

EN

FR

FR



COMMISSION DES COMMUNAUTÉS EUROPÉENNES

Brussels, le 31.7.2003
COM(2003)xxx

REPORT FROM THE COMMISSION

**on the implementation of the Directive 92/43/EEC on the conservation of natural
habitats and of wild fauna and flora**

EN

REPORT FROM THE COMMISSION

on the implementation of the Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora

Part I Composite Report on Overall Progress Achieved

Part II Summaries of EU Member State Reports

Summary of National Report: Austria

1. Natura 2000: conservation of natural habitats and habitats of species

1.1 Proposed Sites of Community Importance (pSCI) (Article 4(1) and 4(2))

1.1.1 Inventories

In Austria, the implementation of the EU Habitats Directive is the responsibility of the nine Bundesländer (federal provinces), each of which proposes Sites of Community Importance. According to the Federal Environment Agency the total number of pSCIs is currently 160

Most but not all pSCIs were previously covered by one or more of five long-standing site designation schemes: (1) the 'Naturdenkmal'/natural monument, (2) the 'Landschaftsschutzgebiet'/landscape protection area, (3) the 'Naturschutzgebiet'/nature reserve, (4) the 'Naturwaldreservat'/natural forest reserve, and/or (5) the 'Nationalpark'/national park. The remaining pSCIs are included under less prominent domestic designation categories, under international designations (e.g. biogenetic reserve, Ramsar site, UNESCO world heritage site), or in some cases remain outside the regular designation system.

Notification of pSCIs has tended to rely on existing scientific and cartographic data, available as a direct consequence of a long-standing ecological interest in these sites. This includes information obtained from local/regional biotope mapping initiatives and existing ecological inventories.

As for additional inventories, it is worth highlighting the existence of relevant publications by the Federal Environment Agency (Umweltbundesamt), most notably information on the 'Technical basis for the implementation of the Habitats Directive' (UBA-95-115), 'Assessment of the Austrian Natura 2000-Network (1998)' (UBA-R-158) and the 'Manual of Natura 2000 Habitat Types in Austria' (UBA -130), as well as NGO publications such as the WWF Shadow List for Austrian Natura 2000 sites.

Some of the Länder reports indicate that insufficient species and habitat data represents a hurdle in the site selection process, particularly with respect to sites previously not designated under one of the existing schemes. This has caused delays in the notification process.

1.1.2 Processes of proposing sites

On the basis of information provided, it appears that pSCIs have been drawn up by local experts on behalf of the Länder governments. Expert groups generally consist of scientists, most notably academic staff of universities and other relevant institutions, such as museums and research institutes. They may further include representatives of NGOs. This allows for the combined use of scientific expertise, field experience and local knowledge in the selection process. Moreover, four national workshops, organised between 1999 and 2000, brought together all relevant regional experts.

Additional independent scientific assessment of the sites' conservation value was provided in response to local opposition to the site proposal (eg in the Steiermark). In Tirol, the public was consulted where possible during the site selection process. Recently, increased public sensitivity with regards to EU issues has contributed to delays in implementation.

1.2 Conservation measures (Article 6)

1.2.1 Management measures (objectives, management plans)(Article 6(1))

There is no national framework for the development of management measures; nor is there a standardised management framework in any of the individual Bundesländer. Progress in the latter is very varied, and much of the existing ecological management is organised at the site level, often related to the management of long-standing conservation sites.

Local management measures frequently fall within one of the following categories:

- continuation of extensive farming/management practices in accordance with ecological objectives, e.g. cutting/grazing of meadows and grasslands, reed harvesting etc. (often on a contractual basis – ‘Vertragsnaturschutz’)
- water management to maintain or enhance as appropriate water tables in wetland habitats, especially moor land
- sustainable forest management
- habitat rehabilitation measures
- management of visitor pressure
- exclusion of all (direct) human influence (exclusion zones)

Agri-environment measures are also used in support of ecological management measures.

Formalised management plans tend to be lacking (in the Steiermark, for instance, 3 of 30 sites have management plans, and in Tirol one of nine). Despite the lack of formal management plans, the majority of conservation sites benefit from some form of ecological management.

Most Länder reports note that management plans are being established or will be established in the near future, and frequently LIFE funding is used to further plans for site management at the local level (eg Oberösterreich, Salzburg, Steiermark, Wien). However, ecological inventories first need to be completed for many of the pSCIs.

Existing management measures and plans are generally closely monitored by site wardens on a site-by-site basis and frequently subject to nature conservation contracts with local landowners and/or farmers (‘Vertragsnaturschutz’). Management plans are frequently part of formal legal requirements.

1.2.2 Protection of sites (e.g. avoiding deterioration, assessment) (Article 6(2))

Protection of pSCIs is ensured through nine separate provincial nature conservation laws. Most pSCIs (or large components thereof) are formally protected as a result of existing designations. In the process of transposing the Habitats Directive, adjustments have been made to the provincial nature conservation laws and regulations. Where appropriate, a strengthening of legal provisions for the protection of resting places for bats (i.e. caves, buildings etc.) has also enhanced site protection.

A number of reports refer to the negative impact of development and infrastructure projects (especially ski facilities) on site integrity and report on the aversive measures taken (e.g. diversion of routes). In some instances, land has been leased or purchased by local authorities or NGOs to ensure adequate protection.

Where detail is provided on the legislative arrangements for the prevention of site deterioration, reference is made to the legal requirement for environmental assessment. This is the case in eg Niederösterreich, Steiermark, Tirol and Wien. In Niederösterreich, the obligation to obtain permission for and to notify projects listed in the nature conservation laws applies to all sites that are notified to the Commission. Project appraisal in this case is dealt with under the regional planning laws.

In some incidences Länder law is considered to be stricter than provisions contained in the Directive. For instance, the nature conservation law of the province of Wien provides stricter rules with regards to the consideration of public interest in the project appraisal procedures for individual sites (paragraph 22 (9), 22a).

1.2.3 Effect of Article 6 conservation measures on Favourable Conservation Status (FCS)

A federal working group has been set up to provide guidance on 'favourable conservation status' (FCS). This group works in cooperation with all Länder authorities and is supported by the Federal Environment Agency.¹ There are, however, no targets set for habitat or species conservation. There is consequently also no formal assessment of the effects of Article 6 measures on FCS.

¹ The Tirol report was the only report to mention this initiative.

1.3 Finance (Article 8)

1.3.1 Cost estimates

Just two of the nine Länder (Kärnten and Niederösterreich) have attempted a cost estimate.

1.3.2 National/EU sources of funding

A variety of funding sources have been used in support of Natura 2000, either directly or indirectly. The main sources for funding have been:

- Länder funds - including National park funds (Nationalparkfonds) and landscape conservation funds (Landschaftspflegefonds);
- federal funds - especially for forest and water management;
- agri-environment funds – under the Austrian ‘ÖPUL’ programme; and
- LIFE-Nature.

Additional sources mentioned are NGOs and private/corporate sponsors.

1.4 Surveillance (Article 11)

The extent of existing surveillance varies greatly between and within the Bundesländer. Habitat monitoring arrangements are usually made at the site level, with little coordination at the Länder level. Some Länder, eg Steiermark and Tirol, appear to have no habitat monitoring procedures in place. Moreover, surveillance, where it does take place, seems frequently to be restricted to national parks, and thus limited to Natura 2000 sites designated as national parks (e.g. Kärnten, Salzburg).

The following five of the nine Länder are in the process of or have already developed a coordinated *habitat monitoring* scheme: Burgenland; Niederösterreich; Salzburg (existing for forest reserves); Vorarlberg; and Wien.

Species monitoring is performed in the following Länder and with respect to the following species:

Bundesland	<i>Species</i>
Burgenland	No information provided
Kärnten	Alpine newt (<i>Triturus alpestris</i>)

Niederösterreich	Number of Annex II and IV species, such as otter (<i>Lutra lutra</i>), lynx (<i>Lynx lynx</i>), Pearl Mussel (<i>Margaritifera margaritifera</i>), as well as other nationally endangered species such as <i>Branchiopoda</i> etc.
Salzburg*	Bat species (in progress), Bluethroat (<i>Luscinia svecica svecica</i>)
Steiermark*	Bat species
Wien*	Breeding birds (in one of the four pSCIs)
*data provided for pSCIs only, no comment can be made about general Länder trends	

The Salzburg report makes reference to MONAP – ‘Monitoring in National Parks and other protected areas in the Alps by example of vegetation and waters’, which included project-related research on monitoring in the province’s national park.²

Due to the absence or early stage of monitoring activities, no results can be reported. It has, however, been indicated that for most areas concerned, the relevant baseline data for future habitat monitoring is now available.

2. Protection of species (Article 12-16)

2.1 Strict system of protection (Article 12, 13)

Strict systems of protection for Annex IV a and b species are in place in Burgenland, Kärnten (with the exception of some invertebrate and plant species; eg *Lindernia procumbens*), Niederösterreich, Salzburg, Steiermark, Tirol, Vorarlberg and Wien.

Special species conservation measures are taken for the following species:

Bundesland	Species
Kärnten	Amphibian spp., Green toad (<i>Bufo viridis</i>), Freshwater White-clawed crayfish (<i>Austropotamobius pallipes</i>), <i>Macullinea</i> spp., Bat spp. (<i>Microchiroptera.</i>), Brown bear (<i>Ursus arctos</i>), Dipper (<i>Cinclus cinclus</i>), Kingfisher (<i>Alcedo atthis</i>), Little bittern (<i>Ixobrychus minutes</i>),

² MONAP was a transnational, interdisciplinary research project to implement monitoring programmes into the management of European alpine national parks and large protected areas by example of vegetation and waters. The Project was an application for the 4th Thematic Programme, 2nd Key Action: 'Global Change, Climate and Biodiversity' of the 5th European Framework Programme for research, technology and development of the European Community.

Salzburg	Bat spp., Amphibian spp., Butterfly spp. (esp. Annex IV) As well as varies species habitat protection schemes (esp. for Annex II and IV species), e.g. for wetland habitats hedgerow conservation, and efforts to increase habitat connectivity
Steiermark*	Bat spp., <i>Maculinea nausithous</i> , <i>Maculinea teleius</i> <i>Lycaena dispar</i> (in pSCI AT 2208000)
Wien*	Xylobiont beetles (<i>Coleoptera spp</i>) Corncrake (<i>Crex crex</i>), European beaver (<i>Castor fiber</i>).
*data provided for pSCIs only, no comment can be made about general Länder trends	

Monitoring for incidental capture and killing of species listed in Annex IV (a) of the Directive generally takes place within designated areas. Many of sites are regularly inspected by site wardens, and any changes are being reported. This supposedly includes the finding of dead specimen, apparent disturbance of breeding and resting sites etc. However, no relevant data is provided in the reports.

2.2 Takings and derogations (Article 14, 15, 16)

Most, if not all, Bundesländer regulate the taking of specimen by means of a licensing system. Game and fish species that may be hunted/fished are subject to species-specific provisions concerning closed seasons (Schonzeiten). Hunting is generally subject to a hunting permit.

The reports do not evaluate or specify the effects of derogations. The fact that most exemptions were made for scientific or educational purposes, suggests, however, that the system of strict regulation is sufficiently strict. However, little can be inferred about the capture and killing from this data, and the Länder reports do not specify any further measures.

With respect to derogations, the following summary can be provided from the Länder reports:

Bundesland	Derogations made	Specified requirements
Burgenland	Derogations are mainly granted for scientific use	
Nieder-österreich	Derogations are mainly granted for scientific use	Permits are to specify the species concerned, the approved means/methods of capture/killing, and

		additional control mechanisms; a report is to be submitted; permits are issued conditional on a positive conservation assessment
Salzburg	Not specified	Regular reports to the Commission
Steiermark*	Derogations have been granted for scientific and educational purposes in 14 of the 30 pSCIs for the following Annex IV species*: <i>Bombina variegata</i> , <i>Cerambyx cerdo</i> , <i>Cucujus cinnaberinus</i> , <i>Hypodryas matura</i> , <i>Leucorrhina pectoralis</i> , <i>Lycaena dispar</i> , <i>Maculinea nausithous</i> , <i>Maculinea teleius</i> , <i>Rosalia alpina</i> , <i>Triturus carnifex</i> .	A report to the Commission was made in 1999
Tirol	Not specified	Two-yearly reports to the Commission
Wien*	No derogations were granted within the four pSCIs*	
*data provided for pSCIs only, no comment can be made about general Länder trends		

Indiscriminate means of capture are prohibited in some, if not all, of the Bundesländer.

3 Other issues

3.1 Research (Article 18)

Extensive research relevant to the conservation of threatened and protected species, including those listed in the Annexes of the Habitats Directive, has been carried out. This includes extensive surveys of land cover, countryside use and habitat condition (biotope mapping), and detailed investigations of the distribution and ecology of individual species (esp. red data lists).

In addition, there are a number of site-based research dissertations evaluating Natura 2000 designation and/or investigating the ecology of listed species and habitats.

3.2 Introduction and reintroduction (Article 22(a) and 22(b))

No reintroduction of Annex IV species has taken place, and there have been no reports of deliberate introductions of non-native species into the wild.

3.3 Awareness raising (Article 22(c))

Information on nature conservation and related aspects appears to be predominantly site-related, and is often of a generic nature, not specifically linked to Natura 2000. For certain sites (notably in the Steiermark), it is stressed that site-specific publicity is deliberately discouraged in order to avoid an increase in visitor pressure.

3.4 Management of landscape features (Article 10)

Only three of the nine Länder comment on issues related to sectoral integration. The Tirol report stresses the importance of nature conservation measures that are performed on a contractual basis ('Vertragsnaturschutz'), most notably with respect to enhancing the coherence and connectivity of the Natura 2000 network. Such conservation measures are commonly (but not always) paid for by Länder funds.

Overall, little information was included on the specific measures taken, especially with respect to the need to 'encourage the management of features of the landscape which are of major importance for wild fauna and flora' (Article 10).

3.5 Human resources and technical resources

Natura 2000 and the implementation of the Habitats Directive appears to be administered by existing members of staff, ie using existing resources for nature conservation.

Summary of National Report: Belgium

BR: Brussels region

FR: Flemish region

WR: Walloon region

FED: Federal (for the North sea)

1 Natura 2000: conservation of natural habitats and habitats of species

1.1 Proposed Sites of Community Importance (pSCIs) (Article 4(1) and 4(2))

1.1.1 Inventories

By the end of 2002, 270 sites had been proposed for the whole of Belgium. This includes the additional list proposed for the Walloon Region in November 2002. The criteria used to propose these sites are the presence of habitats from Annex I or species from Annex II. More specific criteria vary from region to region, as follows.

BR: The scientific basis for selecting sites is the presence of four species of bats included in Annex II and their feeding zones; and the presence of several habitat types included in Annex I. Three site complexes have been proposed according to these criteria.

FR: The main data sets used for the delimitation of the first list of pSCIs, submitted in February 1996, included the 'green core structure' (Groene Hoofdstructuur) being prepared for the development of the ecological network in Flanders; and the Biological Estimate Maps (BWK, Biologische WaarderingsKaarten). The presence of habitats from Annex I and species from Annex II was the main criteria for site selection. As nature in Flanders is scattered and larger areas of natural or semi-natural habitats are quite rare, complexes of smaller sites were often proposed.

A revised list was submitted in May 2001, using additional data sets as well as new monitoring and inventory reports, site specific information from nature and forest guards and from nature conservation organisations (NGOs), and data from species expert groups. 38 sites covering an area of 101,891ha have been proposed by the Flemish government (decision taken on the 4 May 2001).

WR: A first list of sites, including sites already protected, was proposed at the end of March 2000. A second list, including sites belonging to public authorities (military sites, forests) and some private sites, was proposed in June 2001. In the Walloon region the selection of sites is based on scientific criteria, according to the presence of habitats or species population of Community importance, according to the SGIB list (list of sites of great biological interest), and also considering restoration potential.

165 sites were proposed in March 2000, 67 sites in June 2001. A new proposal was submitted in November 2002, bringing the total number of pSCIs for the region to 228.

Fed: The area between Ostend and the French border, from the low water mark up to 3 nautical miles offshore, was proposed as a pSCI. The site covers an area of 17,000 ha. The sandbanks in this area, which are less than 6m deep at low tide, make up the Ramsar site 'De Vlaamse Banken'. The overall pSCI (called 'Trapegeer-Stroombank') includes habitats types 1110 (Sandbanks which are slightly covered by seawater all the time) and 1140 (Mudflats and sand flats not covered by seawater at low tide). The presence of several species from Annex II (*Phocoena phocoena*, *Halichoerus grypus*, *Phoca vitulina*, *Lampetra fluviatilis*, *Petromyzon marinus*, *Alosa fallax*, etc) and of Annex I of the Bird Directive (*Gavia sp.*, *Sternum sp.*, etc) was a criteria used to determine these sites.

1.1.2 Processes of proposing sites

The process of site proposal has varied from one region to another, as follows.

BR: A first report on the Habitats Directive was discussed internally in 1995 at the IBGE-BIME (Brussels Institute for Management of the Environment). At that time, no external data sources were taken into account. In order to identify sites according to the presence of species, the Brussels region based its selection on data available at the IBGE. The data originated from several research programmes. The Brussels higher council for nature conservation gave a favorable opinion on this report in February 1996.

Following further discussions and new data on Annex II species (especially bats), a working group from the higher council was consulted for advice. The first list of sites was then completed with border zones, transition zones and scattered areas in order to have a coherent system. Bat feeding areas were also taken as criteria. Some of the zones were not eventually included for practical reason (private property).

The 1996 list was adapted to take into account a wider view of the habitats of Annex I according to the urban character of Brussels, and also to reflect the presence of four Annex II bats. The report was forwarded to the European Commission in May 1996.

FR: A first list of 40 sites was proposed by the Institute for Nature Conservation and approved by the decision of the Flemish government on 14 February 1996. These 40 sites included 44 habitat types from Annex I and 20 species from Annex II. The sites covered a total area of approximately 60,000 ha, with half of that area already designated as SPAs.

Following discussions in the Atlantic and the Continental biogeographical seminars, the European Commission asked for additional sites to be proposed since the area proposed for some habitats and species was considered as insufficient. A new list was submitted in May 2001, after cooperation between the Nature Division, the Institute for Nature Conservation, the Institute for Forest and Game management and the nature NGOs. Consultation with main stakeholder groups and other administrations was also organised.

The revision of the existing pSCIs and addition of new pSCIs was done on the basis of additional criteria for the types of habitats (area, scarcity, representativeness, etc) and species (status of protection (red lists), representativeness, and isolation). The new proposal also took into account the presence of actual habitats as well as potential habitats with respect to buffer zones and landscapes elements. On the basis of an exhaustive list of sites, consultations were held with other divisions under the Department Environment & Infrastructure, Division Natural Resources in the Economy Department, Tourism Department, stakeholder groups, as well as in inter-ministerial sessions.

WR: A first scientific step was to include provisional sites, delimited on the basis of existing data, validation on the field, and final scientific delimitation. A second administrative step brought together actors to underline potential conservation problems. The last step was the final decision taken by political authorities.

Fed: The site was proposed in 1996 to the Commission by the MUMM (Management Unit of the North Sea Mathematical Model) considering the available scientific information and some practical considerations.

1.2 Conservation measures (Article 6)

1.2.1 Management measures (objectives, management plans)(Article 6(1))

There are management measures for sites in some regions. In most cases, if the site already had another protection status, it also has a management plan. Management plans are to be developed for all other sites being proposed.

BR: Management plans have been developed for most of the proposed sites. They have been made taking the habitats of species into account, and with a view to maintaining the biological value of the sites. Five management plans have been or are still being developed and three more are to be done.

FR: A Nature Objective Plan is being developed for all Natura 2000 sites. These plans are site or complex specific and take into account the type of function of a site. A Nature Objective Plan includes a description of the site, a vision (objectives) and conservation and protection measures to be taken to achieve this vision. Incentive measures can be taken to encourage private owners to have management plans, such as for private forests, or to implement agri-environment measures.

Management plans already exist for sites covered by another protection status, such as recognised Nature and Forests Reserves. These existing plans will be screened against the ecological requirements of the habitats and the species for which pSCIs have been proposed. Management plans are also being developed for sites that are in a military area. Several pSCIs are covered by a Nature Development Project or Land Development Project. In that case management actions and monitoring schemes are included in the project document. Those projects include measures on the development and restoration of habitats and living areas of species.

Nature Objective Plans are being developed for 9 sites in a pilot project. The experience gathered will be used to develop a format and the procedure for the development of other Nature Objective Plans.

WR: In order to reach the objectives set for the Natura 2000 sites, there are four possibilities described in article 26§1 of the nature conservation law as modified by the decree of December the 6th 2001 concerning the Natura 2000 sites and wild fauna and flora:

- Active management contract
- Management plan revision
- Give the site a status such as Natural or Forest Reserve
- Management measures to be taken by public authorities

Research programmes are being developed to determine the most accurate management measures.

Fed : The Belgian management of the sea has its basis in the United Nations Law of the Sea (UNCLOS), the commitments made in the International Conferences of the North Sea (NSC) and the regulations agreed in the Oslo and Paris Conventions (OSPAR). As a member of the European Community, Belgium also executes its Directives. Other Treaties concerning nature conservation ratified by Belgium and relevant for the marine environment are ASCOBANS (Agreement on the Conservation of Small Cetaceans of North and Baltic Seas) and the Ramsar Convention.

The responsibility for ensuring an integrated planning and implementation of the (inter-) national policy concerning the North Sea is shared by the federal and regional governments. The *Comité directeur Mer du Nord-Noordzee* co-ordinates this work. The sub-commission North Sea under the inter-ministerial economic commission (IEC) and the co-operation agreement for the Dredging management are also co-ordination structures.

‘Management’ essentially involves monitoring and prevention measures, which are not site specific. The procedure for permit/authorisation applications is set out in the Royal Decree of 21 December 2001 on the protection of species and the Royal Decree of 20 December 2000 establishing the procedures for granting permits and authorisations for some activities in the marine environment under the jurisdiction of Belgium.

Fishing is highly controlled in particular in order to prevent the bycatch of sea mammals and birds.

1.2.2 Protection of sites (eg avoiding deterioration, assessment) (Article 6(2))

The legal basis to protect sites is different from one region to another.

BR : The Decision of 26 October 2000 of the Brussels government concerning the conservation of natural habitats, wild fauna and flora is a key measure transposing the Habitats Directive.

FR : The decree of 21 October 1997 concerning conservation of nature and of the natural environment (commonly named the Nature Decree) includes provisions on the conservation, development, management and restoration of nature. Other provisions for the protection of pSCIs and SPAs also exist. A nature licencing scheme is in place to control changes in vegetation or water use on sites. Planning permission for projects in or near pSCIs and SPAs has to be accompanied by advice from the Nature Division. Nutrient inputs are regulated. Note that a revision of the Nature Decree is currently also awaiting approval so as to make the transposition of the Habitats Directive more coherent and transparent.

A steering group, on which different administrations are represented, is to evaluate the impact of any new development or infrastructure projects on pSCIs. pSCIs benefit from full protection as if they were already designated as SACs. The Environment & Infrastructure Department (LIN) ensures correct application of Article 6 of the Habitats Directive. A procedural note has been developed to give more detailed guidance on the steps to be followed in compliance with Article 6, to be implemented by all LIN administrations for their own projects and plans. In undertaking an EIA, special attention is given to the ecological conditions and requirements of habitats and species for which the sites were selected, and compensation measures are identified in cases in line with Article 6.

WR : No special management, protection or restoration measures have been taken for Natura 2000 sites. Sites will only be protected once they have been officially designated by the Walloon government. (Article 26 § 1 law on nature conservation, as modified by the Decree of 6 December 2001 concerning the conservation of Natura 2000 sites and wild fauna and flora.) Until then, the Nature and Forests Division is to evaluate potential impacts of new activities on or near a Natura 2000 site. In this regard, see the judgment from the Council of State (n°94527 ‘Tenneville’) of 4 April 2001.

Fed : The law of 20 January 1999 concerning the Protection of the Marine Environment under the jurisdiction of Belgium (MB 12/03/1999) (MMM law) transposes the Habitats Directive. Another Law of 22 April 1999 concerning the exclusive economical zone of Belgium in the North Sea (MB 10/07/1999) (EEZ-law) is also relevant. There are several legal instruments implementing the MMM law: the “Arrêté Royal” of 20 December 2000 establishing rules on environmental impact assessment; the “Arrêté Royal” of 20 December 2000 establishing procedures for granting permits and authorisations for some activities in the marine environment; the “Arrêté Royal” of 21 December 2001 concerning the protection of species in the marine environment; and the “Arrêté Royal” of 12 March 2000 concerning procedures for dumping certain substances and materials in the North Sea.

1.2.3 Effect of Article 6 conservation measures on Favourable Conservation Status (FCS)

Conservation measures have only been introduced in Flanders. The status of habitats and species in the region was described in the 1999 Nature Report of Flanders. On the basis of the notes developed for each listed habitat and species occurring in Flanders, a site specific FCS is being developed. This FCS will be reflected in the Nature Objective Plans. General targets for habitats and species are described in existing management plans, but site-specific targets

will be identified in Nature Objective Plans. Monitoring is included to assess the status of species, as well as for measuring effectiveness of management measures. A first overall assessment for SPAs was provided in the Nature Report 1999. However, apart from areas included in existing reserves or other public areas managed by the government, there is as yet no data for pSCIs.

1.3 Finance (Article 8)

1.3.1 Cost estimates

It is difficult to estimate the costs for pSCIs since many costs are covered in the general nature management budget of the Nature Division.

The Flanders region carried out a study, on request of the Nature Division, to compare cost estimates provided by other Member States or research projects, and to propose ways of estimating costs for pSCIs. The proposed approach takes account of different habitat types, as well as types of management actions. Thus, € 35 to 60 per hectare are needed to develop action plans, € 4,300 per hectare for restoration plans, and € 25 to 200 per hectare for implementing management plans. Costs were also estimated for monitoring, reporting, awareness raising initiatives, etc.

For the Walloon Region, management costs have been estimated, based on the development of management plans for existing nature reserves.

1.3.2 National/EU sources of funding

Several LIFE-Nature projects have been executed in Belgium, and some regions also fund Natura 2000 sites.

In the Walloon Region, € 14,957,870.5 has been allocated to Natura 2000 in 2001 and 2002 (of which, € 10 million was for 2002). This amount is to be progressively increased in order to cover costs of developing management plans, their implementation, site acquisition, payments to private owners, etc. (Note that the Walloon region has already suppressed some taxes to compensate for restrictions placed on private landowners as a result of designations.) No specific budget was assigned to Natura 2000 before 2001.

1.4 Surveillance (Article 11)

There are surveillance tools in all regions, especially indicators. The following are some of the survey programmes that exist.

BR : A study is being undertaken on a group of bio-indicators covering the whole region, as well as some specific urban species and threats. There is no specific surveillance of Annex I habitats or Annex II species, as this has not been budgeted for. A LIFE project on the study of bats is being developed (especially species from Annexes II and IV).

FR : A survey covering all Natura 2000 sites is planned, although the list of species subject to monitoring is often not specific enough. Three pilot projects are currently being developed to establish specific monitoring network systems. Results are being compiled and reported in the two-year nature report (NARA) or in specific species studies or species protection plans, such as plans for bat species.

WR : There are no surveillance arrangements for habitats or species, but wider surveillance tools do exist (ie indicators and the OFFH (Observatoire Faune Flore Habitats)). The OFFH surveys bio-indicators such as butterflies, dragonflies, ladybird, reptiles, bats, and orchids. Results from OFFH survey studies are published on the OFFH website.

Under the nature conservation law, as modified by the Decree of 6 December 2001 concerning the Natura 2000 sites and the wild fauna and flora, the government is to establish methods for collecting and analysing biological data on Walloon populations of wild flora and fauna species and relevant natural habitats. This is to result in a survey of their conservation status.

Fed : The Federal Government makes an oceanographic vessel (A962 BELGICA) available for research projects led by universities and scientific institutes. Some Belgian research projects are aimed at evaluating the health of some part of the ecosystem, in relation to certain human activities. Indicators are being identified and may in due course include seabirds, marine mammals and benthic species.

2 Protection of species (Article 12-16)

2.1 Strict system of protection (Article 12, 13)

Each region has legal provisions concerning protection for species from Annex II and IV, as follows.

BR : All animal species from Annex II and IV present in the Brussels Region are protected by an order of 29 August 1991 concerning the conservation of wild fauna and flora and hunting. This provides total protection for all vertebrates (except fish). Plants from Annex II and IV do not occur in the Brussels Region.

FR : All animals and plants from Annex II present on the Flemish territory are protected by the Royal bill of the 22 September 1980. Additions have been made to this bill, covering the beaver (*Castor fiber*) and the lynx (*Lynx lynx*). Species protection action plans for several species (groups) from Annex IV have been or are being developed (especially for bats, the hamster *Cricetus cricetus*, the triton *Triturus cristatus*, the toad *Alytes obstetricans* and the frog *Hyla arborea*). There are also action plans for three species included in Annex II alone (*Cobitis taenia*, *Cottus gobio*, *Lampetra planeri*).

WR : The nature conservation law, as modified by the decree of 6 December 2001 concerning Natura 2000 sites and wild fauna and flora, envisages a strict protection of all Annex IV species. All species included in Annex IV(a) of the Habitats Directive are covered. 58 animals species and 8 plant species are considered to be present on the Walloon territory.

Fed: The Royal Decree of 21 December 2001 on the protection of species in the marine environment includes all relevant Annex IV species.

There is no comprehensive system in place to *monitor the incidental capture and killing* of species in the Brussels and Flemish Regions. In the latter, however, there is a network for reporting on some types of incidental killing. There are also measures in place to prevent incidental killing for several species (wind tunnels, mirrors, viaducts, fish ladders). Systems are also in place to ensure new activities do not impact on species, in follow-up of Article 16.

In the Walloon Region, the nature conservation law, as modified by the decree of 6 December 2001 concerning Natura 2000 sites and wild fauna and flora, requires incidental capture and killing of specimens of strictly protected species to be declared to a designated administration. The government then has to check that this has no negative impact on the species, and if necessary, take appropriate measures to limit these impacts.

At the Federal level, all incidental capture or killing of relevant Annex IV have to be notified. Fishermen are also asked to land any marine mammal bycatch to facilitate scientific study.

2.2 Takings and derogations (Article 14, 15, 16)

In the Flemish Region, no specific measures exist concerning *taking in the wild* of Annex V species. All species are protected by law, although there are no specific measures to prevent *indiscriminate means*. In the Brussels Region, the use of indiscriminate means is prevented in relation to Annex IV and V species via the decision of 26 October 2000 of the Brussels government concerning the conservation of natural habitats, wild flora and fauna. At the Federal level, the Royal Decree on species protection covers indiscriminate means in relation to all relevant species from Annexes IV and V.

Up to now, no *derogations* have been requested or permitted under the Directive in the Brussels Region or the North Sea. In the Flemish Region, derogations can be granted for scientific, educational or general interest reasons. A decision of the Flemish government is usually needed, but in practice the director of the Nature Department takes the decision. In the Walloon Region, only a small number of derogations have been granted and then only for educational or scientific purposes.

3 Other issues

3.1 Research (Article 18)

The following provides an overview of research programmes relating to the Habitats Directive.

BR : There is no Habitats Directive-specific programme but there are related programmes. One research programme concerns the mapping of plant species present in the ‘Forêt de Soignes’, with data to be used for developing the SAC management plan. Another programme is being undertaken in cooperation with the Flemish and Walloon Regions in order to develop a common management plan for the whole ‘Forêt de Soignes’. Within the framework of a

LIFE project, there is also a monitoring programme for bats, and the management of their distribution areas. Finally, there are plans for a project to link the green network of the Brussels Region to the VEN, which is the Flemish Region's ecological network.

FR : A pilot project to develop Nature Objective Plans for the management and conservation of Natura 2000 sites is running in 9 sites. The aim is to develop different management scenarios to increase experience of possible measures, as well as any problems that could occur as a result of their implementation. Survey programmes, detailed inventories and monitoring projects are carried out in various sites.

There are also several transboundary projects relating to pSCIs and SPAs. In particular, research and management planning programmes are being developed in cooperation with France and the Netherlands.

WR : One research project seeks to ensure the boundary of a pSCI is appropriate. There are also survey programmes and inventories of biodiversity in Wallonia. Other research projects include a study of four species threatened with extinction.

Fed : One of the Federal research projects - Habitat - has involved part of the Natura 2000 site. The aim is to develop a programme that follows the development of the benthic habitat in order to provide the data, strategies and methods needed to manage the area. It should also provide the scientific basis for evaluating the application of the management plan.

3.2 Introduction and reintroduction (Article 22(a) and 22(b))

The beaver (*Castor fiber*) has been illegally reintroduced in Wallonia. All introduction or reintroductions are now forbidden in the Walloon Region (Royal Decree of 4 December 2001). No reintroductions are known to have occurred in the other Regions although the reintroduction of *Acipenser sturio* and *Coregonus oxyrhynchus* is being considered by the Federal government. A restoration of their habitats in rivers would be needed for the reintroduction to succeed.

On the other hand, many introductions of non-indigenous species have occurred. Here are some examples and associated problems:

- *Rana ridibunda*, *Rana perezi* - supplanting the indigenous common green frog;
- *Rana catesbeiana* – a competitor for indigenous fauna;
- *Trachemys scripta* - responsible of many problems in ponds;
- *Alopochen aegyptiacus* – beginning to put pressure on indigenous water-bird populations;
- *Psittacula krameri* – with exponentially growing populations that have led to noise problems;
- *Ondatra zibethicus* - damaging banks;

- *Crassostrea gigas*, *Ensis directus*, *Petricola pholadiformis*, *Crepidula fornicata* (mollusc) and *Elminius modestus*; and
- *Prunus serotia*, *Fallopia japonica* and *Heracleum mantegazzium*.

In the Flemish Region, there is specific action plan on exotic species (in the framework of the Mina-plan II). This aims to define 'gradual exotic species', problems and possible solutions, elaborate steps to be followed when considering (re)-introductions, develop case studies with suggested solutions, and outline legal issues.

3.3 Awareness raising (Article 22(c))

There have been some information and awareness raising initiatives in each of the Regions, as follows.

BR : The IBGE is funding a WWF project to develop a Habitats Directive awareness raising campaign for the Brussels Region.

FR : The Nature department has organized information sessions for other departments responsible for larger infrastructure developments, including the Antwerp harbour company, the highways departments, and the railway department. There is also a lot of information available on the website of the Nature Division and in the 1999 Nature Report. A CD-ROM and a GIS-based website are being developed.

For the 10th anniversary of the Habitats Directive, the Nature Division in cooperation with two nature NGOs (WWF and Natuurpunt), has set up an awareness-raising project. The project involves producing a brochure and a poster on pSCIs and organising provincial information days.

Information is also being provided on exotic invasive species, with a folder published by the Nature department.

WR : A Natura 2000 information campaign is currently being developed, involving TV, radio spots, a CD-ROM, exhibitions, etc. A leaflet will be sent to local authorities and information sessions are being held for administrations, forest and agricultural unions, etc.

Fed : The LIFE-Nature project 'Integral Coastal Conservation Initiative' includes an element on public information. There is also a website on marine ecosystems where the Habitats Directive and the pSCI are described. Information panels have also been installed on the sea walls along several coastal cities. These provide information on the fauna and flora of the sea, as well as relevant laws to protect the Natura 2000 site.

3.4 Managing landscape features (Article 10)

The main ecological network activity involves the Brussels Region where the green and blue networks are brought together in a programme that was launched several years ago. The green network is based on two principles: an adequate distribution of green spaces to be established

in urban areas; and there must be links between green spaces. All this has to be done taking into account the city character of Brussels, the needs of the population and the specific urban ecological aspects.

The blue network is tightly linked to the green one. It has several goals:

- underlining the importance of open water areas;
- guaranteeing the quality of surface water; and
- integrating recreational and landscape aspects of rivers and ponds.

FR: The Flemish ecological network VEN plus the interweaving network IVON will cover most of the Natura 2000 network and add inter-connecting zones such as small landscape elements. Both networks are related with specific measures that support proper management of Natura 2000. The decree on hunting and the EIA legislation are also measures that have impacts on Natura 2000.

WR: PCDN (Cities development plans for nature) are useful to enhance Natura 2000, as do 'Parcs Naturels' and River's Contracts.

3.5 Human resources and technical resources

FR : More people have been involved in the implementation of the Directive since the MINA-plan 2. There are also new initiatives to support fieldwork. The development and implementation of the Flemish ecological network, VEN and IVON, will also allow for new initiatives and cooperation. A database on Natura 2000 in Flanders, an interdepartmental working group on Article 6 and follow up procedures, and a Natura 2000 commission are all being set up.

WR : Human resources are totally insufficient, and the administration is under-staffed and under-resourced. A special information and communication center is being developed, however. Specific training on Natura 2000 has also been given to officials of the Nature and Forests Division.

Fed : The LIFE project (Integral Coastal Conservation Initiative) has made more people available to support implementation of the Directive.

Summary of National Report: Denmark

1 Natura 2000: conservation of natural habitats and habitats of species

1.1 Proposed Sites of Community Importance (pSCIs)

1.1.1 Inventories

The Danish list of pSCIs was sent to the Commission in 1998 and was based on existing knowledge about the occurrence and distribution of the habitat types and species of the Directive.

At the end of 2000, Denmark had 194 proposed SCIs hosting 60 habitat types from Annex I and 44 species from Annex II. The number of sites increased to 253 in 2002.

1.1.2 Process of proposing sites

The Danish Forest and Nature Agency was responsible for preparing the site proposal. A public consultation on this proposal was then carried out with representatives of scientific institutions, environmental groups, local and regional authorities and individual specialists. After the Commission's evaluation of Denmark's proposals, it became evident that a greater scientific understanding was needed on the species and habitats. As a result the Forest and Nature Agency held a series of seminars and arranged for additional mapping of natural habitat types and species. Additional information was also obtained about areas outside those already designated.

In relation to the designation of pSCIs, a climate of mistrust has evolved between landowners and authorities. The proposed list led to many protests about the sites and the evaluation of these objections was one of the main causes of the delay in the designation process. The main reason for the objections is the intensive use of land in Denmark, putting pressure on areas included in the Directive's list of habitat types and species. Another reason is the nature and environmental protection agenda, with pSCIs regarded by landowners as yet another restriction on land use.

1.2 Conservation measures (Article 6)

1.2.1 Protection of sites (eg avoiding deterioration, assessment)(Article 6(2))

Local and regional authorities take decisions on most matters relating to Natura 2000 and associated land use. In 1998, an Order was introduced laying down guidelines for local and regional authorities on the implementation of legislation linked to Natura 2000. For sea areas, powers are vested in the Danish government.

Articles 6(3) and 6(4) of the Directive have been implemented by §4 and §6 of Order No. 782 on the Demarcation and Administration of International Nature Conservation Areas. The

Order states that all proposals for plans covered by Danish planning legislation must include an assessment of the consequences the proposed plan will have for species and habitat types in Natura 2000 areas. If the consequences are assessed as negative in relation to species or habitats the plan cannot be realised. Similarly, all authorisations etc. granted for most land use activities must include a statement, based on an appropriate assessment, that they do not deteriorate or disturb Natura 2000 sites.

1.2.2 Management measures (objectives, management plans)(Article 6(1))

Danish legislation provides the basis for implementing management measures in Natura 2000 areas. It is possible to conclude agreements on future use, carry out nature restoration projects and conservation measures, and create game reserves in Natura 2000 areas with provisions concerning future use. These can cover the species or natural habitats for whose protection the sites have been designated.

Many nature conservation and restoration projects took place in Natura 2000 areas between 1994-2000. However, there is not yet a national framework for developing management measures.

To evaluate the conservation status of species and habitat types, the Danish authorities are planning to introduce a system of conservation objectives and management plans for Natura 2000 sites that would lead to a more systematic conservation approach. The aim is to achieve a favourable conservation status for the habitat types and species.

1.2.3 Effect of Article 6 Conservation Measures on Favourable Conservation Status (FCS)

The Danish authorities asked the Danish Environmental Research Institute to establish the basis for conservation targets for Natura 2000 areas. Their report – ‘Habitats and Species Covered by the EEC Habitats Directive’ - attempts to define ecological and biological features, which specifically characterise a favourable conservation status. The scale of conservation status (favourable, uncertain, unfavourable, unknown and disappeared) is defined on a local and national level.³

1.3 Finance (Article 8)

1.3.1 Cost estimates

No cost estimates for meeting the obligations for Natura 2000 sites were included in the national report. An analysis of costs was to be carried out once guidelines had been laid down for the specific conservation targets.

³ This report is available on the Danish Environmental Research Institute's website (http://www.dmu.dk/1_viden/2_Publikationer/3_fagrappporter/rapporter/FR365_del%201.pdf).

Between 1994-2000 a total of €6 million was paid to landowners as one-off reimbursements for losses deemed to have occurred as a result of conservation measures. Over the next few years much larger amounts are expected to be paid as compensation.

1.3.2 National/EU sources of funding

During 1994-2000 an average annual funding of €18.8 million has been made available of which about 40% has been going towards genuine nature conservation. In 2001, the budget was around €24.2 million. Funds for nature conservation largely concern projects in Natura 2000 areas. In addition around €27 million were spent during the year 2000 in the counties and state forest areas on environmentally friendly land use. Many of these areas were Natura 2000 sites.

There are also a number of grant schemes that may be important for Natura 2000 sites, such as grants to establish water meadows to reduce nitrogen leaching.

A total of €4,359,293 LIFE-Nature funding was awarded to seven projects in Denmark between 1992 and 1999. Other EU funding has been received by Denmark for agri-environment programmes in Natura 2000 areas.

1.4 Surveillance (Article 11)

Future surveillance of species and habitat types will be defined so that it can show the evolution of their conservation status. The Danish National Environmental Research Institute has drafted a surveillance programme in the context of the earlier mentioned work on conservation objectives. The report (Habitats and Species Covered by the EEC Habitats Directive) focuses on a total of 13 natural habitat types listed in Annex I, and 79 species listed in Annexes II, IV and V. For the majority of species the report is based on historical and recent data gathered from scattered information sources.

For the 13 priority natural habitat types, the assessment of the conservation status was almost exclusively based on mapping implemented by the Danish county authorities. The conservation status for these habitat types was as follows: 2 favourable, 3 unfavourable, 6 uncertain and 2 unknown.

The overall conservation status of the 45 species listed in Annex II was as follows: 4 favourable, 10 uncertain, 13 unfavourable, 10 unknown and 8 disappeared. The conservation status for the 49 species listed in Annex IV was: 11 favourable, 15 uncertain, 10 unfavourable, 6 unknown and 7 disappeared. 12 of the Annex V species were assessed and the overall conservation status of these was: 6 uncertain, 3 unfavourable and 3 unknown.

2 Protection of species

2.1 Strict system of protection (Article 12, 13)

In Denmark, the protection of species has been implemented or is being implemented through a number of provisions pursuant to the Nature Protection Act. Under Danish law, a large number of habitat types are protected from any changes to their condition. The provisions of Articles 12(1)(d) of the Directive have recently been specified in new Orders (Ministry of the Environment Orders 624, 636 and 637) under which no permits may be granted that may lead to the destruction or damage to breeding or resting grounds/habitats of strictly protected species.

Strictly protected species in forest sites are protected through the provisions of the Forest Act. Guidelines issued to State Forest Districts indicate that it is not possible to grant derogations from these provisions in cases where breeding or resting grounds for Annex IV species may be damaged or destroyed.

The provisions of Article 12(1)(a)-(c) already relate to most species and have been implemented in the Order on the Conservation of Species adopted in pursuance of the Nature Protection Act. Amendments will be made to this Order to ensure that the protection of all Annex IV species is transposed into Danish law. In the case of mammals this will require amendments to Orders adopted on the basis of the Management of Wild Animals Act.

Specific administrative plans have been compiled for otters (*Lutra lutra*), dormice (*Muscardius avellanariu*), marsh fritillary (*Euphydryas aurinia*) and the yellow marsh saxifrage (*Saxifraga hirculus*). An administrative plan for houting (*Coregonus oxyrhyncus*) is under preparation. These plans are not legally binding but contain a number of recommendations for action to be taken that is conducive to their conservation status.

There are no systematic control systems in place that would monitor the number of Annex IV species killed accidentally. However, the Danish authorities have drawn up an action plan to reduce the incidental capture of harbour porpoises (*Phocaena phocaena*).

2.2 Takings and derogations (Article 14, 15, 16)

The legal taking of Annex V is limited to the pine marten (*Martes martes*) and seals, and some bird species. No hunting season has been laid down for Annex V mammals. Medicinal leeches (*Hirudo medicinalis*) and edible snails (*Helix pomatia*) must not be exploited commercially.

There are rules in place for the following Annex V fish species: lavaret (*Coregonus sp.*) grayling (*Thymallus thymallus*) and crayfish (*Astacus astacus*). The Minister for Food, Agriculture and Fishery can specify rules on fishing seasons, minimum sizes and fishing bans for all types of fish.

3 Other Issues

3.1 Research (Article 18)

There are no special research programmes primarily focusing on the matters covered by the Habitats Directive apart from the already mentioned FCS project by the Danish Environmental Research Institute.

3.2 Introduction and reintroduction (Article 22(a) and 22(b))

In a pilot project in 1999 the Forest and Nature Agency reintroduced the European beaver (*Castor fiber*) in North West Jutland. Their reintroduction has not led to any specific problems. However, a case is currently before the Danish courts concerning the extent to which the release of beavers is consistent with the provisions of the Habitats Directive and other instruments.

3.3 Awareness raising (Article 22 (c))

Natura 2000 is increasingly being incorporated within higher education in Denmark. Furthermore, the Forest and Nature Agency organises annual theme days in collaboration with county officials.

Denmark has set up a Danish nature guides scheme with about 250 nature guides organising more than 20,000 events, which to a large extent take place in Natura 2000 areas. Much of their work is about presenting nature face-to-face or for organised groups.

Additionally the Forest and Nature Agency has produced information about Natura 2000 and launched a website on the importance of Natura 2000 for authorities and landowners as well as information on each individual Natura 2000 site.

3.4 Management of landscape features (Article 10)

In a statement in 2000 the Government encouraged the linking of ecological areas in open country, in particular Natura 2000 areas. Accordingly, most county councils have already planned such ecological corridors.

3.5 Human resources

The report roughly estimates that within the Forest and Nature Agency 10-15 man-years have been devoted to activities more or less directly involving the implementation of the Habitats Directive and the Birds Directive.

Summary of National Report: Finland

1 Natura 2000: conservation of natural habitats and species

1.1 Proposed Sites of Community Importance (pSCIs) (Article 4(1) and 4(2))

1.1.1 Inventories

The national pSCI list was developed by examining national protection programmes, as well as the inventories on which these programmes were based. The inventories come from several sources, such as the Ministry of the Environment, Regional Environment Centres, the Forest and Park Service, the Finnish Forest Research Institute, universities, museums and municipalities. In addition the UHEX database was used, containing information about endangered plants and species recorded since the beginning of the 19th century.

1.1.2 Process of proposing sites

In November 1994 a working group was nominated to prepare Finland's proposal for a Natura 2000 network, including both pSCIs and SPAs. The working group appointed by the Ministry of the Environment consisted of representatives from different administrative units, universities, research institutes and organisations.

The Regional Environment Centres were responsible for preparing the proposals on a regional level, with the Forest and Park Service and the Finnish Forest Research Institute collecting information from protected areas owned by the state. The regional proposals of 1,600 sites were submitted to the Ministry of the Environment in 1996. The proposals covered sites selected according to both the Habitats Directive and the Birds Directive. The majority of the areas were already part of national programmes. Based on this background work, the Ministry of the Environment produced a national list of proposed Natura 2000 sites in co-operation with the Finnish Environment Institute and Regional Environment Centres. The list included 1,482 sites and totalling an area in excess of 5 million hectares.

The list was submitted to public consultation in 1997 and produced a massive 13,480 responses (mostly complaints by landowners). Based on these comments, five new areas were included on the list and 42 were excluded. Seven areas were expanded and 748 were cut in size reducing the total area by 7.5%. 6,000 people commented on the revised list. Finally the Government approved the proposed list of 1,457 sites in August 1998. After this it was still possible to seek changes to the pSCIs by appealing to the Supreme Administrative Court. During September and October 1998, 1,600 appeals covering 700 sites were submitted, of which most were unsuccessful.

The final proposed list of SCIs was sent to the Commission in 1998 and supplemented by the Government in 1999. Put together, the lists contained 1,458 sites (4.77 million ha), of which 1,325 were pSCIs.

In 1999 the Commission requested Finland to supplement the Natura 2000 network as it was inadequate. In May 2002 the Government proposed an additional 289 new sites or additions to existing sites. At present, the Finnish list includes 1,671 proposed sites.

1.2 Conservation Measures (Article 6)

1.2.1 Protection of sites (eg avoiding deterioration, assessment) (Art, 6(2))

To avoid deterioration of habitats and disturbance of species, the report refers to the assessment requirements for Natura 2000 sites incorporated into the Nature Conservation Act. These assessment requirements are those of Article 6(3) of the Habitats Directive and apply to pSCIs. There are no other legal instruments specifically to prevent the deterioration of pSCIs.

1.2.2 Management measures (objectives, management plans)(Article 6(1))

About 30 % of Finland's Natura 2000 network proposals are nature reserves covered by the Nature Conservation Act. The natural habitat types and species of these nature reserves are secured within their statutory protection orders. Additionally, some 30% of Finland's Natura 2000 network proposals are part of national protection programmes or other protection plans. By 2007 a majority of these areas will become nature reserves as defined by the Nature Conservation Act. A further 30 % of the Natura 2000 network is within the twelve wilderness areas established according to the Wilderness Act (62/1991). These areas are required to have management plans.

There is no national framework for developing management plans apart from those covered by 25 LIFE-Nature projects within the Natura 2000 network. For twenty of the projects a specific management plan is to be developed with the projects divided into three groups: general plans, forestry plans and other management plans.

1.2.3 Effect of Article 6 Conservation Measures on Favourable Conservation Status (FCS)

In the national report FCS is not mentioned in this connection (see section 1.4 Surveillance). There is consequently no indication of the effect measures have had on FCS.

1.3 Finance (Article 8)

1.3.1 Cost estimates

Finland provided a cost estimate to the Commission in December 1998. In this memorandum, Finland promised to provide more accurate estimates by 1999, especially for action to protect priority species and habitats. Although some adjustments to the estimates have been made no new summary of the costs has been produced. Now Finland intends to provide it together with the list of additional pSCIs. It is also awaiting guidelines from the Commission on how to conduct cost estimates. The greatest costs arise from protection, creation of nature reserves and compensation to be paid to the landowner.

1.3.2 National/EU sources of funding

Nature protection, including Natura 2000, is funded from the state budget. In the 2002 budget the appropriation for buying land from landowners was € 13.4 million. In addition € 10.1 million was allocated to the Forestry Institute to buy land of which around 80 % is used for the Natura 2000 network. During 1996-2000 the State acquired 124,000 ha of land for nature protection at a total of € 194 million.

The budget for compensating landowners due to restrictions on land-use is € 15.4 million in the 2002 budget, of which about 70 % is intended for Natura 2000. Additionally € 15.4 million were allocated for site management and guidance. For the protection of 21,701 ha of land a total of € 40.5 has been paid as compensation during 1996-2000.

Where EU funding is involved it is mainly from LIFE. During 1995-2000, 30 projects received a total of € 23.5 million. During the same period, €1 million of Structural Funds were used for projects within the Natura 2000 network. Funding based on agri-environmental measures has been marginal.

1.4 Surveillance (Article 11)

The Finnish Environment Institute started development of the surveillance of habitats in 1998 and of species in 2000. Although surveillance information existed for many of the species, surveillance had not previously been completely systematic. In the future the surveillance of habitats and species is likely to become part of national biodiversity surveillance.

The Finnish Environment Institute has planned a proposal for a surveillance system for Finland. Surveillance is divided into two levels:

- actual surveillance of habitats and species; and
- inventories and observations of habitat types and species in connection with other activities.

Actual surveillance means monitoring that is implemented with prior planned and clearly described methods, so that it produces nation-wide comparable data. This kind of intensive monitoring can be implemented only on a sample of occurrences of the most important habitats and species. Actual surveillance requires special monitoring programmes for those habitats and species.

The collection of inventory data for habitats and species in connection with 'other activities', such as land use planning, aims to provide data that is additional to actual surveillance. In some cases this data could replace the actual surveillance of habitats and species when there is no indication of threats or changes that would require a more specific surveillance. Data availability and format are important in order to allow use of such scattered information.

Finland does not support a uniform EU surveillance method because of the diversity in nature and human impact among the Member States. Similarly the surveillance interval ought to be

adapted to individual habitats and species and should not necessarily be restricted to the six-year reporting cycle under Article 17 of the Directive.

Surveillance should not focus on individual Natura 2000 sites but on the situation in Finland as a whole. FCS is unsuitable for Finland if it leads to the surveillance of each habitat type or species for each Natura 2000 site. The argument is based on the effective use of resources for surveillance and on the large number of Natura 2000 sites in Finland.

Finland has 69 Annex I habitat types. It is estimated that the required data for these will be collected by 2001-2002. This information is to be used in order to prioritise the surveillance needs and to assess the FCS of each habitat type.

The Finnish Environment Institute is also preparing a species-specific surveillance programme. The surveillance for species according to Annexes II and IV are listed in the report. The most comprehensive surveillance is for mammals (excluding bats). The only fish species that is comprehensively surveyed is the salmon.

Surveillance results for species have been published in several scientific publications.

2 Protection of species

2.1 Strict system of protection (Article 12, 13)

The Nature Conservation Act that came into force in March 1997 was planned with the requirements of the Directive in mind. The protection of species is covered by Chapter 6 and is implemented for all animal and plant species that are natural to Finland, apart from game animals listed in Section 5 of the Hunting Act.

The Nature Conservation Act (42 §) protects plants if they become endangered. Species that do not belong to mammals or birds but are covered by the Nature Conservation Act are listed in Annex II of the Nature Conservation Decree (169/1997). Protected plants are listed in Annex III. The law for protecting whales protects all whales within Finnish territory as well as the sale of whale products. Endangered species together with protected species are listed in Annex IV of the Nature Conservation Decree. Section 47 prohibits the destruction or deterioration of habitats of endangered species. The protection of habitats comes into force when the Regional Environment Centre has determined the boundaries of the species to be protected and informed the landowner about the decision.

In 1997 the Ministry of the Environment appointed a working group to re-evaluate the list of endangered species using IUCN criteria.

Wolf (apart from wolf within reindeer herding areas), bear, lynx and the otter are protected by the Hunting Act.

The Nature Conservation Act (49 §) defined the prohibition of the deterioration or destruction of breeding sites only if they were 'clearly noticeable'. Because of the problems related to

flying squirrels (*Pteromys Volans*) the requirement of breeding sites to be 'clearly noticeable' is currently in the process of being removed from Section 49 of the Nature Conservation Act.

The report lists organisations responsible for the *monitoring of incidental capture and killing*. Responsibility is allocated according to the ownership of the land (landowners for private lands, personnel for nature reserves) as well as to specific authorities/organisations.

2.2 Takings and derogations (Article 14, 15, 16)

The only Annex V species protected by the Nature Conservation Act are the common frog (*Rana temporaria*) and the freshwater pearl mussel (*Margaritifera margaritifera*). Other Annex V species are covered by the Hunting Act.

According to 33 § of the Hunting Act, the use of indiscriminate means is prohibited.

Derogations have been granted as follows:

for the protection of species and habitats - derogations rare;

to prevent substantial damage to animal husbandry and fishing -derogations have been granted for wolf, bear, lynx and otter;

for reasons of public health, general safety or other public interests - derogations have been granted for wolf and bear; and

selectively and based on careful monitoring, hunting permits are granted where the population is strong- these permits have covered only lynx and bear.

3 Other issues

3.1 Research (Article 18)

Recent years have seen a clear rise in funding for biodiversity research. An example of this is the FIBRE programme, which provides € 20 million over the next six years for projects related to biodiversity. All the major Finnish nature organisations are participating in this programme. One of the most important aims of FIBRE is to promote the practical application of biodiversity research. The BITUMI project was launched to enable the best use of the results from the FIBRE in terms of coordination of data and improved cooperation.

Another project of interest is the SAVA (1997-2002) project run by the Finnish Environment Institute concentrating on biodiversity and the protection of species in a changing forest environment.

3.2 Introduction and reintroduction (Article 22(a) and 22(b))

Introduction and reintroduction is only permitted if other methods are not possible or inadequate. Only a few transfers of rare species have been attempted. The Apollo butterfly (*Parnassius apollo*) was reintroduced during three years in the 1980s but for unknown reasons these attempts did not succeed. In 2000, the clouded Apollo butterfly (*Parnassius mnemosyne*) was reintroduced to two proposed Natura 2000 sites from which it had disappeared in the 1940s. In 2001 clouded Apollos could only be found in one of the sites and even there the population was so small that their survival is doubtful.

Reintroductions for Annex IV plants have been carried out for Agrimony (*Agrimonia pilosa*), Puccinellia (*Puccinellia phryganodes*) and Arctophila (*Arctophila fulva*). In addition some individual plant species have been transferred to gardens.

3.3 Awareness raising (Article 22(c))

Since 1996 the Ministry of the Environment has provided information on the development of the Natura 2000 network as well as the aims of the network and its impact on Finnish nature. This has been done with the help of publications, seminars and workshops, as well as a website managed by the Ministry of the Environment.

3.4 Human resources and technical resources

The number of people directly involved with the implementation, land purchases and compensation negotiations has grown to 50-60 persons during the reporting period. The Finnish Environment Institute has 10 persons involved in the implementation of Natura 2000 and the 13 regional Environment Centres employ 30 nature protection experts. The working group for the Article 17 implementation report included 25 persons.

About 60 people have been working on the management of nature reserves at the Finnish Forest Research Institute and 300 people work on protected areas in the Forest and Park Services. In the Ministry for Forestry and Agriculture 41 people are working on the implementation of the Directive.

Summary of National Report: France

1 Natura 2000: conservation of natural habitats and habitats of species

1.1 proposed Sites of Community Importance (pSCI) (Article 4(1) and 4(2))

1.1.1 Inventories

A scientific reference list of sites eligible to be proposed as SCIs was officially established in March 1996 by the National Natural History Museum (MNHN) on the basis of preliminary inventories compiled between 1992 and 1995 in each of the 22 regions of mainland France (including Corsica) by the Regional Scientific Councils for Natural Heritage (CSRPN) and following the opinion of the National Nature Conservation Council (CNPN). Some 2 100 potential sites were mapped and the CSRPN selected 1 623 sites potentially meeting the Directive's selection criteria.

In France, a further inventory is of importance: the Inventory of Natural Areas of Ecological, Fauna and Flora Interest (ZNIEFF). This programme, launched in 1982 by the Ministry of Environment, devised, managed and coordinated by the MNHN's Natural Heritage Department (SPN), contains the main data on characteristics and location of natural habitats. The inventory is updated on an on-going basis.

1.1.2 Processes of proposing sites

Decree no. 95-631 of 5 May 1995 laid down the procedure to be followed, leading to the submitting, by the Ministry of Environment, of the national list of sites eligible to be proposed as SCIs. The Decree formalised the procedure and specified the roles of the different bodies⁴ in conducting the scientific inventory, assessing the sites and establishing the national list. This Decree was followed by a succession of Ministerial Circulars sent to Prefects implementing the provisions of the Decree.

The process of proposing sites can be divided into three phases:

- from 1992 - the scientific inventory phase during which, at regional level, Annex I natural habitats were identified and located, and Annex II species occurring therein identified and listed.
- from 1996 - establishing the site proposals and conducting the consultation phase to inform stakeholders of the objectives and consequences of setting up the Natura 2000 network in France.

⁴ Natura 2000 Conferences (regional conferences for information and exchange), National Natural History Museum (MNHN), National Nature Conservation Council (CNPN), Regional Scientific Councils for Natural Heritage (CRSPN), etc.

- 1997-2000 - the site proposal phase whereby the proposed sites were submitted to the European Commission after inter-ministerial consultation.

At the end of 1997, the first lists of site proposals were submitted to the Commission (two submissions of a total of 535 sites). Two further lists were submitted in 1998, bringing the total to 652. At the end of 2000, following five further submissions between January and July 1999, a total of 1,029 pSCIs had been notified to the Commission, covering 2,672,000 ha of land area and 472,000 ha of marine area, ie a total of 3,144,000 ha (4.9% of the country's total area), added to which were 3,116 km of linear sites. The French list presently includes a total of 1,174 proposed sites.

1.2 Conservation measures (Article 6)

1.2.1 Management measures (objectives, management plans)(Article 6(1))

France has opted for a contract-based approach, supplemented by regulatory measures under existing protection and management regimes. Under this approach, management plans, known as "documents of objectives" (*documents d'objectifs* or DOCOB) have been or are being developed at local level, ie setting out the management objectives for each site. The aim of the DOCOB is to provide a framework for coherent public and private conservation measures for the site, and the habitats and species warranting its proposed designation. DOCOBs are not statutory or regulatory documents, but basic working documents to guide those involved in managing and monitoring the sites (landowners, farmers, local elected representatives, forest managers, anglers/fishermen, hunters, NGOs, municipalities, etc.) in making decisions prior to the contract development stage.

The DOCOB is developed by a so-called technical operator (*opérateur technique*) appointed by the *département* Prefect, in consultation with the local stakeholders. For each site, Natura 2000 steering committees (*comités de pilotage*) are to be set up and chaired by *département* Prefects. These committees are consultative bodies bringing together all the local stakeholders involved (elected representatives, farmers, forest managers, NGOs, experts, other users, etc.). The committees take an active part in developing the DOCOBs and they are informed and consulted on the subsequent implementation of these instruments. DOCOBs are to be formally adopted by Order of the *département* Prefects.

On the basis of the DOCOBs, administrative contracts known as "Natura 2000 contracts" are concluded between landowners or site managers, and *département* Prefects. The contracts, to run for a minimum of five years, are to draw on the terms of reference for the management measures laid out in the DOCOB, stipulating site management commitments and the corresponding funding arrangements (financial support for the work undertaken and services rendered to the community resulting from compliance with the environmental commitments). The Natura 2000 contracts are formally established in Article L 414-3 of the Environment Code. For farmers, the Natura 2000 contract takes the form of agri-environment measures within or outside of "farmland management contracts" (CTEs).

The contents of DOCOBs are as follows:

- description and analysis of the site and existing regulatory protection measures (initial conservation status and location of the habitats and species for which the site was proposed, analysis of socio-economic activities, farming and forestry practices);
- sustainable development objectives for the site, designed to ensure conservation and/or restoration of the natural habitats and species;
- proposed contractual and regulatory measures to meet these objectives;
- the estimated cost of meeting the site objectives;
- possible funding arrangements;
- proposed terms of reference (*cahier des charges*) setting out the contract-based management measures for conservation purposes; and
- monitoring and assessment procedure.

A Circular was issued by the Ministry of Environment on 26 February 1999 requesting *département* Prefects to begin work on preparing the DOCOBs. Consultations were launched in 1999 by the Prefects for 300 DOCOBs. Article L 414-2 of the Environment Code provides a legal framework for the DOCOBs. Articles R 214-23 to R 214-27 of the Environment Code lays down the arrangements for developing and implementing the DOCOBs (inserted by Decree no. 2001-1216 of 20 December 2001 adopted under the Ordinance of 11 April 2001).

1.2.2 Protection of sites (eg avoiding deterioration, assessment) (Article 6(2))

In October 1997, a working group was set up by the National Monitoring and Consultation Committee (*Comité national de suivi et de concertation* - see below) to examine and define the concept of disturbance (*perturbation*) of Annex II species and to establish a list of activities likely to disturb species for which sites will be designated under the Habitats Directive. In 2000, similar work was conducted for bird species.

Article L 414-1-V lays down that "suitable preventive measures are also to be taken on Natura 2000 sites to avoid deterioration of these natural habitats and disturbances that may significantly affect these species. These measures are to take into account economic, social and cultural requirements as well as regional and local particularities, and are to be adapted to the specific threats on the natural habitats and species concerned..."

The measures are to be adopted under Natura 2000 contracts, or under existing systems of protection of natural areas, particularly national parks, nature reserves, biotope protection orders and listed sites (*sites classés*). These statutory, regulatory and contract-based systems in force lay down general protection requirements for natural areas. Thus, these requirements can be implemented on Natura 2000 sites, if the latter are situated in one or more of the specific categories of protected area concerned.

Legislation is in place concerning environmental impact assessments (EIAs), which are required for proposed schemes that may cause damage to the environment (Article L 122-1 of the Environment Code). These measures were supplemented, in order to transpose Article 6, paragraph 3 of the Habitats Directive, by Articles L 414-4 and 5 of the Environment Code and

Articles R 214-34 to R 214-39 of the Rural Code. This regulatory item was adopted following the ECJ's ruling against France issued on 6 April 2000.

1.2.3 Effect of Article 6 conservation measures on Favourable Conservation Status (FCS)

The report does not mention any attempts to define Favourable Conservation Status (FCS) in relation to Natura 2000 or to evaluate current conservation status.

The report does not specify any targets being set for habitats or species. It also does not assess effectiveness of measures against these parameters.

1.3 Finance (Article 8)

1.3.1 Cost estimates

A pilot experiment - "Experiment to develop management plans on French sites of the future Natura 2000 network" - was operated between 1996 and 1998 under the EU LIFE-Nature programme. It involved 37 pilot sites covering around 500 000 ha which were considered to be the most representative of Annex I habitats and habitats in which Annex II species occur. This pilot experiment helped provide some indication of the cost of designating a site under the Directive.

France has opted for a semi-bottom-up approach, ie calculating foreseeable costs on the basis of a representative sample of sites where the DOCOBs are in the advanced stages of preparation, and subsequently to extrapolate these data for all proposed Natura 2000 sites submitted to the Commission. France has applied this method in two successive studies conducted by the Ministry of Environment:

- report by the working group on estimating Natura 2000 costs: "Methodology, identifying expenditure lines and referencing costs", November 1998.
- survey and processing data on the costs of managing Natura 2000 sites, "Finalising estimates of overall costs of managing Natura 2000 sites", July 2000.

These studies provide the first cost estimates.

Based on this work, costs estimated are as follows:

- for DOCOBs:
- *15 244 euros for drafting them,*
- *15 244 euros per site per year for project launching and management,*
- *7.62 euros/ha/year, ie on average 16 310 euros per site per year for scientific monitoring and research;*

- for management under the contract-based measures (excluding agri-environment schemes): 30.50 euros/ha/year in forest habitats and 122 euros/ha/year in other habitats;
- for investment under contract-based measures: 152.4 euros/ha/year.

The overall costs of preparing DOCOBs and their implementation via Natura 2000 contracts is estimated at 150 million euros per year.

In addition to the two studies, cost estimations have also been based on a range of other sources (eg the LIFE-Nature programme on 37 pilot sites, the LIFE-Environment programme on estimating management costs of open natural habitats, etc.).

1.3.2 National/EU sources of funding

Sources of funding used specifically for Natura 2000 sites are as follows:

- At national level:

1. Funding provided under the Natural Area Management Fund (FGMN), established in 1999. This Ministry of Environment fund is dedicated to funding contract-based policies for managing and protecting natural areas. Approximately half of the fund's proceeds are earmarked for implementing the Natura 2000 network, particularly for preparing DOCOBs and funding Natura 2000 contracts for managers of sites not located on farmland.

Contributions by the 22 regions under the State-Region Planning Contracts (CPER) supplement funding provided by the State.

2. Funding provided under agri-environment schemes, co-financed at national level by the Ministry of Agriculture. Farmers wishing to implement measures on sites located on their farmland are entitled to financial aid through Natura 2000 contracts which take the form of agri-environment schemes, in most cases under Farmland Management Contracts (CTEs) or, less frequently, directly under agri-environment schemes.

Total national expenditure on implementing Natura 2000⁵ was 0.36 million euros in 1994, rising to 16.33 million euros in 2000. These figures exclude funding provided by the Ministry of Agriculture under agri-environment schemes for Natura 2000 sites on farmland.

- At EU level:

1. funding provided for rural development under the European Agricultural Guidance and Guarantee Fund (EAGGF), Guarantee section. For the period 2000-2006, this amounts to 5.32 billion euros. France has opted to programme this budget via:

5 Scientific inventories, communication, consultation, preparing, implementing, monitoring and assessing DOCOBs, contract-based site management.

- the National Rural Development Plan (PDRN), adopted on 7 September 2000, under which, via the EAGGF Guarantee Section, 5 billion euros are earmarked;
- the Single Programming Documents for Objectives 1 and 2 (with a section on development) under the EU Structural Funds (768 millions euros earmarked for France during the period 2000-2006).

2. Funding provided under the LIFE-Nature programme. Between 1994 and 2000, a total of 44 French projects received EU funding amounting to almost 25.4 million euros (out of a total budget of 53.5 million euros), ie an average co-funding rate of 47%.

1.4 Surveillance (Article 11)

The National Natural History Museum (MNHN) conducts population inventories, and estimations as well as qualitative assessments of flora and fauna species on behalf of the Ministry of Environment. The level of knowledge thus acquired varies for different groups of species. For certain highly threatened fauna species whose presence poses problems, particularly in relation to human activities, specific monitoring networks are set up (eg bear, lynx, wolf, common hamster, European beaver, marine mammals, bats, European mink, the most threatened birds of prey, etc.). Similar networks are also established for bird species hitherto deemed to be common but whose numbers are sharply declining (under the STOC programme).

For flora, monitoring is conducted by the National Botanical Conservation Agencies (*Conservatoires botaniques nationaux*). So far, eight have been established.

2 Protection of species (Article 12-16)

2.1 Strict system of protection (Article 12, 13)

Statutory protection is based on Articles L 411.1 and 2 of the Environment Code. Ministerial Orders, applicable nationally, are adopted per species group banning activities listed in the Directive. A standard Order for terrestrial vertebrates, for example, bans destruction, mutilation, capture, taking, stuffing, and whether the animal be dead or alive, transport, peddling, offering for sale, sale or purchase.

For plant species, on the basis of the same Articles (L 411.1 and 2) of the Environment Code, a Ministerial Order, valid nationwide, bans the destruction, cutting, mutilation, ripping up, picking or taking, peddling, use, or selling of all or part of specimens of wild flora species listed in Annex IVb occurring in France. These provisions are supplemented by Orders valid at regional level which ensure strict protection for a larger number of species.

Conservation measures adopted for the most threatened species listed in Annex IV are aimed at curbing limiting factors, most notably, habitat loss. In some cases, national restoration plans are established per species for a given time period (usually five years). Plans approved by the National Nature Conservation Council (CNPN) until 2000, focus on the following species: European mink (*Mustela lutreola*), otter (*Lutra lutra*), common hamster (*Cricetus cricetus*),

Chiroptera, Bonelli's eagle (*Hieraaetus fasciatus*), osprey (*Pandion haliaetus*) and the bearded vulture (*Gypaetus barbatus*).

For large carnivores, the Ministry of Environment has adopted strategies aimed at making extensive sheep farming compatible with the conservation or recovery of populations of the lynx (*Lynx lynx*), wolf (*Canis lupus*) and the bear (*Ursos arctos*). Following the natural return of the wolf to France in 1992 from Italy via the Alps, EU LIFE projects have enabled various management methods in relation to sheep farming to be tested and implemented.

No general *monitoring* system has been put in place for incidental capture and killing of animals in view of the numerous causes involved. However, from time to time, action is undertaken to assess the impact of road, powerline and telephone pole collisions on wild fauna; and remedial action is taken. No details concerning the results of the monitoring are provided in the report.

2.2 Takings and derogations (Article 14, 15, 16)

Measures on the taking in the wild of Annex V species are laid down in two types of regulations: those on hunting for birds and mammals and those on fishing for fish, certain species of frog and crustaceans (crayfish).

The fishing of two species of frog is regulated (*Rana temporaria* and *Rana esculenta*). All other frog species are fully protected. Mammalian species listed in Annex V which may be hunted in France include the following: pine marten (*Martes martes*), polecat (*Martes putorius*), hare (*Lepus europaeus*) and chamois (*Rupicapra rupicapra*).

Article 424.4 of the Environment Code authorises hunting by shooting, aircraft, on horseback using dogs, and by traditional means. It bans all other means of hunting, and particularly indiscriminate methods with the potential to threaten protected species.

The gathering and sale of the Burgundy snail (*Helix pomatia*) is regulated at national level: there is a ban on collecting young snails during the breeding period. Prefectural Orders may supplement these provisions.

The gathering, harvesting and sale of certain plant species listed in Annex V (where they are not afforded protection under Regional Orders) may be banned or authorised by Prefectural Order, eg Sphagnum sp., *Narcissus juncifolius*, *Galanthus nivalis*, *Lilium rubrum*, *Artemisia genepi*, and *Gentiana lutea*. No mention is made in the national report of whether these measures are being evaluated.

There is no information on the number of derogations granted. Derogations are usually granted in the following cases:

- to prevent damage to livestock/crops by large carnivores (bear, wolf, lynx) and the common hamster;

- for research purposes - this concerns all animal and plant species, depending on the research programme established;
- for reintroduction schemes - this concerns the capture in the wild of animals to be reintroduced into other regions. Between 1994 and 2000, such an operation was conducted involving the European pond terrapin (*Emys orbicularis*) and the otter (*Lutra lutra*).

3 Other issues

3.1 Research (Article 18)

Research is conducted in France concerning the Natura 2000 network and its components, both directly and indirectly. Some examples of research programmes are provided, eg 'local scenes of nature conservation: how to build Natura 2000 in France' (launched in 2000 as part of the "protected areas" research programme conducted by Paris University (Paris X)) and 'biodiversity dynamics and land management', launched in 1994 by the National Centre for Scientific Research (CNRS). Studies on understanding and taking into account biodiversity are conducted at regional level.

3.2 Introduction and reintroduction (Article 22(a) and 22(b))

Reintroduction schemes involving native species have been conducted for the:

- European beaver (*Castor fiber*) in several *départements*;
- common hamster (*Cricetus cricetus*);
- brown bear (*Ursus arctos*) in the Pyrenees. In 1996 and 1997, after several years of preliminary research, three bears (two females and one male) from Slovenia were reintroduced under an EU LIFE project. One of the females was killed by accident in 1997. In technical terms, the operation was successful (the bears adapted themselves to their new environment and have established a wide distribution range). On a social level, however, problems have arisen. The project has not been well accepted by the local public, particularly extensive sheep farmers;
- otter (*Lutra lutra*) in Alsace;
- Corsican red deer (*Cervus elaphus corsicanus*) in Corsica;
- European pond terrapin (*Emys orbicularis*) at Bourget lake in the Savoie *département*;
- sturgeon (*Acipenser sturio*). The species has been fully protected in France since the adoption of a Ministerial Order on 25 January 1982. A major restoration programme was launched in 1994 under a LIFE-Nature project.

Two further reintroduction projects are planned for the Pyrenean ibex (*Capra pyrenaica pyrenaica*) and the common hamster in the Haut-Rhin *département*.

France has not yet adopted provisions under Article L 411.3 of the Environment Code under which the introduction of non-native animal or plant species is subject to administrative controls. Discussions are currently underway concerning this and other related actions, including a review of species introduced in France, action to eradicate certain introduced species considered to be invasive, including: yew-leaved caulerpe (*Caulerpa taxifolia*), American mink (*Mustela vison*), bullfrog (*Rana catesbeiana*), *Oxyura jamaicensis*, etc.; a € 2.5 million research programme focusing on three issues: analysis of the mechanisms that underlie invasions; the social perception; economic assessment, control and management of the phenomenon; and the possibility of setting up an invasive-species monitoring unit to anticipate the control of species accidentally introduced.

3.3 Awareness raising (Article 22(c))

Efforts have been and are being made to inform, educate and make people aware of the natural environment, and specifically of the Natura 2000 network. A number of key documents have been published since 1993, including a leaflet, brochure, newsletter, methodological guidance for the documents of objectives and technical guides (covering forest, coasts, wetlands, agro-pastoral habitats, rocky habitats, plant species, and animal species).

In 1999, the Ministry of Environment launched a multiannual national training programme, which is run by the Technical Centre for Natural Areas (ATEN). An agreement was concluded in June 1999, and renewed in 2000, between the Ministry and ATEN to formalise this arrangement. Training is provided for staff of administrations in charge of implementing the Directive, eg the Ministry of Environment, Regional Offices for the Environment⁶ (DIREN), Prefectures, etc., technical operators at site level and members of local steering committees set up for Natura 2000 sites. In 1999, 119 people took part in the training sessions; in 2000, the figure rose to 152.

Lastly, a dedicated Natura 2000 website was launched on 4 December 2000 (<http://natura2000.environnement.gouv.fr>) within the Ministry of the Environment's website. It provides information on publications, news and training and a section specifically on Natura 2000.

3.4 Management of landscape features (Article 10)

No information is provided in the report on complementary measures (Article 10).

3.5 Human resources and technical resources

Human resources made available for the implementation of the Directive are as follows:

=> At national level:

⁶ These are regional offices of the central Ministry, under the authority of the regional Prefect and in charge of locally implementing *inter alia* the Habitats Directive and general legislation on nature conservation.

- Ministry of Environment. The team in charge of Natura 2000 increased from 1 full time member of staff in 1994 to 10 in 2000. The Ministry's Nature and Landscapes Department (DNP), made up of a staff of 90, conducts policy which contributes to implementation of the Directive (species, habitats and landscape protection);
- Staff at the National Natural History Museum's (MNHN) Natural Heritage Department (SPN). This is the State's scientific expert body for issues relating to the Habitats and Birds Directive;
- Ministry of Agriculture;
- Ministry of Infrastructure;
- Ministry of Defence.
- => At subnational level
- The 90 *département* Prefects (who supervise implementation of the Habitats Directive);
- The 22 Regional Offices for the Environment (DIREN);
- The *département* Offices for Agriculture and Forestry (DDAF).

No specialised agencies have been established to implement the Directive. A National Monitoring and Consultation Committee (*Comité national de suivi et de concertation*) was set up in 1996.

Summary of National Report: Germany

1 Natura 2000: conservation of natural habitats and habitats of species

1.1 proposed Sites of Community Importance (pSCI) (Article 4(1) and 4(2))

1.1.1 Inventories

In Germany, the constitutional responsibility for the site selection and notification process lies with the 16 Bundesländer. Site selection has been taken forward in accordance with the rules of the Directive and with the support of the Federal Agency for Nature Conservation (Bundesamt für Naturschutz). The selection process has been based on scientific information, most notably species distribution data, land cover data, as well as existing scientific literature. Moreover, it has involved the expertise of individuals from the relevant statutory nature conservation bodies, forestry and fisheries authorities, and experts from academic and research institutions. A key point of reference has been the site selection criteria outlined in Annex III of the Directive as elaborated further by the Federal Agency for Nature Conservation.

The federal report does not provide a figure for the overall number of sites proposed.

According to the Federal Environment Ministry, by June 2002, the total number of pSCIs was 3,533, covering approximately 6.7% of the territory (2,385,211 ha terrestrial plus 814,454 ha offshore).⁷

1.1.2 Processes of proposing sites

Site selection and proposal has progressed in a series of stages at the Länder level. Consecutive lists of pSCIs were ratified by the respective Länder governments before being passed on to the Federal Environment Ministry for notification to the Commission. During the public consultation process, stakeholders (eg local authorities, land owners, NGOs) were given the opportunity to comment on the proposals. This has in some cases led to the receipt of several thousands of comments, which were processed and considered within the legal framework of the Directive.

Commonly, a lack of appreciation and/or support for the selection of sites on purely scientific, rather than socio-economic grounds has been noted. Moreover, concerned stakeholders often find the legal and economic repercussions of Natura 2000 designation difficult to grasp (modalities of site protection, significance of potentially adverse impacts on Natura 2000 sites, ecological buffer zones).

Furthermore, a number of scientific hurdles had to be overcome during the site selection process. In some Länder, a lack of relevant habitat and species data has contributed to delays in the site selection and notification process, and ambiguous selection criteria (Annex III), as

⁷ http://www.bmu.de/sachthemen/natbio/ffh_tabelle.php

well as insufficient definitions in the EU interpretation manual have further complicated procedures. This has hindered the national evaluation of site proposals and held up progress in national site notification.

1.2 Conservation measures (Article 6)

1.2.1 Management measures (objectives, management plans)(Article 6(1))

Some, but not all, pSCIs are designated under one or more existing categories, most notably as nature reserves (Naturschutzgebiet), national parks (Nationalpark), biosphere reserves (Biosphärenreservat), landscape protection areas (Landschaftsschutzgebiet), water protection areas (Wasserschutzgebiet), or as biotopes protected by law (art. 20c Federal Nature Conservation Act, BNatSchG). For some of these sites, management plans have been in place for some time (Pflege- und Entwicklungspläne), and habitat and species inventories are readily available. Many management plans further comprise specific conservation targets, and regular assessment of the impact of management measures on the conservation status of concerned sites is undertaken by the relevant authorities at the local level (behördliche Erfolgskontrolle). Site management frequently takes a contractual form (Vertragsnaturschutz) and/or involves the use of agri-environment schemes.

Efforts to produce coherent management criteria for pSCIs at the Länder level are increasingly common. Meanwhile, management objectives and targets are commonly set independently for individual sites by the relevant local authorities (eg National Park authorities). This mainly concerns previously established conservation sites such as national parks and nature reserves. Management plans that are more specifically tailored to the management of Natura 2000 sites are being developed in many Länder.

1.2.2 Protection of sites (eg avoiding deterioration, assessment) (Article 6(2))

The protection of sites is ensured by a host of general rules set out in the federal, as well as Länder nature conservation laws. These include provisions to prevent the deterioration or disturbance of sites. Some Länder laws have been adapted in response to EU legislation, and aspects of Natura 2000 have been integrated into landscape programmes (Landschaftsprogramme), and regional landscape and regional development plans (Landschaftsrahmenpläne/Raumordnungspläne). Moreover, site-specific ecological characteristics, site boundaries and associated obligations for the protection of concerned areas have been widely publicised in relevant media (local gazettes, daily newspapers, scientific journals etc.), supporting public awareness raising and anticipating visitor pressure. Legal obligations and guidelines from the EU and federal level have been transposed into administrative regulations in many Länder. Local councils (untere Verwaltungsbehörden) have been asked to take appropriate action if and when unlawful disturbances occur.

With respect to plans and projects with a potentially adverse effect on pSCIs, an environmental impact assessment (FFH Erheblichkeits- und Verträglichkeitsprüfungen) is obligatory under Article 19 of the Federal nature conservation law. At the Länder level, administrative regulations have, in many cases, been adapted. These regulations contain detailed provisions for the appraisal of plans and projects with potentially adverse impacts on Natura 2000 sites and indications for the necessity of impact assessments according to art.

6(3) of the Directive. In some Länder, site-specific and legally binding conservation objectives are used to assess the potential impact of plans and projects as part of environmental appraisal procedures.

In addition to legal provisions, general measures taken in support of habitat and species protection, water quality standards, and hydrological integrity help to avoid the deterioration of sites. Similarly, legal guidance given with regards to forest, water and soil management facilitates the general maintenance of the conservation status.

1.2.3 Effect of Article 6 conservation measures on Favourable Conservation Status (FCS)

No reference has been made to FCS (günstiger Erhaltungszustand).

1.3 Finance (Article 8)

1.3.1 Cost estimates

There has been no overall assessment of costs, and an evaluation of necessary conservation expenditure is deemed unfeasible prior to the completion of management plans and associated scientific assessments. Meanwhile, a concept for the assessment of costs according to Article 8 of the Directive has been produced by the Länder working group responsible for nature conservation (LANA). Using this framework, some Länder have made preliminary attempts to evaluate the costs of implementing the Habitats Directive. Other Länder have made independent preliminary assessments.

1.3.2 National/EU sources of funding

Ongoing management measures in pSCIs are funded by existing Länder budgets, most notably with the help of nature and landscape conservation funds. In addition, federal funds have been used to support conservation projects of national importance. EU co-funding has also contributed to the development of Natura 2000, particularly through funds from the Guidance Section of the European Agricultural Guidance and Guarantee Fund (EAGGF) and LIFE-Nature. With respect to LIFE funding, it is noted that the resources available are too scarce to support the development of Natura 2000 beyond one-off initiatives.

1.4 Surveillance (Article 11)

A federal research project aimed at delivering general recommendations for the 'Evaluation of the conservation status in accordance with the Habitats Directive' has not merely provided guidance with regards to reporting requirements under Article 17 of the Directive, but has provided the basis for future ecological monitoring activities. In addition, LANA is co-ordinating the development of a common monitoring scheme to be applied in all Länder.

Individual pilot projects at the Länder level are looking at the practical implementation of monitoring in pSCIs. Ongoing measures in support of the general surveillance of the FCS of habitats and species include:

- the evaluation of existing data bases (eg GIS data, scientific literature, fisheries research data);
- regular species and biotope mapping activities, and assessment of progress in achieving conservation objectives (Erfolgskontrolle);
- up-dating of the red data lists for ferns and native flowers;
- individual species action plans (incl. regular surveys);
- habitat surveys using aerial photography.

2 Protection of species (Article 12-16)

2.1 Strict system of protection (Article 12, 13)

Provisions for a strict system of species protection are made by the federal nature conservation act (Bundesnaturschutzgesetz), the federal regulation for the protection of wild species (Bundesartenschutzverordnung), and Länder legislation. For those species outside this strict system of protection, the Bundesländer have adopted protection orders (naturschutzrechtliche Schutzvorschriften) and, where appropriate, have put in place species-specific conservation measures.

In accordance with the respective Länder legislation, it is the responsibility of relevant nature conservation authorities at the Länder level to *monitor the incidental capture and killing* of protected species.

2.2 Takings and derogations (Article 14, 15, 16)

Some mammalian species included in Annex V of the Directive are subject to federal and Länder hunting regulations. The respective laws outline provisions on hunting and closed seasons (Schonzeiten), as well as corresponding measures relating to Article 14 (2) of the Directive. Similarly, fish species listed in Annex V of the Directive are subject to the Länder fishery laws, which also include relevant provisions under Article 14.

The majority of Annex V species to be found in Germany fall within the system of strict protection, and consequently their taking from the wild, use and trade is prohibited. Prohibited means of capture are outlined in paragraph 12 of the federal regulation for the protection of wild species (Bundesartenschutzverordnung, as amended 12 Dec. 1999), as well as in the federal hunting act (Bundesjagdgesetz, as amended 25 June 2001).

The taking of specimen of Annex IV species from the wild is subject to regulation. In accordance with Article 16 of the Directive, a small number of derogations have been granted. These predominantly concern exemptions for scientific and educational purposes, and have mainly involved invertebrate species. In addition, exemptions have been granted to allow the relocation of beavers (*Castor fiber*) and house-dwelling bat populations; the latter have been relocated in the wake of property refurbishment. In the case of Berlin, ongoing construction work has further necessitated the relocation of Sand lizard (*Lacerta agilis*) populations.

Overall, the conservation status of the concerned species has not been compromised by these measures.

3 Other issues

3.1 Research (Article 18)

In addition to the above-mentioned research project on the conservation status of habitats, a second extensive research programme (Forschungs- und Entwicklungsvorhaben) at the federal level is establishing scientific guidelines for the national assessment of lists of pSCIs. At the Länder level, research programmes have focused on individual species and/or habitat types.

3.2 Introduction and reintroduction (Article 22(a) and 22(b))

The following reintroductions have occurred

Bundesland	<i>Reintroductions of Annex IV species (Annex II species are marked*)</i>
Bayern	European beaver (<i>Castor fiber</i>)
Brandenburg	<i>Extinct populations</i> of the Green lizard (<i>Lacerta viridis</i>) are being re-established.
Hessen	European beaver (<i>Castor fiber</i>), European pond turtle (<i>Emys orbicularis</i>); *Soufie (<i>Leuciscus souffia</i>), *Freshwater pearl mussel (<i>Margaritifera margaritifera</i>), *Salmon (<i>Salmo salar</i>)
Mecklenburg-Vorpommern	Atlantic sturgeon (<i>Acipenser sturio</i>)-
Niedersachsen	European beaver (<i>Castor fiber</i>), Lynx (<i>Lynx lynx</i>), European mink (<i>Mustela lutreola</i>); *Freshwater pearl mussel (<i>Margaritifera margaritifera</i>)
Saarland	European beaver (<i>Castor fiber</i>), European tree frog (<i>Hyla arborea</i>)

No introductions of non-native species are reported.

3.3 Awareness raising (Article 22(c))

In many Länder, staff of local and regional nature conservation authorities have received extra training specifically geared towards implementation of the Habitats Directive. The general public has been informed by means of multi-media publicity (e.g. books, leaflets, posters CD-ROMs and the Internet), which included information about the general and site-specific conservation objectives of Natura 2000, as well as scientific, administrative and legal issues. In addition, several museums and educational centres have provided public displays and educational events.

As part of the public consultation phase during the site selection process, local stakeholder events provided detailed information, most notably on the legal and administrative consequences of site designation. The consultation process has generally received good media attention, further raising public profile.

3.4 Management of landscape features (Article 10)

In order to support a coherent system of habitat and species protection, a number of programmes addressing aspects of connectivity (eg stepping stones and wildlife corridors – ‘Biotopverbund’), and providing species and habitats recovery plans complement existing site conservation measures. Moreover, development and improvement schemes for waterways (Gewässerentwicklungs programme) integrate conservation objectives, and thus facilitate the coherent implementation of the Directive.

It is further noted that all EU financial/development support mechanisms should integrate the objectives of EU nature conservation policy. This is considered to be of paramount importance, particularly in view of the significant burden placed on the Länder. In addition, it is considered critical to an improved public perception and acceptance of the Directive that the Commission is involved in a timely way to ensure proper application of Article 6 (3) and (4) of the Directive. The importance of observing the principle of subsidiarity is noted.

3.5 Human resources and technical resources

Natura 2000 and the implementation of the Directive is commonly administered by existing members of staff, ie using existing resources for nature conservation. Within the framework of nature conservation administration, however, Natura 2000 plays a central role, which in turn is reflected in the financial and human resources dedicated to its implementation.

Summary of National Report: Greece

1 Natura 2000: conservation of natural habitats and habitats of species

1.1 proposed Sites of Community Importance (pSCI) (Article 4(1) and 4(2))

1.1.1 Inventories

The 'Inventory, identification, evaluation and mapping of habitat types and flora and fauna species in Greece (Directive 92/43/EEC)' was undertaken between June 1994 and February 1996. 75% of the funding was provided under the LIFE-Nature Regulation. The Ministry of Environment, Physical Planning and Public Works and the Ministry of Agriculture monitored the programme and provided the other 25% of the funding.

A total of 296 sites (the scientific list) were selected for assessment under the inventory project, chiefly in relation to the habitat types of Annex I, and the plant and animal species of Annex II. A large number of 'other important species' which are found in Greece but not included in Annex II were identified and recorded, chiefly species which are endangered, rare, endemic and/or protected by international conventions. The scientific list was communicated to the Commission in March 1996.

1.1.2 Processes of proposing sites

The scientific list was used as the basis for forming the 'national list' of proposed Sites of Community Interest (pSCI) and Special Protection Areas for birds. First, the results of the scientific list were notified to the competent services of the Ministry of Environment, Ministry of Agriculture, Ministry of Development, Ministry of Merchant Shipping, Ministry of National Defence and Foreign Ministry and to the Secretariat General for Public Works. The information and views of these bodies and the data held by the Regional Planning Directorate and the Division for General Environmental Affairs of the Ministry of the Environment were processed by a joint working party from the Ministry of Environment and the Ministry of Agriculture, which share competence for the Directive.

The national list was submitted to the Commission in parts. In July 1996, maps and information sheets were sent for 164 sites. The second part of the list was forwarded in April 1997. More sites were added in October 1999 and February 2001, following the biogeographical seminars for the Mediterranean region.

The national list currently includes 239 pSCI. The final results of a programme for mapping habitat types will verify the status of habitat types and give input for correction of some mapping discrepancies concerning coastlines and overlapping boundaries.

In terms of public information, the Local Union of Municipalities and Communes organised a three-day conference on nature conservation for elected local representatives and local authority personnel in 1997 in order to provide local government with fuller information about the Natura 2000 network. In 1998, the Ministry of the Environment organised 13

information day events in the regional capitals, to provide information on Natura 2000 to public bodies and to environmental organisations, professional associations, etc.

1.2 Conservation measures (Article 6)

1.2.1 Management measures (objectives, management plans)(Article 6(1))

The Ministry of the Environment drew up a national plan for the natural environment (Master Plan) in 1999, establishing policy objectives and priorities for the protection and management maximisation of the potential of Natura 2000 sites. The implementation of this plan will start with the support of the Structural Funds Community Support Framework (CSF) 2000-2006.

Law 2742/99 on 'Land-use planning and sustainable development and other provisions' establishes the procedure for setting up management bodies in protected areas and specifies their responsibilities and method of functioning. The management bodies are given various powers and responsibilities, including the compilation of management plans and operating regulations, monitoring and assessment of the application of the regulations, control over human activities, the delivery of opinions concerning preliminary planning authorisation and the adoption of environmental conditions for projects and activities.

Under Law 1650/86, the designation of protected areas and the establishment of management bodies requires a prior Specific Environmental Study (SES). These studies, supervised by the Environment Ministry, may be carried out by official bodies (Environment Ministry, prefectural authorities, municipalities, etc.) or other bodies (NGOs, etc.), through LIFE-Nature programmes, programming contracts, or from own financial sources. The Studies assist in the preparation of legal texts required for the designation of protected areas, the drawing of management guidelines and the establishment of their management bodies following their examination and formal acceptance by the Ministry of Environment.

By the end of 2000, around 10 SESs had been completed. These studies refer to areas coinciding, containing or overlapping with pSCIs. Many other SESs (60 Studies, covering approximately the area of 80 pSCIs) are at various stages of completion.

The Management guidelines for sites that are developed as part of these SESs are to be implemented by a management body. The first Greek management body was established in 2000 for the Lagana Bay National Marine Park in Zakynthos. This body has already started implementing management actions, although it has not yet drafted an integrated management plan.

During the 1994 – 2000 period management plans were drawn up and conservation and management actions were implemented for habitats and species covered by 70 pSCIs, via LIFE-Nature projects.

Moreover, the management plans drawn up in the LIFE '93 framework for nine of the 10 Greek National Forest Parks have provided a valuable information base. SESs, covering all or a part of the area of each National Park, are now being prepared for five of them. In some cases the recommendations of the management plans are being used by the forestry services

with regard to the construction of projects and the implementation of information and awareness-raising actions.

In addition to the activities summarised above, programmes have been undertaken to develop visitor management studies, information centres, equipment, and environmental interpretation. These programmes (20 in number) relate to 31 pSCI and play an important part in winning acceptance by local communities and in encouraging them to cooperate towards successful application of the measures proposed in the assessments.

Finally, in the 1995 to 2000 period, four agri-environmental programmes were implemented. The schemes for organic farming and long-term set-aside of agricultural land were given priority in ecologically sensitive areas of the national list in all parts of the country. Some 6,265 hectares of crop-growing land were included in the organic farming programme, and the programme for the long-term set-aside of agricultural land took in 12,000 hectares.

1.2.2 Protection of sites (eg avoiding deterioration, assessment) (Article 6(2))

No system of legal protection is reported specifically for pSCIs. However, some restrictions and prohibitions are provided for by forestry legislation, depending on the form of land use in the area and the particular protection status. As regards disturbance in particular, Article 59 of Law 2637/98 allows the secretary general of the region to issue a decision, on the recommendation of the forestry services, prohibiting traffic on the forest roads in order to protect species and their habitats. This process has been applied successfully to prevent disturbance of bears.

Codes of Good Agricultural Practice have been drawn up as part of the Rural Development Plan for Greece (issued by a Decision of the Ministry of Agriculture in 2000). These Codes mention that ecologically sensitive areas and Natura 2000 sites should receive special attention. Further to these Codes, the prefectural offices can, after consultation with the Forest Services, issue regional or local decisions with even stricter provisions to help avoid disturbance of the wild flora and fauna, e.g. closure of forest roads and restrictions on grazing.

In addition, a multi-dimensional programme of studies aimed at the reshaping of land-use planning in Greece was designed and put into operation with funding under the 2nd CSF (1994 – 2000). The studies took account of all the pSCIs with the aim of ensuring more effective protection of the natural resource of the sites.

The main mechanism for the evaluation and authorisation of new projects which may affect pSCIs is the environmental impact assessment (EIA). Law 1650/86 makes EIA compulsory for projects and activities which may bring about changes in the natural characteristics of an area. This prevents deterioration of the natural environment and, if changes do occur, ensures that compensatory measures are taken.

Before submitting an EIA, the party concerned must have been granted preliminary planning authorisation by the competent services. From 1998, the competence for preliminary planning authorisation and approval of environmental conditions in respect of projects and activities planned for pSCIs passed from the regions to the Ministry of the Environment. This makes for

better evaluation of the possible effects on the habitat types and species listed for which the site is proposed.

The available information for the year 2000 shows that 65 studies for preliminary planning authorisation, 51 environmental impact assessments and 42 studies relating to more general land-use actions were submitted in respect of 101 areas in the national list. Regarding preliminary planning authorisation, in about 9% of cases it was considered that the project/activity would have serious effects on the environment. In about 15% of the cases the documentation was considered inadequate and additional information was sought. Regarding EIA, in about 6% of the cases it was considered that the project / activity would have serious effects on the environment, and in about 14% of cases the documentation was considered inadequate and additional information was sought.

Once established, the management bodies for sites will be obliged to provide opinions to the competent authorities prior to the granting of preliminary planning authorisation and the approval of environment conditions for projects and activities which fall within their sphere of responsibility and on any other matter for which the competent authorities seek their opinion. This procedure is already being followed by the first management body for the Lagana Bay National Marine Park in Zakynthos.

The management plans and Specific Environmental Studies drawn up under LIFE-Nature programmes have served as a valuable information basis for the assessment of new projects and activities in the areas, and for the adoption of appropriate environmental conditions for those which have been approved. For example, the LIFE-Nature management plans drawn up for the protection of threatened habitats of western Crete (including five pSCI) are being used in the procedure for the granting of preliminary planning authorisation for projects in the areas.

1.2.3 Effect of Article 6 conservation measures on Favourable Conservation Status (FCS)

The question of FCS and of target-setting is not discussed in the report. The positive effect of the environmental legislation issued in the period 1994-2000 has not been evaluated yet. Concerning the establishment of the Lagana Bay National Marine Park, it is important to mention that the population of *Caretta caretta* has been stabilised in the last years. Equally, the population of *Monachus monachus* in the Northern Sporades National Marine Park has increased and the population of *Ursus arctos* in the Pindos area has stabilised and, in certain cases, increased.

1.3 Finance (Article 8)

1.3.1 Cost estimates

No estimate of costs has been undertaken at the national level. The public services whose responsibilities include the monitoring of projects and programmes in Natura 2000 sites keep records of expenditure. This information reveals that the mean cost of carrying out a preliminary protection and management programme for a pSCI, including preparation of the Specific Environmental Study, the setting-up of any special intervention studies and the implementation of projects and interventions to promote the natural ecosystem (information

centres, environmental interpretation projects) comes to about €962,000. This budget refers to areas with no existing infrastructure. In addition, the evidence so far from the functioning of the management body for the Lagana Bay National Marine Park indicates that the fixed operating cost for that body is about €146,000 per annum. Over and above that, it is estimated that the management expenditure of the body in the first five years of its operation will be €587,000 per annum.

1.3.2 National/EU sources of funding

Approximately €17.4 million were disbursed altogether from national sources over the 1994 – 2000 period for the financing of projects and activities in pSCIs or for species listed in the Directive, aimed at the protection and good management of such sites and species. Of that total, about €7.5 million came from the general budget for studies, projects and activities through the ‘Environment’ sub-programme of the 2nd Community Support Framework (ERDF). A sum of approximately €6.5 million has been authorised and is being disbursed in stages from ETERPS (the Special Fund for the Implementation of Regulatory and Planning Arrangements) for the national participation in LIFE-Nature projects and for the financing of various environmental projects and research programmes.

In addition, approximately €3.3 million have been disbursed from the general budget for programmes of the agri-environment Regulation (EAGGF), although not all of this expenditure is directly relevant to Natura 2000. Some other expenditure may be considered relevant, for example through LEADER projects, but data are not available to show expenditure relating specifically to conservation.

1.4 Surveillance (Article 11)

The ‘BioGreece’ database, derived from the LIFE project ‘Inventory, identification, evaluation and mapping of habitat types and fauna and flora species in Greece’, includes data on the species and habitat types of the 296 areas included in the national list. In 1999, a mapping programme (Biomap) for the habitat types of these areas was launched with financing under the 2nd CSF. The programme is expected to be completed in 2001.

These databases will be supplemented by the creation of the National Environmental Information Network (EDPP) which will function as an integrated information system for the storage and processing of information on the status of the environment at local, regional and national level.

The Hellenic Biotopes and Wetlands Centre (EKBY) has created a wetlands database (1998 – 2000) for sites of that type. The database holds information about water quality, flora, fauna and geology etc., and is a follow-up to the project ‘Inventory of Greek wetlands as a natural resource’ which was carried out by the same body in 1994. In addition, the first National Forest Inventory made by the Ministry of Agriculture was published in 1992. Several other databases concerning species and habitat types at the national level as well as for physico-chemical parameters of water bodies are kept by different organisations, official or otherwise.

Currently, monitoring activities are carried out by the public authorities and by non-governmental organisations, in particular in the framework of LIFE-Nature and LIFE-

Environment projects. However, no systematic surveillance or monitoring arrangements are reported at the national level. It is envisaged that systematic monitoring of habitats and species, as well as of the important abiotic parameters which can significantly affect them, will be conducted at local level by the management bodies when they are set up.

As regards the methodologies for surveillance of the conservation status of species and their biotopes, the three NGOs which carry out systematic monitoring of the populations of the sea turtle and Mediterranean seal and of bears and wolves use methodologies which have become standard components of international practice.

Also, the Hellenic Biotopes and Wetlands Centre published the Guide to the Monitoring of Sites of the Natura 2000 Network in 1996. This provides a summary of the monitoring methods at the level of natural areas, habitat types and wild flora and fauna species and gives advice on how to develop a general design framework for a monitoring programme. As a preliminary monitoring operation, this centre produced an inventory of the threats, activities and land uses etc. in 10 pSCIs in 1998, in co-operation with the Ministry of Environment.

NGOs have designed monitoring actions for 10 pSCIs the 1994 – 2000 period, chiefly through the LIFE-Nature financing mechanism. As regards species, NGOs have carried out nine different programmes aimed chiefly at the *Caretta caretta*, *Monachus monachus*, *Canis lupus* and *Ursus Arctos*.

Monitoring of the *Monachus monachus* populations is being carried out mainly by the Society for the Protection of the Mediterranean Seal in Greece. A large portion of this latter monitoring work is included in the national management plan for the species (financed by national and Community resources), under way since 1991 in both the Aegean and the Ionian seas. Counts have shown that the Mediterranean seal populations are not falling, and that in certain areas, for example in the Northern Sporades park, the numbers are actually increasing (12 juveniles were counted in the Alonisos marine park in 2000, twice the number recorded in the previous years).

The breeding population of *Caretta caretta* is monitored in various areas of the country by the Archelon NGO, chiefly in the framework of LIFE-Nature programmes but also through programmes which the organisation carries out of its own accord, as it has done since 1984. The results of the monitoring show that the breeding population has remained roughly stable in recent years.

Monitoring of the brown bear population is carried out by the Arktouros NGO, chiefly in the framework of LIFE-Nature programmes. The results of the monitoring have shown that the population is stabilising and that the numbers in the northern Pindus area are going up.

2 Protection of species (Article 12-16)

2.1 Strict system of protection (Article 12, 13)

As a first step towards providing protection the Ministry of the Environment requested the Hellenic Biotopes and Wetlands Centre (EKBY) to provide it with a list of the threats and

dangers to habitats and species documented by the Specific Environmental Studies and management plans.

Laws have been introduced to provide protection for those Annex IV species that were not previously protected. Action plans and specific actions have been devised for many Annex IV species through the LIFE-Nature programmes, and also with government support in the framework of national planning for the environment. Certain species have been given priority for protection actions, as summarised below.

As regards the Sea turtle, *Caretta caretta*, strict legal protection has existed since 1981. The Lagana Bay National Marine Park in Zakynthos was established by law in 1999, and the incubation beaches are now guarded. In addition to the marine park, the Ministry of the Environment, the Ministry of Merchant Shipping, the Ministry of Finance and the port authorities have issued a number of directives to prevent deterioration of sea turtle incubation sites, chiefly at the Kyparissia and Crete sites.

The Monk seal, *Monachus monachus*, has been protected since 1981. In addition, the Northern Sporades National Marine Park has been established and is providing surveillance and wardening. An immediate intervention and rescue team made up of trained people has been set up to provide in situ first aid as part of the national management plan. A national management plan is being implemented.

The ‘general action plan for the protection and management of brown bear habitats in Greece’, which was devised by the NGO Arktouros as a LIFE-Nature project, is being widely used in the preliminary planning authorisation procedure and for the approval of projects and activities in the natural range of the species. Various measures have been taken to protect the brown bear, including the placing of electric fences around beehives, operation of the bear protection centre, restructuring of habitats, mapping of sensitive areas in order to control land use, modification of the Egnatia Highway project, pilot management of waste, sheepdog raising and the closure of forest roads.

No formal system for *monitoring of the incidental capture and killing* of species of fauna has been introduced. In the case of marine species, the services of the Ports Corps record the numbers of cetaceans, turtles and seals that are found dead, the locations at which they are found and the opinions delivered by veterinarians, and they forward the information to the Ministry of Merchant Shipping, the Ministry of the Environment and the relevant non-governmental organisations.

Annex V mammals are not subject to exploitation. Measures are not reported for other Annex V species.

2.2 Takings and derogations (Article 14, 15, 16)

The general framework for the protection of species and the provisions regulating their exploitation are set out in the legislation transposing Directive 92/43/EEC and the Berne Convention. Derogations concerning the capture and killing of species are granted in accordance with the legislation transposing Directive 92/43/EEC.

Generally speaking, other than the use of Aldrich traps for the fixing of emitters on bears and of bat nets for research purposes, the prohibited methods and means listed in Annex VI to Directive 92/43/EEC, which in general are banned by the legislation in force, are not used.

During the 1994 – 2000 period derogations were granted only for research purposes or for the creation of botanical gardens, research and education centres and seed banks.

Specifically, plant species were taken at almost all of the national list sites by universities which participated in the ‘Identification and description of habitat types in areas of interest for nature conservation’ project. The National Institute for Agricultural Research (ETHIAGE) took plant species to create a botanical garden and a research and education centre focusing on Balkan flora and the Mediterranean Agronomic Institute in Chania took them to create a botanical garden and a seed bank for Cretan flora.

Several derogations were granted to universities, research institutions and NGOs in relation to species of fauna (bats, Monk seal, wolf, bear, etc.).

3 Other issues

3.1 Research (Article 18)

In addition to the BioGreece and Biomap projects, at least 311 relevant research projects (universities and research bodies) have been recorded. Of those projects, 100 are connected with national list sites and relate to the recording of species, habitats, threats and activities and to management measures, while 61 relate to more general ecosystem categories including wetlands and coastal and forest systems.

3.2 Introduction and reintroduction (Article 22(a) and 22(b))

No reintroduction of Annex IV species are reported.

In recent years the bullfrog (*Rana catesbeiana*) has been introduced in the Agia locality of Chania, possibly for commercial reasons, and this is threatening to disturb the ecological balance of the area. In addition, the snail species, *Helix aspersa*, of which there are native populations in Greece, possibly with genetic differences, was introduced in the eighties for cropping. It is not known whether the species has escaped into the wild. Natural infiltration of the species *Caulerpa racemosa*, *Acanthofora najadiformis* and *Halophila stipulacea* via the Suez Canal has been recorded in marine ecosystems.

There have been many introductions of fish species in Greece since the 1960s. A total of 23 fish species are mentioned, for which introduction has been successful in 8 cases.

So far, with the exception of a very few papers, there has been no scientific documenting of the consequences of incidental introductions/re introductions of species into Greece. However, in October 2000, the Ministry of Agriculture invited tenders for a scientific project

entitled 'Methods of investigating the possibilities and repercussions arising from the introduction or reintroduction of wild fauna species into the wild'.

3.3 Awareness raising (Article 22(c))

Many actions have been carried out with the aim of educating and raising the awareness of the public about the environment. To a greater or lesser extent, most of the actions have related to the species and habitats of Community interest. The actions have been carried out in almost every area of the country by various bodies and with funding from a variety of sources. The environmental organisations have made an important contribution, particularly through the LIFE-Nature projects, by producing informative material and carrying out information actions.

The Ministry of the Environment has issued a map showing the programmes in the national list areas and two pamphlets providing information about the Habitats Directive and the Natura 2000 network. It has also produced a short television spot on the same subject. In addition, informative material has been issued and information activities have been carried out for 60 pSCIs under the 'Environment' subprogramme of the 2nd CSF. The Hellenic Biotopes and Wetlands Centre (EKBY) has also played an important part in informing the public about the Natura 2000 network by producing and distributing printed material.

Training actions specifically related to Natura 2000 have been far fewer.

3.4 Management of landscape features (Article 10)

A programme for the identification and recording of landscapes, which have potential for protection, including landscapes which could function as communication pathways, is nearing completion. When the programme is completed, a start will be made on creating a network of 'protected landscapes' in accordance with Law 1650/86. The first results of the programme show that many of those areas overlap or are within sites, which are on the national list of pSCI/SPA.

3.5 Human resources and technical resources

The Ministry of the Environment and the Ministry of Agriculture are jointly responsible for applying the Directive. At the Ministry of the Environment, apart from the heads of administration (the Director General for the Environment and the Director of Environmental Planning), the natural environment management division, which has 15 permanently established scientific employees and four on contracts, is employed wholly on matters relating to the protected areas and, by extension, to the Natura 2000 network.

During the 1998 – 2001 period the natural environment management division collaborated with personnel of the Hellenic Biotopes and Wetlands Centre (EKBY) on the basis of cooperation agreements, chiefly on scientific aspects of the application of the Directive. In total, about 10 scientists have been involved.

In addition, personnel from the competent prefectural authorities have participated in the implementation and monitoring of programmes for the protection and management of Natura 2000 sites through the programming contracts concluded under the 2nd CSF between the ministries which share competence, and local government bodies. It is estimated that about 40 people from local government were engaged in this work over the 1994 – 2000 period, albeit on an occasional basis.

As regards water resources, all of the ichthyologists of the prefectural fisheries services are involved indirectly with the application of the Directive on behalf of the Ministry of Agriculture. Two central service employees are employed directly on gathering information about the application of the Directive, and at the Directorate General for Fisheries seven people are employed in relation to the application of the Directive.

The Secretariat General for Forests and the Natural Environment of the Ministry of Agriculture (central and regional services) are responsible for forest ecosystems and are directly or indirectly involved with the Natura 2000 network. Around 11 foresters from the central service (Directorate for Attractive Woodlands, National Forests and Hunting) and 148 people in the regional services are involved.

Summary of National Report: Ireland

1 Natura 2000: conservation of natural habitats and habitats of species

1.1 Proposed Sites of Community Importance (pSCI) (Article 4(1) and 4(2))

1.1.1 Inventories

Between 1992 and 1994 a survey was carried out by the National Parks and Wildlife Service (NPW) of known areas of conservation interest in Ireland. Additional surveys, inventories and reviews focused on species and habitats listed in Annexes I and II of the Habitats Directive. An initial list of proposed Special Areas of Conservation (equivalent to pSCIs) was composed by the Irish Representative on the Scientific Working Group overseeing the implementation of the Habitats Directive and was subsequently amended by the NPW.

There are 364 pSCIs covering 9,953 km². These have been transmitted to the Commission in 35 separate lists.

1.1.2 Processes of proposing sites

Dúchas⁸ is responsible for the process of proposing sites, under the authority of the Minister for Arts, Heritage, Gaeltacht and the Islands.

The Irish government is keen to carry out site proposals in partnership with landowners and wherever possible sites are not transmitted before landowners objections have been dealt with. There is a system of appeals to site designation proposals. Initially this takes the form of an informal appeal, which can either result in decision by a Dúchas officer or a referral to the pSCI appeals board. The appeals board is made up of representatives from organisations representing landowners and non-governmental conservation organisations under an independent chairman appointed by the Minister. A landowner that is referred to the appeals board is given £1000 to obtain scientific evidence to support their claim. As of October 2001, 756 informal appeals had been made to Dúchas, of which roughly half were granted (either fully or partially). 136 of the informal appeals were referred to the board; 33 were refused, 4 were fully approved, 23 were partially approved, 15 were withdrawn and 59 were yet to be heard.

It is the view of the Irish Government that long-term sustainability and protection of the Natura 2000 network in Ireland will be enhanced as a result of efforts undertaken in notifying as wide a range of people as possible during the site proposal stage.

⁸ The Heritage Service of the Department for Arts, Heritage, Gaeltacht and the Islands.

1.2 Conservation measures (Article 6)

1.2.1 Protection of sites (eg avoiding deterioration, assessment) (Article 6(2))

It was originally intended to transpose the Habitats Directive into Irish law by way of amendments to the Wildlife Act 1976. It was instead decided to bring the Directive into force under the 'European Communities Act 1972'. The Directive was finally officially transferred into national law through the European Communities (Natural Habitats) Regulations (1997) (SI No.94/1997). The Directive was further transposed into Irish law through the Wildlife (Amendment) Act 2000.

Rangers from Dúchas are empowered through the 1997 Regulations to insist that any ongoing activities damaging to pSCIs be stopped. As of October 2001, Dúchas had obtained four court injunctions and started legal proceedings in 13 cases against individuals for failing to comply with the Regulations.

Under Section 14 of the 1997 Regulations numerous activities on pSCIs can only be carried out with the permission of the Minister for Arts, Heritage, Gaeltacht and the Islands. The restricted activities vary according to the types of habitats or species that are present at each site. Twenty-nine separate 'Notice of Notifiable Actions' documents have been produced, each detailing the restricted activities for different habitat types. Dúchas has sent approximately 16,000 landowners 'Notices of Notifiable Actions' relevant to their land.

The Wildlife (Amendment) Act 2000 includes provisions to strengthen the protective regime for pSCIs by ensuring that protection will in all cases apply from the time of notification to the Commission of proposed sites.

1.2.2 Management measures (objectives, management plans)(Article 6(1))

Management plans are currently being prepared for all pSCIs containing priority habitats, and some are also being prepared for other sites. So far, 241 draft management plans have been prepared for pSCIs to the public consultation stage, including 13 for non-priority habitats. They will not be finalised until the processes of public inspection and consultation have been completed. Ireland has received funding from the LIFE programme to support the preparation of management plans. Management plans are specific to each pSCI and include management prescriptions for each Annexed habitat type or species within the site.

After an initial draft of the management plan is drawn up it is presented to Dúchas regional management staff for approval. A second draft is prepared after a meeting of a Dúchas Plan Review Group, incorporating the views of scientific staff and regional management staff and is then released for public consultation. A final draft is produced on completion of the public consultation that constitutes a 5-year site management plan.

An important framework for implementing SAC management prescriptions at farm level is the Rural Environment Protection Scheme (REPS). It is an agri-environment scheme administered by the Department of Agriculture, Food and Rural Development. REPS is designed to promote farming practices that are sympathetic to conservation, landscape

protection and wider environmental goals. Approximately 40,000 (27%) of farmers in Ireland participate in REPS.

1.2.3 Effect of Article 6 conservation measures on Favourable Conservation Status (FCS)

Dúchas and other public authorities are responsible for maintaining the FCS of Natura 2000 sites, although FCS is not defined.

1.3 Finance (Article 8)

1.3.1 Cost estimates

Spending by the National Parks and Wildlife Division of Dúchas on nature conservation has risen from € 8.5 million in 1993 to over € 21 million in 2001.

Natura 2000-specific costs are given for projects involving the conservation of raised bog, an Annex 1 habitat. These projects are the Cessation of Turf Cutting Scheme and the Conservation of Raised Bog Habitats. In 1999 the expenditure on these projects was € 1,415,767 and € 33,300, respectively.

1.3.2 National/EU sources of funding

Ireland has received EU funding from LIFE-Nature to support the conservation of the Natura 2000 network in Ireland. Funding was awarded to assist in the development of management plans and emergency actions aimed at pSCIs. LIFE-Nature funding for developing site management plans has amounted to € 1,485,373.

1.4 Surveillance (Article 11)

Dúchas is preparing to implement its national monitoring programme which will be applied to approximately 500 SACs/SPAs, covering 50 habitats types and about 150 species. The monitoring programme will have four interrelated components: site integrity monitoring, species condition monitoring, habitat condition monitoring and parameter monitoring.

The requirement in the Habitats Directive for information on the physical integrity of designated sites resulted in a National Site Impact and Activity Reporting Programme led by the Monitoring Division of Dúchas. Data for the programme is collected by Conservation Rangers located throughout the country. The Programme combines monitoring, reporting and site management.

There are a number of specialised monitoring programmes also either already or soon to be in use throughout Ireland. The Commonage Framework Planning Project will provide assessments of the level of grazing on the 250,000 ha of commonages designated as pSCIs. Specific condition monitoring programmes are in preparation for the Lesser Horseshoe Bat, the Freshwater Pearl Mussel, the Freshwater Crayfish and the Bottle-Nosed Dolphin. Habitat

monitoring programmes are ‘progressing slowly’, with only a programme for raised bogs currently being formulated.

2 Protection of species (Article 12-16)

2.1 Strict system of protection (Article 12, 13)

Strict protection systems at the species level are provided for in Irish law by the European Communities (Natural Habitats) Regulations 1997. These Regulations augmented the provisions of the Wildlife Act 1976, which already offered extensive legislative protection to species included in the Habitats Directive. The Wildlife (Amendment) Act of 2000 further strengthened the legal protection.

Annex IV animal species present in Ireland are given full protection under Section 23 of the European Communities (Natural Habitats) Regulations 1997 and the Wildlife Acts 1976 and 2000. It is an offence to kill or disturb these species except under licence. A number of Annex IV plant species are given protection in Ireland under the Flora Protection Order 1999, under Section 21 of the Wildlife Act 1976.

There are currently no provisions for the *monitoring of incidental capture and killing* of protected species. A report has been commissioned from University College Cork on the options for monitoring cetacean bycatch. Ireland intends to further examine systems of monitoring and control of incidental capture and killing of Annex IV(a) species if it is considered in the future that incidental capture and killing could have a significant negative impact.

2.2 Takings and derogations (Article 14, 15, 16)

Protection from taking in the wild of Annex V species is provided in Section 23 of the Wildlife Act 1976. Section 23 gives protection to the Pine Marten, the Irish Hare, the Common and Grey Seal, the Frog, the White Clawed Crawfish and the Freshwater Pearl Mussel. Sections 23 (1976) and 31 (2000) also prohibit the taking of wild animals, unless under licence.

The protection afforded to Annex V species was strengthened by the 1997 Regulations. Section 24 enables the relevant ministers to take measures to ensure that the taking in the wild of Annex V specimens is compatible with maintaining them at a favourable conservation status. Annex V floral species in Ireland are: Reindeer Moss, *Leucobryum glaucum*, Sphagnum Mosses and Club mosses. Fish species are: the River Lamprey, Pollan, Allis and Twaite Shad and freshwater Salmon. In addition Sections 21 (1976 Act) and 29 (2000 Act) prohibit the taking, purchase, sale, transport or possession of Annex V flora.

There are sections in both the Wildlife Acts (1976 and 2000) designed to prevent the indiscriminate taking of animals in Annexes IV(a) and V(a).

Although Section 25 of the 1997 Regulations permits derogation by licence issued under the Wildlife Acts 1976 and 2000, in practice licences are very rarely issued for Annex IV(a)

species. Derogations are occasionally granted to competent persons to disturb or capture species where this is for the purpose of scientific research. This has so far been the case for bats and dolphins.

3 Other issues

3.1 Research (Article 18)

Several research programmes have been carried out covering the Habitats Directive. Dúchas has been the main body leading these programmes which have been undertaken at the species and habitat level. They have included the following:

- Conservation and Restoration of Raised Bog Habitats;
- research into the status and distribution of the Shining Sickle-moss (*Drepanocladus vernicosus*);
- an atlas of the distribution of *Odonata* (Dragonflies and Damselflies); and
- development of a list of nationally scarce vascular plant species by way of contribution to the Atlas of the vascular flora of Great Britain and Ireland.
- Research undertaken by other agencies (EPA and TEAGASC⁹) has included the following:

EPA - the Environmental Monitoring, R&D Programme (1994-1999), which supported 20 research projects into air quality, water quality, waste, cleaner production and dangerous substances;

- TEAGASC – Environmental Research Programme to explore environmentally friendly farming techniques. A number of studies within the programme are aimed at evaluating the impact of REPS on biodiversity and are a collaborative venture between Irish universities and the Department of Agriculture, Food and Rural Development which have examined nutrient pollution, landscape and biodiversity aspects.

3.2 Introduction and reintroduction (Article 22(a) and 22(b))

Local reintroductions of the natterjack toad (*Bufo calamita*) between locations in Ireland took place in 1991. There have been no other reported reintroductions or introductions into Ireland of any other species.

3.3 Awareness raising (Article 22(c))

Efforts are being made in Ireland to inform, educate and make people aware of the natural environment and the need to protect it. The bodies responsible for such activities are Dúchas, ENFO, The Heritage Council and EPA.

⁹ The Irish Agriculture and Food Development Authority

The agencies (Dúchas, EPA and others) have the largest educational role. Activities have included a television series focusing on Ireland's environment (one programme specifically on biodiversity), radio programmes, a website, various publications (reports and leaflets), meetings, workshops and seminars, school visits/outings and organisation of National Heritage Week.

ENFO is a public service which provides easy public access to information on the environment and related issues.

The Heritage Council also undertakes some educational activities, including the 'Heritage in Schools' programme which aims to generate greater interest and awareness of Ireland's heritage amongst younger generations through a programme of school visits/outings. The Council has also part-funded the appointment of Heritage Officers in local authorities, some of whom have received training on Natura 2000 from Dúchas.

3.4 Management of landscape features (Article 10)

The National Biodiversity Plan (due to be completed in 2002) will increase efforts to conserve biodiversity generally and so will serve to reinforce the implementation of the Habitats Directive and the Natura 2000 network. The report suggests that Ireland's new management programmes and policies for the coastal zone, rivers, lakes, wetlands and woodlands will also contribute to these effects.

3.5 Human resources and technical resources

The staff of the National Parks and Wildlife Service (NPW) section of Dúchas are responsible for the conservation and management of natural heritage. NPW employs 210 people who are directly involved in nature conservation, 120 of which are regional field management staff. Other sections of the Department of Arts, Heritage, Gaeltacht and the Islands involved with implementation of the Directive include Education and Visitor Services, National Botanic Gardens, the Natural History Museum and the Heritage Policy and Legislation Division. The Heritage Council is also involved with implementation of the Directive.

Summary of National Report: Italy

1 Natura 2000: conservation of natural habitats and habitats of species

1.1 proposed Sites of Community Importance (pSCI) (Article 4(1) and 4(2))

1.1.1 Inventories

The Ministry of the Environment ran two projects as the basis for site selection:

- 1992 LIFE-Nature project: “Habitat Italia 1st Phase”.
- 1994 LIFE-Nature project: “Extension of the Habitat Italia programme, including the Bioitaly programme”.

The purpose of the Bioitaly project was to gather, organise and systematise information on the natural environment in Italy, especially natural and semi-natural habitats and species of wild fauna and flora of Community interest.

1.1.2 Processes of proposing sites

The first phase consisted of a detailed discussion between scientific circles and the competent authorities at various official levels concerning the interpretation of the annexes and their application to Italian territory. This produced closer collaboration, although not the same level of technical and organisational preparation in all regions and autonomous provinces.

Contracts for preparing site proposals were then signed with the individual regions and autonomous provinces, which acted independently but were coordinated by:

- a Scientific Coordination Committee of representatives of the Ministry of the Environment and the scientific societies;
- a Technical Coordination Committee of representatives of the Ministry of the Environment and the regions and autonomous provinces;
- the role of Technical Secretariat assigned to ENEA (*Ente per le Nuove Tecnologie, l'Energia e l'Ambiente*) on behalf of the Ministry of the Environment.

The first site proposals with data-sheets were sent to the EC in June 1997 (following a preliminary list of sites, without data forms, submitted in June 1995), with further sites following in 1998. On 22nd April 2000, a full list of proposed SCIs (and Birds Directive sites) was published in the Official Gazette (Ministerial Decree of 3 April 2000). This gave new momentum to awareness of Natura 2000 sites at all official levels (provincial and municipal authorities) and to the public generally. The Italian list presently includes a total of 2,369 proposed sites.

1.2 Conservation measures (Article 6)

1.2.1 Management measures (objectives, management plans)(Article 6(1))

Management measures are not reported, although a LIFE project started in 2000 for the development of guidelines for Natura 2000 site management plans (the guidelines were published in the Official Gazette n. 224, of 24 September 2002). Also, a number of site management plans are being developed under LIFE projects.

1.2.2 Protection of sites (eg avoiding deterioration, assessment) (Article 6(2))

The Habitats Directive is transposed in Italy by Presidential Decree No 357 of 8 September 1997. However, Article 6 has created problems. First, some regions and autonomous provinces challenged the stipulations of the Presidential Decree. Also, at the end of 1999 the EC instituted infringement proceedings because Article 6(3) of the Directive was transposed imperfectly: projects to be subject to assessment of their implications on the sites were limited to the categories covered by the national regulations transposing the environmental impact assessment Directive, even though the Habitats Directive states that any project likely to have a significant effect on the conservation status of a site must be subject to an assessment of its implications.

At the beginning of 2000, the Ministry of the Environment's Nature Conservation Department convened a technical board to undertake a joint review of the text of PD 357/97 with the regions and autonomous provinces. Through this board, the Ministry of the Environment established a channel of communication with the regions on the subject of Natura 2000, through which it raised the regions' awareness of their responsibility for taking appropriate steps to avoid the deterioration of natural habitats and the habitats of species present in the pSCI. It was also a response to the growing length of time being taken to complete the site selection process.

From 2000, the regions and autonomous provinces started to integrate the Article 6 requirement on the assessment of projects into their regulations and to transpose the prescriptions of PD 357/97 into their project authorisation procedures. The legal basis varies: in some cases, it is EIA legislation (e.g. Lombardy, Apulia), while in others (e.g. Tuscany) the requirement for project assessment is implemented through regulations on nature conservation.

The technical board revised the text of PD 357/97, producing a modified version, although due to various delays it has not been approved definitively by the competent body, nor have the changes been confirmed as sufficient by the EC.

1.2.3 Effect of Article 6 conservation measures on Favourable Conservation Status (FCS)

Not reported

1.3 Finance (Article 8)

1.3.1 Cost estimates

Not reported.

1.3.2 National/EU sources of funding

National and LIFE funds have been used in the process of developing inventories and selecting sites, as well as for site management and conservation activities.

Structural Funds have been used to conserve and to derive benefits from proposed SCIs.

1.4 Surveillance (Article 11)

Presidential Decree 357 transposes Article 11 of the Habitats Directive and entrusts the State Forestry Board (CFS) with the task of carrying out surveillance activities pursuant to the Decree. Where cases involve problematic decisions, the CFS refers to the Ministry of the Environment as the competent national body.

The Ministry of the Environment's Nature Conservation Department has supplied the CFS with the Natura 2000 data bank and digital maps. These data have been fed into the Mountain Information System (SIM), a system of on-line services designed to bring the public authorities and their services closer to people living in mountain areas.

Inclusion of the Natura 2000 data in the information system has allowed all CFS field stations to obtain full information on the pSCI and SPAs located in their area. This structure, which enables the CFS to carry out surveillance of Natura 2000 sites, will constitute the basis for future monitoring activities.

Action plans have been drawn up for Corsican hare, Apennine chamois and wolf. Guidelines have been drawn up for monitoring the amphibians, reptiles and mammals listed in Annexes IV and V.

2 Protection of species (Article 12-16)

2.1 Strict system of protection (Article 12, 13)

Presidential Decree No 357/97 (transposing the Habitats Directive) includes the annexes to the Directive in full, and thus protects all the species of Annexes IV and V.

In addition, the national law protecting warm-blooded fauna and regulating taking by hunters (Law No 157 of 11 February 1992) protects all the mammals listed in Annexes IV and V to

the Directive, while allowing hunters to take specimens of *Rupicapra rupicapra* under selective slaughter plans.

Regional legislation on the protection of wild fauna is varied. In some regions, invertebrates and cold-blooded vertebrates are given only partial protection. Nine regions (Basilicata, Calabria, Campania, Emilia Romagna, Marche, Apulia, Sardinia, Sicily and Umbria) have no rules on the strict protection or restricted capture of animal species listed in Annexes IV and V to the Habitats Directive. Only Tuscany refers explicitly to the Habitats Directive (R.L. 56/2000 “Rules for the conservation and protection of natural and semi-natural habitats and wild fauna and flora”). Specific laws exist to protect fauna (e.g. Lazio, Liguria, Molise, Province of Bolzano), and some rules protecting certain species are contained within general environmental protection laws (e.g. Piedmont, Friuli-Venezia Giulia).

There is no national law protecting species of flora (apart from PD 357/97). Various regions have legislative provisions regarding plant species deemed to deserve protection, and many authorities are currently checking the data on species distribution in their regional territory with a view to producing or updating the species lists associated with the regulatory instrument.

There is no national system capable of *monitoring incidental captures and killings* of all species covered, though some regions and autonomous provinces have taken action to that end. It must be emphasised that in situations where accidental killings have a particularly large impact there have been many local initiatives to offset the effects (e.g. road underpasses or overpasses for amphibians; measures to reduce road collisions with ungulates).

2.2 Takings and derogations (Article 14, 15, 16)

There are no general measures governing the taking of Annex V species. Regional legislation is variable on fauna protection, as mentioned above. Under State Law No 157/92 the only mammal of which specimens may be taken is *Rupicapra rupicapra*.

For all captures, including cases where derogations are granted under Article 16 of the Directive, non-selective means of capture are prohibited. For the capture of mammals in particular, an opinion is usually requested from the National Institute for Wild Fauna, which in addition to assessing the selectivity of the means of capture or killing, takes account of the impact of the technique on the conservation status of the species.

With regard to derogations, it should be noted that no such procedure existed until the Directive was transposed by PD 357/97, and even now the number remains extremely low. Authorisation has been granted only for capture for scientific purposes. The number of requests was 7 in 1999 and 5 in 2000 for captures of microchiroptera, wolves (*Canis lupus*), bears (*Ursus arctos*) and Appennine chamois (*Rupicapra pyrenaica ornata*). All operations have involved the live capture and immediate release of a small number (1-10) of individuals per species, with no impact on wild populations. One case also involved the killing of one individual per species of bat.

3 Other issues

3.1 Research (Article 18)

There is no specific document setting out research priorities; however, all planned activities have always been assessed in terms of their importance and priority for the application of the Directive and for Italy's nature conservation strategy. The list of projects is extremely long and complex and cannot therefore be summed up in this report.

3.2 Introduction and reintroduction (Article 22(a) and 22(b))

No full list is available of introductions and re-introductions. Many past introductions (most of them predating the Directive) have created problems for habitats and species protected by the Directive. Examples include the serious impact of the coypu and the grey squirrel; management guidelines have been drawn up for both species.

Special mention should be made of the problem of freshwater fish: very many non-native species have been introduced and it is virtually impossible to introduce effective preventive or recovery measures; accordingly, a study is under way which should lead to the drafting of monitoring and management guidelines.

Attention should be drawn to the document "Guidelines for introducing, re-introducing and restocking birds and mammals" drawn up by the National Institute for Wild Fauna in 1997. This is a guidance text including information also useful for other animal *taxa*.

3.3 Awareness raising (Article 22(c))

Some publications have been brought out nationally, but most effort has focused on providing information to official bodies in the regions via websites, meetings, information memos, etc. This activity has resulted in many regional initiatives to report and disseminate what has been done under the Directive (congresses, publications, websites, etc.). In 2002, the first number of a newsletter, "Natura 2000 Italia Informa" was published by the Environment Ministry.

The active role played by non-governmental environmental associations (WWF, Legambiente, CTS, LIPU) also contributed during the phases of awareness-raising, dissemination and promotion of issues relating to the Natura 2000 network. Many of the awareness raising activities took place in the framework of LIFE-Nature projects.

3.4 Management of landscape features (Article 10)

Not reported

3.5 Human resources and technical resources

Not reported

Summary of National Report: Luxembourg

1 Natura 2000: conservation of natural habitats and habitats of species

1.1 proposed Sites of Community Importance (pSCI) (Article 4(1) and 4(2))

1.1.1 Inventories

In order to establish a national list of sites eligible to be proposed as SCIs, a scientific list was drawn up:

- **for Annex I habitats:** in conjunction with the botanical working group from the National Nature Conservationists' Society (*Société des naturalistes luxembourgeois* or SNL) and the National Natural History Museum (*Musée national d'histoire naturelle*);
- **for Annex II species:** in conjunction with the National Natural History Museum, and more specifically, its scientists specialising in the groups of species covered by the Directive.

1.1.2 Process of proposing sites

The first stage was to conduct bibliographical research in order to collect and compile information on Annex I habitats and Annex II species occurring in Luxembourg. A wide range of data sources was used for this:

- the SNL's bulletin;
- specific fauna and flora studies on certain habitat types or species (eg alluvial forests, wetlands, bats, etc), most of which have not been published;
- data concerning the 1982 Declaration of General Intention (DIG);
- the LUXNAT database managed by the National Natural History Museum;
- the LUXSITE database dedicated to Natura 2000 sites and all other areas of importance for the conservation of threatened habitats and species (see 3.5 below);
- expert groups consulted; and
- maps produced by the Ministry of Environment on biophysical land use (available since April 1996).

Using this information, the boundaries of the pSCIs were geographically defined. This was conducted in three stages:

- provisional definition of the sites on the basis of bibliographical information, data from the LUXNAT database and expert advice. In addition, a number of sites were defined so as to include species threatened at national level;

- experiment conducted at national level to weight the sites (late 1996). The aim was to apply the site assessment method developed by the French National Natural History Museum in order to identify the sites in Luxembourg eligible to be proposed as SCIs. It transpired that the French method could not easily be transposed to a small country such as Luxembourg and that sites deemed important according to the criteria established in the Directive might be prematurely excluded from site selection using the French method;
- more detailed definition of the pSCIs using digitalised biophysical land use maps, approval of the pSCI boundaries by the different expert groups, and approval of the scientific list by experts. The aim of this third stage (early 1997) was to reduce the surface area of the pSCIs originally defined (20.3% of the country's total area), by not including farmland with low ecological value. The boundaries were reassessed with the help of expert groups and a consultancy, using the GIS-Environment system. The scientific list of sites was finally approved on 21 July 1997 at a consultation meeting organised by the Ministry of Environment.

On the basis of this list, the Government selected sites in which Annex I habitats and Annex II species occur in order to obtain 'habitat areas' which:

- ensure balanced representation of the different habitats concerned,
- enable coherent areas to be created, and
- ensure, as efficiently as possible, the protection of the habitat/species concerned.

Subsequently, the national list comprising 38 pSCIs, covering a total surface area of 352 km², ie 13.6% of the country's total area, was selected.

On 27 October 1998, the list of pSCIs was formally submitted to the Commission, followed on 13 January 1999, by the relevant site data.

1.2 Conservation measures (Article 6)

1.2.1 Management measures (objectives, management plans)(Article 6(1))

Management objectives and plans are to be established for each site. Overall management of the Natura 2000 sites will be carried out by the Water and Forestry Administration (*Administration des Eaux et Forêts*), following the example of nature reserves. The main parties involved are the municipal authorities (*syndicats communaux* and *communes*).

Sites will be managed using the following instruments:

- contract-based management, ie negotiated management measures in order to meet conservation objectives. These include the Natura 2000 programme developed by the Ministry of Environment under which compensation payments are made to farmers who compromise harvests or who provide additional services to maintain habitats at a favourable conservation status. Similar compensation payments will be available to farmers in woodland areas. The financial instruments to implement the contract-based

measures are defined in the Grand-Ducal Regulation (*règlement*) of 22 March 2002, instituting a set of financial aid schemes for the conservation of biological diversity.

- rural easements on land dedicated to a specific type of farming (eg extensive grazing) or which will be dedicated to habitat enhancement schemes.
- land acquisition by the State or municipalities.
- site designation as national protected areas.
- the Grand-Ducal Regulation of 22 October 1990 on financial aid to improve the natural environment.

The appropriate method is to be chosen on a case-by-case basis, depending on the ecological value and vulnerability of the land concerned, as well as the cooperation of its users.

1.2.2 Protection of sites (eg avoiding deterioration, assessment) (Article 6(2))

In order to protect pSCIs and SPAs from possible damage and pending further amendment of the Nature and Natural Resources Conservation Act of 11 August 1982 (as amended), a Ministerial Instruction was issued on 9 July 1999 to all administrations under the authority of the Ministry of Environment. The Instruction outlines the administrative measures required to ensure implementation of the Habitats Directive.

Legislation is currently being drawn up to (i) transpose into national law the Habitats Directive, and (ii) further amend the Nature and Natural Resources Conservation Act of 11 August 1982 (as amended). The proposed Act will provide legal protection to pSCIs.

The general mechanisms established to evaluate and authorise new activities affecting sites are laid down (i) in the aforementioned Ministerial Instruction of 9 July 1999 and (ii) the Nature and Natural Resources Conservation Act of 11 August 1982 (as amended).

The Ministerial Instruction, for instance, requires chief nature conservation engineers of the districts (*arrondissements*) to personally ensure protection of pSCIs, by requiring them to submit detailed opinions on all proposed schemes that may alter the concerned sites. The conservation engineers must take immediate measures in the event of these sites being damaged, by warning the higher authorities and, if need be, the judicial authorities. They are to record in writing a breach of the legal provisions in force. The Instruction also reproduces, the text of Article 6(3) and (4) of the Habitats Directive.

In addition, under the Nature and Natural Resources Conservation Act, authorisation is required from the Environment Minister for certain activities (drainage, cleaning, water abstraction, pumping, direct or indirect water diversion, strengthening river banks, raising river beds and, more widely, for any work that may affect the water regime or have a harmful effect on aquatic flora and fauna and the quality of the site). Any changes in woodland use are prohibited unless specifically authorised by the Environment Minister in the interest of the general public or with a view to improving farm structures. It is also prohibited to reduce, destroy or alter biotopes such as ponds, marshes, reed beds, rushes, hedgerows, scrub or copses, as well as all habitats in Annex I and habitats of species in Annex II.

1.2.3 Effect of Article 6 conservation measures on Favourable Conservation Status (FCS)

No attempt has been made to define FCS in relation to Natura 2000, or to evaluate current conservation status. An evaluation of the conservation status will be realised in the framework of the management plans.

1.3 Finance (Article 8)

1.3.1 Cost estimates

No cost estimates have been made as yet in Luxembourg.

1.3.2 National/EU sources of funding

In 1997, the Ministry of Environment began working on drafting a Grand-Ducal Regulation to establish a legal framework under which conservation measures for Natura 2000 sites could be funded. The Regulation, adopted on 22 March 2002, establishes a set of financial aid schemes for the conservation of biological diversity. A copy of this Regulation is provided in Annex I of the report.

1.4 Surveillance (Article 11)

No monitoring programmes for habitats or species are in place as yet.

2 Protection of species (Article 12-16)

2.1 Strict system of protection (Article 12, 13)

The protection measures in place for fauna and flora are laid down in separate regulations. The following *animal species* are protected under 1986 Regulations:

Bivalvia :

Unionidae (including *Unio crassus*)

Insecta :

Papilionoidea s.l. spp. (there are exceptions, but these do not concern species listed in Annex IV)

Amphibia :

Salamandridae (including *Triturus cristatus*)

Discoglossidae (including *Bombina variegata*)

Bufoidea (including *Bufo calamita*)

Hylidae (including *Hyla arborea*)

Ranidae (including *Alytes obstetricans*, *Rana lessonae*)

Mammalia :

Chiroptera spp.

Muscardinus avellanarius

Lutra lutra

Felis sylvestris

Not protected :

Castor fiber

No *plant species* from Annex IV is currently protected in Luxembourg. The report infers that the Grand-Ducal Regulation of 19 August 1989 concerning the full and partial protection of certain plant species of wild flora does not cover Annex IV plant species. An amendment of the protection status and the list of protected species is planned under the proposed legislation to amend the 1982 Nature and Natural Resources Conservation Act.

The proposed legislation transposing the Habitats Directive provides for a *monitoring system for incidental capture and killing*.

2.2 Takings and derogations (Article 14, 15, 16)

Animal species

The taking in the wild of specimens of Annex V species is currently regulated by the Grand-Ducal Regulation of 8 April 1986 concerning the full and partial protection of certain species of wild fauna. The following species are covered:

- *Helix pomina* : it is prohibited to collect specimens of this species on all public and private land belonging to the State or municipalities. On land belonging to private individuals, it is prohibited to collect them between 1 April and 31 June
- *Margaritifera margaritifera*: taking prohibited

- *Astacus astacus*: taking prohibited
- Ranidae: taking prohibited
- Not protected: *Castor fiber*, *Hirudo medicinalis*, *Austropotamobius torrentium*, *Thymallus thymallus*, *Salmo salar*, *Barbus barbus*, *Martes martes*, *Mustela putorius*

Plant species

The taking in the wild of specimens of Annex V species is currently regulated by the Grand-Ducal Regulation of 19 August 1989 concerning the full and partial protection of certain species of wild flora. The following species are covered:

- Cladoniaceae: taking prohibited
- Sphagnaceae: taking prohibited
- Lycopodiaceae: taking prohibited
- *Arnica montana*: taking prohibited
- Not protected: *Leucobrium glaucum*.

An amendment of the protection status and the list of protected species is planned under the proposed legislation to amend the 1982 Nature and Natural Resources Conservation Act.

The means for capturing and killing are defined in the following items of legislation and regulations:

- Nature and Natural Resources Conservation Act of 11 August 1982;
- Act of 15 March 1983 to protect the life and well-being of animals;
- Hunting Act of 19 May 1885;
- Grand-Ducal Regulation of 8 April 1986 concerning full and partial protection of certain animal species of wild fauna;
- Ministerial Regulation of 18 September 1997 on authorised hunting means;
- Ministerial Regulation of 29 May 1986 on the use of firearms and ammunition for hunting purposes.

The proposed legislation to amend the 1982 Nature and Natural Resources Conservation Act (in its Article 23) will specifically include a ban on indiscriminate means of capture and killing, as specified in the Habitats Directive. Article 23 reproduces the text of the Directive's Article 15.

No mention is made in the report of whether these measures will be evaluated.

It is difficult to globally assess derogations, particularly since there are few requests for this. However, it can be concluded that capture is the main activity authorised. It is carried out for research and educational purposes and, in some cases, to protect wild flora and fauna. A further reason may be to protect public health. Many of the derogations granted concern insects.

3 Other issues

3.1 Research (Article 18)

Research programmes are conducted on maintaining habitats/species at, and/or restoring them to, a favourable conservation status. These programmes are run by scientific institutions, particularly the National Natural History Museum. The Ministry of Environment does not contribute to the focus of the research.

3.2 Introduction and reintroduction (Article 22(a) and 22(b))

No information on reintroductions of Annex IV species or deliberate introductions is provided in the report.

3.3 Awareness raising (Article 22(c))

Hitherto, the main training efforts undertaken by the Ministry of Environment have been directed at forest workers so as to develop their capacity in Natura 2000 awareness raising.

In 2000, the Ministry of Environment published a 10-page information booklet for the general public on the importance of the Natura 2000 network and its implementation in Luxembourg.

NGOs have contributed to awareness raising by informing their members and the public.

3.4 Management of landscape features (Article 10)

3.5 Human resources and technical resources

The Ministry of Environment is in charge of establishing the Natura 2000 network (2-3 experts are involved). Management of the network is to be entrusted to the Water and Forestry Administration (*Administration des Eaux et Forêts*) (1 forest engineer and an unspecified number of forest workers).

A database, known as LUXSITE, dedicated to Natura 2000 sites and all other areas of importance for the conservation of threatened habitats and species has been set up in an attempt to overcome two major problems: the fact that available information is extremely heterogeneous in nature and that it is widely dispersed among the different institutions and administrations involved. The aim of LUXSITE is to be able to provide users with up-to-date information on the Natura 2000 sites.

It is planned that the LUXSITE database will be updated continuously and will draw part of its information from the LUXNAT database and the GIS (Geographical Information System)-Environment.

Summary of National Report: The Netherlands

1 Natura 2000: conservation of natural habitats and habitats of species

1.1 proposed Sites of Community Importance (pSCI) (Article 4(1) and 4(2))

1.1.1 Inventories

The site selection process has been based on scientific data compiled as part of the Dutch contribution to the European CORINE Biotopes project, as well as on expert advice from professionals at the Expertise Centre for Agriculture, Nature Management and Fisheries (EC-LNV) (formerly the Information and Knowledge Centre for Nature Management (IKC-N)). Additional advice has been provided by scientific bodies, such as the IBN-DLO, now Alterra, and universities, nature conservation organisations (eg Vogelbescherming Nederland) and the five regional policy directorates of the Ministry of Agriculture, Nature Management and Fisheries. During the reporting period, 76 sites were notified as pSCIs.

1.1.2 Processes of proposing sites

Site selection and proposal has progressed in a series of tranches, and according to criteria laid down by the Ministry of Agriculture, Nature Management and Fisheries and IKC-N. They are based on results of the Atlantic Biogeographical Region Workshop in Edinburgh in October 1994.

The first 76 qualifying sites were selected on the basis that:

- they meet the criteria in Annex III of the Habitats Directive;
- they cover an area of more than 250 ha;
- they contain priority species and/or habitat types;
- sites with non-priority species and/or habitat types only, must be among the five most important sites in the Netherlands or the hundred most important sites in the European Union (This criterion is in keeping with the methodology used for the CORINE Biotopes project.).

A sub-set of 27 sites was notified to the European Commission in 1996, followed by a second tranche in 1998, which included all 76 sites. The second tranche initially included a number of reservations, which were however rejected by the Commission and subsequently withdrawn by the Dutch authorities.

In 1999, in response to the first Atlantic seminar in Kilkee, the Ministry of Agriculture, Nature Management and Fisheries asked Alterra and EC-LNV to produce a third and final site proposal. This was done on the basis of new scientific data, notably relating to the then finalised national classification of vegetation (National Vegetation Database (LVD)), and revised site selection criteria. The latter were adjusted to be more consistent with Annex III

and Articles 1 and 4 of the Habitats Directive, as well as to take account of the outcomes of the Atlantic seminar.

The site selection process was hindered by a lack of information on individual sites and public opposition to the site selection and notification process. Opposition has been the result of uncertainty over the status of sites once designated, and the legal consequences of site notification and designation.

1.2 Conservation measures (Article 6)

1.2.1 Management measures (objectives, management plans)(Article 6(1))

95% of potential Natura 2000 sites (Birds and Habitats Directive sites) are included in the Netherland's Main Ecological Structure (EHS) – the national 'backbone' for nature conservation. This network of national sites mostly includes land acquired with public money and managed by nature conservation organisations, the State Forest Service and provincial nature conservation foundations.

EHS sites are to be left intact, and encroachment upon and/or developments inside or in the immediate vicinity of an EHS site is not permitted, if the activity affects the essential site characteristics or values. Exemptions are possible only, if warranted by overriding social interests. Investigations must be carried out, generally in the form of an environmental impact assessment (EIA), to verify whether such works or developments could not reasonably take place elsewhere or take a different form. If this is not the case, and encroachment is inevitable, compensatory measures must be taken.

Nature area plans exist for all EHS sites. The owners of land in nature areas may, on the basis of these plans, receive management grants. With regards to site management, two orders worth noting are the 'Management Contracts and Nature Development Order' and the 'Afforestation of Farmland (Promotion) Order'. The policy for EHS sites is set out in the Structural Plan for the Rural Areas (SGR).

1.2.2 Protection of sites (eg avoiding deterioration, assessment) (Article 6(2))

Following a Commission letter of formal notice for failing to adequately transpose Article 6 into Dutch law, the government introduced a bill amending the 1998 Nature Conservation Act (December 2001). The bill has yet to be debated by parliament.

1.2.3 Effect of Article 6 conservation measures on Favourable Conservation Status (FCS)

The report makes no reference to FCS.

1.3 Finance (Article 8)

1.3.1 Cost estimates

Only rough, provisional estimates exist for the cost incurred by public authorities in implementing Natura 2000. Present difficulties in providing absolute figures include:

- time constraints which have meant that figures are based partly on assumptions (the questions regarding Article 8 of the Habitats Directive had to be answered at short notice);
- difficulties in distinguishing between costs incurred in connection with Natura 2000 sites and other nature areas;
- difficulties in compiling data on expenditure from the multitude of public and private organisations (incl. NGOs and local authorities) involved in the implementation of the Directive, particularly given existing time constraints;
- failure to take account of direct and indirect expenditure on Natura 2000 prior to site notification (eg acquisition costs);
- general tendency to underestimate the cost of supervisory measures, enforcement and monitoring, particularly as many of these activities make up only a small part of bigger projects or are carried out by volunteers;
- uncertainty about the final area coverage of Natura 2000.

However, standardised management costs have been estimated on the basis of the various types of nature areas. These are commonly used in grant applications to the Ministry of Agriculture, Nature Management and Fisheries' Nature Management Subsidies Scheme (Management Programme Scheme), and have formed the basis for the following summary table of Natura 2000 expenditure:

Table 1: Summary of estimated costs incurred by public authorities in the Netherlands and Dutch nature conservation organisations in implementing Natura 2000 in the period 1994-2000 (EUR millions)

	incidental costs*	education & info.	management costs	district water board levies**	enforcement and monitoring	total
million EUR	43.9	75.1	409.7	54.6	8.6	591.9
%	7.4	12.7	69.2	9.2	1.5	100

*Incidental costs include expenditure on acquiring nature areas, effect-based measures, species protection plans and habitat defragmentation measures.

** District water board levies are the charges which landowners are required to pay to district water boards.

1.3.2 National/EU sources of funding

Nationally, funds for Natura 2000 include contributions from the Ministry of Agriculture, Nature Management and Fisheries. Some of the expenditure has been specifically geared to nature conservation, the majority, however, have a number of unrelated objectives. European sources of funding include LIFE-Nature and IRMA (Interreg II/1997-2001).

Nine projects were co-financed under LIFE-Nature during the reporting period.

1.4 Surveillance (Article 11)

Since 1995, species monitoring is organised within the Ecological Monitoring Network (NEM), which brings together three ministries (Agriculture, Nature Management and Fisheries; Transport, Public Works and Water Management; Housing, Spatial Planning and the Environment), the Central Statistical Office (CBS) and the National Institute of Public health and the Environment (RIVM). General data is available on plants, birds, bats, reptiles, amphibians, butterflies, dragonflies and toadstools. In addition, more specific monitoring measures are carried out in the context of species protection plans, which require the provision of annual species inventories. There has not been any formal monitoring of habitat types, but a study on the scope of such monitoring has been undertaken.

Work on a national survey of the distribution of flora and fauna in the Netherlands started in 2000. This distribution survey is examining data requirements, actual availability of distribution data and supplementary data needs.

Generally, monitoring initiatives are not specifically geared towards the requirements under the Habitats Directive. For instance, the demarcation of existing surveying areas often does not coincide with proposed Natura 2000 sites. Monitoring procedures are currently being reviewed to make up for inconsistencies.

All NEM data is collected by the CBS. An annual report is compiled which describes the trends for the species concerned. In light of developments under the Habitats Directive, the NEM and associated system for obtaining data are being evaluated.

2 Protection of species (Article 12-16)

2.1 Strict system of protection (Article 12, 13)

As far as Annex IV species (occurring in the wild in the Netherlands) are concerned, the provisions of Article 12(1) and (3) and Article 13 of the Habitats Directive were incorporated

in the form of prohibitions in Chapter V of the 1967 Nature Conservation Act. In 2002 the above were replaced by the Flora and Fauna Act (passed in 1997/98, entered into force on 1 April 2002), which implements the species protection components of the Habitats Directives.

Under the ‘species policy action plan’ published in 1996, 650 target species were identified as requiring special attention. Subsequently, and on the basis of the 2000-2004 Multiannual Programme for the Implementation of the Species Policy, a schedule for developing and implementing species protection plans for 150 species was drawn up. These species are considered the most endangered species in the Netherlands.

A number of species protection plans were drawn up during the 1994-2000 period. Their aim was to return endangered populations to a viable state within a five-year period. The following species have been concerned:

Species	published
Spoonbill	1994
Barn owl	1996
Little owl	1999
Large copper butterfly	2000
Field plants	2000
Midwife toad, yellow-bellied toad and European tree frog	2000
Marsh birds	2000
Montagu's harrier	2000
Hamster	2000

In accordance with Article 12 (4) of the Habitats Directive, by-catch (e.g. dolphins and porpoises) resulting from fishing activities and muskrat control measures are monitored. Research is being conducted to improve catching methods so as to prevent by-catch.

2.2 Takings and derogations (Article 14, 15 and 16)

With respect to Annex V species, it is permitted to take larvae of the edible and common frog, and to keep them for educational purposes until they have completed metamorphosis. Where considered necessary, other species are subject to regulations under the Hunting (until 1 April

2002, when it was replaced by the Flora and Fauna Act) and Fisheries Act. Pine martens and polecats may not be caught or killed.

The Hunting Act contains provisions banning the use of indiscriminate and prohibited means of capture (Annex VI (a) of the Habitats Directive).

Derogations are permitted only on the grounds described in Article 16(1)(c) and (d) of the Directive. Derogations have been granted with regards to the European hamster, to support a captive breeding and restocking programme (Blijdorp Zoo, Rotterdam) and to allow water pipe laying in the Limburg district. In addition property developments made derogations necessary with regards to a number of amphibian and reptile species, notably the common spadefoot, sand lizard, natterjack toad, pool frog and great crested newt. Mitigation and compensation measures were taken.

3 Other issues

3.1 Research (Article 18)

The report does not mention any specific research efforts other than those mentioned in previous sections.

3.2 Introduction and reintroduction (Article 22(a) and 22(b))

During the reporting period, the beaver has been successfully reintroduced in two locations. In addition, restocking programmes for the wall lizard, the yellow-bellied toad and the European hamster have taken place. Restocking of the wall lizard has been successful; programmes for the other two species had not been evaluated by the end of the reporting period.

3.3 Awareness raising (Article 22(c))

Most information activities have combined information on the Habitats and Birds Directives. Events and materials have been aimed at country-wide public and private organisations, and at regional and local organisations. At the regional and local level, meetings were usually organised by the regional directorates of the Ministry of Agriculture, Nature Management and Fisheries. In June 1997, the Netherlands organised an EU expert seminar (Apeldoorn) entitled '*Agriculture and Natura 2000*'.

The Ministry has published two key brochures: (1) '*Questions and Answers*' and (2) '*Nature areas in the Netherlands protected on the basis of international agreements*' (May 1994). The most relevant information concerning Natura 2000 is also to be found on the Ministry's website. Furthermore, questions may be answered by the Ministry's information desk (*Infotiek*).

3.4 Management of landscape features (Article 10)

The Structural Plan for the Rural Areas (SGR) stipulates that the protection of species which are subject to international agreements must be taken into account in district and land-use plans. In the case of spatial planning and development activities, care is to be taken to ensure the conservation and development of the habitats of such species. If disruption (eg of migration routes) is unavoidable, compensation measures have to be taken (eg by minimising fragmentation and barrier effects). The SGR also provides for the implementation of the Main Ecological Structure (EHS), under which 95% of the Dutch Natura 2000 network is being established. The Environment Management Act provides for adequate environmental impact assessment.

The EHS aims at providing greater cohesion between spatially dispersed designated areas. By 2020 there will be new robust nature links which will strengthen the spatial cohesion and ecological quality of the EHS and create larger contiguous nature areas. The Natura 2000 network is an essential part of the EHS. The EHS is evolving through the acquisition and development of farmland and management of nature areas. The policy document *Nature for People, People for Nature* published by the Ministry sets out a strategy to achieve greater connectivity and where possible to take account of nature areas in the wider European context.

3.5 Human resources and technical resources

The Dutch Government and, within the cabinet, the Minister for Agriculture, Nature Management and Fisheries, is the main authority in charge of implementing the Habitats Directive in the Netherlands. Yet with regard to Article 6 of the Habitats Directive, the system provided for in the bill amending the 1998 Nature Conservation Act gives every competent administrative body in the Netherlands responsibility for the Directive's implementation.

Summary of National Report: Portugal

1 Natura 2000: conservation of natural habitats and habitats of species

1.1 Proposed Sites of Community Importance (pSCI) (Article 4(1) and 4(2))

1.1.1 Inventories

Between 1994 and 1998, the ICN (Institute for Nature Conservation) co-ordinated various projects involving inventories of habitats and species on the Portuguese mainland, with support from LIFE, including the 'Project on Natural habitats and Plant species in Annex II to the Habitats Directive in (mainland) Portugal'. Based on the results of these projects and existing knowledge within the ICN, the Nature Conservation Services Department drafted an initial scientific proposal of sites in July 1995.

For the Autonomous Region of the Azores, a list of terrestrial sites was proposed on the basis of the inventory work conducted under the LIFE Project 'Natural Vegetation and Flora of the Azores', by the Agrarian Science Department of the University of the Azores.

For the Autonomous Region of Madeira, a comprehensive field survey of laurel forests was undertaken from December 1992 to May 1995 by technicians from Madeira Natural Park, Madeira Botanical Gardens and the Regional Environment Department. This was the basis for proposing one of the most complex sites.

1.1.2 Processes of proposing sites

In May 1996, a preliminary draft of the proposed National List of Sites was produced. This was submitted to a process of public discussion, through meetings with government departments, scientific institutions, business, farmer and forestry associations, environmental bodies and citizens.

It was decided to deliver the proposed National List to the Commission in two stages. The first tranche of 31 sites, covering around 13% of mainland territory, was approved by the Council of Ministers on 5 June 1997 and published on 28 August 1997. The second tranche was prepared in the light of later results from the 'Project on Natural habitats and Plant species in Annex II to the Habitats Directive', with a view mainly to improving representiveness of certain habitats and species. It was published on 5 July 2000, having been made available for public consultation from March to April 2000.

The list of site proposals for Azores was published by the Regional Government on 5 February 1998. In the case of Madeira, the final list of sites was published by the Regional Government on 19 September 2000.

The Portuguese list presently includes a total of 94 proposed or adopted sites.

1.2 Conservation measures (Article 6)

1.2.1 Management measures (objectives, management plans)(Article 6(1))

A legal framework is established by Decree Law No. 140/99 of 24 April 1999, which transposes the Birds and Habitats Directives into national law. The Decree provides for the preparation of a sectoral plan designed to establish the scope and framework of measures needed to guarantee the conservation of natural habitats and species, having regard to the environmental assets to be protected and the socio-economic development of the areas included in Natura 2000. This plan is to serve as a guideline for preparing municipal land-use plans or, where appropriate, the special land-use plans themselves.

The sectoral plan relating to implementation of the Natura 2000 Network, referred to in Article 7(5) of the Decree, has the following objectives:

- a) Lay down guidelines for land-use management in Natura 2000 sites;
- b) Establish the system for safeguarding the natural resources and assets of the sites, ensuring uses and management systems are compatible with sustainable use of the territory;
- c) Draw up maps, using available data, showing the distribution of habitats present in sites;
- d) Lay down guidelines for zoning areas according to their respective characteristics and conservation priorities;
- e) Determine measures to ensure development and maintenance at favourable conservation status of the habitats and species appearing in the annexes to Decree Law No. 140/99 of 24 April 1999, as well as provide the typology of restrictions on land use, having regard to the distribution of habitats to be protected;
- f) Provide guidelines on the inclusion in municipal or special land-use plans of the measures and restrictions referred to in the preceding subparagraph;
- g) Determine the conditions, criteria and procedure to be followed in carrying out environmental impact assessment and analysing the environmental implications referred to in Article 9 of Decree Law No. 140/99 of 24 April 1999.

No systematic approach to establishing management objectives is reported, although management measures are proceeding in several sites, on the basis of site-specific objectives.

Although the ICN has drawn up management plans which partially encompass two sites, no national process or timetable is reported for developing and implementing management plans. The total number of sites currently subject to management plans is not specified.

Some sites and groups of sites have been the subject of LIFE projects involving the development and implementation of management plans. These include several terrestrial and marine sites

There is no established process for developing and implementing management plans, other than the legal framework referred to above (1.2.1 i).

1.2.2 Protection of sites (eg avoiding deterioration, assessment) (Article 6(2))

Protection measures were implemented through Decree Law No. 140/99, Article 7. Sites partially or totally coinciding with protected areas are subject to the protection existing for those areas. Also under this Article, measures for the maintenance and conservation of the habitats and species for which sites are designated were included in amendments made to Town/Land-use Planning Schemes (PDM).

Article 8 of Decree Law No. 140/99 lists the activities affecting sites that are subject to a binding opinion from the authority responsible for nature conservation. These include new building developments, changes of land-use affecting areas over 5 hectares, changes of use to wetlands and marine areas, new or widened transport links, new energy and communications lines above ground, motor-sports, mountaineering and reintroduction of native species. The Environmental Impact Assessment system has been applied wherever justified by the nature of the projects.

1.2.3 Effect of Article 6 conservation measures on Favourable Conservation Status (FCS)

Work is being undertaken to establish the current conservation status of specific habitats and species in certain pSCIs. However, the concept of FCS is not discussed and no targets are referred to.

1.3 Finance (Article 8)

1.3.1 Cost estimates

A preliminary analysis of the 'Costs of conserving open spaces' was conducted with the aim of identifying costs per hectare for maintaining the natural assets that gave rise to the proposal of sites. During the work, the habitats found at these sites (Annex I and habitats associated with species) were identified, after which costs were calculated for: maintaining habitats, rehabilitation of habitats and management thereof. These costs included direct, indirect (e.g. compensation for damage caused by wolves, fire prevention, erosion control measures, etc.) and opportunity (e.g. maintaining extensive rather than intensive farming systems, etc.) costs. For this analysis, habitats were grouped together into the following categories: marine areas, saltwater habitats, coastal habitats, freshwater wetland habitats, scrub and grasslands, agricultural habitats, forest habitats, non-coastal rocky areas.

1.3.2 National/EU sources of funding

Between 1994 and 2000, over €35 million were invested in nature conservation studies and activities, with the following funding sources:

Structural Funds under the Operational Environment Programme: €13.64 million

Cohesion Fund: €13.94 million

PIDDAC (Central Government Development Investment and Expenditure

Schedule – this is the national contribution to LIFE projects) €11.99 million

Autonomous Region of the Azores

1999-2000: €19,184

Autonomous Region of Madeira

1994-2000: €9.09 million

LIFE funds from EU:

Mainland Portugal

LIFE Programme (1995-1999): €15.64 million

Autonomous Region of the Azores

LIFE Programme (1994-2002): €4.55 million

Autonomous Region of Madeira

LIFE Programme (1994-2000): €2.60 million

1.4 Surveillance (Article 11)

At national level, the ICN has developed the SIPNAT (Natural Heritage Information System) database system with the aim of systematising and disseminating information about the Natural Heritage in Portugal.

Surveillance of habitats and species takes place as part of normal procedures within protected areas. Certain species are the subject of close surveillance to detect particular pressures, for example, Iberian lynx in Serra da Malcata.

More integrated arrangements are being developed in certain sites, such as Douro Internacional and Peneda-Gerês. In the former site, shortage of staff has limited the surveillance activity. In the latter, wolf and Pyrenean desman populations are being monitored.

A methodology for monitoring marine sites is to be defined as part of the LIFE Project 'Integrated Management of Coastal and Marine Areas of the Azores'.

There are no general results of surveillance, although certain habitats have been found to be suffering from regression and/or degradation, specifically Galicio-Portuguese oak forests and bogs, and humid scrub.

Generally speaking, surveillance is interpreted as a site-specific activity, rather than as monitoring of the conservation status of habitats or species throughout their range, against established targets.

2 Protection of species (Article 12-16)

2.1 Strict system of protection (Article 12, 13)

Although there are numerous projects for improving the conservation of particular species, including increased protection in specific sites, no examples are reported of strict protection systems operating throughout a species' range.

Concerning fish species on Annex IV, for *Anaocypris hispanica*, no strict measures have been taken against the sundry and sometimes illegal actions which frequently occur in the water courses of the Guadiana basin, such as extraction of inert material, water extraction from shallow ponds, discharging effluent and fishing by illegal methods.

For several species in particular sites (e.g. wolf, cetaceans), there is a system for reporting the appearance of dead specimens. In general, *monitoring systems* have not been established throughout a species' range.

Concerning the *Anaocypris hispanica*, there is no plan to implement a permanent monitoring system of incidental capture or killing, since incidental capture is considered negligible. Although there are no studies to confirm this hypothesis, in the areas where the species occurs (i.e. the small tributaries flowing into the Guadiana basin), professional fishing is negligible and it is unlikely that it would be captured during recreational fishing. If a monitoring system was considered important, it would not be easy to implement, because apart from the small size of the species, the places where its incidental capture might occur are remote and difficult to monitor.

In the area covered by the Castro Marim and VRSA Marsh Nature Reserve, there is no system to monitor incidental capture or killing of the chameleon *Chamaeleo chamaeleon*, apart from normal surveillance activity which does detect a few cases.

2.2 Takings and derogations (Article 14, 15, 16)

General measures are reported for fish species, although these consist of pre-existing measures for regulating fishing. Nevertheless, because some of these measures are not appropriate for species conservation, and due to the lack of supervision and especially habitat

degradation, it is reported that there has been a widespread regression in populations of these species. Measures for other species are reported at the local level, within proposed SCIs.

At national level, the following measures were taken per group of species:

Felis silvestris* and *Lynx pardinus

The use of box traps to reduce predator density is allowed in game areas subject to special hunting regulations. These traps can capture wildcats and lynx. Some cases of killing or accidental death after capture have been known. Supervision of their use is lax. Other types of traps are prohibited in Portugal.

Freshwater and migratory fish

Indiscriminate means of capture for fish listed in Annex IVa), namely poison and explosives, are prohibited in Portugal. Apart from these means, other types of fishing gear are prohibited and permitted nets must comply with specific regulations on mesh size and dimension, consistent with the species and places where they are used.

At the local level, use of illegal and indiscriminate means of capture is reported from several proposed SCIs, in spite of existing prohibitions.

Felis silvestris

It may be considered that there was a derogation from Article 12b) and d) for this species in the case of the Alqueva dam scheme, for reasons of public interest.

‘Serra de S. Mamede’

For research purposes, a derogation was granted in respect of some species of amphibians for scientific reasons.

‘Arrábida–Espichel’, ‘Sado Estuary’ and ‘Comporta-Galé’ sites:

Various conditional opinions were given in relation to forestry projects in areas within the range of various species of flora included in the annexes, most of them ruderals which benefit from some types of soil disturbance.

3 Other issues

3.1 Research (Article 18)

At the national level, the following research measures were implemented per group of species:

Reptiles and Amphibians

Work designed to obtain the necessary scientific grounding to determine the measures required to conserve species included in Annex II. These activities were carried out within the framework of the 'Knowledge and Management of the Natural Heritage' programme (1994-1996), co-financed by LIFE-Nature. These projects enabled knowledge to be gained about the distribution of species, the habitats and sites of particular importance for their conservation and the appropriate management measures.

Bats

- Study of feeding areas
- Study of diet
- Determining mortality factors amongst *Myotis myotis* (with Germany)
- Assessment of closing off cavities with barriers
- Determining movement patterns

Lynx pardinus

The national range of the species was determined with a view to undertaking further work at regional level. Research on many aspects of lynx conservation was conducted between 1994 and 2000.

Wolf

Monitoring the wolf population in order to maintain up-to-date knowledge on distribution, number of packs, numbers, breeding areas and impact on livestock. Implementing a monitoring system for dead wolves in order to improve knowledge of causes of death and pathology and provide interested scientific institutions with material for analysis. Supporting studies into the bio-ecology of the wolf carried out by non-governmental organisations and universities.

Freshwater fish

Between 1997 and 2000, a project was carried out under the umbrella of the LIFE-Nature programme with the aim of establishing a conservation strategy for *Anaocypris hispanica*.

3.2 Introduction and reintroduction (Article 22(a) and 22(b))

Opinions were given by the nature conservation authorities in respect of requests concerning the introduction of a small number of species (less than 10).

3.3 Awareness raising (Article 22(c))

Many publications have been produced for awareness raising, concerning a wide range of species, habitat types and sites.

In the Azores, within the framework of projects funded under the LIFE Programme, training activities and publicity campaigns have been carried out in the field of managing coastal and marine protected areas.

3.4 Management of landscape features (Article 10)

Not reported.

3.5 Human resources and technical resources

During this first period of implementation of the Directive in mainland Portugal, at the inventory stage, a large proportion of the senior technicians of the Nature Conservation Institute (ICN), a total of approximately 200, contributed through their work, both within the Central Services, where around five senior technicians are still working on this topic, and in the Protected Areas. They also took part in the explanatory and discussion sessions on the National List of Sites. The Corps of Nature Wardens (around 150 wardens) co-operated particularly as regards surveillance in the field.

Summary of National Report: Spain

1 Natura 2000: conservation of natural habitats and habitats of species

1.1 Proposed Sites of Community Importance (pSCI) (Article 4(1) and 4(2))

1.1.1 Inventories

A national inventory of Annex I habitats was produced under a LIFE project managed by the Spanish Government. This was a major scientific study involving a large number of universities, research centres and scientists, and generated a GIS that was intended to provide an adequate basis for identifying and proposing SCIs. In addition, several national inventories have been produced for Annex II species, including invertebrates, fish, amphibians and reptiles, cetaceans and plants.

Although these inventories represented very considerable progress in the development of national databases, most regional governments found it necessary to complement them with further studies, in order to permit a satisfactory identification of suitable sites. Some regions undertook full habitat inventories, at a more detailed level than the national inventory, while others concentrated on creating inventories of specific habitat types and species for which existing data proved inadequate.

Finally, the State government is now working on an improved version of the national habitats inventory, including its extension to habitats not covered by Annex I.

The Macaronesian site list has been approved by the Commission with a total of 174 Spanish sites. The remaining regions are still undergoing evaluation, and new sites are being added. As of 1999 (the most recent year with full data transmitted to the Commission), there were 860 sites (including Macaronesia). By November 2000, the total number of sites put forward by the regions had increased to 1,096. More sites are still being added, and the present list includes a total of 1,276 proposed or adopted sites.

1.1.2 Processes of proposing sites

In 1995, the National Commission on Nature Protection established a working group dedicated to implementation of the Habitats Directive. The group is made up of representatives of the State and regional environment authorities. It was agreed that the regional governments would propose SCIs, under a process managed by the State government. The latter is responsible, in partnership with the regions, for evaluating the proposals according to an agreed methodology, and for fusing them into a set of national proposals.

The whole process can be summarised in three phases:

- The State Ministry of Environment undertook an analysis, using the national habitats inventory GIS, of the existing network of protected areas in Spain, in order to establish

whether these areas would be sufficient to fulfil the requirements of the Habitats Directive. The conclusion was that, for the great majority of regions, the existing areas would not be sufficient.

- The regional governments (environment authorities) developed their site proposals, using the data available to them from the national inventories and from regional studies. In most cases, the approach taken was to analyse the deficiencies of the existing protected areas network, and to add areas as necessary in order to improve the coverage of particular habitats and species.
- The State and regional authorities evaluated the proposals for each Biogeographic Region to determine if the coverage of habitats and species was sufficient to meet the requirements of the Habitats Directive, using the criteria developed by the European Topic Centre for Nature Conservation.

Consultation processes are reported for some regions. For example, in the government of Aragón, an inter-departmental working group was set up to discuss and adjust the proposal of sites prepared by the Directorate General for Environment. All Municipalities were informed of the proposals, and open meetings were organised to inform NGOs and other interested parties. In the Canary Islands, the draft proposal of sites was made available through a process of public information, and comments received were taken into account in the preparation of the final site list. In Galicia, it was decided not to make the proposals publicly available until approved by the Commission (except for sites where the development of management plans is already underway), due to the potentially negative response from parts of the population.

The Spanish report includes numerous comments from the regional authorities concerning the problems encountered during this process. The problem most referred to was the lack of data, especially concerning species distribution. Several regions also cited the lack of clarity on the legal implications and future financing of Natura 2000 sites, and the difficulties this created with some sectors of the population and administration.

1.2 Conservation measures (Article 6)

1.2.1 Management measures (objectives, management plans)(Article 6(1))

Planning and management of all protected areas, including Natura 2000 sites, is the responsibility of the 17 regional governments. National Parks are an exception where responsibility is shared between State and regional authorities.

A national legal framework exists (Law 4/1989) for the management of designated protected areas but, at present, there is no national system (methodology or guidelines) specifically for the preparation of management plans and measures in proposed SCIs.

Under Law 4/1989, all protected areas under national and regional legislation are required to have management plans and their corresponding measures. Where these plans exist, they will be modified as necessary if and when they are designated as Natura 2000 sites.

For many protected areas in Spain, the development of management plans for protected areas under existing legislation is still underway. Where these protected areas coincide with proposed SCIs, some regions are streamlining the development of management plans with the implementation of Natura 2000, so that the protected area plans currently being developed will also comply with the requirements of the Habitats Directive for the SCIs concerned (for example, in Extremadura).

A few regions have started to develop plans specifically for proposed SCIs. For example, Galicia has several management plans well advanced, including for sites partially or totally outside existing protected areas. Navarra is working on management plans specifically designed for seven proposed SCIs, as well as developing a methodology which can be used for other sites. The Basque Country also is developing broad guidelines for site management, including the definition of conservation objectives for each habitat and species. Some regions report that studies of sites are underway, with a view to the development of management plans (e.g. Murcia).

Most other regions report that, other than where sites coincide with existing protected areas, management plans are not yet being developed for proposed SCIs, because the site lists are still not approved for the majority of the Spanish territory. At present, management plans also have not been developed or modified in the Macaronesian region (Canaries), as the sites are not yet designated as SACs.

1.2.2 Protection of sites (eg avoiding deterioration, assessment) (Article 6(2))

According to Royal Decree 1997/1995, which transposes the Habitats Directive into Spanish law, Article 6(2) comes into force once the final SCI lists have been approved. Several regions report that no specific protection has been introduced for proposed sites, although many have a *de facto* protection as protected areas.

However, some regions have taken steps to apply the protection required by this Article to proposed SCIs. For example, in Extremadura, all activities which might affect sites harbouring habitats or species from the Habitats or Birds Directives are subject to a special environmental impact procedure. This applies to all sites, whether or not they are proposed as SCIs. In Galicia, all proposed SCIs have a provisional designation as protected areas since 1999, thus requiring an EIA procedure for any activity causing a loss of natural values. In Cataluña, all proposed SCIs must also be included in the regional network of protected areas. This ensures a control of damaging activities, although not referring specifically to Natura 2000 habitats and species.

The existing mechanisms are those established under legislation for EIA procedures and for protected areas. The procedures vary according to the region and sometimes the protected area in question. Most regions report that there is no established mechanism specifically for dealing with activities affecting SCIs, although environmental authorities may take particular account of the Natura 2000 values present in these sites when new activities emerge through the established EIA and protected area procedures.

1.3 Finance (Article 8)

1.3.1 Cost estimates

Not reported.

1.3.2 National/EU sources of funding

National funds

All funds come from the annual General Budget (with or without contributions from EU funds). Funds are allocated for nature conservation in general, not specifically for Natura 2000. The Sub-directorate General for Nature Conservation (Ministry of Environment) managed a budget of approximately €15 million for nature conservation in 2002. A considerable part of this would concern habitats and species covered by the Habitats Directive.

Regarding other relevant expenditure from the State budget, such as that managed by the Ministry of Agriculture (e.g. Agri-environment schemes), it is not possible to separate out the amounts that have a bearing on Natura 2000.

EU funds

The State and regional governments use LIFE, EAGGF (Rural Development Programmes) and ERDF funds (, Regional Development Programmes, INTERREG) for supporting the implementation of Natura 2000.

Figures are reported from the regions for a variety of projects, especially LIFE. No global figure is provided.

1.4 Surveillance (Article 11)

The national habitats and species inventories (see 1.1.1.i), that are due to be completed by 2003, will include a method for monitoring the state of the habitats and species covered. The regional authorities have similar data bases, that also serve as a basis for surveillance. Several species have recovery plans either in the process of development or underway, that include specific criteria for monitoring progress. Several threatened species from Annex II are monitored by means of a regular census.

However, no active system is reported for monitoring the state of particular habitats or species against pre-determined targets corresponding to FCS as defined by the Habitats Directive, either at State or regional level.

2 Protection of species (Article 12-16)

2.1 Strict system of protection (Article 12, 13)

The report refers to the State legislation for species protection (Law 4/1989), and to the definition of different categories of threatened species, and the legal requirements in terms of recovery plans, management plans, etc. The strict protection of species and of their places of reproduction is not referred to in the report.

Measures to monitor incidental capture and killing are covered in the Annexes of the national report.

2.2 Takings and derogations (Article 14, 15, 16)

Measures are covered in the Annexes of the national report.

3 Other issues

3.1 Research (Article 18)

The national Strategy for Conservation and Sustainable use of Biodiversity establishes research programmes relating to nature conservation. There are numerous programmes concerning species from Annex II (inventories, monitoring, action plans, etc.).

3.2 Introduction and reintroduction (Article 22(a) and 22(b))

Some regional governments have undertaken reintroduction programmes, for example, Lesser kestrel (*Falco naumanni*) in Cataluña, Crested coot (*Fulica cristata*) and Purple gallinule (*Porphyrio porphyrio*) in Valencia, Sapillo balear in Balears. More details are provided in the Annexes (reports from regional governments).

Summary of National Report: Sweden

1 Natura 2000: conservation of natural habitats and habitats of species

1.1 Proposed Sites of Community Importance (pSCIs)(Article 4(1) and 4(2))

1.1.1 Inventories

For habitats, a wide range of inventories were used each covering specific habitat types, such as wetlands (Ramsar sites), meadows and bogs.

For species, the Swedish Threatened Species Unit database was used. This database contains information of the species that are red listed in Sweden. The distribution and exact occurrence of those Annex II species that were not red listed and therefore not included in this database has not been well documented. As Sweden did not participate in the CORINE biotopes project they have less information about the Annex I habitats than other Member States.

The list of the pSCIs is accessible on the website of the Swedish Protection Agency (SEPA). In January 2001, there were 2,455 pSCIs covering 5,176,700 ha. 350 sites covered both the Habitats and Birds Directives. Sweden has 90 Annex I habitat types and 103 Annex II species. The present Swedish list includes a total of 3,420 proposed sites.

1.1.2 Process of proposing sites

Sweden started to work on the Natura 2000 network in 1995. The initial selection of pSCIs was performed by each County Administrative Board (21 in total).

Between 1996 and 1999, the Government required each county to receive approvals from the landowners for each site. A site could be included in the Natura 2000 network only if the landowner/landowners agreed to it. Landowners were contacted by letter and visited during this stage. The results of this consultation were collated by each County Administrative Board and sent to SEPA together with the pSCI list. This proved to be difficult for sites with several landowners and was changed in 1999 when only an opinion from the landowner/landowners was required to include their land into the Natura 2000 network.

Municipalities, the National Road Administration, the National Rail Administration and the regional forestry institutions have been able to express their views. Each County Administrative Board was also required to consult the culture, environment, agriculture and fisheries sectors.

The role of SEPA was that of coordination and harmonisation, as well as determining any discrepancies and how these were distributed among the counties. SEPA was also responsible for consulting other authorities from the central administration. SEPA organised several seminars in cooperation with the County Administrative Boards as well as information meetings for the landowners associations.

In 1999 the Swedish Society for Nature Protection, WWF Sweden and the Swedish Ornithological Society prepared a national shadow list of sites they thought ought to be included in the Natura 2000 proposal. This shadow list was sent to each County Administrative Board. This list together with official information became the basis for developing new site proposals.

The Commission did not consider the Swedish pSCI list to be adequate and Sweden is therefore having to supplement it.

1.2 Conservation measures (Article 6)

1.2.1 Protection of Sites (avoiding deterioration, assessment)(Art. 6(2))

The national report provides a list of pSCIs that are already covered by some degree of nature protection. Out of the existing pSCIs in February 2000 as well as those proposed to the Government in November 1999, 52 % were nature reserves, 13 % nature parks and 21 % crown forest reserves. Approximately 70 % of the pSCIs are either totally or in part covered by some form of protection.

According to the report, existing protection methods are well proven and there is consequently no need to assess them specifically in terms of Natura 2000.

Permits are required for certain activities according to the Environmental Code. These permits can be combined with requirements to protect and prevent activities that can be harmful to Natura 2000 sites. The Natura 2000 EIA required by Chapter 6 of the Environmental Code provides the framework on which planned activities and their consequences for Natura 2000 sites are to be described. A planned guidance document by SEPA will specify requirements for this process.

1.2.2 Management Measures (objectives, management plans)(Article 6(1))

The report opts for a general description of the management measures based on the argument that Article 6(1) is not yet formally applicable to pSCIs. The work to identify the needs for conservation measures for each pSCI will start in 2002.

SEPA was unable to provide guidance on management measures before Autumn 2001 because the legal transposition of the Habitats Directive was not completed until June 2001. The guidance on the conservation measures required for each of the Directive's habitat types and species is mainly intended for the County Administrative Boards.

The work plan for the conservation measures is as follows:

- site based analysis (which habitat types/species exist);
- identifying possible negative impacts on the conservation status;

- determining the sufficiency of the existing legal protection and management; and
- ascertaining whether additional protection measures are required.

The guidance will leave the County Administrative Boards with considerable freedom in the selection of suitable management measures.

The national report also reminds of the threats from airborne pollution, acidification, eutrophication, climate change, organic pollutants and the important role of the EU in combating these.

1.2.3 Effect of Article 6 Conservation Measures on Favourable Conservation Status (FCS)

The Directive's definitions of FCS for habitats and species have been transposed into the Nature Protection Act (SFS 1998:1252). There is no assessment of the effects of Article 6 on FCS.

1.3 Finance (Article 8)

1.3.1 Cost estimates

Sweden considers that it is not possible to provide an estimate for the costs of Natura 2000 for the following reasons:

- lack of a common method for such a cost estimate;
- it is too early to provide a sensible cost estimate; and
- it would be too time consuming within the time frame provided for preparing the national report.

1.3.2 National/EU sources of funding

The report lists the following funding sources:

- Funds for the protection of biodiversity provided by SEPA
- Compensation based on agri-environment measures
- Funds for forestry organisations for biotope protection sites in woodlands
- Funds for surveillance (Article 11)
- LIFE-Nature

The total budget for LIFE projects from 1995 to 2000 was € 48,229,567 , of which LIFE itself contributed € 24,078,032.

1.4 Surveillance (Article 11)

SEPA started a national project in 1999 to determine a strategy and methods for the surveillance of particularly valuable nature. The surveillance of the Natura 2000 network is an important part of this project. An initial analysis has been completed and will be followed by a more detailed analysis of the discrepancies in the surveillance system for species and habitats covered by the Directive. During 2001-2007 a comprehensive surveillance system is being developed and tested to comply with Article 11.

The preliminary analysis revealed discrepancies in the current surveillance systems. Only a few groups of species have continuous surveillance programmes in place, such as for birds. The next report (2007) will include a comprehensive description of the surveillance and monitoring results of the species and habitat types of the Directive.

2 Protection of Species

2.1 Strict system of protection (Article 12, 13)

The species in Annex IV are protected by hunting legislation, fisheries legislation or species protection legislation under the Environmental Code. All species in Annex IV are covered by the Species Protection Regulation (SFS 1998:179).

Species of frogs, reptiles, vertebrates and plants covered by Annex IVa and IVb and which had not been protected by the Environmental Code became protected in the whole country starting from January 2000. From July 2001, it is also prohibited to catch those fish species, molluscs and crayfish listed in Annex IV. The protected species are listed in the Annex of the Implementation of the Species Protection Regulation (SNFS 1999:12).

SEPA works continuously with programmes to protect endangered species and habitats. Currently there are 25 programmes and more are planned. The aim is to develop new measures in case the general protection measures are insufficient. The work is conducted in cooperation with the Swedish Threatened Species Unit.

The wolf is protected and classified as acutely threatened. The population at the beginning of 2001 was between 66-80 wolves. Bear and lynx are protected, apart from controlled hunting. Both are classified as vulnerable. The bear and lynx populations are steadily increasing despite hunting. Currently there are 1,000-1,300 bears and 1,000-1,500 lynx. The wolverine is protected apart from some hunting to protect the reindeer industry. It is classified as very threatened with a population of around 300. The otter is protected and classified as vulnerable. The population is around 1,000-2,000. The Arctic fox is protected and classified as very threatened. All of these mammals (apart from the Arctic fox which is covered by a LIFE programme) have protection programmes in place designed by SEPA.

Legislation to create a national *monitoring system for incidental capture and killing* was implemented in 2001 and covers Annex IV species.

2.2 Takings and derogations (Article 14, 15, 16)

From July 2001, fishing for asp (*Aspius aspius*) is seasonally prohibited (from April to May) in all watercourses to Vänern, Mälaren and Hjälmaren. The Freshwater pearl mussel (*Margaritifera margaritifera*) is protected in the whole of the country. Two species of frog (*Rana temporaria*, *Rana esculenta*) and five species of club moss (*Lycopodium spp.*) belonging to Annex V are also protected since January 2000.

All hunting equipment must be tested and approved by SEPA. The approval is only granted to equipment that catches species selectively with minimal suffering to the animal. There is no monitoring system in place in addition to the normal responsibilities of the police in respect of the hunting legislation.

As mentioned earlier, derogations from the protection regulations have been granted for some species (beaver, wolverine, bear and lynx) in order to prevent damage. Derogations have also been given for research and educational purposes, especially for frogs and orchids.

3 Other Issues

3.1 Research (Article 18)

The report provides a comprehensive list of Annex II species that have been the subject of protection and restoration research. The list of Annex I habitat types subjected to research is shorter because research projects tend to be focused on a process or species and very few of the research descriptions use the terminology of the natural habitat types.

In general research on individual species and habitat types has a small budget or is part of larger projects. However, there are plans to increase the state contribution with up to € 1.32 million starting from 2001. The planning within this research programme has started for three sectors: MARBIPP (Marine biodiversity, patterns and processes), Research to Forge the Conservation Chain, and Alien Species in Aquatic Environments.

3.2 Introduction and reintroduction (Article 22(a) and 22(b))

The beaver was reintroduced in 1922, after becoming extinct around 1870. The reintroduction is perceived to be successful.

The sharp decline of the otter started in the 1950s but never led to total extinction. In the late 1980s and the beginning of 1990s, reintroductions took place in central Sweden. Reintroductions of firebellied toad (*Bombina bombina*) have also taken place.

3.3 Awareness rising (Article 22(c))

SEPA and the County Administrative Boards have during the last couple of years put substantial resources into awareness rising. This has consisted of information leaflets about

Natura 2000, books about Annex I habitats and Annex II species, distribution of EU material (such as guidance on Article 6) and courses. SEPA is currently working on a website that would provide information about each Natura 2000 site with maps and GIS-layers.

Summary of National Report: UK

1 Natura 2000: conservation of natural habitats and habitats of species

1.1 Proposed Sites of Community Importance (pSCIs) (Article 4(1) and 4(2))

1.1.1 Inventories

The primary site designation used in Great Britain is the Site of Special Scientific Interest (SSSI). In Northern Ireland, the equivalent designation is the Area of Special Scientific Interest (ASSI). The mechanism for the protection of subtidal areas is the Marine Nature Reserve (MNR); this is the equivalent to National Nature Reserves (NNRs) on land. The biological SSSI/ASSI series forms a national network of areas representing sufficient examples, in terms of type, number and extent, to conserve the total national 'species interest' of the range of variation in habitats and their associated plants and animals.

Summary data on each possible and candidate Special Area of Conservation (cSAC) are held on an electronic database at the Joint Nature Conservation Committee (JNCC). The number of submitted SACs in the UK stood at 555 sites, at the time of reporting. It is now up to 576 sites.

1.1.2 Processes of proposing sites

When the Habitats Directive was adopted in 1992, the UK statutory conservation agencies¹⁰ began to prepare a UK list of cSACs (equivalent to pSCIs). The site designation process for cSACs has evolved over several years following internal peer review, the acquisition of knowledge from survey work, public consultation (with site owners and/or occupiers and other interested parties), and the 'moderation process'. The designation process has been based on consideration of scientific criteria, according to the holding of Annex I habitats, Annex II species and criteria of Annex III of the Habitats Directive. Specialist knowledge of staff within the conservation agencies, with input from other organisations has been an important source for the collection of scientific knowledge of the sites. Finally, a range of professional groups and statutory committees has critically reviewed the list of sites at various stages in the selection process.

Once consultation is completed, sites are submitted to the European Commission, at which stage they are known as cSACs. Because the preparation of the UK cSAC list took several years, sites were submitted to the European Commission in a series of tranches.

¹⁰ English Nature (EN), Countryside Council for Wales (CCW), Scottish Natural Heritage (SNH), Environment and Heritage Service (EHS) and Joint Nature Conservation Committee (JNCC)

1.2 Conservation measures (Article 6)

1.2.1 Management measures (objectives, management plans)(Article 6(1))

A number of actions are taken for the conservation and protection of sites:

- the development of conservation objectives and management plans for sites;
- the development of legal agreements with owners and occupiers to help finance appropriate management;
- agri-environment schemes which encourage farming in a manner which is sympathetic to the nature conservation interest of land;
- collaborative working and consensus-building with public and private organisations and individuals to ensure that a balance is struck between the potentially disparate interests each may have for an area of land; and
- marine management schemes.

Guidance from the Government sets out principles and priorities that are to be observed in land use planning in a nature conservation context.

In England, the main guidance on nature conservation in a land use and planning context is contained in Planning Policy Guidance Note No. 9 (PPG9). In Scotland, National Planning Guidance 14: Natural Heritage (NPPG14) gives guidance on how the Scottish Executive's policies for the conservation and enhancement of Scotland's natural heritage should be reflected in land use planning. The principles and policies set out apply to urban as well as rural areas. In Wales, Planning Guidance (Wales) Planning Policy and Technical Advice Note 5 'Nature Conservation and Planning' sets out technical guidance on how the conservation and enhancement of Wales's natural heritage should be reflected in land use planning.

Terrestrial management plans have or are being developed throughout the UK. The UK agencies are responsible for preparing short management statements or management briefs on those sites that are designated as SSSI/ASSI, including Natura 2000 sites.

Three categories of management agreement exist for English sites:

- compensatory - made in the light of restrictions on the land;
- positive - for achieving wildlife gain; and
- wildlife enhancement agreements – standard agreements which support conservation management

In Scotland, Scottish Natural Heritage launched its Natural Care Strategy that aims to increasingly focus resources on positive management of Natura 2000 sites. In Wales, draft

management plans have or are being developed. Conservation objectives are also being drafted for existing and proposed Natura 2000 sites in Northern Ireland.

Although precise numbers of management plans are not provided, work is relatively advanced: Management Statements have been completed for all Scottish SSSIs; the process of developing site management statements within England is substantially complete; nearly a third of all cSACs in Wales have draft management plans and work has started on the plans for most of the remaining sites; and conservation objectives are being drafted for all existing and proposed Natura 2000 sites in Northern Ireland.

Management plans are developed by the relevant country agencies, in consultation with the relevant authorities and local management groups.

Marine sites

For most marine cSACs, management plans have to be developed from scratch. This has been a major new undertaking for the UK. Regulation 33 of the Conservation (Natural Habitats & c.) Regulations 1994 (Regulation 28 in Northern Ireland) states that the statutory conservation agencies have a duty to advise public bodies on:

- conservation objectives; and
- operations which may cause damage or disturbance.

Marine cSACs, unlike their terrestrial counterparts, do not have targeted positive incentive measures that complement existing arrangements.

The UK has 23 packages and consultation programmes under Regulation 33, covering 38 sites. In Wales, there are two marine cSACs that already have received Regulation 33 advice and have management plans. Most other marine cSACs have management committees that will draw up management plans.

In England, 13 Regulation 33 packages have been produced and a consultation programme established for 15 sites. Considerable progress has also been made in establishing management schemes at each of the 16 sites in the programme, with management groups being established for all 16 sites, advisory groups established at 12, and consultation schemes produced for 6.

Within Scotland, the marine cSACs that have progressed the furthest in developing management schemes involve 5 sites with LIFE-funded Project Officers. For all 5, draft management schemes have been developed in consultation with the relevant authorities. Drafts of Regulation 33 packages for the LIFE and cross-border sites have been developed in parallel with the management schemes and have been put out for public consultation. For the non- LIFE marine cSACs, the development of the Regulation 33 packages follows on from the completion of the conservation objectives.

In Wales, the development of management plans for marine cSACs is divided into two stages: firstly CCW provides conservation advice to the relevant authorities, and secondly, these authorities have to develop a management plan based on this advice.

1.2.2 Protection of sites (eg avoiding deterioration, assessment) (Art. 6(2))

The UK Government and the devolved administrations already treat cSACs as if they were fully designated. cSACs in England have been afforded protection in law by virtue of an amendment to the Conservation (Natural Habitats &c) Regulations 1994, such that candidate sites are legally protected from the date they are submitted to the European Commission.

The Government has issued formal guidance to planning authorities that the environmental effects of any proposed development either in or close to a Natura 2000 site should be subject to the most rigorous examination.

1.2.3 Effect of Article 6 Conservation Measures on Favourable Conservation Status (FCS)

The report does not mention any particular targets for habitats and species conservation. For habitats and species with a very restricted distribution, almost all examples will be included within the SAC series, and site-based measures are therefore likely to be sufficient to achieve FCS. For more widely distributed habitats and species, only a proportion of the total national or Community resource will be protected within the SACs. Examples of such habitats and species in the UK include European dry heath, otter (*Lutra lutra*) and stag beetle (*Lucanus cervus*).

There are no specific parameters mentioned to assess the effectiveness of measures. Without assessing the implementation of SACs in the UK, the report suggests that there is a considerable variation in the number of sites selected for each Annex I habitat and Annex II species.

1.3 Finance (Article 8)

1.3.1 Cost estimates

The UK has made an attempt to estimate costs associated with Natura 2000 sites. It is noted that the figures provided are almost certainly an underestimate for a number of reasons:

- it has been difficult to separate costs relating to Natura 2000 from other conservation costs;
- the significant contribution from NGOs and local government is not reflected;
- sites vary enormously in the type and amount of conservation work carried out;
- site management cost have only been counted once sites were formally identified;

- surveillance and monitoring only come into play once the sites are formally notified to the Commission. Indeed, much of the expense on surveillance and monitoring is part of much broader programmes of work; and
- costs for implementing the Directive have been incurred by a number of bodies within the Government and its agencies who were not able to provide a detailed breakdown. Their costs have not been included.

The following costs have been estimated on the basis of expenditure types, ie identification, acquisition, consultation, research and surveys of the site. Costs on site management, protection, surveillance and monitoring are also included.

Identification, acquisition, consultation, research and survey of site (€/millions)	Site Management and protection (€/millions)	Surveillance and monitoring (€/millions)	Total (€/millions)
41.202	93.848	2.480	137.579

Note £ 1 = € 1.60

1.3.2 National/EU sources of funding

The UK Government, devolved administrations and agencies have annual budget allocations that are used to support the conservation of biodiversity.

Under the Structural Funds programmes, there has been a number of funding measures relating to the Habitats Directive. A number of habitats and species conservation projects at Natura 2000 sites have also received funding from the LIFE budget.

Between 2000 and 2002, approximately € 457.552 million¹¹ was provided by the country agencies for habitat and species protection. It is unclear if this includes EU funding.

1.4 Surveillance (Article 11)

Each of the UK statutory conservation agencies has dedicated corporate information systems, which it uses to hold data on protected areas within its area of operation. In addition, a variety of databases and spreadsheets are used within the UK to collect and collate information about aspects of the natural environment. These are some of the existing programmes:

- International Designations Database (IDD) - holds definitive information on UK cSACs;
- *System for Evaluating Rivers for Conservation (SERCON)* - holds data on a wide range of riverine features to a weighted scoring system, thereby providing a picture of river

¹¹ £286 million, exchange rate used £ 1 = € 1.60

stretches in terms of generally accepted conservation criteria, such as ‘naturalness’, ‘physical diversity’ and ‘rarity’; and

- *Mermaid Database* - holds data that comprises bibliographic information, sample data, the national marine biotope classification dictionary and the national marine species checklist.

The UK has a wide variety of information both on designated sites and on species and habitats in the wider countryside. Changes in land-cover in the UK are identified and monitored in a variety of ways and at different scales. At the UK level, a programme for long-term monitoring of land cover and ecological changes in the wider countryside has been established by DEFRA¹², EHS and NERC¹³. Several indicators of sustainable development have been developed. Instruments for marine monitoring, biological recording and monitoring of agri-environmental schemes also exist.

The UK report does not mention any specific results arising from these surveys.

2 Protection of species

2.1 Strict system of protection (Article 12, 13)

Protected wild animals and plants are listed in schedules 2 and 4 of the Conservation Regulation (Natural Habitats, &c) 1994 in England. Each schedule has specific provisions to guard against particular threats or activities. Regulations 38-41 of the Conservation Regulation (Natural Habitats, &c) 1994 in Great Britain and Regulation 34 of the Conservation Regulation (Natural Habitats, &c) 1995 for Northern Ireland protect animals listed in Annex IV of the Habitats Directive. Wild plants listed in Annex IV(b) of the Habitats Directive are protected by Regulations 42-43 of the Conservation Regulation (Natural Habitats, &c) 1994 in the Great Britain and Regulations 37-38 of the Conservation Regulation (Natural Habitats, &c) 1995 for Northern Ireland.

Wild animals of Annex IV(a) species in Great Britain and Northern Ireland are also protected under Section 9 of the Wildlife and Countryside Act 1981 for Great Britain and Article 10 of the Wildlife (Northern Ireland) Order 1985, respectively. Protection is given against intentional killing, injuring or taking of wild animals, possession or control of any live or dead wild animal listed on Schedule 5. Additionally, under the Act, structures or places used by protected wild animals are given protection, and animals occupying such structures or places are protected against disturbance. Similarly, wild plants of Annex IV(b) species are also protected by law under Section 13 of the Wildlife and Countryside Act 1981 and Article 14 of the Wildlife (Northern Ireland) Order 1985.

The status and distribution of some Annex IV species has been assessed in detail as part of the UK Biodiversity Action Plan (BAP). The Species Action Plans (SAPs) for priority UK species identify targets and actions necessary for the conservation and recovery of flora and fauna. These are linked to Habitat Action Plans that perform the equivalent functions for special habitats of high conservation value.

¹² Department for Environment, Food and Rural affairs (DEFRA)

¹³ Natural Environmental Research Council

The statutory conservation agencies must *monitor the incidental capture or killing* of species where it is feasible or relevant. The report does not elaborate on systems of monitoring except for a brief explanation of the monitoring of cetaceans that are stranded on the UK shorelines or caught as bycatch (such as dolphins or harbour porpoises). Information on road kills or unusual sightings, received from the public is also collected and processed.

2.2 Takings and derogations (Article 14, 15, 16)

Regulation 41 (Regulation 36 for Northern Ireland), supplemented by Section 11 of the Wildlife and Countryside Act 1981 (for Great Britain) and by Article 12 of the Wildlife (Northern Ireland) Order 1985 prohibit the use of indiscriminate means of capture or killing which are capable of causing local disappearance of, or serious disturbance to, populations of the species listed on Annex IV (a) and Annex V (a).

The taking of Annex V species in the UK is limited to very few groups of species, as follows:

- a general licence is issued by DEFRA to allow trade in adult common frog (*Rana temporaria*) outside the breeding season;
- the allis shad (*Alosa alosa*) is protected against killing, injuring and taking, while the twaite shad (*Alosa fallax*) has its place of shelter, which includes spawning areas, protected against damage or destruction;
- the freshwater pearl mussel (*Margaritifera margaritifera*) and the medicinal leech *Hirudo medicinalis*, both of them Annex V species, have been given full legal protection in the UK because of their decline to low numbers;
- the white clawed crayfish (*Austropotamobius pallipes*) has been given partial legal protection against taking and sale because of the substantial decline in its range following the establishment and spread of the non-native signal crayfish (*Pacifastacus leniusculus*);
- wild plants that are collected for horticultural or other purposes are kept under review; and
- salmon (*Salmo salar*) are taken through both rod and net fisheries in a number of rivers in the UK.

Each licensing authority monitors the numbers of licences it issues and reports to the UK Government on an annual basis.

A derogation licence cannot be issued in the UK unless there is no satisfactory alternative and the action authorised by the licence ‘will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range’ (Regulation 44(3)). Licences are issued by the country agencies for one of the following reasons: conservation, science, education and ringing or marking. The Government is responsible for issuing separate licences for preserving public health or public safety or other imperative reasons of overriding public interest, preventing the spread of disease or preventing serious damage to livestock, foodstuffs for livestock, crops, vegetables fruit, growing timber or any other form of property, or to fisheries. The UK uses an information system to manage all derogation information.

3 Other Issues

3.1 Research (Article 18)

Extensive research is carried out in the UK that is relevant to the conservation of threatened and protected species, including those listed in Annexes of the Habitats Directive. Research ranges from extensive national surveys of land cover, countryside use and habitat condition, through to detailed investigations of the ecology of individual species.

3.2 Introduction and reintroduction (Article 22(a) and 22(b))

There are several examples of native species that have been reintroduced, including the large blue butterfly (*Maculinea arion*) and the lady's-slipper orchid (*Cypripedium calceolus*). Both species have been technically difficult to conserve and their conservation in the UK has demanded a combination of detailed research and complex conservation management. Such work is costly and time-consuming and requires dedicated and diligent attention over many years to achieve success.

The UK is very careful with the introduction of non-native species. There are several examples given of non-native animals that have been introduced: the muskrat (*Ondatra zibethicus*) and coypu (*Myocastor coypus*). These were eradicated by MAFF¹⁴ programmes in Britain. Populations of the Colorado Beetle (*Leptinotarsa decemlineata*) have also been successfully eradicated following each of its introductions. More recently, the North American bullfrog (*Rana catesbeiana*), which has become established in South England, is being eradicated because of its impacts on native wildlife.

3.3 Awareness raising (Article 22(c))

The statutory conservation agencies and the non-governmental sector are active in promoting formal and informal environmental education at all levels of learning. A number of educational strategies and initiatives relate to the environment. However, there are many practical measures for communicating the biodiversity message more informally, such as field centres, museums, botanical and zoological gardens.

A series of publications, booklets and advice notes has been produced, aimed at a broad range of target audiences including the general public, land managers and regulatory authorities. These include reports to disseminate information about nature conservation, current initiatives and issues, and other media work to raise awareness of biodiversity and conservation such as using websites, videos, talks and field activities for schools.

3.4 Management of landscape features (Article 10)

The development of networks of statutory and non-statutory sites, and the landscape features which provide links from one habitat to another, can make an important contribution to the

¹⁴ Ministry of Agriculture, Fisheries and Food (now DEFRA)

conservation and enhancement of biodiversity and the quality of the local environment. This is reflected in the Conservation (Natural Habitat, &c.) Regulation 1994 and the Conservation (Natural Habitat, &c.) Regulations (Northern Ireland) 1995. All Planning Authorities have to make such provisions in local and structure plans.

The Local Biodiversity Action Plans are valuable tools for actively involving local communities in the development and management of habitat networks.

3.5 Human resources

At least 12,900 people are employed by the organisations that contributed to the UK national report. Many of these work on Natura 2000 issues as part of their work; for some, this is a full-time involvement, for others a very minor part of their day-to-day work. In addition, many volunteers and staff of Non Governmental Organisations are involved in Natura 2000 work.