of this damage and the type and origin of the game which caused the damage. The assessor must also ascertain whether the victim encouraged game to his land, for example by planting crops which attract game. The *Office* draws up a compensation proposal based on the assessor's report and a tariff of unitary commodity prices drawn up by a departmental compensation commission. If the victim accepts the compensation proposal, the procedure is brought to a close with the payment of the amount concerned. The payment of compensation is carried out by the departmental hunters' federation on behalf of the *Office national de la chasse*. Damage caused by big game may only be compensated if hunting plans had been implemented on the land from which the animals in question originated. If the complainant and the *Office* fail to reach agreement, the latter may refer his application for compensation to the competent court.

The possibility of compensation from the *Office national de la chasse* does not preclude the right to bring parallel proceedings before the courts on the basis of article 1382 of the Civil Code. However, anyone who obtains a court order for the payment of damages by the defendant must repay any compensation he has already received from the *Office national de la chasse*. The civil courts have jurisdiction over any disputes arising out of the compensation by the *Office national de la chasse* of damage caused by wild boar or big game. There is no

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<sup>9</sup>. *Cour de Cassation, Civ.II*, 27 February 1991 (unpublished).

question of the State being held liable under this system, which is based on ordinary civil law (*Conseil d'Etat*, 10 June 1977). The *Office national de la chasse* may bring proceedings against the person actually responsible for the damage, in order to secure reimbursement of the sums it has paid out to the victim.

Another method of compensation may, in certain cases, be to bring a claim under agricultural disaster insurance policies which are subsidised by the State. Agricultural disasters include exceptionally severe non-insurable damage caused by abnormal fluctuations in intensity of a natural agent, where it was impossible to use the technical preventive or remedial measures which are normally deployed in agriculture or where these measures proved inadequate or unworkable (articles L.361-1 to L.361-21 of the Rural Code).

This method has been used to compensate crop damage caused by voles, species which are neither protected nor classified as game. Its use remains exceptional.

Lastly, there is special legislation in France in the departments of Alsace-Moselle. In this part of France, it is the *commune* (municipality) which owns the hunting rights and rents them to private individuals. Damage caused by red deer, elk, roe deer, fallow deer, pheasants, hares and rabbits must be compensated by the hunting tenant. Damage caused by wild boars is covered by a special regime. Compensation for such damage is provided by the *Syndicat général des chasseurs en forêt* (General Association of Forest Hunters), an organisation subject to private law. The association has established a fund for this purpose which is financed by contributions paid by the holders of hunting rights and by subscriptions from its members.

Compensation is available for damage caused to the land itself, plantations, standing crops and crops which have been harvested but not yet gathered in.

The compensation procedure consists of a declaration filed at the town hall by the victim, an assessment made after due hearing of the complainant, the hunting tenant and the assessor appointed by the *commune*, and the determination of the amount to be paid. Where the victim is not satisfied, he may bring proceedings before the competent court. Where damage by wild boars is involved, the *Syndicat général des chasseurs en forêt* will attempt to reach a friendly agreement with the victim. If this fails, the competent court will appoint an expert who is authorised to fix the level of compensation himself.

#### — **Germany**

The issue is governed by both federal hunting legislation and legislation in the *Länder*.

##### *Federal legislation*

Species liable to cause damage are subject either to the legislation on nature protection or on hunting. These two parallel laws are administered by different Ministries, namely the Ministry of the Environment for the first-mentioned law and the Ministry of Agriculture for the second.

Pursuant to the Nature Conservation Act of 20 December 1976, all mammals<sup>10</sup> and native birds other than those subject to hunting legislation are designated as protected species. Species covered by hunting legislation are subject to a different set of rules. Damage caused by species protected under the 1976 Act is not compensated. This is the position with regard to damage caused by the cormorant which is protected under this Act.

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<sup>10</sup>. With a few exceptions which affect some rodents and introduced mammal species: *Myocastor coypus*, *Ondatra zibethica*, *Nyctereutes procyonoides*, *Procyon lotor*.

The species subject to the federal Hunting Act of 29 November 1952 are limited to those listed in that Act. They include the vast majority of species liable to cause damage, such as ungulates, wild rabbits, carnivores, geese, ducks, grey heron and diurnal birds of prey. Some of these species have long been protected, such as the wild cat, the lynx, the otter and most birds of prey. However, these continue to be subject to hunting legislation and are therefore still classified as game animals. This anachronism has come about mainly for historical reasons. In fact, this method also has the advantage of enabling damage prevention measures to be easily adopted by means of regulations, which could include permission to hunt the species causing damage for a specified period of time or in certain places.

The federal Hunting Act establishes a framework with which the laws of the individual *Länder* must comply. The text provides for the compensation of damage to arable land which is caused by game species. However, this possibility is restricted to a few listed species: wild rabbit, pheasant, boar, bison, elk, fallow deer, red deer, sika deer, mouflon, roe deer, chamois, ibex. The *Länder* may extend this compensation requirement to other game species (art.29).

The person deemed to be responsible for the damage is the holder of the hunting rights. Since Germany has a system of leased hunting, this person is usually the hunting tenant which will often be a hunting association. The damage which most often has to be compensated is that caused by game animals within the hunting area itself, since the owners of the land concerned are not authorised to control animals in excess of a given number and the density of animal populations therefore depends on their management by the hunting tenant. The latter is obviously also responsible for damage caused outside the area to which he holds the hunting rights by the animals originating from within it. This system provides an incentive for the holder of the hunting rights to reduce game populations to a level at which damage remains acceptable.

It should nevertheless be noted that the victim cannot claim compensation unless he has taken appropriate preventive measures.

#### *Legislation of the Länder*

Since hunting is subject to the concurrent legislative jurisdiction of the Federation and the *Länder*, the latter have all enacted hunting laws. These laws specify the procedures which must be followed in respect of compensation for damage caused by game. The laws of the *Länder* of Nordrhein-Westfalen, Brandenburg and Hessen<sup>11</sup> are particularly detailed in this respect. As the provisions which they contain are very similar, it should suffice to give a general description of the way in which a compensation system operates.

Firstly, damage caused by game species must be formally declared to the district on whose territory it occurred. The competent hunting authority then appoints an assessor who is responsible for carrying out an impartial assessment of the damage which has been caused. Where damage has been inflicted in a forest, only an expert in this field may be appointed to carry out the assessment<sup>12</sup>.

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<sup>11</sup>. BRANDENBURG; Hunting Act of 3 March 1992: HESSEN; Hunting Act of 12 October 1992: NORDRHEIN-WESTFALEN; Hunting Act of 26 May 1964 as amended on 7 December 1994.

<sup>12</sup>. BRANDENBURG; Hunting Act of 3 March 1992 (art.49): HESSEN; Hunting Act of 12 October 1992 (article 35): NORDRHEIN-WESTFALEN; Hunting Act of 26 May 1964 as amended on 7 December 1994 (article 36). Article 45 of the Hunting Act in the *Land* of Brandenburg lays down more detailed provisions for damage to forests which are considered

Once this declaration has been made, a visit is arranged to the site where the damage occurred in order to seek to reach an agreement between the parties concerned, namely between the victim and the persons bound to make good the damage, including the tenant of the hunting rights<sup>13</sup>.

If the parties reach a friendly agreement, this is recorded in writing and signed by the parties and the representative of the district. The nature and amount of the damage are noted, together with the date by which it will be made good. This written record of a friendly agreement makes it possible to enforce the payment of compensation in accordance with standard civil procedure.

Where the parties cannot reach agreement, they may request that a damage assessment be carried out. The assessor ascertains the damage and submits an expert report which consists of a description of the farm concerned, the type of farming carried on, the species which caused the damage and the extent and cost of the damage. On the basis of this assessment and after taking preliminary negotiations into account, the district authorities will again try to secure a friendly agreement between the parties. Where efforts to reach a settlement come to nothing, the victim may bring legal proceedings within two weeks from the date on which the impossibility of reaching a settlement is notified in writing.

— Greece

The State is deemed to be liable for damage caused by wild animals to livestock, including poultry and beehives. The assessment of damage is carried out by specialised officials who may be assisted by municipal wardens or any other person familiar with the victim and the locality. It is obligatory for this assessment to take place within 24 hours of the damage occurring in summer and 48 hours in winter. Once the existence of the damage has been confirmed, the victim must submit his application for compensation immediately.

No compensation is payable in respect of very young animals or those which are very old, for instance less than ten days or more than 15 years old where cows are concerned. In addition, damage is not compensated where the owner of the animals had not taken certain precautions to protect them against predators. There is no maximum time limit for the payment of compensation. Owners may take out insurance against damage caused to their livestock by wild animals. In certain circumstances, which were not specified in the Greek response to the questionnaire, such insurance appears to be obligatory.

According to the Greek reply to the questionnaire, there is a compensation fund financed by insurance premiums, payments from insurance companies, a damage assessment tax and grants from the State. The fact that the fund receives insurance premiums paid by insured persons at the same time as payments made by the insurers seems to suggest that the Government plays the role of middleman in this context, insuring itself with the insurance companies by means of the premiums it collects from the insured and then distributing the payments it receives amongst the victims.

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to be particularly threatened, namely where, within a given hunting area, the following species cover more than 20 % of the total size of the forested property: beech, oak, maple, ash, larch, spruce, fir trees, Douglas pines.

<sup>13</sup>. BRANDENBURG; Hunting Act of 3 March 1992 (art.50); HESSEN; Hunting Act of 12 October 1992 (article 36); NORDRHEIN-WESTFALEN; Hunting Act of 26 May 1964 as amended on 7 December 1994 (article 37).

There is no reference in the reply to the availability of compensation for crop damage by game animals.

— **Italy**

In Italy, article 26 of the national Act of 11 February 1992 on the protection of warm-blooded wild animals and hunting provides for the compensation of damage to agricultural production and arable and grazing land caused by wild mammals and birds.

Its provisions are applicable to damage "which cannot be compensated by other means" and which is caused by wild animals, particularly by protected species, to agricultural production, to preparatory work on arable land and to pastures. Issues relating to the prevention of damage are governed by regional laws.

Each of the twenty-one autonomous regions and provinces in Italy is required to create a fund for the prevention and compensation of damage, financed in part by the proceeds of the tax on hunting licences<sup>14</sup>. Regional laws must regulate the operation of these funds and establish committees which include representatives of the professional agricultural organisations and the national hunters' associations. Damage must be declared promptly to the Committee which is required to verify its existence within thirty days: compensation must be paid within 180 days. Two examples of regional legislation are described below.

In *Lombardy*, a regional fund for the prevention and compensation of damage caused by wild animals, particularly by protected species, was set up by the Hunting Act of 16 August 1993 (article 47). Its purpose is to compensate damage caused to agricultural production when such damage is not otherwise reparable.

Damage caused by wild animals may also be compensated by means of insurance taken out by the provinces or by the management committees of hunting reserves.

The Regional Executive compensates damage caused by game to agricultural production in protection oases (hunting reserves), in areas of restocking and capture, and in public game production centres. The provinces indemnify other types of damage within the limits of the budget allocated to them by the Region.

A committee is set up in each Province to manage the compensation fund. This committee is made up of the competent member of the provincial executive, three persons from the most representative professional agricultural organisations in the Province and three persons from the most representative hunters' associations therein.

The owner or occupier must promptly make a declaration to the Province of the damage which he has sustained. The Province then ascertains the existence of such damage within thirty days. Where necessary, it will carry out a site inspection. The report prepared by the Province is sent to the management committee which must arrange for the payment of compensation within 180 days.

In *Tuscany*, the Act of 12 January 1994 set up a fund for the compensation and prevention of damage to agriculture caused by wild animals, including species protected under national legislation, or by hunting activities. This fund is financed by a levy on hunting licences (article 47).

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<sup>14</sup>. On the creation of regional funds, see: Emilia-Romagna, Act of 15 February 1994; Lombardy, Act of 16 August 1993 (article 47); Umbria, Act of 17 May 1994 (article 38); Tuscany, Act of 12 January 1994 (article 47); Veneto, Act of 9 December 1993 (article 28).

The proceeds of this tax are divided between Provinces in proportion to the amount of land used for agriculture, forestry or grazing in each Province. It is then for each Province to distribute the funds which it has been allocated.

The owner or occupier must make a prompt declaration to the competent Province of the damage which he has suffered. The latter has thirty days in which to verify the existence of such damage and must effect the payment of compensation within 180 days, in accordance with the national law. Before 31 December of each year, the Provinces must send the Regional Executive a report on the compensation of damage and the preventive measures undertaken. The Regional Executive uses these reports as the basis for determining the next round of budget allocations.

Compensation is not available for damage caused in areas where hunting is prohibited, woodland areas (with the exception of areas which are being replanted), walled properties, properties which are enclosed to prevent the free passage of animals or people, or areas designated for the protection and rearing of game or hunting management activities.

The Regional Executive and the Provinces may fulfil the objectives of the Act by concluding contractual agreements with insurance companies: such agreements may include financial cover for damage caused by wild animals to private property or persons.

Some Regions have instituted special compensation mechanisms for damage caused by certain large predators which are protected, especially the bear, the wolf and the golden eagle, *Aquila chrysaetos*.

In the *Marche Region*, to cite one example, the Regional Act of 28 December 1990 establishes a compensation system for damage to cattle caused by the golden eagle, wolves or stray dogs. It was considered necessary to provide compensation for the damage caused by such dogs because they are frequently confused with wolves and there was accordingly a significant risk that livestock farmers might kill protected wolves which they mistook for dogs. The compensation awarded is based on the market value of the animals killed and the procedure is rapid. The Region has a statutory duty to attempt to limit the proliferation of stray dogs.

In *Lazio*, damage to livestock or crops which is caused by bears, wolves or eagles is compensated in full. However, no compensation is payable where the predator was killed by the landowner concerned or at his request. The payment of the compensation must be effected within 30 days of the application<sup>15</sup>. Broadly similar laws have been adopted in *Abruzzo*, *Basilicata*, *Campania*, *Calabria* and *Molise*.

— **Lithuania**

A draft law on the protection of rare or endangered species and communities of species provides that damage caused by protected species is compensated by the State.

The compensation of damage to agriculture or forestry caused by certain game species is provided for by the Hunting Decree dated 7 June 1993.

Compensation is available for damage caused by the following game species: elk, red deer, roe deer and wild boar. Damage to crops and forestry plantations is compensated.

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<sup>15</sup>. Regional Act of 9 June 1975.



Hunting tenants are liable for this damage. Each hunters' association must set up a compensation fund.

An arbitration commission is established in each district, in which the local authority, landowners, the forestry sector, the hunting tenant and the victim all participate.

The commission assesses the damage in accordance with a procedure laid down by the Ministers of Agriculture and Forestry and approved by the Minister for the Environment. Hunting tenants are required to pay compensation for the damage within three months of the assessment thereof by the commission. After the expiry of this deadline, they must pay a penalty equivalent to 0.05 % of the total amount for each day of delay.

Any kind of damage to arable land must be compensated.

Compensation is not available for damage to forests if the number of game animals is deemed to be normal for the forest in question.

#### — Luxembourg

The law does not expressly provide for the compensation of damage caused by wild animals in general or by strictly protected species. The Minister for the Environment may grant derogations authorising the killing of protected wild animals. However, given the extent of damage caused by certain species, the Budget Act has made finance available for the purpose of compensating damage caused by certain species. By way of example, compensation has been available since 1995 for damage caused by the badger *Meles meles*, particularly in maize fields. Discussions are now under way on the possibility of compensating damage caused by another species, the rook *Corvus frugilegus*.

In addition, the Act of 20 July 1925 on hunting leases and compensation of damage caused by game, which has since been amended on several occasions, organises the compensation of damage caused to crops and forestry plantations by certain species of big game: red deer, wild boar, mouflon. These animals range over large areas, which means that the tenant of a single hunting plot (about 400 to 600 ha) cannot be held liable for damage caused by game moving from one hunting area to another. The availability of compensation precludes the need for controlled shooting. The annual level of compensation paid by the fund specially created for this purpose amounts to 11 million Luxembourg francs.

Compensation is payable in respect of damage to crops (maize, cereals, potatoes etc...), meadows and forests (young plantations, natural regeneration, coniferous trees stripped of their bark). Article 13 of the Act of 22 December 1987, amending the Act of 1925, allocates the amount of compensation for damage by the big game concerned as follows:

- 6/10 of the total amount of compensation is paid by the fund. The latter is financed by a supplementary tax on hunting licences, set at 4,500 Luxembourg francs for one year and 1,200 Luxembourg francs for a five-day licences;
- 3/10 of the total is paid by the hunting tenant;
- 1/10 of the total is funded by a contribution from the Hunting Association, whose members comprise the owners of hunting plots which are rented out. The requirement for them to pay part of the compensation ensures that damage assessments, which are carried out by these associations, are not too high.

If there is a surplus in the supplementary taxes levied by the State after all claims for compensation claims have been paid, this is paid into a reserve fund.

Article 15 of the Act of 1925 provides that any person who suffers damage caused by game in a hunting plot shall immediately inform the association to this effect.

The assessment of damage is carried out during a site visit by the parties concerned: the association of owners of hunting plots, the hunting tenant, the forestry service. The amounts are assessed on the basis of a tariff fixed annually by the Chamber of Agriculture. The assessment of damage to forestry is effected by the competent local forestry service.

The associations must attempt to reach a friendly settlement promptly. Failing such an agreement within fifteen days from the date on which the victim made his declaration, a copy of the declaration and the assessment of damage prepared by the association are sent to the magistrate of the Canton within which the damage occurred.

The assessment of damage prepared by the association must specify the type of crop, the area affected, the quantities destroyed, the commodity price applicable and the species of game responsible for the damage. The magistrate makes a provisional payment order within a week in accordance with the assessment prepared by the syndicate, irrespective of its level.

Where the State, the association or the holder of the hunting rights opposes the provisional payment order, the judge must immediately appoint an expert-assessor and set a day and a time on which the latter will carry out a site visit, to which all interested parties are invited.

During the site visit, the interested parties may propose that the assessment of the damage should not be undertaken until after a second visit shortly before the harvest. This request must always be accepted.

The expert may also postpone the assessment until harvest time at his discretion. He must record the situation at the site, gather all the relevant information and submit a reasoned opinion.

The decision of the expert assessor is notified to the parties who have a week within which to lodge an appeal. If this happens, the magistrate will summon the parties to attend either on site or at a hearing to state their cases. He will then decide the matter by means of a reasoned judgment.

Compensation may be refused where the victim has been negligent, has been late in harvesting the crop or has failed to take preventive measures, such as erecting a fence. No compensation is available for damage caused by game where the fruit or crop have been grown or left out after harvest time in order to obtain compensation. Compensation may be reduced by half where it is shown that the damage only occurred because the fruit or crops were abandoned at the spot through the owner's gross negligence, after other landowners had gathered in all other similar products.

In the same way, no compensation is payable for damage caused by game to orchards, nurseries or isolated trees where the owner, occupier or farmer has failed to take the precautions which, in normal circumstances, would have been enough to prevent the damage.

An owner who has sustained damage may always seek compensation directly from the person holding the hunting rights, provided that the damage was not caused by wild boar. The determination of the origin and extent of the damage may be used in any legal proceedings. Whilst the Act deals with the use of expert reports for proof, it in no way excludes proof by other means.

Pursuant to article 37 of the Hunting Act of 1885, compensation paid for damage by wild animals may be reclaimed from owners or farmers of hunting land who have encouraged the propagation of such animals or who failed to take proper measures to kill them.

— **Malta**

There are no legislative provisions which expressly provide for the compensation of damage caused to agriculture, forestry, livestock or fish farming by protected species or game species. There is also no precedent for the award of compensation to the victims of such damage under the rules of civil liability. The Maltese reply to the questionnaire indicates that discretionary payments may be made in certain situations.

— **Netherlands**

In the Netherlands<sup>16</sup>, damage caused by certain species of waterfowl (geese, ducks and swans) can be severe and a comprehensive system of compensation, which appears to be unique in Europe, has therefore been set up. Swans are strictly protected by the Bird Protection Act of 1936. Geese and ducks are covered by hunting legislation. Only three species of geese (*Anser fabalis*, *Anser albifrons*, *Anser anser*) may be hunted. All other species of geese are protected. It is also permitted to hunt duck species which cause crop damage, particularly the widgeon *Anas penelope* and the mallard *Anas platyrhynchos*.

Crop damage by geese and swans is compensated in full. Damage caused by ducks is only compensated if damage prevention measures have failed or where it is prohibited to hunt the species concerned.

The compensation procedure is as follows:

A provincial commission on damage compensation has been established in each Province. The victim must inform the secretariat of the Provincial Damages Commission of the damage which he has sustained. This might, for example, involve damage to crops or meadows.

The Commission sends an expert to the site to ascertain that the damage has indeed been caused by one of the waterfowl species concerned and that compensation is justified. In autumn, the assessment of damages takes place immediately; in winter and spring, the assessment is postponed to a date immediately preceding the harvest.

The assessment of damage is based on the loss of weight of the crop, which is then converted into financial terms. This assessment is not carried out according to objective criteria but is instead based on the knowledge and experience of the assessors. In most cases, it appears that the victim and the assessor reach agreement on the amount of the compensation assessed in this way.

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<sup>16</sup>. The information on the Netherlands is taken from the report on waterfowl and agriculture in the Proceedings of an International Workshop on this subject, held in Lelystad from 6 to 9 October 1991 and organised jointly by the Dutch Ministry of Agriculture, Nature Management and Fisheries and by the IWRB. "Waterfowl and Agriculture: Review and Future Perspective of the Crop Damage Conflict in Europe", IWRB Special Publication n° 21, pp. 68-69 and 154-156.

Once the damage has been assessed, the victim sends his application for compensation to a compensation fund which must approve it. This fund is financed by the State as well as by contributions levied on the issue of hunting licences. Compensation is funded by the State alone in respect of those species which may not be hunted, such as swans. Where damage by geese is involved, the holders of hunting permits must each pay the sum of 25 florins, which brings in around 750,000 florins to the fund. The remaining one and a half million florins needed to indemnify damage caused by geese, including protected species of geese, are contributed by the State.

No information was available about the possibility of compensation for damage caused by species other than waterfowl.

#### — Norway

There are two main compensation systems in Norway for damage caused by wild animals. The first concerns large predators, the second certain species of cervidae. Both are financed from public funds.

Compensation for damage caused to livestock (goats, sheep, horses, cattle, domestic reindeer) by large predators is governed by a Regulation of 8 March 1993 (which restates earlier provisions). The species in question are the brown bear, *Ursos arctos*, the wolf, *Canis lupus*, the lynx, *Felis (Lynx) lynx*, the wolverine, *Gulo gulo*, and the golden eagle, *Aquila chrysaetos*. The lynx was only added to this list in 1992. The white-tailed eagle, *Haliaeetus albicilla*, used to figure on the list but has now been removed. Most of the damage is caused to sheep, lambs and domestic reindeer.

The owner must prove that the animal was killed by one of the predatory species covered by the regulations. He must declare the damage as soon as possible to the office of the County Governor. Local inspectors are responsible for assessing the damage within each district. The County Governor's environmental service studies methods for the assessment and proof of damage. A payment may be made to compensate the owner for the disruption he has suffered by the owner: in general, this amounts to 25 % of the amount of compensation per animal.

The owner must in any event have taken precautionary measures. A reduction is made for "normal losses" which any owner must expect. More than 20 million Norwegian Kroner were paid out in 1992 in compensation for damage to bears, wolverines, wolves, lynx and golden eagles.

With regard to damage by deer species, a compensation system has been instituted by regulations to cover damage caused to crops by elk, red deer and wild reindeer (Regulation of the Minister of the Environment of 28 November 1986). Exceptionally, compensation may be paid for damage caused to other species, provided that the victim was not in a position to take the necessary precautionary measures. Damage to grazing land and forestry (with the exception of Christmas tree plantations) is not compensated. Compensation is paid from a Wildlife Fund financed by a tax on the issue of hunting licences and fees charged for permission to hunt a specified quota of animals belonging to the deer species concerned.

The application for compensation must be submitted to the district on the first day of December each year. Damage is assessed by the district authority with responsibility for agriculture where damage by elk and red deer is involved, and by the national Nature Management Directorate in respect of damage caused by wild reindeer. In order to obtain compensation, the owner must have taken precautionary measures, for example by organising regular hunts. The level of compensation is determined by the office of the County

Governor. Since compensation payments must be put towards the prevention of future damage, this form of compensation may be seen as a State subsidy for damage prevention measures.

— **Poland**

Damage caused by certain protected animals is compensated by the State. Article 52 of the Nature Conservation Act of 16 October 1991 provides that the State is liable for damage caused by bison, bears and beavers. Other species may be designated by decree. The principles and procedures for damage assessment are laid down by decree. Compensation is payable for damage to property but not for any loss of earnings which may result from such damage (*lucrum cessans*).

The tenant of the hunting area must compensate damage caused by big game (elk, red deer, roe deer and wild boar) to arable land and crops. Damage caused by game animals in national parks is compensated by the State.

— **Portugal**

The Act on the protection of wolves (n° 90/88) of 13 August 1988 establishes the principle of State liability for damage caused directly by this animal. Compensation applications must be submitted to the Department of Natural Resources which will effect the payment of the amount involved after having checked that the damage is material and obtained confirmation that a wolf was indeed responsible. The interval between the date of the application for damages and the payment of compensation must not exceed 60 days.

The procedure for compensating damage caused by wolves is set out in the Decree-Act n° 139/90 of 13 August 1990. The victim must declare the damage within 48 hours of becoming aware of the circumstances leading to the loss. The National Parks, Reserves and Nature Protection Service must carry out any necessary investigations within the next five days. Compensation is calculated in the following way: in respect of dead animals, the indemnity is based on the market value of the animals concerned in accordance with the prices usually fetched in the region in which the damage occurred. The value of the carcass or remains must be deducted from this figure. Where animals have been wounded, veterinary expenses are recoverable. Compensation is only payable if animals which graze freely in summer are guarded by shepherds, equipped with one dog for every 50 head of livestock, or if animals are kept in enclosures.

Through the agency of the General Forestry Directorate, the State compensates damage caused by game where it has not authorised the taking of the necessary corrective measures. Organisations which are permitted to undertake corrective measures of this kind may not receive compensation for damage caused by game species.

The Hunting Act confers liability on those bodies which have management responsibility for hunting areas subject to a special regime. They are required to compensate the victims of damage caused by game in their own areas and on surrounding land.

In cases where these bodies have requested that corrective measures for hunting management be undertaken by the General Forestry Directorate and these measures have been rejected, this administrative authority must compensate the victims.

Compensation is payable for all types of damage caused by game originating from a particular area. Liability is based on the presumption of fault on the part of the person responsible for supervising the animals. It is possible to avoid liability by submitting proof that all the necessary precautions have been taken or that the damage would have occurred in any event.

– **United Kingdom**

There is no compensation system for damage caused by wild animals. They belong to no-one, which means that there is no-one from whom compensation may be sought.

However, where farmers sustain crop damage from wild animals or birds but are prevented from killing or capturing them by the terms of an agricultural lease, they may claim compensation from the landowner pursuant to the Agricultural Holdings Act of 1986. The farmer must make a written declaration of the damage within one month of the date on which the latter occurred.

– **Slovenia**

Damage caused by species protected under nature protection legislation is compensated by the Ministry of the Environment (article 9 of the Decree of 30 September 1993 on the protection of animal species). The same applies to damage caused by any species of wild animal within protected areas. Damage caused by species covered by hunting legislation is compensated by hunting associations or by the Ministry of Agriculture, which is the administration with jurisdiction over hunting.

– **Spain**

Hunting and the compensation of damage caused by wild animals come under the jurisdiction of the seventeen Autonomous Communities and are therefore governed by the legislation adopted by these territorial entities. It was only possible to obtain information about compensation for damage from nine of these regions. The replies to the questionnaire<sup>17</sup> reveal that there are significant differences between one Autonomous Community and another. Some have not established any compensation mechanism, which obviously does not prevent the holder of hunting rights from being held liable in civil law for damage caused by game species if he was at fault (this is the position in two of the nine regions which replied to the questionnaire). Others (five out of the nine) have compensation mechanisms which are limited to damage caused by game species. Finally, two of the Communities concerned also compensate damage caused by certain protected species.

*Andalusia* has no text governing the compensation of damage caused to agriculture, forestry or fish farming by wild animals. However, compensation for damage caused by rabbits originating from nature reserves in which hunting is prohibited is possible by virtue of a provision of the Protected Areas Act which authorises the payment of compensation to holders of property rights whose freedom to exercise their rights has been infringed by the creation of such areas.

Similarly, the Community of *Madrid* does not have any legislation on this issue. However, support is provided to farmers who have suffered damage in the form of the donation of seeds to sunflower producers whose crops have been destroyed by bustards.

In *Extremadura*, on the other hand, the Hunting Act n° 8/90 of 21 December 1990 provides that the regional administration is responsible for damage caused by species which may not lawfully be hunted. It is also required to compensate damage which is caused by game species in areas subject to a special hunting regime, provided that these areas have not been leased to individuals. Lastly, it is the holder of the hunting rights who is liable for damage caused by game in his own hunting area.

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<sup>17</sup>. The questionnaire was sent by the Secretariat to the Spanish national authorities who then sent it on to the competent authorities in all the Autonomous Communities.

In the Autonomous Community of *La Rioja*, the only damage for which compensation is available is that caused by game species, namely the red deer, roe deer, wild boar, wolf, rabbit and starling. The Community provides compensation for damage inflicted in the hunting areas under its own management. In other cases, the person liable is the tenant of the hunting rights or the owner of the land from which the animals originated. Where parties fail to reach a settlement in respect of damage caused to privately-owned land, applications for compensation are submitted to the civil courts.

In *Aragon*, the Hunting Act n° 12/92 of 10 December 1992 and its implementing Decree (n° 108/1995) set out compensation measures for damage caused by some protected species and two game species, where these animals came from protected natural areas or wildlife refuges in which hunting is prohibited.

The protected species for which compensation is available are the crane, *Grus grus*, the brown bear *Ursus arctos*, the green woodpecker, *Picus viridis*, and the great spotted woodpecker, *Dendrocopus major*. If the above-mentioned conditions are met, compensation is available for damage caused by two game species, the wild boar, *Sus scrofa*, and the mallard duck, *Anas platyrhynchos*.

The following types of damage are compensated:

- by cranes: damage to newly-sown wheat or barley through ingestion of seeds, damage to sunflower oil cakes, and damage caused by the uprooting of plants used to produce saffron;
- by woodpeckers: damage to poplar plantations;
- by bears: damage to livestock;
- by wild boars: damage to cereal crops, maize, alfalfa and saffron;
- by mallard ducks: damage to rice fields.

Article 72 of the Hunting Act of 1992 provides that the Government of the Autonomous Community of *Aragon* is deemed to be liable for such damage. A specific budget line is included for this purpose in the annual budget of the region. The financial allocation may vary from one year to another.

There is also a programme of voluntary measures for the Gallocanta Lagoon, a major staging post along the cranes' migration route, which is intended to promote the conservation of this ecosystem. Farmers who agree to take part in this scheme receive an indemnity payment of 930 pesetas per hectare and, in exchange, expressly waive their right to compensation.

Systematic monitoring is carried out of the populations of cranes in Gallocanta, bears in the Pyrenean valleys and wild boars in reserves, in order to determine the numbers of these animals and the areas which they occupy. Once the damage has been formally declared, its level is assessed by agronomists who calculate the direct loss on the basis of the reduction in crop value.

Where damage has been caused by bears, the victim must also make a declaration to the Civil Guard. The technical personnel of the Wildlife Service and the guards must then establish the cause of death of the animals concerned and compile a report setting out the details of the attack and identifying the bear responsible. The regional veterinary surgeon then carries out an assessment of the damage. This assessment includes not only direct loss

but also indirect loss (arising in particular from the dispersion of livestock) and, if the area in which the attack took place is deemed to be a bear habitat, a risk premium of a lump sum of 10,000 pesetas. The total amount of compensation is equal to the value of the damage increased by a further 20 % by way of compensation for the disturbance suffered by the victim.

Payment is generally made within two or three months from the compensation decision. However, the Act does not lay down a maximum period within which compensation must be paid.

— **Sweden**

No information was available as to whether a mechanism exists in Sweden to compensate damage caused by wild animals. The hunting legislation (the Act of 14 May 1987 and its implementing Decree of 24 September of the same year) apparently provides only for the possibility of killing animals which cause damage.

Where there is a risk of serious damage, the national Government may thus require local authorities to take the necessary measures. These measures may relate to the bear, wolf, wolverine, lynx, seals which damage fishermen's nets or birds of prey (article 8 of the Act).

A bear, wolf, lynx or wolverine which has killed or wounded livestock may also be killed on the spot by the owner of the animals concerned. The latter is even permitted to pursue the animal onto another's land, but not into a national park (article 28 of the Decree).

— **Switzerland**

The procedure for compensating damage caused by wild animals is laid down by the federal Act on Hunting and the Protection of Wild Mammals and Birds of 20 June 1986. This Act is applicable to all birds, whether or not they are hunted, and in respect of mammals, to carnivores, to ungulates and lagomorphs as well as the beaver, the marmot and squirrel (article 2). Virtually all protected species or game species which are likely to cause damage are therefore covered by this Act.

Pursuant to article 13.1 of the Act of 1986, damage caused by game to forests, crops, livestock or other animals bred for commercial purposes must be compensated appropriately. However, where it is possible for individual preventive measures to be taken to protect domestic animals, property and crops against damage by animals, compensation is not available. The federal Council designates protected species in respect of which Cantons may take preventive measures of this kind (article 12.3). The list of these species is contained in an order made under the Act (Order on Hunting and the Protection of Wild Mammals and Birds of 29 February 1988). It only includes the blackbird *Turdus merula*, the fieldfare *Turdus pilaris*, the starling *Sturnus vulgaris*, the tree sparrow *Passer montanus* and the domestic sparrow *Passer domesticus*. It is for the Cantons to decide what preventive measures should be taken.

The Cantons also handle the compensation of damage caused by game and wild animals. Generally speaking, compensation is only paid where the damage is not negligible and reasonable preventive measures have been taken. Any expenses incurred in taking preventive measures may be taken into account when assessing compensation for damage caused by game (article 13.2 of the Act).

The Confederation finances 30-50 % of the compensation for damage caused by game in the *districts francs fédéraux*, namely those areas in which hunting is prohibited under federal legislation (article 13.3). The Confederation also partially indemnifies the Cantons, in



accordance with their respective means, for damage caused by certain protected animals: the lynx, the beaver, the otter and the eagle (article 10 of the Order of 29 February 1988). These indemnity payments amount to 30-50 % of the cost of reparation. Until 1988, when the Confederation and the Cantons took over, the Swiss Nature Protection League handled the compensation of damage to livestock caused by the lynx.

The Cantons are free to establish the most appropriate system of compensation. They may create compensation funds or take out insurance.

The Canton of Vaud has set up a fund for the prevention and compensation of damage caused by game. Instituted by the Animals Act of 28 February 1989, this fund is managed by the Canton (article 59). It is principally financed by an annual payment levied on the proceeds of hunting licences. The Canton may also make top-up payments where the demands made on the fund exceed the resources available.

The fund only provides compensation for certain kinds of damage, specified in article 61 of the Act of 1989, such as damage to arable land, crops or forests by game, beavers or marmots, damage to livestock by the lynx, otter, eagle or peregrine falcon, or damage to grazing land by herds of red deer, chamois, ibex or roe deer or by wild boar. On the other hand, the fund does not cover damage caused by other animals. Compensation is also not available for damage to equipment, machinery or buildings, to forests where this does not adversely affect their conservation, sustainable production or regeneration, to pleasure gardens, to gardens in which the produce is primarily intended for family consumption or, once again, to damage which is negligible. Similarly, damage caused by animals in fields, residential areas or technical installations is not compensated if such animals may lawfully be controlled by limited shooting (article 61).

The assessment of damage is based on an expert report. The experts are appointed by the competent hunting and wildlife service which also determines whether compensation for the damage should be financial or should be made in kind. Where restoration of the site is necessary, the cost of these measures is taken into account when the damage is assessed (article 62). It follows that compensation for damage to forestry plantations and to natural regrowth in forests is equivalent to the costs of restoration after deduction of any subsidies that may have been paid by the Confederation. On the other hand, the compensation is "equal, in principle, to the level of damage determined by the expert report" (article 104 of the implementing Regulation of 12 July 1989).

The compensation paid for damage to forest trees of productive age is determined on the basis of guidelines established for the "assessment of forests and of damage caused to forests" (article 105 of the implementing Regulation).

Compensation may be reduced or refused in a certain number of cases specified in the Act (article 65 of the Act). For instance, no compensation is due where there has been gross negligence in respect of preventive measures, where the arable land has not been managed with necessary care, where the harvest has not been gathered in at the appropriate time, where delay in declaring the damage has prevented a precise assessment thereof, where there is another cause of damage beside the depredations of game or, lastly, where the applicant has given inexact details or has failed to supply the information requested.

### III. THEMATIC ANALYSIS

It is clear from the preceding analysis that there are considerable differences between European countries with regard to the compensation of damage caused by wild animals. These differences affect every aspect of the question, from the species in respect of which damage may be compensated (all in some countries, none in others, with every possible variation between these two extremes) to the procedures applicable, and including the mechanisms established for the payment of compensation. This thematic analysis has therefore proved quite a difficult task. It focuses on three points which appear fundamental: the legal basis for the compensation of damage, compensation mechanisms and the need to undertake proper management of the risk to human activities presented by certain species. Compensation is only one element of this type of management.

#### A. The legal basis for compensation

Where legislation does not establish special rules, the compensation of damage caused by wild animals is usually governed by their legal status and by the law applicable to civil liability. In certain countries, State liability for damage caused by protected species also constitutes a basis for the law on compensation.

##### 1. *The legal status of wild animals*

In the vast majority of countries throughout the world, wild animals are *res nullius*, namely things which have no owner, belong to no-one and which all and sundry can therefore appropriate by taking possession thereof, provided that they do not thereby breach the law, particularly the laws on the protection of species and on hunting. It follows that no-one can be held liable in law for the damage caused by these animals since they have no owner or keeper. This rule is applicable whatever the type of damage: damage to crops, forests, fish farms and livestock, of course, but also damage resulting from collisions with motor vehicles or aircraft<sup>18</sup>. Damage by wild animals has thus always been considered as a natural risk for which nobody was liable and this continues generally to be the position.

No-one would dream of making compensation available for damage caused by foxes. It is for those who run poultry farms to defend themselves against such depredations. Who would think of paying damages for snake bites or stings by wasps, scorpions, spiders, etc.? It is true that medical costs incurred as a result of such accidents are covered in our countries or reimbursed by social security regimes. If the victim dies as a result of the bite or sting, however, would anyone ever seriously propose that the State should be liable for its failure to take eradication measures which would have prevented the accident?

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<sup>18</sup>. Since damage caused by collisions between motor vehicles and wild animals is outside the scope of this report, Parties were not asked to supply information on this point. In France, by way of example, this type of damage cannot be compensated because wild animals are *res nullius*, unless the victim can prove fault on the part of the owner of the land from which the animals originated or the holder of the hunting rights. This fault might be to have allowed the animal population to become too dense or to have frightened or pursued the animal concerned in the course of hunting activities. In another example, the State may incur liability if the highways authority fails to erect signposts indicating the known crossing routes used by wild animals. On this point, see Annie Charlez: Grand gibier et collisions automobiles, *Bulletin mensuel de l'Office national de la chasse*, Paris, n° 163, December 1991.

With regard to damage inflicted by rodents, insects and other creatures which devastate crops, all of which can cause significant economic loss, compensation is again usually unavailable unless the victim has taken out insurance or the damage is considered by the public authorities as an agricultural disaster which gives rise to the right to compensation by the State. This is what was done in France to make compensation available for damage caused by voles.

This natural risk is tempered by the right, acknowledged since time immemorial, to defend oneself against attacks and depredations by wild animals, including through the use of preventive killing measures. These methods of self-defence are obviously no longer possible in cases concerning protected species or species the taking of which is regulated. The potential victim of damage can therefore only defend himself against animals which are not protected. This argument is often used to justify the refusal of compensation for damage by animals which are not protected and, conversely, to legitimate compensation for damage caused by those species which are protected. It is largely fallacious, however, since methods of defence against unprotected predators are not always effective. It is quite impossible to stand guard watch night and day! Such methods may also be expensive. The victim is therefore left helpless and must bear the entire risk of damage himself.

In certain countries, the concept of a natural risk for which no compensation is available continues to prevail almost completely. This is the position in common law countries such as the United Kingdom, Canada and the United States, where the possibility of compensating damage caused by wild animals seems almost inconceivable<sup>19</sup>, even where protected species are involved. In the United States, the courts have consistently refused to compensate damage caused by wild animals on the basis of the latter's status as *res nullius*. In some cases, however, it has been possible to institute compensation in kind. In England in the XVIII century, when hunting was reserved to the lord of the manor, grazing rights in forest could be granted to the peasants to compensate them for the prohibition on driving away wild animals which inflicted depredations on their land<sup>20</sup>.

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<sup>19</sup>. The subject is not even mentioned in English textbooks on rural law, such as *Countryside Law*, published by J.F. Garner and B.L. Jones, London 1987, except to state that if rabbits proliferate on one property, the occupiers of adjacent land may bring proceedings for damages to compensate for the resulting losses. Michael Bean's book on the law on wildlife protection in the United States, *The Evolution of National Wildlife Law*, 2nd edition, New York, 1983, only deals with problems caused by the destruction of animals designated as pests and does not even refer to the possibility of compensating the damage which they cause. Although Thomas Lund, in *American Wildlife Law*, University of California Press, 1980, devotes a few pages to the subject (pp. 39-45), he merely states that in those rare cases where they are aware of proceedings for compensation of damage caused by wild animals, the courts have always rejected such applications on the grounds either that the animals were *res nullius* for which no-one was responsible or that the limitation on property rights which resulted from measures for the legal protection of certain species did not constitute an infringement to such rights which would justify compensation.

<sup>20</sup>. Thomas Lund, *American Wildlife Law*, University of California Press, 1980, p. 102. This author also cites the case of livestock breeders in the western United States who rent the right to graze their livestock on land belonging to the federal Government at less than market price, by way of compensation for the damage caused by wild animals which they sustain.

Some countries, still few in number, have now relinquished the status of *res nullius* for wild animals, however, and have replaced it with public ownership. This does not necessarily mean that the State incurs liability for damage caused by the animals of which it is consequently the owner, since it may easily exclude such liability which could obviously be burdensome. For instance, in the Canadian Province of British Columbia, the law<sup>21</sup> confers ownership of animals belonging to certain species<sup>22</sup> on the Crown, as represented by the Lieutenant-Governor of the Province. However, this law specifies that the fact that the animals subject to the law have become public property does not found any right to compensation for damage which they may cause to people or property.

In Italy, wildlife has been designated by law as part of the national heritage since 1977. Wild animals are deemed to be *res omnium*, the property of all, which are protected in the interests of the national and international community<sup>23</sup>. However, this does not automatically impose a requirement for public authorities to compensate all damage inflicted by animals in the wild. Only certain types of damage are compensated and hunters must contribute to their compensation by means of a tax levied on hunting licences.

However, the general rule that compensation is not available for damage caused by wild animals is increasingly modified by the possibility of compensation where the occurrence of damage is directly linked to fault or results from a risk, in accordance with the rules governing civil liability.

## 2. *Civil liability*

Fault-based liability on the part of a landowner or the hunting tenant is usually incurred where he has intentionally, negligently or accidentally encouraged animals to proliferate, or allowed this to happen by failing to take the necessary preventive measures, and such animals have then damaged adjacent property. The burden of proof is of course on the plaintiff. Fault-based liability constitutes a method of compensating damage at the same time as punishing unlawful behaviour which is characterised as quasi-tortious.

Liability for risk, or strict liability, is completely different. It establishes, in the absence of any fault, a presumption of liability on the part of the person who undertakes an activity capable of causing unacceptable damage, reparation of which amounts to a social imperative. The holder of hunting rights is thus considered in some countries to be liable for damage caused by big game in his own hunting area and in adjacent land, even if he has not committed any fault. Proof of the existence of a causal link between the activity and the damage is sufficient for liability to be incurred. The person responsible for the damage can therefore only exclude such liability by proving *force majeure* or fault on the part of the victim. In the Walloon Region of Belgium, even *force majeure* does not exclude the holder of hunting rights from liability.

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<sup>21</sup>. Wildlife Act of 23 July 1982.

<sup>22</sup>. These species include all species classified as threatened species and game species, fur-bearing animals, all diurnal and nocturnal birds of prey and any other species to which the law may be made applicable by means of regulations.

<sup>23</sup>. Article 1 of the Hunting Act of 27 December 1977, now replaced by article 1 of the Act of 11 February 1992 on the protection of warm-blooded wild animals and hunting.

3. *State liability derived from the enactment of restrictive legislation*

Civil law mechanisms are no longer workable where damage is caused by species which are legally protected. It is impossible to reproach a landowner or hunting tenant for not having taken measures to reduce animal populations if he has no right to kill them. Given that the State is not liable either, there is no-one left to compensate the damage.

It is nevertheless open to question whether, notwithstanding the absence of legislative provisions to this effect, the State might not be liable for damage caused to protected species in cases where the law prohibits measures which would avoid or alleviate such damage. In other words, surely the State should be liable for the adverse consequences of legislation which it adopted itself? This is what is usually called *la responsabilité du fait des lois*, namely State liability derived from the enactment of legislation which imposes certain restrictions.

In France, the law does not provide for the compensation of damage caused by protected species and whenever the administrative courts have heard compensation applications by victims of damage caused by these species, they have always ruled that the State could not be held liable for the damage such species might cause.

The recent judgment of the Administrative Court of Appeal in Lyon on the damage regularly caused to rice fields in the Camargue by greater flamingos amounts to a major reversal of precedent in this respect (Administrative Court of Appeal of Lyon, 1 February 1994, *ex parte* Plan). This court held that even if the conservation of animal species was deemed to be in the public interest, there was nothing to suggest that the legislator had intended to exclude State liability. According to the Court, the rice grower actually had no way of protecting himself against these depredations. Methods to frighten off the birds had proved ineffective because the birds were used to them and the only infallible measures, such as the killing, capture or taking of the birds concerned, were prohibited because the greater flamingo is legally protected<sup>24</sup>. If the *Conseil d'Etat*<sup>25</sup> were to uphold the judgment of the Court of Appeal in Lyon and this were to lead to numerous applications to the administrative courts for compensation, it might be necessary to consider establishing a compensation fund along the lines of the fund which already exists in France to compensate damage by big game.

One should nevertheless ask whether this case really involves State liability derived from the enactment of restrictive legislation. The legal protection conferred on certain species is not the direct cause of the damage caused by wild animals, since unprotected species are just as likely to cause serious damage against which it is equally difficult to protect oneself. What is really at issue here is either the abolition of the right of self-defence of a farmer or livestock breeder in respect of species which cause damage or the existence of broader liability on the part of the State for not having undertaken, where possible, the eradication of species likely to commit damage.

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<sup>24</sup>. For more details of this judgment, see R. Romi, "De la contribution des flamants roses à la responsabilité du fait des lois", in *Droit de l'environnement*, n° 25, June-July 1994. See also A. Charlez, "Dommages causés par les espèces sauvages et indemnisation" in *Bulletin mensuel de l'Office national de la chasse*, n° 192, Paris, September 1994.

<sup>25</sup>. The *Conseil d'Etat* is the supreme administrative court in France.

In the first case, prohibiting the use of self-defence against a predatory species as a consequence of its legal protection may be considered to be an infringement of property rights. In the United States, the issue may be discussed in terms of "taking" which is unconstitutional if it is not compensated. According to Thomas Lund<sup>26</sup>, there was no case law on this point at the time when he wrote his book, "*American Wildlife Law*", in 1980. However, this position may have changed since then because landowners in the United States have become increasingly resentful of the imposition of restrictions on their property rights for the protection of endangered species and natural habitats. In Europe, the Autonomous Community of Andalusia in Spain compensates damage to crops on land around nature reserves on the grounds that the ban on hunting the species in question within these protected areas entails an infringement of the property rights of the victims. In Italy, on the other hand, the Supreme Court held in a similar case that there was no fault on the part of the State nor a subjective right of the victim to compensation for damage<sup>27</sup>.

In the second case, the conservation of biological diversity and, in particular, of endangered species is now considered to be in the general interest. It follows that the protection conferred on these species by law should not be construed as a fault on the part of the State. On the other hand, there is nothing against considering the possibility of strict liability or simply providing a right to compensation arising out of the protective measures undertaken in the public interest.

## B. Compensation mechanisms

### 1. *Species covered*

#### a. *Protected species*

There are still relatively few countries in which the law requires the State to compensate damage caused by all protected species, but their number does seem to be rising. This is the position in Algeria, in certain Austrian *Länder* such as Salzburg (in respect of species covered by hunting legislation), in the Autonomous Community of Extremadura in Spain, in Italy, in Lithuania (under a new law in the course of adoption), and in Slovenia. In the Czech Republic, damage caused by any protected species which is covered by hunting legislation is compensated by the State.

In other countries where legislation provides for the compensation of damage by species which may not be hunted, compensation is only available for damage caused by certain species. In Germany, this involves a few species subject to hunting legislation; in the Flemish Region of Belgium, to game species hunting of which has been prohibited for more than five years; in Spain, the Autonomous Community of Aragon compensates damage caused by bears, cranes and two types of woodpecker; Finland compensates damage by some large predators (bear, wolf, wolverine) and two species of seals; Norway also compensates damage by large predators; in the Netherlands, the State compensates damage caused by swans and those species of geese which may not be hunted; in Portugal, the State only compensates damage caused by wolves; and in Switzerland, compensation is only paid for

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<sup>26</sup>. Thomas Lund, "*American Wildlife Law*", University of California Press, 1980, pp. 39-40.

<sup>27</sup>. *Cassazione Civile, Sez.I*, 29-03-1983, n° 2246; cited in A. Postiglione, *Ambiente in Tribunale*, Rome, 1994, p. 177.

damage by a few species, namely the lynx, otter, golden eagle, beaver and marmot. In the United States, the State of Minnesota compensates damage to cattle by wolves<sup>28</sup> but it seems to be the only State which does so.

Damage caused by protected species is not compensated in any of the other European countries on which information was available.

**b. *Game species***

Damage caused by big game (red deer, roe deer, elk, wild boar) is compensated almost everywhere. Where small game is involved, it is mainly rabbits which inflict serious damage and for which compensation measures are often expressly established.

Some countries, such as the Czech Republic and Slovenia, undertake the compensation of damage caused by all game species.

**c. *Animals causing damage in areas where hunting is prohibited or coming from such areas***

Animals which cause damage in areas where hunting is prohibited, such as protected areas and hunting reserves, are a special case. This damage may either be inflicted within such areas if human activities, particularly arable and pastoral farming, are still permitted therein, or outside them by animals coming from such areas. In this kind of situation, it would be iniquitous to make hunters or landowners liable for damage caused by these animals since they do not have the right to reduce their numbers.

A few countries have legal instruments which expressly provide for State liability for this type of damage. This is, for example, the case in the Austrian *Land* of Salzburg with regard to damage by game in the area around the Hohe Tauern National Park, in Belgium where the Flemish Community compensates damage caused by animals coming from nature reserves, and in Switzerland for damage in the *districts francs fédéraux*). In Poland, the State must compensate damage by game in national parks. In Slovenia, damage caused inside protected areas by wild animals is compensated by the State.

In France, the non-governmental organisation managing a nature reserve has recently been sued in respect of damage caused to adjacent maize fields by wild boar coming from this reserve. The case has not yet been decided. However, it is difficult to see how the managing entity could be held liable for such damage. French law only recognizes fault-based liability (articles 1382 and 1383 of the Civil Code) and it is unlikely that fault, even if only by negligence, can be proved in these circumstances, since hunting is prohibited under the decree creating the reserve and the managing body is not authorised to carry out selective controls. The managing NGO cannot be sued for not having done what it has no right to do. If, on the other hand, the plaintiff were to bring proceedings against the State, the judgment could form an interesting precedent.

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<sup>28</sup>. The necessary funds are approved by the State Parliament and included in the Agriculture Department's budget. The damage must be confirmed by federal Government or State biologists (letter dated 25 September 1995 from the President of the Wolf Specialists' Group of the Species Survival Commission of the IUCN to the Secretariat of the Bern Convention).

Matters may be different where the reserve from which the wild animals causing the damage originate is a voluntary reserve created solely on the landowner's initiative, if the absence of hunting within the reserve leads to the proliferation of animals which damage neighbouring properties. In the case of a wood in which an NGO rented the hunting rights in order to prevent hunting therein, a Belgian court held that the NGO concerned had aggravated its liability for the damage caused by animals coming from the wood in question. By not hunting, the holder of the hunting rights (the NGO) had encouraged the proliferation of game and was therefore bound to compensate a greater proportion of the damage caused by the game<sup>29</sup>.

d. *Species which are neither protected nor game species*

As a general rule, there do not seem to be any compensation mechanisms for damage caused by these species. In France, crop damage by voles was exceptionally compensated under the agricultural disasters guarantee system.

2. *Financial mechanisms*

a. *Personal insurance*

Personal insurance by farmers against damage by wild animals appears to be rare. It was simply mentioned in some of the replies to the questionnaire as a possibility in certain situations, without further explanation of the conditions in which it might be taken out or the risks which could be insured thereby. In Finland, insurance is available because the law provides that insurance payments received by the victim shall be deducted from any compensation paid by the State. Greece seems to have a mixed system of compulsory and optional insurance but did not specify in its reply which types of damage were covered by each system. In the United States, livestock breeders in the State of Minnesota may take out insurance against damage caused by wolves<sup>30</sup>.

Insurance does not generally seem to be available against the risk presented by protected species, particularly large predators. Whilst it should be possible to make this risk insurable by adopting a legislative provision or negotiating its cover with insurance companies, it does seem that personal insurance in respect of these species may have serious disadvantages. In practice, the areas exposed to the risk presented by most species liable to inflict serious damage are relatively small, the victims few in number and the probability of incidents relatively high. Premiums would therefore have to be high. On the other hand, it seems unfair to impose insurance costs on potential victims only, given that protective measures for the species concerned have been taken in the general interest.

Personal insurance against damage by game species is probably more common but the replies to the questionnaire hardly included any information on this point. However, the advantages of such insurance do not seem to outweigh the benefits of fair and effective compensation mechanisms such as compensation funds financed by public authorities or hunters.

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<sup>29</sup>. Cited by Henry de Radzitzky d'Ostrowick, "*Dégâts de gibier: dommage, provenance et faute*", in *Chasse et nature*, n° 4, May 1995, p. 16.

<sup>30</sup>. Letter of 25 September 1995 from the President of the Wolf Specialists' Group of the Species Survival Commission of the IUCN to the Secretariat of the Bern Convention.



**b. Compensation by nature conservation associations**

Faced with inaction by Government and the need to compensate damage inflicted by certain protected animals, particularly large predators, nature conservation associations sometimes provide compensation for such damage rather than see the victims seek rough justice by unlawfully killing the animals responsible. In Austria, for example, it appears that damage caused by otters to fish farms is compensated by non-governmental organisations such as WWF<sup>31</sup>. In Switzerland, the Swiss League for Nature Protection compensated damage caused by the lynx from its reintroduction into the country in 1973 until 1988, the year in which such compensation was taken over by the public authorities<sup>32</sup>. In France, the State cannot undertake compensation directly but subsidises associations which then compensate damage caused by the wolf or lynx. In the western States of the United States, damage caused by wolves is compensated by a non-governmental organisation, Defenders of Wildlife<sup>33</sup>.

This goes from bad to worse! Compensation by NGOs is, of course, used in those cases because no better solution is available. It should however be seen as the very negation of the public interest in the conservation of endangered species. It could even be argued, as a result, that if a handful of irresponsible conservationists want, whatever the consequences, to preserve pest animals of the olden days it would only be fair that they bear the cost of the damage so caused, rather than individual farmers or the community. It would therefore seem that the public interest in the conservation of species, particularly large predators, be clearly established by legislation as well as, as appropriate, the payment of compensation by public authorities for the damage caused by those animals.

**c. Compensation by public authorities**

Three different compensation mechanisms have been identified: direct compensation, the taking out of insurance policies by public authorities against the risk of damage, and compensation funds.

**i. Direct compensation**

Direct compensation from a budget line specially created for this purpose in the budget of the competent administration is probably the most common mechanism. This is the method used in Algeria, the Austrian *Land* of Salzburg, the Autonomous Communities of Aragon and Extremadura in Spain, Finland, Lithuania (in its new Act, which may not yet have entered into force at the time of writing this report), Luxembourg, Norway in respect of large predators, Poland, Portugal, the Czech Republic and Slovenia. In Switzerland, the position varies from one Canton to another. In some cases, this mechanism is only used to compensate damage caused by a limited number of species, usually protected species.

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<sup>31</sup>. S.M. MacDonald and C.F. Mason; "Status and conservation needs of the otter (*Lutra lutra*) in the western Palaearctic", Council of Europe, "Nature and Environment" series, n° 67, 1994, p. 33.

<sup>32</sup>. The association has thereby paid a total of 100,000 Swiss francs in compensation, in the order of 50 to 1,500 francs per animal. See "*Lynx et moutons: à la recherche d'une solution de compromis*", *Infodienst Wildbiologie und Ökologie*, Zurich, September 1990.

<sup>33</sup>. Letter of 25 September 1995 from the President of the Wolf Specialists' Group of the Species Survival Commission of the IUCN to the Secretariat of the Bern Convention.

It would have been interesting to know whether this approach runs into any particular difficulties because of the rigid rules governing the use of public funds. In particular, what happens when the funds allocated each year for compensation are exhausted? More specifically, does compensation come to a halt until funding is available for the following year?

It will be noted that direct compensation by public authorities is nearly always limited to damage caused by protected species. There are a few exceptions: in Algeria, the State compensates damage by game in general, whilst in Finland and Norway, the State compensates damage caused by some species of deer.

#### **ii. Insurance taken out by public authorities**

Some texts authorise the competent authorities to take out insurance to cover their liability for damage caused by wild animals. This is the position in some Italian Regions, where provinces may insure themselves to this effect. In Switzerland, the Cantons may also take out insurance for this purpose. Unfortunately, it was not possible to obtain details of the way in which these mechanisms operate.

#### **iii. Compensation funds**

There are relatively few funds which are exclusively financed from the State budget.

Compensation funds of this kind have been established by the Flemish Community in Belgium, in respect of damage inflicted by protected species or by species coming from protected areas, and in Norway with regard to damage by deer. In Austria, the fund of the Hohe Tauern National Park is used to compensate damage caused by animals coming from this protected area in which hunting is prohibited.

Several funds are mixed in character. In Greece, the damage compensation fund is partially financed by a contribution from the State. In the Netherlands, the compensation fund for damage caused by geese and ducks is partly financed from the State budget and partly by waterfowl hunters. In the Canton of Vaud in Switzerland, compensation for damage caused by protected species as well as game species is provided from a compensation fund. This is normally financed by hunters' contributions but the Canton may make its own contribution where necessary.

#### **d. *Civil liability***

Unlike protected species, for whose damage no-one other than the State can *a priori* be held liable, species which may be hunted have ready-made culprits: hunters!

It is of course true that game animals are *res nullius* like other wild animals and therefore have no owner. The liability of hunters for damage by game cannot therefore be based on ownership but rather on fault or risk. It follows that in most countries, game animals appear to be tolerated only because they are hunted and on condition that the hunters themselves compensate damage caused by these animals.

The general rule is thus to make hunters pay, either by making them liable in civil law or through the agency of a compensation fund to which they must contribute. However, rural landowners may also incur liability for having allowed the proliferation of animals which cause damage to adjacent properties.

### **i. Fault-based liability**

The mechanism by which hunters are liable in civil law when at fault seems to be particularly well-adapted to the conditions of countries which have a system of leased hunting, whereby the holder of hunting rights carries on his activity in a large undivided area which he does not usually own but of which he has exclusive use for hunting purposes. Since the owners of hunting areas therefore have no rights over the game which lives there, they have no way of reducing the populations of animals which damage their own crops. It is therefore for the hunting tenant to take the necessary measures to prevent landowners from suffering damage. Failing this, he will naturally incur liability.

Bringing the rules of civil liability into play means that in the absence of a settlement between the author of the damage and the victim, recourse must be had to judicial procedures which may be cumbersome and costly. They will also be lengthy if the losing party makes full use of the appeal system as permitted by law. Nevertheless, the special procedures which have been laid down in countries where these mechanisms seem to be most developed, mainly countries with system of leased hunting, seem for the most part to be considered satisfactory. These include procedures to facilitate settlements and to guarantee impartiality in the assessment of damage.

### **ii. Strict liability**

The system of strict liability for individual holders of hunting rights seems only to exist in Belgium. In Portugal, there is a presumption of fault on the part of the holder of the hunting rights, but the latter may exclude liability by submitting proof that he has taken all necessary preventive measures or that the damage would have occurred in any event.

### **iii. Compensation funds**

Compensation funds for damage caused by game animals and financed exclusively by hunters are still uncommon.

In Lithuania, each hunters' association must establish its own compensation fund.

In France and Italy, the institution of funds to compensate damage caused by game has made it possible to set up generalised compensation mechanisms which are entirely financed by hunters' contributions. These mechanisms are founded on the principle of strict liability. It is therefore possible to compensate agricultural damage wherever this has been caused, subject to proof that the damage is material and how it was caused. It is not necessary to prove fault on the part of any person.

In France, the national compensation system operated by the *Office national de la chasse* for damage caused by big game is actually a form of insurance taken out by individual hunters which also protects them against possible legal proceedings.

In Italy, compensation funds are established by the Regions. These are used to compensate damage caused not only by animals which may be hunted but also by those belonging to protected species. This means that hunters also have to compensate damage inflicted by animals which they are not permitted to hunt.

3. *Damage for which compensation is available*

a. *Categories of damage compensated*

i. *Protected species*

Where compensation is available for damage caused by protected species, the damage is usually narrowly defined. In the case of large predators, it obviously involves damage to livestock. In most other cases, the damage is also very specific: in Aragon, for instance, it involves damage by woodpeckers to poplar plantations or by cranes to saffron-producing plants. With particular reference to bears, some states or political entities compensate damage to beehives, as in the Czech Republic, whereas others, such as Aragon, do not.

ii. *Game species*

Damage to standing crops and livestock is generally compensated. Some texts expressly refer to damage to orchards, nurseries, flower growing and other valuable crops. Damage to crops which have been harvested but not yet placed in storage is rarely compensated. The Czech Republic also refuses compensation for damage to standing crops which have not been harvested by the date customary in the region. The legislation of the Canton of Vaud in Switzerland excludes compensation for damage to pleasure gardens and to gardens in which the produce is principally intended for family consumption.

In countries with a system of leased hunting, the holder of hunting rights is basically required to compensate damage caused by game animals within his hunting area. Compensation for damage outside this area caused by animals coming from within it is only available in a few cases. In the Czech Republic, for instance, damage to orchards and market gardens located outside the hunting area is only compensated if the plots of land in question are enclosed.

Damage to forests is not usually compensated. There are a few exceptions, as in the Austrian *Land* of Salzburg. In Italy, damage to wooded areas is excluded but not damage which adversely affects replanting programmes. In Lithuania, forest damage is only compensated if the number of animals concerned is deemed to be abnormal. In Luxembourg, compensation is paid for damage to young plantations of trees and to natural regeneration as well as for damage caused by bark stripping of coniferous trees by deer. In the Czech Republic, compensation is only available for damage to woodland in the hunting area. In Switzerland, the federal law expressly provides for compensation for forest damage, but certain types of damage are not covered. By way of example, the legislation of the Canton of Vaud refuses compensation for forest damage that does not adversely affect the conservation, sustainable production or regeneration of the forest.

b. *Normal and abnormal damage*

More generally, legislation and case law often evoke the concept of abnormal damage. In such cases, normal damage in the context of game animals is that which is inevitable where nature is properly balanced. The compensation process must therefore take account of the existence of a natural risk and the level thereof should be reduced by a percentage equivalent to the natural loss which the victim must accept without any possibility of compensation.

In Belgium, there is case law to the effect that hunters are only liable for abnormal damage caused by game. One judgment out of many has thus upheld the principle that the only damage which should be compensated is that in excess of normal damage arising from

the natural presence of the wildlife<sup>34</sup>. In Finland, damage assessed at less than 500 Finnish Marks in any given year is not compensated. In Switzerland, compensation is not available for damage which is negligible.

In France, the *Cour de cassation* has ruled in cases involving damage by rabbits that the holder of hunting rights is not liable for damage caused by these animals, once it is established that their density was not excessive. It is only where damage goes beyond the normal level of neighbourhood nuisance that liability must attach to the person who has harmed the natural biological balance developed between the density of vegetation and the density of wild animals by encouraging the latter to multiply by artificial means<sup>35</sup>.

In Norway, compensation is reduced by an amount equivalent to normal losses.

c. *The special case of damage by large predators*

Where large predators are involved, however, all damage tends to be considered as abnormal and it is this type of damage which has the greatest impact on public opinion.

With regard to damage caused by the lynx in Switzerland, compensation is only payable for domestic animals which have been killed by a carnivore, proof of this being furnished by the carcasses of the animals concerned. In such cases, hunting guards or veterinary institutions must obtain irrefutable proof that the lynx was responsible by determining the origin of the bites. They are specially trained for this purpose. It has been found that two thirds of the sheep examined had been the victims of stray dogs rather than the lynx<sup>36</sup>. In addition, it is obviously not possible to establish the cause of death of domestic animals which have disappeared without trace, which occurs quite often in inaccessible mountainous areas. This type of damage is not compensated, much to the chagrin of livestock breeders.

On the other hand, it is obviously also possible to award compensation which is greater than the market value of the dead animals and which takes account of factors such as the dispersion of animals resulting from the predator's attack and the various problems that the victim has suffered, including the time spent in tracking down the lost animals.

In Norway, the victim receives 25 % more than the value of the animals in compensation for the various problems he has experienced. In the Autonomous Community of Aragon in Spain, the victim of damage caused by bears receives, over and above the value of the animals killed, compensation for the dispersion of livestock resulting from the carnivore's attack and for the disruption he has suffered because of the attack. Methods of compensation based solely on the market value of the dead animals less the value of the carcass or remains, which is the situation in Portugal, are probably less popular.

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<sup>34</sup>. Cited by Henry de Raditzky d'Ostrowick, "*Dégâts de gibier: dommage, provenance et faute*", in *Chasse et nature*, n° 4, May 1995, p. 16.

<sup>35</sup>. *Cour de cassation*, 25 June 1975 and 15 December 1975, published in the *Bulletin mensuel de l'Office national de la chasse*, n° 4, 1976, pp. 216 and 217.

<sup>36</sup>. "*Lynx et moutons: à la recherche d'une solution de compromis*", *Infodienst Wildbiologie und Ökologie*, Zurich, September 1990.

#### 4. *Conditions for obtaining compensation*

Where compensation is only available for damage caused by certain species, it is obviously necessary to be able to prove that the damage was actually caused by one of these species.

Compensation may also be dependent on the possible existence of fault on the part of the victim. In Finland, the owner of an animal attacked by a large predator cannot obtain compensation if he has been negligent in the way he kept his animals. Compensation may also be refused where the animals were in an unauthorised place.

Fault may take the form of a failure to take measures to prevent the damage. In Germany, federal legislation provides that compensation may only be granted to a victim who has taken appropriate damage prevention measures. In the *Land* of Salzburg in Austria, damage caused to orchards, nurseries or flower growing outside the hunting area by animals coming from inside it will only be compensated by the holder of the hunting rights if the owner of those premises has taken appropriate protective measures: this could include building a fence around the premises. In France, the compensation fund of the *Office national de la chasse* only compensates damage caused by big game if the hunting plan relating to the animals which caused the damage has been implemented. In Norway, the victim must have taken preventive measures. In Portugal, damage by wolves to flocks is only compensated if it occurred in enclosures or if the animals were watched by a shepherd and a dog. In Switzerland, compensation is only payable if the victim has taken reasonable prevention measures.

In some of the Italian Regions which compensate damage caused by the big carnivores such as the bear or wolf, the victim may only exercise his right to compensation if he did not kill the animal responsible for the damage. The loss of this right amounts to an additional penalty on top of the criminal penalty imposed where a protected species is involved.

#### 5. *Compensation procedures and time limits for compensation payments*

Compensation procedures are very similar to one another where the damage is compensated by public authorities or by a compensation fund. Decisions are taken on the basis of a report prepared by an expert appointed by the authority or the fund, who ascertains that the damage is material and carries out an assessment thereof. It appears that such decisions are not usually subject to appeal. In France, however, the victim of damage caused by big game who is not satisfied by the proposed compensation offered by the *Office national de la chasse* may refer the matter to the courts.

The procedures applicable to cases in which the holder of hunting rights has incurred liability under civil law are especially developed in countries with systems of leased hunting. In Germany and Austria, for example, the texts expressly requires parties to attempt to reach a settlement before referring any matter to the judge. In Germany, once any agreement thus reached between the parties has been recorded in writing, it is enforceable exactly as if it were a judicial decision. In Austria, the commission on damage by game which is established in each district may only make a decision in respect of damage if the parties have failed to reach agreement. The mandatory time limits for making a compensation application or bringing legal proceedings for compensation are usually short. This seems only logical since the victim must be able to submit proof of the damage inflicted and the quicker the damage is recorded, the easier this will usually be.

Only a few legal systems set a deadline for the payment of compensation. In Italy, the national law fixes a period of 180 days which the Regions may not exceed. Some Regions, such as Lazio, have prescribed a maximum of thirty days for the payment of compensation

for damage caused by large predators. In Lithuania, payments made for damage by game from the funds set up by hunters' associations must be made within thirty days, with a penalty of 0.05 % of the total amount being charged for each day of delay. In Portugal, compensation payments for damage by wolves must be paid within a maximum of 60 days from the date on which the damage was declared. In Luxembourg, the law specifies that payments for damage caused by game must be made in autumn every year.

### C. Managing the risk

Wild animal species which damage human activities have long been labelled as pests and the management of the risk which they posed was limited to authorising their killing at any time and by any means, and even to encouraging their eradication through the organisation of campaigns of destruction and the payment of bounties. However, game species have always benefited from preferential treatment because of their hunting interest, provided that their populations did not become excessively high.

The concept of a pest has evolved considerably since that time. Most of the species whose killing appeared to be quite legitimate in the past are now fully or partially protected by law. Even if the numbers of some protected species are now greatly reduced compared to the past, these species may nevertheless still present a risk to certain human activities in certain circumstances or in certain areas. The complete elimination of this risk through the extermination of the species responsible has now become impossible because the conservation of biological diversity in all its forms is now a social objective enshrined in treaties such as the Convention on Biological Diversity and, in Europe, the Bern Convention.

It is therefore necessary to carry out risk management so as to prevent damage occurring, to the extent possible, and, where damage cannot be avoided, to minimise it and ensure that it is fairly compensated. Risk should consequently be managed in such a way that the populations of the species concerned are maintained or reestablished at a favourable conservation status and damage to human activities is minimised as much as possible. The reflections which follow deal mainly with protected species. Where game species are concerned, the primary objective is to find an acceptable balance between hunting and agricultural and forestry activities, particularly through the use of hunting plans for non-migratory game.

Compensation should therefore be seen simply as the final stage of a risk management process, which should only be brought into play where it has proved impossible to avoid the damage without harming the conservation status of the species concerned. Compensation will still remain essential because without it, in extreme cases the conservation of predatory species would be in danger of losing all legitimacy.

#### 1. *The species concerned*

In order to determine the scale of the problem, it is first necessary to go through the protected species which cause damage considered to be unacceptable. This review is limited to mammals and birds, but it should be noted that a small number of other species may also be relevant.

The species most frequently cited as responsible for serious damage include:

- amongst mammals, the large predators (lynx, wolf, bear) and, in the far north of Europe, the wolverine because of the damage it causes to herds of domestic reindeer. The otter, beaver and common hamster *Cricetus cricetus* should be added to this list;

- certain birds, in special and usually very localised circumstances: greater flamingos in respect of damage to rice fields in the Camargue; cranes in France and Spain; two species of woodpecker in the Autonomous Community of Aragon, great bustards in the Autonomous Community of Madrid. Some countries, such as Norway and Switzerland, and some of the Italian Regions compensate damage caused by the golden eagle *Aquila chrysaetos*. It would be interesting to know if woodpeckers and golden eagles present serious problems elsewhere.

All these cases involve very localised damage. A few species may be to blame for more generalised damage, in particular some of the other birds of prey, the protected species of geese and swans in certain countries, especially the Netherlands, and fish-eating birds, mainly the grey heron *Ardea cinerea* and the cormorant *Phalacrocorax carbo* whose numbers have greatly increased in recent years and which is now responsible for widespread damage.

The number of species for which risk management mechanisms must be established is therefore quite low. However, each of these species has its ecological requirements, its range area and, in respect of certain birds, its own migration route, and therefore needs specific measures to manage the risk which it constitutes for human activities. Management of this risk may include measures for selective control measures by way of derogation from the legal prohibition on their killing, damage prevention measures, and measures for the management of the human activities which are vulnerable to damage in order to minimise the effects thereof or render them more acceptable.

## 2. *Derogations from protection measures*

States usually favour certain preventive or corrective measures which may go as far as the controlled destruction of some animals. These derogations to protection rules are based at international level on article 9 of the Bern Convention and articles 9 and 16 respectively of the "Birds" and "Fauna-Flora-Habitats" Directives of the European Community. It would seem necessary to summarise these derogations here.

Most laws permit derogations where damage is caused by protected species which may not lawfully be hunted. These measures may, for instance, consist of destruction measures taken by the competent administration or a specialised body under the control of the public authorities. In Switzerland, for instance, if the population of animals belonging to a protected species rises too high and this leads to significant damage or serious danger, the Cantons may take steps to reduce this population with the prior agreement of the federal Department of the Interior (article 12.4 of the Act on Hunting and the Protection of Wild Mammals and Birds).

Some countries grant special permits authorising the capture or killing of individual animals responsible for serious damage, provided that such damage has been proven. In France, the destruction of animals belonging to a small number of protected species may be authorised by the Minister of the Environment after the National Nature Protection Council has given its opinion (Order of 22 July 1993, amending the Order of 17 April 1981 which sets out a list of mammals protected throughout the country). There are four of these species: the common hamster *Cricetus cricetus*, the wolf *Canis lupus*, the European lynx *Felis (Lynx) lynx* and the bear *Ursos arctos*. The issue of these permits is subject to compliance with a certain number of conditions taken from article 9 of the Bern Convention and article 16 of the "Fauna-Flora-Habitats Directive"<sup>37</sup>. In Switzerland, the Cantons may prescribe or authorise

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<sup>37</sup>. The Order does not fully comply with the requirements of the Directive: the latter specifies that derogations must not be detrimental "to the maintenance of the populations concerned at a favourable conservation status in their natural range", whereas the French



measures at any time against certain protected animals or animals which may lawfully be hunted where these inflict significant damage (article 12.2 of the Act on Hunting and the Protection of Wild Mammals and Birds). Exception is made for the lynx, beaver, otter and eagles, the shooting or capture of which may only be authorised in wholly exceptional circumstances by the federal Office of Forestry and Countryside Protection where these cause unacceptable damage (article 10 of the federal Order of 29 February 1988 on Hunting and the Protection of Wild Mammals and Birds).

This approach may run into some difficulties. In practice, if the authorisation procedure is decentralised to local authority level, there may be a risk that the issue of permits becomes too lax. Moreover, it is difficult for any local authority to have a global view of the status of the species concerned throughout the country and therefore to reach its decision with full knowledge of the facts. If the procedure remains centralised, for instance within the Ministry of the Environment, it may become cumbersome and slow. Victims may then choose to defend themselves, all the more so because the chance of being prosecuted and convicted are often rather slim. The solution is probably for central authorities to retain control over the issue of permits in respect of the most vulnerable species, as happens in Switzerland.

Another method consists of making exceptions to the general rule that animals belonging to certain species are protected with regard to specific areas where these species may cause significant damage. In Poland, for instance, the Order of 6 January 1995 on the protection of animal species provides that the mole *Talpa europaea* is not protected in enclosed gardens, nurseries and airports and that the cormorant *Phalacrocorax carbo* is similarly unprotected in fish farms between the 15 August and the date on which these birds depart.

It is also possible to permit the destruction of certain species causing damage but not the transport or taxidermic treatment of or trade in the remains of the animals killed in this way, in order to remove any incentive for their exploitation disguised as an act of self-defence. This method has been used in France under an Order of 2 November 1992 for the cormorant *Phalacrocorax carbo sinensis* because of the damage which it causes to fish farms.

### 3. *Damage prevention measures*

Damage prevention does not usually involve legal rules but technical measures such as the use of certain preventive devices for the reduction of damage. For instance, electric fences can be extremely helpful in protecting fish farms against otters<sup>38</sup>. Similarly, protective collars placed around the necks of sheep have apparently proved quite effective against attacks by lynx<sup>39</sup>. Consideration could be given to making such devices mandatory, at least as a precondition to the right to compensation. However, such measures may be expensive and therefore have a significant impact on the profitability of a farm. The most effective preventive method for the protection of livestock, particularly sheep, against carnivores (wolf, lynx, bear), and the one which was used most extensively in the past, is undoubtedly the use

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Order simply provides that the derogation must not be detrimental to the survival of the population concerned, which is not quite the same.

<sup>38</sup>. S.M. MacDonald and C.F. Mason, "Status and conservation needs of the otter (*Lutra lutra*) in the western Palaearctic", Council of Europe, *Nature and Environment* series, n° 67, 1994, p. 38.

<sup>39</sup>. "Lynx et moutons: à la recherche d'une solution de compromis", Infodienst Wildbiologie und Ökologie, Zurich, September 1990.

of shepherds and sheepdogs in summer pastures, but this is no longer possible for economic reasons. It is probably not always possible to make this a precondition to compensation, as happens in Portugal with regard to wolves. Would it not be possible, however, to envisage the assumption by public authorities of all or part of the cost of the most appropriate preventive measures?

Where natural habitats have vanished to a large extent and there may no longer be enough wild prey for carnivores, however, the only way to guarantee the survival in the wild of viable populations of certain species is to brave the storm and accept a certain level of damage which will then obviously have to be compensated. If the animals concerned can no longer feed themselves because their natural prey has died out and the domestic animals which provide them with substitute prey have been made inaccessible by means of generalised preventive measures, then they will starve to death unless artificial feeding facilities are provided.

In Hungary, otters establish themselves around fish farms. These installations formerly belonged to the State or to anglers' associations subsidised by the State. During this period, the losses suffered because of the otters were widely accepted. Nowadays, these installations have either simply closed down, which has entailed a corresponding reduction in otter habitats, or have been converted into private businesses which consider the losses inflicted by otters to be unacceptable. These animals are therefore illegally killed since compensation is not payable for the damage they cause<sup>40</sup>. In Finland, where the State also refuses compensation to fish farmers for damage caused by otters, the latter are not protected in the area around fish farm installations<sup>41</sup>.

#### 4. *Foreseeable and unforeseeable risk*

The risk of damage to human activities by wild animals is usually foreseeable.

The exposure of an area under cultivation or used to rear livestock to a known risk of depredation by wild animals should normally lead to a reduction in the market value of the land concerned. This is emphasised by Thomas Lund in his book, *American Wildlife Law*. The author cites several judgments handed down to this effect in the United States. One of these judgments, for instance, holds that anyone who acquires land in Montana does so in full knowledge of the presence of wild game and the habits of these animals<sup>42</sup>.

Despite this, everything generally carries on as if this natural risk did not exist. This may be illustrated by two examples out of many.

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<sup>40</sup>. S.M. MacDonald and C.F. Mason, "Status and conservation needs of the otter (*Lutra lutra*) in the western Palaearctic", Council of Europe, *Nature and Environment* series, n° 67, 1994, p. 32.

<sup>41</sup>. *Ibid.*, p. 32.

<sup>42</sup>. Thomas Lund, *American Wildlife Law*, University of California Press, 1980, p. 42, note 69.

In many countries, fish farms are now set up in areas in which otters are still relatively common<sup>43</sup>. Depredations are therefore inevitable, as are derogations authorising the killing of otters contrary to the protective regime from which the species benefits as well as illegal killings by angry fish farmers.

In the same vein, how can the development of rice fields in the Camargue be justified if it is impossible to prevent damage by flamingos other than by killing these birds?

As for compensation, one must decide whether it is normal or even moral to compensate foreseeable damage and thus provide an income out of the situation, when it would be enough to avoid locating the activity concerned in areas where such damage is likely to be inflicted. What about those cases, however, where there is no other location in which the activity in question can feasibly be established? This is perhaps the case in the Camargue which is virtually the only flamingo habitat in France at the same time as being the only place where it is possible to grow rice. Does it come down to a straight choice between flamingos and rice? Surely not, since the choice of rice over flamingos would amount to a breach of the Bern Convention and the Birds Directive.

Risk may of course also be unforeseeable. This may be the case where a species naturally extends its normal range (as has happened with the wolf in France), where a migratory species changes its staging posts and wintering areas (the crane provides an example of this) or where the size of a population increases markedly in response to the emergence of favourable ecological conditions (which may have been created by human activities) or the level of legal protection accorded to the species concerned. Reintroductions of species may also generate risks which might be unforeseeable to their victims but which could and should have been foreseen by those responsible.

A special case of risk which is unforeseeable at least for the victims thereof is that of the reintroduction of species likely to cause damage. The lynx provides a particularly striking example! The lesson which should perhaps be learnt from that experience is that reintroductions of species likely to cause damage should not be undertaken in the absence of a coherent system of risk management supported by a compensation mechanism. The IUCN Guidelines on Transfers of Living Organisms recommend that the local population should be consulted if it is intended to reintroduce a species which was formerly persecuted, which would apply to all large predators. It would therefore be necessary, prior to the reintroduction, to carry out an assessment of the risk, to determine how it will be managed and to establish a satisfactory system of compensation, preferably in close collaboration with the potential victims. It goes without saying that the State should be liable for reintroductions which generate damage where it issued the reintroduction permit without taking the necessary precautions. In the event of an unauthorised reintroduction, its author should of course be liable for the resulting damage.

##### 5. *Towards integrated risk management*

Integrated risk management should combine measures to prevent damage with incentives to make it bearable. Each species constitutes a special case which needs its own measures. In most cases, however, where the species responsible for the damage are very localised, it should be possible to designate risk exposure areas governed by a special regime.

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<sup>43</sup> S.M. MacDonald and C.F. Mason, "Status and conservation needs of the otter (*Lutra lutra*) in the western Palaearctic", Council of Europe, *Nature and Environment series*, n° 67, 1994, p. 32.

In each area of this kind, in addition to the necessary monitoring and management measures for the species for which the area was created and its habitat, it should be possible to limit human activities for the purpose not only of avoiding adverse impacts to the favourable conservation status of the species concerned but also of preventing the damage which the latter may inflict. Such measures may obviously be technical in character but should aim above all to prevent the development of human activities which would inevitably suffer damage and promote the implementation of an active management policy in the area.

The most appropriate measures will obviously vary from one species to another and from one case to another. Depending on the circumstances, they might involve the use of regulations, contracts, financial incentives such as risk premiums or subsidies or, on the other hand, the withdrawal or reduction of certain benefits, particularly the right to compensation for damage. The main thing is that there should be a legal basis on which to adopt such measures. It would also be useful for each area to be provided with a manager to whom local residents could turn for information about their rights and duties and to obtain technical advice about damage prevention.

The payment of risk premiums could prove particularly interesting where the continuation of an activity in a risk exposure area is necessary for the maintenance of semi-natural habitats or landscape, such as extensive grazing.

The only examples of such premiums which were cited in the replies to the questionnaire came from the Autonomous Community of Aragon in Spain. Premiums are awarded to livestock breeders in an area frequented by bears and to farmers within the area of the cranes' staging post at Gallocanta. In the second case, the farmers receive an annual risk indemnity in exchange for which they give up their right to receive compensation if the birds cause damage.

The conclusion of contracts between public authorities and farmers is another method of risk management which is beginning to develop. In the *Land* of Schleswig-Holstein in Germany, for instance, contracts are made with farmers whereby they accept the presence of wild geese on their land during the migration season in return for compensation payments for the loss in yield caused by these birds. The species in question are *Branta bernicla* and *Anser anser* and the finance comes from the European Community<sup>44</sup>. In the Netherlands, a similar system is apparently being developed<sup>45</sup>, using the set-aside mechanism under the Common Agricultural Policy.

It is obviously much harder to manage unforeseeable risk. It should nevertheless be possible rapidly to compensate damage which may result from such risk. The species for which compensation is available, however, are often restrictively listed by legal texts. It would therefore seem advisable to leave a certain margin of discretion to the competent authority to enable it in urgent cases to provide compensation for damage caused by species which are not listed. This may be easier where a compensation fund is in place.

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<sup>44</sup>. *Farmers and Waterfowl: Conflict or Coexistence*, Information Booklet, Workshop convened by the Ministry of Agriculture, Nature Management and Fisheries, The Netherlands, in cooperation with the International Waterfowl Research Bureau, Lelystad, 6-9 October 1991, p. 55.

<sup>45</sup>. "Waterfowl and Agriculture: Review and Future Perspective of the Crop Damage Conflict in Europe", *IWRB Special Publication*, n° 21, p. 156.

## 6. *Migratory species*

It is clear that where migratory birds are concerned, management at national level of their populations and the risk that they may pose to agriculture or fish farming is not enough: international coordination is essential.

With regard to protected species whose numbers are relatively low, such as cranes, the problem is very similar to that posed by non-migratory game. Adequate ecological conditions must be maintained in their staging posts and wintering areas and the birds must be able to feed themselves, even if this means compensating damage where necessary or creating substitute feeding areas specially managed for this purpose. Turning to other species whose numbers are on the increase, such as most geese and particularly the Brent goose *Branta bernicla*, it is essential to take concerted management measures for the maintenance or extension of the food sources of the birds, particularly in their wintering areas. Efforts should therefore be made at international level, if possible, to plan the distribution of risk exposure areas and perhaps to explore the feasibility of an international system for the compensation of damage.

The new Agreement on the conservation of African-Eurasian migratory waterbirds should provide the legal and institutional framework for the coordinated management of the risk which these species may sometimes present. It should be emphasised that article 4.3.3 of the Action Plan annexed to the Agreement requires Parties to cooperate in order to identify appropriate techniques to reduce to a minimal level or alleviate the effects of damage, particularly crop damage by the species covered by the Agreement, drawing on experience gained in other parts of the world.

Admittedly, this provision only establishes a requirement to cooperate to identify the best risk management techniques, rather than to manage the risk itself, but article 7.3 of the same Action Plan expressly provides for the preparation of conservation guidelines to address measures to reduce crop damage by birds to which the Agreement is applicable. There is also nothing to prevent States within the range area of the species concerned from cooperating, pursuant to the general cooperation requirement laid down by article III.2.(1) of the Agreement, on any matter to improve the implementation thereof.

## IV. CONCLUSION

It no longer seems possible for the natural risk of depredations by wild animals, which was one of the hazards of rural life and seemed quite normal in the past, to be fully borne by victims without creating resentment which would then be vented on the very species it is sought to protect: it is patently obvious that the animals responsible or potentially responsible would be illegally exterminated. In other words, what was a normal risk in the olden days has now been transformed into an abnormal risk. This is probably mainly because the risk has often been significantly reduced by the decrease in the numbers of certain species liable to cause serious damage, such as bears and wolves. The residual risk, however negligible, has therefore become abnormal since it no longer occurs except in a small number of places, highly localised. The situation is aggravated by calls on the welfare State which is increasingly required to protect its citizens against all risks. This gives rise to the feeling that there is a right to be protected against the depredations of wild animals, symbols of a long-distant past, and to be compensated for damage suffered as a result of their actions.

What is now needed is not to track down a culprit on the grounds of some fault he might have committed or some risk he might have generated, in accordance with the rules of civil liability, but to manage risk properly by trying to prevent damage and, where this is impossible, to compensate it. Since the conservation of wild species is now acknowledged

to be in the general interest, it would be unfair to make the victims support the full cost thereof. This would, moreover, undermine conservation objectives because the species in question would necessarily suffer as a result. In these circumstances, the instruments which seem to be best adapted to existing needs, especially because of their flexibility, are the collective compensation mechanisms such as insurance and, above all, compensation funds.

It should be remembered that for the community as a whole, damage caused by protected species is generally very low and could therefore be borne without hardship. With regard to the lynx in Switzerland, for instance, the number of sheep whose killing has been compensated remains very small, around one per thousand of the total head of sheep, whereas natural losses due to accident or illness amount to one to two per cent of the total number of animals. It follows that compensation only represents a tiny fraction of the subsidies paid by public authorities for the rearing of small livestock<sup>46</sup>.

Compensation mechanisms may be financed through a variety of means, used separately or in combination with others: insurance taken out by a public authority (the State, a local authority, a public agency); budget allocations provided by public authorities; private insurance paid for by the potential victims whose premiums would be reimbursed by the fund; a small increase in certain agricultural insurance premiums; and also, though not necessarily exclusively as is sometimes the case, contributions from hunters levied on hunting licences. Where fault is involved, the rules of civil liability should naturally continue to be applied and the fund should be able to bring an action against the wrongdoer.

There is also nothing against the idea of creating a European Community compensation fund to compensate damage caused by species of Community interest which are listed in the Appendices to the "Fauna-Flora-Habitats Directive" or which are protected under the "Birds Directive", at least in Specially Protected Areas and Special Areas of Conservation established pursuant to these two texts. This would facilitate harmonisation of the conditions for and methods of compensation as well as a fairer division of its cost between Member States. However, the establishment of a damage compensation mechanism of this kind should not lead to longer delays before the payment of compensation.

At pan-European level, this issue has already been addressed in the course of work carried out pursuant to the Bern Convention, notably the reports already prepared on the conservation of predatory species such as the bear, wolf, lynx and otter, and at the Seminar on the management of small populations of endangered mammals. However, these meetings and reports have mainly concentrated on the conservation status of the species concerned, the threats to their survival and the necessary conservation measures, and contain little about managing the risk which they pose to human activities.

It would therefore seem to be useful for the Standing Committee to make this specific issue a component of its work programme. This should be limited to species listed in Appendix II to the Convention because the problems of risk management associated with species which may be hunted are quite different in character, calling for solutions which will vary greatly depending on the hunting system in use and being in any event far less urgent for the conservation of biological diversity.

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<sup>46</sup>. "Lynx et moutons: à la recherche d'une solution de compromis", *Infodienst Wildbiologie und Ökologie*, Zurich, September 1990, p. 7. This publication emphasises that the subsidies from the Confederation for sheep and goat rearing amounted to 50 million Swiss francs in 1988, whereas in comparison the revenue from rearing in 1986 was 56.2 million francs. Beside these figures, the total amount of compensation for damage caused by the lynx seems derisory.

The Standing Committee could therefore:

- compile a list of species which need risk management plans and possibly identify from amongst these the species which could be the subject of plans at transboundary or international level;
- evaluate risk management measures as well as the strengths, weaknesses and practical operation of existing compensation mechanisms;
- elaborate guidelines on the content, implementation and monitoring of individual risk management plans for those species for which it considers that such plans are necessary.

The Standing Committee might also wish to ask the Secretariat to disseminate all available information on risk management measures and compensation mechanisms to Parties which requested this.

With regard more specifically to certain species of waterfowl, it should be for the Parties to the new Agreement on the conservation of migratory African-Eurasian waterbirds to draw up and implement, if they think it advisory, international mechanisms for risk management and, possibly, for the compensation of damage which might be necessary. However, it will be some time before the Agreement enters into force and builds up momentum. In the meantime, the Standing Committee could perhaps study the possibility of drawing up, as appropriate, international risk management plans for migratory species such as cranes and certain geese.

Finally, the management of the cormorant *Phalacrocorax carbo*, which is not subject to the Agreement on migratory waterbirds and which is only listed in Appendix III to the Bern Convention, is becoming a pressing issue: its populations have recently proliferated and it inflicts an increasing amount of damage on fish farms in certain countries, for which compensation does not seem to be available anywhere. The Standing Committee might wish to look at the problem in this case too and attempt to find a solution.

APPENDIX

**Questionnaire on the compensation of damage caused by wild animals  
to agriculture, forestry, fish farming and livestock rearing**

Is there any legislation which specifically provides for the compensation of damage caused to these activities, or to any of them, by protected animal species or by game species?

If the answer is in the affirmative:

1. What are the species in respect of which damage may be compensated?
2. What types of damage are compensated?
3. Who is considered to be liable for the damage: the State, the holder of the hunting rights, the owner of the land from which the animals concerned originate, nature protection associations, or other persons?
4. Is there a compensation fund? If yes, how is this fund financed?
5. Is there a system of mandatory or optional insurance for damage caused by wild animals?
6. What are the methods used to establish proof of the existence of damage and to assess its level?
7. What are the compensation procedures and the time limits in which payment must be made? Is a maximum time period laid down by the law?
8. What if any conditions apply to the payment of compensation? This might, for example, involve a requirement to have taken certain precautionary measures or not to have killed the animals concerned.

In the absence of specially adopted measures for the compensation of damage, or in addition thereto, is there any case law awarding damages to the victims of depredations caused by wild animals, based either on the rules of civil liability or, in the case of species fully protected by the law, on State liability derived from legislation?



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