

# THIRD NATIONAL REPORT (FINLAND)

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## A. REPORTING PARTY

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### Information on the preparation of the report

#### Box I.

Please provide information on the preparation of this report, including information on stakeholders involved and material used as a basis for the report.

The third national report has been approved by the Finnish National Biodiversity Committee. All governments ministries, and various economic sectors, research and environmental organisations and NGO´s are represented in the Finnish National Biodiversity Committee. The committee is assisted by the International Biodiversity Issues Preparation Group and Expert Network, which prepared the draft report and co-ordinated the reporting exercise. Different government sectors and stake holders are represented in the International Biodiversity Issues Preparation Group and Expert Network.

#### **Background material for the report**

*The Finnish National Biodiversity Committee, prepared over the period 1996–1997 a National Action Plan for Biodiversity in Finland, 1997–2005, in line with the decision-in-principle made by the Finnish*

Government (21.12.1995). The action plan is based on reports and sectoral programmes prepared for each administrative sector, and has been designed to ensure that Finland meets its obligations under the U.N. Convention on Biological Diversity (Rio de Janeiro, 1992).<sup>1</sup> In order to monitor the implementation of both the action plan and the Convention on Biological Diversity, the Ministry of the Environment set up a *Monitoring Group for the National Action Plan for Biodiversity in Finland* (to operate 15.10.1998–31.12.2005).

The monitoring group is a co-operative body involving representatives from various stakeholder organisations, and is responsible for co-ordinating and overseeing the national monitoring of biodiversity as well as the implementation of the CBD and the action plan. The results of the monitoring work are to be compiled in three reports (1997–1999, 2000–2001, 2002–2004). The reports are available on the Finnish CHM [www.ymparisto.fi/lumonet](http://www.ymparisto.fi/lumonet) in Finnish and English.

Four expert working groups have supported the monitoring group: The Sustainable Use of Biological Resources Expert Group has published *a report on the Ecosystem approach*, introducing the general principles of the Ecosystem approach, and its possible application in Finland. The Research, Monitoring and Information Systems Expert Group (TST Expert Group) has *published proposals for special monitoring systems to complement the national biological diversity monitoring system* proposed in 2001. The Biodiversity Impacts Assessment Group has made proposals for the initiation of *two evaluation processes* – one to cover the national action plan for biodiversity, and the other to examine the biodiversity impacts of the METSO Forest Biodiversity Programme for Southern Finland. The evaluation of the national action plan commenced at the beginning of 2004, and should be completed by March 2005.

The evaluation provide data on the state of biodiversity in Finland, and current trends, as well as the effectiveness and adequacy of the national action plan with regard to the need to safeguard biodiversity. The data that it contains will facilitate the revision and renewal of the plan. The evaluation also examines opportunities and suitable measures to implement the objectives set by the WSSD and the EU's biodiversity objectives for 2010.<sup>2</sup> A new national biodiversity action plan for the period 2006–2016 will be drafted in 2005 on the basis of these results, in line with the Finnish national government programme.

Over the period 2002–2004, *10 national reports* in line with CBD notification procedure were submitted to the Secretariat – including an introductory report on the application of the Ecosystem approach in Finland (in Finnish) together with an example of its application in the activities of Metsähallitus; a report on protected areas; a report on technology transfer and the related co-operation; a detailed questionnaire on national actions related to technology transfer; a voluntary report on forests; a reply to a questionnaire on the sustainable use of forests; and a reply to a questionnaire on the impacts of the opening of markets on biodiversity in farmland. These reports have been used in compiling information for this report.

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<sup>1</sup> The objective of the Convention on Biological Diversity (Rio de Janeiro, 1992) is to conserve the diversity of ecosystems, plant and animal species and their genes, and to promote the sustainable use of natural resources and the fair and equitable sharing of benefits arising from the utilisation of biological resources. By endorsing the Convention, Finland became committed to promoting biological diversity and the sustainable use of natural resources in all endeavours.

<sup>2</sup> At the Johannesburg World Summit on Sustainable Development (WSSD, 2002) Finland promised to significantly slow the rate of decline in biodiversity by 2010. The European Union has set a more ambitious target to halt the decline in biodiversity by 2010 (Gothenburg, 6/2001).

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## **B. PRIORITY SETTING, TARGETS AND OBSTACLES**

### **Box II.**

Please provide an overview of the status and trends of various components of biological diversity in your country based on the information and data available.

## ***Biodiversity in Finland***

This overview of the status and trends of biodiversity is based on the outcome of the evaluation of the National Action Plan for Biodiversity in Finland 1997-2005.

Finland's total area (including territorial waters of the Baltic Sea) is some 420,000 square kilometres, including a land area of 305,000 sq. km. (73%); inland waters with a total extent of 34,000 sq. km. (8%); and 82,000 sq. km. of marine waters (19%). This evaluation is limited to Finland's territories on administrative grounds, even though Finland's national borders are in general artificial and do not correspond to natural ecological boundaries, particularly when it comes to borders in the Baltic Sea.

Of Finland's total area 36% consists of forests on mineral soils, 20 % of peatlands (of which most are forested), and 8% of inland waters. These figures are reliable with regard to the categories adopted from national forest inventories (Metla, VMI 2004) and other geographical statistics for forests, peatlands, Baltic Sea, inland waters, and built-up environments. The figure for the overall proportion of farmland used here, obtained from the national forest inventory, is some 15-25% higher than the figure used in agricultural statistics, largely because the inventory figures for farmland also include areas around land that is actually farmed, even where these areas are forested. Areas classified as arctic fells are mainly open areas above the tree line, although the semi-open areas on their fringes are also included. The estimate for the total proportion of Finland consisting of arctic fells (4%) is based on the Corine Land Cover 2000 (CLC2000) data produced by the Finnish Environment Institute. The category rocky habitats here includes all areas where the bedrock forms outcrops, regardless of the extent of any tree cover. The proportion for rocky habitats was obtained from the CLC2000 data, and compared with terrain data from the National Land Survey of Finland. The estimate for the total area of shores is the most unreliable figure, but can be considered to be roughly accurate. For seashores, a figure was obtained by summing the areas between sea level and the contour for 1.5 metres (the average upper limit for regular flooding). The figure for shores along inland waters was estimated by calculating the ratio of the total area of seashores (obtained as described above) to the total length of seashore, and applying this figure to work out the total area of inland shore from the total length of inland shorelines. This estimate was also compared with figures for shores from the CLC2000 data and with other figures calculated in various ways.

Of the approximately 44,000 known species that regularly occur in Finland, about 45% (19,962 species) are known well enough to allow their primary habitat to be defined for the purposes of this evaluation. Vertebrates are the best-known group, and practically all species were assessed. Other well-known groups of species include vascular plants, mosses, butterflies and beetles. The least well-known categories include algae and most other insect groups. Some 42% of the species assessed are forest species; 27% are associated with farmland and built-up environments; and 11% are shore species. The shares of species associated with farmland, rocky habitats, shores and built-up environments were greater than the proportions of Finland's total area taken up by these environments. Fewer species were associated with marine and peatland habitats, although the low number of marine species is largely due to the omission of plankton species from the evaluation.

### **Biodiversity today and in the future**

**The EU aims to halt the decline in biodiversity by 2010. The evaluation group has drawn the following conclusions in the light of currently observable trends:**

- Habitats have changed and are still changing quantitatively and qualitatively, with direct consequences for trends in biodiversity in Finland. More species are becoming threatened, but the rate of this trend varies between habitat categories, and in some habitats this trend has slowed recently.
- The greatest changes have occurred in farmland habitats, and in other habitats created by man, along shores and in forests, where current trends mean that the target of halting the decline in biodiversity will not be met unless new measures are adopted.
- Among well-known species groups the trend towards more species becoming threatened is slow, but it is expected that by 2010 the proportion of these species under threat will rise to around 11%, compared to the figure of 10% estimated in a major evaluation of threatened species conducted in 2000. This would mean a further 150 species becoming threatened. The rate of this trend varies for different species groups, however, and it is thought that the increase will be greatest in certain

groups of insects and fungi, for instance.

- In this evaluation it has been possible to assess the status of some 3,000 species not covered in the evaluation of the year 2000. About 1,000 of these species have been classed as threatened, but little is known about changes in their status during the period of the action plan.
- The number of disappeared species has also increased in well-known species groups.

In the light of these trends, the EU target is very challenging. The next section of this evaluation examines specific challenges related to the preservation of biodiversity, and possible measures for various important habitats.

### ***Inland waters***

Finland has very many inland waters, with a very large combined area of about 3.4 million hectares, corresponding to about 8% of the country's total area. Across the country there are almost 190,000 lakes over 500 square metres in extent. But relatively little is known about the species diversity of Finland's aquatic habitats, particularly with regard to algae. There is also a lack of information on the distributions of some species from better-known species groups.

Of the species assessed some 7% are associated with waters, including 5.6% associated with inland waters. Inland waters are important habitats for fish, dragonflies and caddis flies, as well as many molluscs, birds, mosses and vascular plants. Most of these species are associated with lakes and ponds; but rivers, streams and smaller water features are also rich in species, and such environments are typically highly sensitive to changes due to their smaller size. A total of 95 fish species have been observed in Finland, of which 16 are non-native species that have been artificially introduced into Finnish waters. Introductions of new stocks and hybrids have also been carried out to boost the stocks of native species. (Ministry of Agriculture and Forestry, 2001).

The state of habitats in Finland's inland waters and the threatened status of the associated species have been particularly affected by changes in water quality, hydrological engineering projects, and the artificial regulation of water levels. The proliferation of non-native species has also had harmful impacts on native species and habitats in places. Artificial additions to native fish stocks may also have negative effects on the biodiversity of native stocks (Ryman & Laikre, 1991), or otherwise disturb the ecological balance and diversity of fish stocks more generally (Ryman et al., 1995).

### ***The Baltic Sea***

The Baltic Sea has a total area of 422,000 sq. km., of which Finland's territorial waters and marine economic zone account for just over 19% (82 000 km<sup>2</sup>)<sup>3</sup>. These waters similarly account for about 19% of Finland's total area. Salinity levels are low in coastal waters, where relatively few true marine species are found. Only 1.4% of the species assessed in this evaluation are primarily associated with habitats in the Baltic, but since many species of microalgae (approx. 5,000 species) have been omitted from the evaluation this figure is not representative of the true situation. Marine environments are the primary habitats for macroalgae and marine mammals as well as many molluscs, fish and birds.

The most serious environmental problem affecting the Baltic Sea is eutrophication. In the affected waters the productivity of planktonic algae increases dramatically. The consequent reduction in water transparency limits the depth of the water layers penetrated by sunlight (Lepistö, 1992), which in turn limits the depths to which macroalgae and aquatic plants may grow. Extensive free-floating raft-like blooms of planktonic algae and filamentous algae thrive, and ultimately sink to the seabed, where their decomposition uses up oxygen from the sediments and the deepest water layers. In the worst affected waters the seabed may become widely anaerobic and eventually lifeless, since plants cannot grow in such conditions, and benthic animal communities also die out (Bäck & Lindholm, 1999).

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<sup>3</sup> According to new legislation enacted on 1.2.2005 concerning Finland's marine economic zone (1058/2005) Finland's nature conservation and environmental protection legislation will apply to the zone, which was formerly an international sea area. This extends Finland's national responsibility for biodiversity in the Baltic Sea to cover the marine economic zone as well as territorial waters.



The ecological state of the Baltic Sea is also affected by hazardous substances, shipping, boating, and construction related to leisure activities and holiday homes. The Gulf of Finland is particularly at risk due to increasing oil transportation. There are still large gaps in our knowledge of the species and habitats of the Baltic Sea. Partly because of this, very few marine protected areas have yet been designated, although the establishment of the Natura 2000 network is considerably improving this situation.

### ***Farmland habitats***

In 2004 the total area of cultivated fields in Finland amounted to just over two million hectares. Fallow fields and other types of farmland in other usage amounted to a further 230,000 ha. Farmland habitats can be defined more widely to include other habitats in addition to fields and orchards etc. Habitats of particular significance for farmland species include traditional agricultural biotopes, isolated copses and forest margins, and farmyards. The figures from the national forest inventory for the total area of farmland as used in this evaluation (2.8 mill. ha) also include many such areas. Farmland habitats thus account for about 6.5% of Finland's total area and 9.0% of the country's land area.

Some 16% of the species assessed are associated with various farmland habitats. The most species-rich habitats include traditional agricultural habitats where crops are not actively cultivated. Half of the farmland species occur in dry meadows. A further 15% are associated with mesic meadows, 13% with moist meadows, 13% with wooded meadows, and 9% with cultivated fields. About 42% of the species associated with dry meadows are beetles and butterflies. Many *Homoptera*, *Diptera* and vascular plants also primarily occur in such habitats. Wooded meadows are the second most important habitat type for butterflies, and mesic meadows are also important for *Hymenoptera* species.

Rural activities have given rise to considerable variations in the natural environment, and created suitable conditions for species that thrive in open cultural landscapes. On the other hand, the clearance of farmland has fragmented forests and particularly led to the loss of areas of herb-rich woodlands and shallow mires. In recent decades farming has been undergoing radical changes. The intensification of agricultural production has reduced the space available to species associated with many traditional agricultural habitats. The areas of traditional meadowland and pastureland have particularly shrunk as older forms of mixed farming based on smaller units, dairy cattle and varied crops have declined. Since the 1990s awareness of the fate of these species-rich habitats has increased, however, and such habitats are beginning to be purposefully managed in places.

### ***Forests on mineral soils***

Forests are Finland's most significant natural habitats in terms of both their total area and the number of species associated with them. According to the categories used in the evaluation of the action plan for biodiversity, the total area of forest habitats on mineral soils in Finland is just under 15 mill. ha, which represents 36% of Finland's total area and 49% of the country's land area. This estimate corresponds to the total area defined in the national forest inventory as forests on mineral soils (17.2 mill. ha, Metla 2004), with deductions made for areas also classified as arctic fell, rocky habitats or shore habitats. According to the categories used in FAO's Global Forest Resources Assessment forests cover 72% of Finland's land area (including forests both on mineral soils and peatlands).

Some 42% of all the species assessed are forest species. Fungi are notably well represented among these species, accounting for 29% of all the forest species. Three-quarters of all of Finland's fungi are primarily associated with forest habitats, as are more than half of the country's mammals (54%). Nutrient-poor and dry forest habitats generally have relatively few species, and herb-rich woodlands are particularly species-rich. Herb-rich woodland habitats have largely disappeared, however, especially where fields have been widely cleared, and they only account for about 1% of the total area of forest habitats. About a third of all forest species are nevertheless considered to be primarily herb-rich woodland species. According to the categories defined in the last major survey of species' threatened status (Rassi et al. 2001), species associated with old-growth forest habitats account for 13% of all forest species. The most threatened category of forest species is species that live on decaying wood.

<sup>4</sup> The total area of remaining valuable traditional agricultural biotopes maintained by mowing and grazing has shrunk to approx. 20 000 ha.

<sup>5</sup> Genetic resources procured before the CBD came into force in 1992 are not covered by the agreement.

Most of the factors affecting the biodiversity of Finland's forest are related to forestry. About 93% of Finland's forests, defined as described above according to the national forest inventory, are currently used for commercial forestry. The practice of clear cutting in particular creates unnatural structures in forest landscapes, hindering the preservation of the forests' natural biodiversity. The age structure and species mix of trees in forest stands have changed considerably. The total area of forests in their natural state and the quantities of decaying wood in the forests have both declined noticeably, especially in southern Finland, where forests in a virtually natural state only make up about 1% of all forests, and the amounts of decaying wood are just few per cent of their natural values. Under natural conditions the amounts of decaying wood in the forests vary according to factors including growth site conditions and geographical location. The highest quantities of decaying wood should be found in nutrient-rich forest habitats in southern Finland. Old-growth pine or spruce stands in a natural state should contain about 60-120 m<sup>3</sup> of decaying wood per hectare in the central and southern boreal forest vegetation zones, and 50-80 m<sup>3</sup>/ha in the northern boreal forest zone. In natural forests the quantities of decaying wood are highest of all – sometimes several hundred cubic metres per hectare – in areas undergoing natural regeneration soon after a recent natural event such as a forest fire or major storm damage. The effect of the overall reduction in the area of natural forests is compounded by the fragmentation of the remaining areas by uniform commercially managed forest stands of different ages and forest roads. These trends reduce the opportunities for many forest species to thrive.  
(Source: Evaluation of the National Action Plan for Biodiversity in Finland, 2005).

To meet the obligations under the CBD, Finland prepared the National Action Plan for Biodiversity in Finland (1997-2005), whose implementation is overseen by a monitoring group consisting of representatives of various administrative sectors and other stakeholders organisations.

The *first progress report* prepared by the monitoring group in 2000 examined how the 124 measures within the action plan had been implemented over the period 1997–1999.

On the basis of these results, the National Action Plan for Biodiversity in Finland monitoring group *defined 12 important areas for development, and set short-term goals*. Progress during the next phase of the action plan was assessed in the *second report* of the monitoring group, which was submitted to the Secretary General of the Convention on Biological Diversity on 12.11.2002. *The third progress report* describes progress with the action plan and its associated development areas over the period 2002–2004.

The Biodiversity monitoring group have particularly focussed on:

- (i) the sectoral integration of the preservation, management and sustainable use of biodiversity, especially with regard to the preservation, management and sustainable use of farmland and forest ecosystems;
- (ii) economic and other mechanisms to maintain biodiversity;
- (iii) the Ecosystem approach, regarding the functions and services provided by ecosystems;
- (iv) networks of protected areas, green corridors and major biodiversity "hot spots";
- (v) invasive species;
- (vi) the conservation and sustainable use of genetic resources, and the availability of genetic resources and the benefits from their exploitation; and
- (vii) the state of biodiversity in Finland, and an evaluation of the impacts and adequacy of the national action plan, with regard to the coming revision of the action plan.

These themes will also be important during 2005.

### **The preservation, management and sustainable use of native biodiversity**

Finland's Proposals for the Natura 2000 network in the alpine biogeographical zone of Finland were approved in 2003. On 13.1.2005 the European Commission approved supplementary proposals drafted by Finland in 2004 for the network's boreal zone. The principles applied in the management and use of protected areas in Finland are in accordance with the requirements of the CBD, the EU's nature conservation directives and Finland's own Nature Conservation Act (1096/1996). Metsähallitus Natural Heritage Services, the authority responsible for the management of protected areas in Finland, has measured and assessed the effectiveness, productivity and economic viability of the management of protected areas, using purposefully developed methods. During 2004 Metsähallitus organised an international evaluation of the management of protected areas in Finland, whose findings, published at the beginning of 2005, will be used in the coming evaluation of the state of biodiversity in Finland and the impacts of the national action plan.

There is a widespread need to restore biodiversity in forest habitats to its natural state in protected areas and in other forests where natural forest management methods are practised. Habitat restoration work is particularly needed to restore the natural state in protected areas of forest in Southern Finland that have previously been commercially managed. The restoration of forest biodiversity in protected areas has been intensified since funding was approved in 2002 for the METSO Forest Biodiversity Programme for Southern Finland.

### **Agriculture and biodiversity**

The Ministry of Agriculture and Forestry has given the preservation, management and sustainable use of biodiversity a high priority in its activities. The ministry has attempted to ensure that the preservation of species and their habitats is considered as much as possible in all use of natural resources, and has also been developing planning systems and training for people working in forestry and agriculture related to the management of biodiversity. Such measures are necessary because most of Finland's threatened species are primarily associated with forest and farmland habitats. Another objective is ensure that the genetic resources in animals and plants, including those used in agriculture, horticulture and forestry, are protected, maintained and used sustainably, in order to preserve their genetic diversity to meet future needs.

The continuity of the management of areas important for biodiversity, such as traditional agricultural biotopes, must be ensured, as well as the management of farmland biodiversity in general. Other key areas where improvements *in situ* are needed include the protection of landrace livestock breeds and traditional crop cultivars *in situ*, and the search for practical solutions to help preserve and manage these plants and animals.

### **Land use planning**

The need to preserve biodiversity is particularly highlighted in areas where land use pressures are intense (growing urban areas, major industrial areas, intensively farmed regions, shores, islands, arctic fells, eskers, forests and peatlands). Measures to preserve biodiversity in such areas should be continued, improved and supplemented. More emphasis should be given to research into urban ecology and ecosystems. The Land Use and Building Act (132/1999) aims to control land use and construction to safeguard the prerequisites for sustainable development and good quality residential environments. This objective is realised through planning controls at all planning levels. A publication completed in 2003 provides information for the organisations and authorities commissioning, conducting and evaluating ecological surveys in relation to the need to consider biodiversity in community planning and environmental impact assessments (EIA) for various development projects.

The Land Use and Building Act has given increased prominence to the interaction between transport planning and land use planning. By making community structures more compact and integrated, planners can increase the efficiency of the use of existing transport routes and services, and reduce the pressure to use new areas for transport and residential infrastructure. The most important tools for protecting biodiversity in the transport sector include the harmonisation of transport planning and land use planning, EIA at project and programme level, and various action plans. There is still scope for improved co-operation on developing the spatial structure of communities.

As traditional agricultural biotopes become scarcer<sup>4</sup> the significance of road verges, railway embankments, and the areas around airfields harbours as suitable habitat for meadowland species increases. It has been estimated that Finland's 78,000 km of public road are lined with a total area of at least 100,000 hectares of mown grassy verges. The management of these verges could be adapted to make them more natural, and thus promote biodiversity, while also ensuring they are properly maintained for the purposes of road safety. Such areas should be linked to valuable traditional agricultural biotopes, and information about management practices and methods that can help to preserve biodiversity and the need for land use and management plans should be provided to those responsible for their maintenance. The regional environment centres can provide vital expertise in this respect. A national development project run by the Ministry of Agriculture and Forestry and the Ministry of Transport and Communications over the period 2000–2002 aimed to improve the management of roadside habitats. Job creation funding from Employment and Economic Centres was additionally used in the related pilot projects. The objective has been to improve the exchange of information and co-operation between the different organisations involved in maintaining roadside landscapes. A handbook titled *Roadside landscapes belong to everyone* was produced during this project to compile practical guidelines for the maintenance of roadside habitats.

## **Biosafety, and the availability of genetic resources and the benefits from their exploitation**

The Cartagena Biosafety Protocol controlling the import and export of genetically modified organisms (GMOs) came into force in Finland on 7.10.2004. This agreement was prepared under the auspices of the CBD in order to regulate the increased international use and trading of GMOs.

Concerning the regulation of the availability of genetic resources and the benefits from their exploitation,<sup>5</sup> the CBD is a framework agreement whose objectives should be followed at the national level. Finland duly attempts to ensure that the countries of origin of genetic materials fulfil their obligations to declare trade. The relationship between ownership rights and intellectual property rights with regard to genes is a new issue in legislative circles. The need for legislation in Finland on genetic resources is currently being assessed by the Gene Resources Board under the auspices of the Ministry of Agriculture and Forestry. To facilitate this work the committee set up in November 2004 a sub-committee who will promote the implementation in Finland of the Bonn guidelines on the availability of genetic resources and the benefits from their exploitation. Finland co-operates on issues related to genetic resources with the UN, the EU, the Nordic Countries, and other countries as necessary.

## **Education and instruction**

According to an evaluation made by the National Board of Education (2001) issues related to the preservation and sustainable use of biodiversity are relevant in studies of biology at all levels of education. Attempts have also been made to integrate issues related to the maintenance of biodiversity into other subjects. Training related to biodiversity and the production of related educational materials have most significantly been improved in the forestry sector. The high priority given to natural management methods is reflected in the numbers of forestry professionals choosing to study for natural forest management diplomas. Forest owners should also be increasingly encouraged to join such courses, for instance through the METSO Programme. Support has also been provided for the production of educational materials related to farmland biodiversity, and such materials have particularly been provided for advisory organisations.

## **Research**

The monitoring group has already stressed the need for multi-disciplinary research into biodiversity issues and their social context (see Kangas et al. 2000). The BITUMI project within the 1997–2002 FIBRE research programme aimed to promote the wider understanding of biodiversity issues and to make research results more useful for decision-makers; and the project's results have been published in the form of three extensive biodiversity textbooks.

The MOSSE biodiversity research programme (2003–2006) stresses the need for practically applicable information, and aims to correspondingly increase the amount of useful information on ways to protect biodiversity in forest, farmland and aquatic habitats, while also assessing the ecological, economic and social impacts of these measures. So far issues related to the biodiversity of arctic fell and peatland habitats have not been covered in any detail in the FIBRE and MOSSE research programmes.

More information has become available during the monitoring period on Finland's biodiversity and its management, particularly with regard to threatened species and habitats, and the representativeness of protected areas. During the years 2003–2004 increased funding has been channelled into research on threatened and poorly known forest species. More resources are also expected to become available for species research in the future.

Agrifood Research Finland (MTT) and the Finnish Forest Research Institute (Metla) have both increased their biodiversity research. MTT produces data on the biodiversity of farmland habitats, and develops means to measure farmland biodiversity. This information can then be used to develop practical applications to help protect farmland biodiversity and the genetic resources used in agriculture, as well as to build up wide-ranging multi-disciplinary expertise. Metla is meanwhile launching a new research programme, known as TUK, which aims to find means to safeguard forest biodiversity, and also assess socio-economic impacts. This research programme will build on earlier research conducted at Metla, and also apply information on the socio-economic impacts of various aspects of biodiversity produced during the MOSSE research programme.

## **Monitoring**

Proposals for the general monitoring projects within national biodiversity monitoring were submitted by the TST expert group to the monitoring group in 2002. Proposals for the special monitoring required by various legislation for the special monitoring of specific habitats and species will be completed by the TST group in early 2005: The monitoring of the state of biodiversity in Finland and current trends should be intensified and supplemented, particularly at the biotope and landscape levels. There is an urgent need to secure funding for this monitoring work in the near future. Thanks to the work of volunteers, the costs of organising this monitoring work, which will be shared among the organisations involved, will be reasonable, with regard to the extent of the monitoring. It is especially important to organise funding for the monitoring conducted by the Finnish Museum of Natural History, which operates under the auspices of the Ministry of Education. Amateur naturalists can be further encouraged to carry out voluntary monitoring work by improving feedback (through publications and the internet), and through training, instruction and financial support, for instance.

The monitoring of the state of biodiversity in Finland and current trends should be started according to the priorities set in the proposals mentioned above (TST Expert Group 2001, 2005), and on the basis of the views of the national monitoring group and the organisations involved in the monitoring. The monitoring system should be designed to support Finland's biodiversity strategy, the national action plan, and the monitoring of the achievement of the 2010 objectives. The development of biodiversity indicators will be considerably facilitated if the organisations involved in the monitoring jointly produce already during the preparation of the new action plan a set of indicators to describe the state of biodiversity, current trends, and the success of biodiversity policies. Summaries and state of biodiversity reports will be needed to support decision-making, while there is also a need for open meta-databanks designed for wider public use, with suitable search functions. Monitoring data should also be duly communicated to planners working at the regional and local level, and other groups who need such information.

### **The administration of data**

Data related to biodiversity is widely dispersed and largely non-compatible. This means that converting the data to make it useful for purposes other than its original intended use can be very laborious at present. One important task for the national co-ordination group proposed by the TST group is to achieve agreements on the harmonisation and common usage of data for practical purposes. When biodiversity data is stored so as to facilitate such harmonisation, the recommendations of the global GBIF project should be followed as much as possible, through a national adaptation of the GBIF.

Progress has been achieved as planned with the national clearing-house system for biodiversity data (LUMONET). Progress on the co-ordination of LUMONET and the LUOMUS GBIF project with regard to the proposals made by the TST group has been slow, however. Intensifying this co-ordination could lead to significant improvements nationally and internationally.

### **International co-operation**

Finland has been actively working to implement the international elements of the action plan. Finland has participated in projects designed to promote the protection of Fennoscandia's boreal coniferous forests in natural areas in neighbouring Russia, Estonia, Sweden and Norway, in co-operation with these countries' nature conservation authorities and the administrators of protected areas that border on Finland. One objective of such work is to create a chain of pairs of twinned protected areas along the Finnish-Russian border from the Gulf of Finland to the River Paatsjoki in Northern Lapland. This "green belt" would be a unique asset in the preservation of biodiversity in Europe. Creating a well functioning network of protected areas also supports the EU's biodiversity strategy and the achievement of the 2010 objectives. Once completed, this green belt could also be a suitable UNESCO world natural heritage site.

Finland has supported the work of the Global Environmental Facility (GEF) financing projects designed to promote the preservation and sustainable use of biodiversity in developing countries. Funding has also been provided for the multilateral development work of the World Bank's Trust Fund for Environmentally and Socially Sustainable Development (TFESSD) and the Consultative Group on International Agricultural Research (CGIAR), both of which organizations are currently running projects related to biodiversity. Finland has additionally funded several bilateral development projects related to the protection of biodiversity. Development co-operation resources have also been used to support biodiversity research and the international activities of NGOs related to biodiversity. Finland's financial

contributions for development co-operation work related to biodiversity have been rising in recent years.

### **Monitoring and assessing the NBSAP in Finland**

Both the sectoral responsibility for the preservation, management and sustainable use of biodiversity as defined in the action plan, and the sectoral integration of biodiversity have been relatively well implemented in the various administrative spheres. Key stakeholder groups have continued to promote the maintenance of biodiversity, and progress has been made towards many of the action plan's objectives during the monitoring period. Stakeholders have also widely evaluated the impacts of their decisions and activities, and monitored the realisation of their objectives. The ministries of agriculture and forestry, transport and communications, the environment, and education, have all continued to develop their operations and planning, while also conducting training related to the management of biodiversity for employees within their sectors. Issues related to biodiversity have been duly considered in the renewal of legislation in the Nature Conservation Act, the Forest Act, the Water Act, the Land Use and Building Act, the Penal Code, and the Gene Technology Act and Decree.

In spite of these positive developments, the action plan has not been able to halt the impoverishment of biodiversity in Finland. This long-term decline has been difficult to reverse, due to factors such as the burden of centuries of exploitative land use, and the increasing uniformity of natural habitats due to intensive land use and the overgrowing of open habitats. Declining trends in the conservation status of forest species seemed to slow during the 1990s, but many species are still evidently becoming increasingly endangered, especially the characteristic species of old-growth forests in Southern Finland (Rassi et al. 2001, p. 360). The most recent surveys confirm that the prospects for species associated with agricultural habitats are worsening (Kuussaari et al. 2004). The latest assessment of the threatened status indicates that species associated with traditional agricultural biotopes are declining most rapidly (Rassi et al. 2001, p. 359), and such species are more prominent in the red list of 2001 than they were in the previous such survey conducted during the 1990s. Species associated with shore habitats have also suffered from a similar recent decline. Natural habitats in Finland are also threatened by various factors related to climate change.

The monitoring group believes that in spite of reasonable success in the implementation of the action plan and other favourable trends, the measures within the action plan alone will not be able to halt or significantly slow the declining trend in biodiversity in Finland by 2010.

The monitoring group believes it is important to continue with the implementation of the current action plan until the end of its effective period. The greatest challenges within the plan have been: (1) realising the sectoral responsibilities allocated for stakeholder groups in the plan in practice (including the designation of protected areas); (2) identifying innovative measures related to biodiversity; (3) increasing understanding of the contents and objectives of the action plan; and (4) disseminating information on biodiversity at the regional and local levels, particularly with regard to facilitating land use planning and decision-making.

(1) There is still a need to get stakeholders committed to the action plan's objectives, and the related co-operation, co-ordination and the sharing of information, while also ensuring that funds and resources are suitably channelled into projects that support the plan. Wide-ranging co-operation and additional resources are particularly needed to develop biodiversity indicators and measures, the monitoring and assessment of the state of biodiversity, and data registers and systems.

More resources are also needed for the implementation of the METSO Programme (see 5.1), for the protection and monitoring of species in need of special protection (see 5.2), and for the management of protected areas (see 5.3). In spite of increases in the funding provided by the Ministry of the Environment, the finances available for the management of protected areas are still insufficient given the scope of this work. The completion of current conservation programmes over the next few years will lead to a rapid increase in the numbers of both state-owned protected areas under the administration of Metsähallitus, and private protected areas, especially in Southern Finland. This increasing workload is compounded by Finland's obligations within the Natura 2000 programme, and by the increasing importance of protected areas for hiking, outdoor recreation and nature tourism.

The monitoring group believes that widely based co-operation and extensive resources are still needed for the implementation of the action plan. The financial resources currently available for the establishment and management of protected areas are insufficient.

(2) From the perspective of the social acceptability of the preservation of biodiversity, it is very important to find economic and employment opportunities related to the preservation, management and sustainable use of biodiversity. Multidisciplinary research and the participation of the Economic and Employment Centres are needed in the development of innovations, employment and livelihoods related to biodiversity (see 4.8). The labour authorities have stated their willingness to provide finances or other support for the maintenance of biodiversity wherever the preservation, management or sustainable use of biodiversity can help to create temporary or permanent jobs, or guarantee the availability of labour. Opportunities to expand job training in relation to the sustainable management of natural resources, recreational activities and nature tourism should particularly be explored. A report on economic linkages related to biodiversity is currently being prepared by the Sustainable Use of Biological Resources Expert Group.

The monitoring group believes that research into the linkages between biodiversity and socio-economic factors should be continued under the new action plan for the period 2006–2016, particularly with regard to economic and employment opportunities.

(3) The monitoring group is still seeking practical examples of ways to implement the national action plan through favourable measures, particularly at the regional and local levels. According to the monitoring group's proposals, a national report should be drafted on regional successes in creating employment related to such issues as environmental management and protection, nature tourism, and the recreational use of natural areas. Prejudices against nature conservation schemes can be reduced through such measures as the voluntary pilot conservation projects within the METSO Programme, and through communications and publicity materials based on reliable data. Special attention should be given to increasing people's understanding of complex issues such as the availability of genetic resources and the benefits from their exploitation.

The monitoring group believes that public awareness and approval of national nature conservation policies and the national action plan should be increased through materials based on reliable data and published on the internet or in publications, articles and press releases etc. Such publicity materials can help the public to understand both the ecological grounds for maintaining biodiversity, and the related socio-economic benefits.

(4) More information has become available during the monitoring period about biodiversity in Finland and the maintenance of biodiversity, particularly concerning threatened species and habitats and the representativeness of protected areas. Although basic research on biodiversity is important from a scientific perspective, making practical use of such information in the preservation, management and sustainable use of biodiversity has not always been easy, due to the fragmented nature of research themes and the basic nature of the research results. Co-operation and the exchange of information between researchers, the authorities and other actors should be further supported also in the new national biodiversity programme.

Data related to biodiversity is widely dispersed, and largely stored in non-compatible formats. This means that converting the data to make it useful for purposes other than its original intended use can be very laborious at present. Data from biodiversity monitoring and other significant sources should be compiled into a widely available meta-databank in the LUMONET clearing-house, which should include information on monitoring work, its organisers, and reports, as well as the data itself. This databank should incorporate existing materials compiled during various projects. The objective is to produce a databank where each contributor is responsible for the maintenance of their own materials and data system elements, but where specific sections of the materials compiled are automatically available to other specified data-users. This will also facilitate international reporting.

The monitoring group believes that special attention should be paid to the communication of monitoring data to planners working at the regional and local level, and other groups who need such information.

In 2003, the monitoring group began to compile national biodiversity objectives for inclusion in the national action plan for sustainable development. The ministries of agriculture and forestry, environment, transport and communications, and foreign affairs have also participated in this work. A good basis for the continuation of this work is the Ministry of Agriculture and Forestry's needs analysis for activities concerning renewable natural resources and the countryside (2004), which was produced to meet the requirements of the action plan defined at the Johannesburg World Summit on Sustainable

### Priority Setting

1. Please indicate, by marking an "X" in the appropriate column below, the level of priority your country accords to the implementation of various articles, provisions and relevant programmes of the work of the Convention.

Article/Provision/Programme of Work	Level of Priority		
	High	Medium	Low
a) Article 5 – Cooperation	X		
b) Article 6 - General measures for conservation and sustainable use	X		
c) Article 7 - Identification and monitoring	X		
d) Article 8 – <i>In-situ</i> conservation	X		
e) Article 8(h) - Alien species		X	
f) Article 8(j) - Traditional knowledge and related provisions	X		
g) Article 9 – <i>Ex-situ</i> conservation		X	
h) Article 10 – Sustainable use of components of biological diversity	X		
i) Article 11 - Incentive measures		X	
j) Article 12 - Research and training	X		
k) Article 13 - Public education and awareness	X		
l) Article 14 - Impact assessment and minimizing adverse impacts	X		
m) Article 15 - Access to genetic resources	X		
n) Article 16 - Access to and transfer of technology		X	
o) Article 17 - Exchange of information	X		
p) Article 18 – Scientific and technical cooperation		X	
q) Article 19 - Handling of biotechnology and distribution of its benefits		X	
r) Article 20 - Financial resources		X	
s) Article 21 - Financial mechanism	X		



t) Agricultural biodiversity	X		
u) Forest biodiversity	X		
v) Inland water biodiversity	X		
w) Marine and coastal biodiversity	X		
x) Dryland and subhumid land biodiversity			X
y) Mountain biodiversity			X

### Challenges and Obstacles to Implementation

<b>2.</b> Please use the scale indicated below to reflect the level of challenges faced by your country in implementing the provisions of the Articles of the Convention (5, 6,7, 8, 8h, 8j, 9, 10, 11,12, 13, 14, 15,16, 17, 18, 19 and 20)	
3 = High Challenge	1 = Low Challenge
2 = Medium Challenge	0 = Challenge has been successfully overcome
N/A = Not applicable	

Challenges	Articles																	
	5	6	7	8	8h	8j	9	10	11	12	13	14	15	16	17	18	19	20
a) Lack of political will and support	1	1	2	1	2	3	1	1	2	1	2	2	2	2	1	1	2	3
b) Limited public participation and stakeholder involvement	1	1	1	1	2	2	1	1	2	1	2	2	1	2	2	2	2	1
c) Lack of mainstreaming and integration of biodiversity issues into other sectors	2	1	2	2	2	2	2	2	2	2	2	2	3	2	2	3	2	3
d) Lack of precautionary and proactive measures	1	2	2	3	2	3	2	2	2	2	3	2	2	2	2	3	2	3
e) Inadequate capacity to act, caused by institutional weakness	2	1	2	1	3	3	2	1	2	1	1	2	2	2	2	3	2	3
f) Lack of transfer of technology	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2

and expertise																		
g) Loss of traditional knowledge	2	2	2	2	3	2	2	2	2	2	3	2	2	2	2	2	2	3
h) Lack of adequate scientific research capacities to support all the objectives	2	1	2	1	2	3	2	1	2	2	2	2	2	2	2	2	2	2
i) Lack of accessible knowledge and information	2	2	2	2	2	3	3	3	2	2	2	2	2	2	2	2	2	2
j) Lack of public education and awareness at all levels	1	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2
k) Existing scientific and traditional knowledge not fully utilized	2	2	3	3	2	3	2	2	2	2	2	2	2	2	2	2	2	3
l) Loss of biodiversity and the corresponding goods and services it provides not properly understood and documented	3	2	3	2	2	2	2	3	2	3	3	2	2	2	2	2	2	3
m) Lack of financial, human, technical resources	3	2	3	3	3	3	3	2	2	3	3	3	3	3	3	3	3	3
n) Lack of economic incentive measures	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
o) Lack of benefit-sharing	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
p) Lack of synergies at national and international levels	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	3
q) Lack of horizontal cooperation among stakeholders	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
r) Lack of effective partnerships	2	2	3	2	2	3	2	2	2	2	2	2	2	2	2	2	2	3
s) Lack of	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

engagement of scientific community																		
t) Lack of appropriate policies and laws	2	2	2	2	3	3	2	2	2	2	2	2	2	2	2	2	2	2
u) Poverty	N/A																	
v) Population pressure	1	1	1	2	2	1	1	2	2	2	2	2	1	1	1	1	1	2
w) Unsustainable consumption and production patterns	2	3	2	2	2	2	2	3	2	2	2	2	2	2	3	2	2	3
x) Lack of capacities for local communities	2	2	2	2	2	3	2	2	2	2	2	2	2	2	3	2	2	3
y) Lack of knowledge and practice of ecosystem-based approaches to management	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2
z) Weak law enforcement capacity	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
aa) Natural disasters and environmental change	1	1	1	2	2	1	1	1	1	2	2	1	1	1	1	1	1	2
bb) Others (please specify)																		

### 2010 Target

The Conference of the Parties, in decision VII/30, annex II, decided to establish a provisional framework for goals and targets in order to clarify the 2010 global target adopted by decision VI/26, help assess the progress towards the target, and promote coherence among the programmes of work of the Convention. Parties and Governments are invited to develop their own targets with this flexible framework. Please provide relevant information by responding to the questions and requests contained in the following tables.

#### Box III.

<b>Goal 1</b>	<b>Promote the conservation of the biological diversity of ecosystems, habitats and biomes.</b>
<b>Target 1.1</b>	<b>At least ten percent of each of the world's ecological regions effectively conserved</b>
I) National target: Has a national target been established corresponding to the global target above?	
a) No	
b) Yes, the same as the global target	

c) Yes, one or more specific national targets have been established			x
Please provide details below.			
<p>The NBSAP in Finland aims to maintain viability of Finland's natural habitats and ecosystems in all their diversity in all country's biogeographical zones.</p> <p>A key goal in the implementation of the NBSAP has been to safeguard Finland's biological diversity (favorable conservation status) by preventing the diminishment and genetic depletion of habitats and natural organisms. EU/Natura 2000 network is nationally an important work for implementing this goal.</p>			
II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).			
Programme of work	Yes	No	Details
a) Agricultural		x	
b) Inland water		x	
c) Marine and coastal		x	
d) Dry and subhumid land		N/A	
e) Forest		x	
f) Mountain		N/A	
III) Has the global or national target been incorporated into relevant plans, programmes and strategies?			
a) No			x
b) Yes, into national biodiversity strategy and action plan (ONGOING)			
c) Yes, into sectoral strategies, plans and programmes			
Please provide details below.			
<p>An evaluation of the biodiversity impacts of the National Action Plan for Biodiversity in Finland 1997–2005 commenced in the beginning of 2004. This work is to examine the present state of biodiversity in Finland and current trends, while also assessing the effectiveness and adequacy of the national action plan with regard to safeguarding biodiversity. The evaluation is particularly being based on the latest information available on biodiversity and related trends since 1997, but information from before 1997 will also be used.</p> <p>The results of the evaluation are due in March 2005, and will be considered during the drafting of a new national action plan for the period 2006–2016, which will commence during 2005. Attention will particularly be paid to recent changes in specific sectoral activities, and whether these changes are adequate with respect to the scale of the ecological impacts of the activities concerned. The evaluation will also examine the social, economic and other impacts of the measures within the plan, and consider opportunities and measures to implement the objectives set by the WSSD and the EU for 2010.</p>			
IV) Please provide information on current status and trends in relation to this target.			
<p>The key biotopes specified in the Nature Conservation Act were surveyed by regional environment centres over the period 1998–2004, co-ordinated by the Finnish Environment Institute (SYKE). Of the approximately 2,000 potential sites surveyed, about half met the relevant criteria within the Act. Most of these sites are on private land. The emphasis during surveys conducted in 2004 was on forest biotopes. The average extent of the sites surveyed was about two hectares, but the forest</p>			

biotopes were typically smaller than two hectares. A total of 257 forest sites dominated by nemoral deciduous tree species have been delimited, as well as 89 hazel groves and 31 common alder woods. The boundaries of 454 of these biotopes (with a total area of 816 ha) had been defined altogether by the end of October 2004.

Proposals related to the complete renewal of the Water Act (264/1961) were submitted to the Ministry of Justice by the Water Act Commission on 16.6.2004 (Commission report 2004:2 Ministry of Justice). This report contains proposals for a new Water Act drafted in the form of government proposals, which will be further processed within the Ministry of Justice. The objective of the act is to promote, organise and harmonise the use of water resources to make it socially, economically and ecologically sustainable; while also reducing and preventing damage caused by water and the use of water resources; and improving the state of water resources and aquatic environments.

V) Please provide information on indicators used in relation to this target.

The need to develop reliable biological indicators has widely been stressed, and promoting this work is specified as one of the most important tasks nationally. A lot of work has been done regarding the development of indicators to describe the state of biodiversity at both the national and international level. Finland has participated actively in OECD meetings for experts on biodiversity indicators, for instance. Various organisations are currently working to compile and develop a variety of indicators related to biodiversity. The research, monitoring and information systems expert group (TST group) in Finland received funding for these purposes from the Ministry of the Environment during the period 2002–2003. This work has been designed to develop indicators applicable in Finnish conditions for monitoring purposes, related to the Europe's biodiversity target for 2010 as defined in the 7th Conference of Parties to the CBD (2/2004), the Malahide Conference (5/2004) and the EU's biodiversity working group, while also assessing the availability of the necessary information. Attempts are being made to take advantage of other work on biodiversity indicators already being done in Finland. The fruits of this work will be submitted in a report to be used by the Ministry of the Environment and the National Action Plan for Biodiversity in Finland Monitoring Group in spring 2005.

The natural resource monitoring indicators developed for the natural resource strategy of the Ministry of Agriculture and Forestry include indicators of farmland biodiversity and the biodiversity of game stocks (Ministry of Agriculture and Forestry 2004). Criteria and indicators for sustainable forestry, which account for the management, preservation and suitable promotion of biodiversity in forest ecosystems, were published first in 1997 and revised in 2000. In 2004 the Finnish Forest Research Institute (Metla) launched a website service *Metinfo – the sustainability of forestry in Finland*, where data on the indicators defined in 2000 is updated annually (see [www.metla.fi/metinfo/kestavyys](http://www.metla.fi/metinfo/kestavyys)).

A working group was set up by the Ministry of Agriculture and Forestry in autumn 2003 to revise Finland's criteria and indicators for sustainable forestry according to the revisions made to European indicators at the ministerial conference held in Vienna in spring 2003. The new set of indicators should be ready by the end of 2005. The Ministry of Agriculture and Forestry and Metsähallitus have together developed ecological, economic and social indicators for state-run forestry. These indicators are applied in the ministry's financial policies. During 2001, Metsähallitus adopted a special set of indicators designed to measure the quality and effectiveness of protected area management.

VI) Please provide information on challenges in implementation of this target.

The implementation of the national biodiversity action plan began in 1997, at a time when renewed legislation and other factors had created a favourable basis for the programme, for decision-making and other developments in the field, and for co-operation between the authorities and the private sector. Challenges have included the exceptionally wide scope of the plan, and the lack of research and monitoring data on either the current state of biodiversity, or the effectiveness of the action plan. This situation is expected to improve, however, on the completion of the evaluation of the action plan initiated in the beginning of 2004, and as the results of recently completed and ongoing extensive research programmes and separate research projects are exploited. This data must still be improved with regard to such issues as aquatic ecosystems and their biodiversity, as well as the harmful impacts of climate change, and the related preparatory measures (see Ministry of Agriculture and Forestry 2005).

In spite of reasonable success in the implementation of the action plan and other favourable trends, the measures within the action plan alone will not be able to halt or significantly slow the declining

trend in biodiversity in Finland by 2010. This long-term decline has been difficult to reverse, due to factors such as the increasing uniformity of natural habitats after long periods of intensive land use.

Wide-ranging co-operation and additional resources are particularly needed to develop biodiversity indicators and measures, the monitoring and assessment of the state of biodiversity, and data registers and systems. From the perspective of the social acceptability of the preservation of biodiversity, it is very important to find economic and employment opportunities related to biodiversity, and to find ways to publicise reliable data to help the public to understand both the ecological grounds for maintaining biodiversity, and the related socio-economic benefits. Research into the linkages between biodiversity and socio-economic factors should be integrated into the new action plan to be drafted in 2005.

VII) Please provide any other relevant information.

#### Box IV.

Target 1.2		Areas of particular importance to biodiversity protected	
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
b) Yes, the same as the global target (Finland as an EU member follows the EU Target incl. EU directives)		x	
c) Yes, one or more specific national targets have been established		x	
Please provide details below.			
<p>In January 2004 the Government decided on Finland's last proposals to complete the national Natura 2000 network. The national network was expanded according to the request of the European Commission. The additions brought up the total area of Finland's proposed Natura 2000 network to around 4.9 million hectares. About 3.6m ha (73 %) of this total area consists of land areas, and 1.31m ha (27 %) is covered by water. The complete proposed network includes 1,813 sites that meet the requirements of the EU's Bird and Habitats Directives, of which 87 are in the autonomous Åland Islands Province. In autumn 2004 proposals concerning the reassessment of data or the inclusion in the network of 133 sites were presented for public comment. Most of the areas within these new proposals are already protected or designated for protection under existing conservation programmes. Almost all of the Natura sites (97 %) have already been established as protected areas through national decisions, or are already included in national conservation programmes, or are otherwise protected. The European Commission approved Finland's Natura 2000 network proposals on 13.1.2005.</p> <p>Government-approved national nature conservation programmes have been implemented and improved in line with the funding programme for the period 1996–2007 approved by the economic policy ministerial board. Over the period 1996–2003 a total area of almost 220,000 hectares was procured by the State for the purposes of protection through nature conservation programmes or otherwise designated as protected areas. During 2003 nature conservation programmes were implemented for a total area of about 30,000 hectares. At the beginning of 2004 a total area of 130,000 ha within proposed conservation programmes had yet to be protected. A large proportion of this area consists of bird wetlands. These programmes are due to be implemented by the end of 2007.</p>			
II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).			
Programme of work	Yes	No	Details
a) Agricultural	x		
b) Inland water	x		EU Waterframe directive

c) Marine and coastal	x		
d) Dry and subhumid land		N/A	
e) Forest	x		
f) Mountain		N/A	
Has the global or national target been incorporated into relevant plans, programmes and strategies?			
a) No			
b) Yes, into national biodiversity strategy and action plan (Ongoing)		x	
c) Yes, into sectoral strategies, plans and programmes		x	
Please provide details below.			
<p>Finland's Proposals for the Natura 2000 network in the alpine biogeographical zone of Finland were approved in 2003. On 13.1.2005 the European Commission approved supplementary proposals drafted by Finland in 2004 for the network's boreal zone. The principles applied in the management and use of protected areas in Finland are in accordance with the requirements of the CBD, the EU's nature conservation directives and Finland's own Nature Conservation Act (1096/1996). Metsähallitus Natural Heritage Services, the authority responsible for the management of protected areas in Finland, has measured and assessed the effectiveness, productivity and economic viability of the management of protected areas, using purposefully developed methods. During 2004 Metsähallitus organised an international evaluation of the management of protected areas in Finland, whose findings was published in April 2005, and will be used in the coming evaluation of the state of biodiversity in Finland and the impacts of the national action plan. Metsähallitus's activities have meanwhile been improved, expanded and internationalised as the national protected area network has been developed.</p> <p>Europe's biodiversity target for 2010, to halt the decline in biodiversity throughout the European Union, was examined in detail during Ireland's EU Presidency in year 2004. The Malahide Conference resulted in the <i>Message from Malahide - Halting the Decline of Biodiversity - Priority Objectives and Targets for 2010</i>, in connection with the declarations of the Environment Council (6/2004) regarding the outcome of COP7. Finland has actively participated and contributed to the Malahide Conference and the Environment Council and in the follow up work. Malahide targets number 15 &amp; 16 (Malahide message)</p> <p>The aim of this funding programme is to complete current nature conservation programmes by the end of 2007. By early 2004, about 96 % of the areas designated for these programmes had been established as protected areas or acquired by the State for conservation purposes 2005.</p> <p>The aim of the National Forest Programme is to achieve and preserve a favorable standard of conservation of species and habitats in the forests by a combination of conservation areas and ecosystem management in commercial forests.</p> <p>According to the Forest Act and Nature Conservation Act important habitats for biodiversity are protected even in commercial forests. For more information, see expanded <i>programme of work on forest biological diversity, question 177</i>. of this report.</p>			
IV) Please provide information on current status and trends in relation to this target.			
V) Please provide information on indicators used in relation to this target.			

VI) Please provide information on challenges in implementation of this target.
VII) Please provide any other relevant information.

**Box V.**

<b>Goal 2</b>	<b>Promote the conservation of species diversity</b>		
<b>Target 2.1</b>	<b>Restore, maintain, or reduce the decline of populations of species of selected taxonomic groups</b>		
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
b) Yes, the same as the global target			
c) Yes, one or more specific national targets have been established			x
Please provide details below.			
<p>The protection and management of populations of threatened species is the responsibility of Metsähallitus in state-owned lands, and of regional environment centres in co-operation with the local authorities on private land. Threatened species must be surveyed, monitored and managed in protected areas and in privately owned forests with the help of expert networks set up by the environmental administration. Due to a shortage of resources, such work is only carried out for very few known occurrences of threatened species.</p> <p>The Evaluation of the National Action Plan for Biodiversity in Finland, 2005 will also provide a basis for the assessment of the biodiversity impacts of the METSO Forest Biodiversity Programme for Southern Finland. The evaluation of the METSO Programme will be carried out separately, and should be completed by the end of 2006.</p>			
II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).			
<b>Programme of work</b>	<b>Yes</b>	<b>No</b>	<b>Details</b>
a) Agricultural	x		
b) Inland water	x		
c) Marine and coastal	x		
d) Dry and subhumid land		N/A	
e) Forest	x		
f) Mountain		N/A	
III) Has the global or national target been incorporated into relevant plans, programmes and			



strategies?	
a) No	
b) Yes, into national biodiversity strategy and action plan (ONGOING)	x
c) Yes, into sectoral strategies, plans and programmes	x
Please provide details below.	
IV) Please provide information on current status and trends in relation to this target.	
V) Please provide information on indicators used in relation to this target.	
VI) Please provide information on challenges in implementation of this target.	
VII) Please provide any other relevant information.	

**Box VI .**

Target 2.2	Status of threatened species improved
I) National target: Has a national target been established corresponding to the global target above?	
a) No	
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	x
Please provide details below.	
<p>The report <i>Red List of Threatened Species in Finland 2000</i> included calculations of the additional resources needed for research on and the monitoring, protection, and management of threatened species (Rassi et al. 2001, p. 377–379). These expenses amount to a total of €3.9 million a year over the next ten years (research: €0.6m, monitoring €1.4m, protection €0.8m, and management €1.2m).</p> <p>The Ministry of the Environment has allocated resources amounting to €0.2–0.5 million per year during the period 1998–2004 for use in projects, reports, and planning related to the management and protection of threatened species on private land. The recipients of these funds included the Finnish Environment Institute, the regional environment centres, WWF expert groups for different species groupings, universities, and natural history museums (see Table 5). Resources have been allocated by species grouping, with the most endangered species prioritised. The funds have also had to be used to finance many of the protection and management surveys of areas where threatened species occur, as well as evaluations of species' threatened status. The Finnish Environment Institute has financed more than 1,000 surveys of the occurrence of threatened species at a cost of approximately €20,000–30 000 a year since 2000.</p> <p>On 1.7.2004 the Ministry of Agriculture and Forestry and the Ministry of the Environment published</p>	

guidelines for the officials of forestry centres and regional environment centres concerning how to define and safeguard flying squirrels' resting and breeding sites during the use of forests. In September 2004 the Forestry Development Centre Tapio published a booklet about flying squirrels for forest owners and foresters. Tapio has also provided foresters with training and educational materials about flying squirrels. The Ministry of the Environment has meanwhile been funding a separate research project surveying flying squirrel populations.

Training for customs officials, the police and prosecutors related to the observance of the Nature Conservation Act is being organised, particularly with regard to legislation on threatened species. Training for customs officials about nature conservation and CITES legislation has continued since 1997

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	Yes	No	Details
a) Agricultural	x		
b) Inland water	x		
c) Marine and coastal	x		
d) Dry and subhumid land		N/A	
e) Forest	x		
f) Mountain		N/A	

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	
b) Yes, into national biodiversity strategy and action plan (ONGOING)	x
c) Yes, into sectoral strategies, plans and programmes	x

Please provide details below.

IV) Please provide information on current status and trends in relation to this target.

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.

VII) Please provide any other relevant information.

**Box VII.**

<b>Goal 3</b>	<b>Promote the conservation of genetic diversity</b>	
<b>Target 3.1</b>	<b>Genetic diversity of crops, livestock, and of harvested species of trees, fish and wildlife and other valuable species conserved, and associated indigenous and local knowledge maintained</b>	
I) National target: Has a national target been established corresponding to the global target above?		
a) No		
b) Yes, the same as the global target		x
c) Yes, one or more specific national targets have been established		x
Please provide details below.		
<p>The Forestry and Agriculture Genetic Resources Board was established in 2004 to prepare Finland's position for Nordic and international issues related to gene resources used in forestry and agriculture, including the negotiation and implementation of international agreements. The committee's mandate was later widened to cover the availability of genetic resources used outside agriculture and forestry, and the equitable allocation of the benefits from their exploitation, with regard to the Bonn Guidelines.</p> <p>The Bonn Guidelines aim to ensure that suitable legislative and administrative measures are developed to control the availability of genetic resources, and the equitable allocation of the benefits from their exploitation. To facilitate this work the committee set up in November 2004 a sub-committee who will examine issues including the aims and national implementation of the Bonn Guidelines, the development of the related legislation, and roles and responsibilities concerning the legal availability of genetic resources and the distribution of the benefits from their exploitation, with regard to Article 15 of the CBD, and certain obligations under other agreements (WTO/TRIPS, WIPO, UPOV, FAO/IT) as necessary. The sub-committee will also draft proposals for a national strategy or a national action plan on the availability of genetic resources and the distribution of the benefits from their exploitation, including the definition of any related regulations and tasks. This work is to be completed by 1.6.2006.</p> <p>Finland has participated since 2000 in the activities of WIPO's <i>Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore</i> (IGC). The countries involved in the committee have discussed issues related to the availability of genetic resources and the distribution of the benefits from their exploitation, also covering questions concerning the protection of traditional knowledge and folklore. The IGC is to prepare and draft administrative and research reports related to these broad issues. The 6<sup>th</sup> Conference of Parties to the CBD asked WIPO to report on obligations to provide information on the use of genetic resources and traditional knowledge in patent applications. A technical report on the activities of the IGC was submitted to the 7<sup>th</sup> Conference of Parties to the CBD in February 2004 (WIPO Technical Study on Patent Disclosure Requirements Related to Genetic Resources and Traditional Knowledge).</p> <p>Finland's national plant gene resources programme for agriculture and forestry, defined in 2001, seeks to guarantee that the genetic resources and natural variation of the plants grown in farms, gardens and forests are preserved and used sustainably. A <i>plant gene resources committee</i> was set up in 2003 under the Ministry of Agriculture and Forestry to oversee the co-ordination and implementation of the plan.</p> <p>The implementation of a corresponding national programme for animal genetic resources was finalised in 2005, overseen by the <i>animal genetic resources committee</i> set up in 1998. MTT Agrifood Research Finland is co-ordinating a programme for the preservation of domestic animal breeds, and representing Finland in related international programmes run by the FAO and the Nordic Council. Within the national plan, preservation programmes are being set up for endangered Finnish native breeds, involving the registration of individual animals, and the establishment of embryo and sperm banks.</p>		

The agri-environmental subsidies programme aims to help safeguard valuable local livestock breeds and to preserve the genetic stock of local crop varieties. Special subsidies may be paid to finance the raising of landrace breeds and local cereal and grass varieties, as well as the upkeep of threatened crop varieties.

The Finnish Forest Research Institute (Metla) is responsible for the conservation of the genetic resources in Finland's native trees. The goal here is to preserve the genetic variety of tree species and local populations, to ensure these varieties can adapt and thrive even where conditions change. Genetic reserves are preserved in specially established genetic forest reserves, nature reserves, breeding stocks and tree collections.

Transportation routes and particularly the game-proof fences erected along many major roads, can restrict the movements of wild animal populations, which may have negative effects on their gene pools. Genetic research into wild animal and plant species is being expanded, particularly concerning the status of threatened species and the need for protection.

The FIBRE research project *Assessing the viability, biodiversity and conservation prospects of populations* examined the dynamics of small populations, including populations of dragonflies, sticky catchfly (*Lychnis viscaria*) and hunting spiders (*Lycosa sp.*). The project focused on the risk of extinction, reductions in genetic diversity, and the significance of genetic quality at the level of the individual. Four doctoral research papers were produced, as well as several research theses related to small populations. The researchers earlier involved in the project have generally been able to find related work, and about half of them are currently working for the environmental administration. Research into certain game populations and natural salmon populations has been conducted at the Finnish Game and Fisheries Research Institute (RKTL) and universities. Genetic diversity has particularly been examined in salmon and trout populations, but also in whitefish, vendace and rainbow trout.

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	Yes	No	Details
a) Agricultural	x		
b) Inland water	x		
c) Marine and coastal	x		
d) Dry and subhumid land		N/A	
e) Forest	x		
f) Mountain		N/A	

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	
b) Yes, into national biodiversity strategy and action plan (ongoing)	x
c) Yes, into sectoral strategies, plans and programmes	x

Please provide details below.

The National Plant Genetic Resources Programme for Agriculture and Forestry was approved by the Ministry of Agriculture and Forestry in 2001. Based on the programme a detailed Finnish forest genetic conservation strategy including objectives, targets and methods has been prepared in 2004. The Finnish Forest Research Institute is the body responsible for the conservation of forest

genetic resources. See also above previous answer.

IV) Please provide information on current status and trends in relation to this target.

See above

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.

VII) Please provide any other relevant information.

**Box VIII .**

<b>Goal 4</b>	<b>Promote sustainable use and consumption.</b>		
<b>Target 4.1</b>	<b>Biodiversity-based products derived from sources that are sustainably managed, and production areas managed consistent with the conservation of biodiversity</b>		
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
b) Yes, the same as the global target			
c) Yes, one or more specific national targets have been established			x
Please provide details below.			
<p>The Government in Finland has committed to the practical implementation of the action plan formulated at the UN World Summit on Sustainable Development in Johannesburg. The Finnish Government has resolved to prepare a national programme to promote sustainable production and consumption. In November 2003, the Ministry of the Environment and the Ministry of Trade and Industry appointed a committee with members drawn from a wide range of stakeholder groups and influential organisations to draft proposals for this programme. The programme should define the additional goals and environmental policy measures that will have to be adopted for Finland to become a truly eco-efficient society. The committee is due to work out the national program by the end of May 2005 (For more information see <a href="http://www.ymparisto.fi/kultu">www.ymparisto.fi/kultu</a>)</p>			
II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).			
<b>Programme of work</b>	<b>Yes</b>	<b>No</b>	<b>Details</b>
a) Agricultural	x		
b) Inland water	x		
c) Marine and coastal	x		
d) Dry and subhumid land		N/A	

e) Forest	x		
f) Mountain		N/A	
III) Has the global or national target been incorporated into relevant plans, programmes and strategies?			
a) No			
b) Yes, into national biodiversity strategy and action plan (ONGOING)		x	
c) Yes, into sectoral strategies, plans and programmes		x	
Please provide details below.			
<b>Forests and biodiversity</b>			
<p>In 2004 Metsähallitus published a new environmental forestry guide, which will lead to considerable changes in the management of state-owned forests. The guide has been produced using the latest research findings from the field of conservation biology. The guide was due to be adopted for the management of all state-owned forests by the end of 2004, and this should particularly lead to a considerable increase in the amount of decaying wood left in these forests.</p> <p>The regional forestry programmes aim at balancing the various uses of commercially managed forests, and giving an overall view of the state of forestry and development needs in different regions. These programmes include descriptions of each region's forest biodiversity, needs and goals related to preserving forest biodiversity, and estimates of the economical and environmental impacts of the necessary measures. Regional forestry objectives programmes are revised at least every five years. Indicators are being developed to monitor the implementation of these forest programmes.</p> <p><b>Planning the use of state-owned forests</b></p> <p>The seven natural resource plans drafted by Metsähallitus during the period 1995–2000 cover the state-owned forests under the organisation's administration. These plans outlined how state-owned forests should be used for various purposes with regard to all aspects of sustainability, while also defining the volumes of forestry activity. Over the period 1995–2000 Metsähallitus also drafted 112 more detailed landscape ecological plans, covering all state-owned lands except the treeless fells of Northern Lapland (see Kangas &amp; Jäppinen 2002). The main idea behind these plans was to create an ecological network in commercially managed forests, but the recreational use of forests also played an important role.</p> <p>Metsähallitus reorganised its planning systems during the period 2002–2003. In the new system, landscape ecological assessments have been integrated into natural resource plans. The new system was piloted in the Kainuu Region, where a new natural resource plan was completed during 2003. The new plan particularly stresses the need to support nature tourism as well as forestry and nature conservation. During 2003 work also commenced on a natural resource plan for Western Finland.</p> <p>Forest certification aims to provide the purchasers of wood-based products with a guarantee that the wood in the product originates from forests that are responsibly managed according to the principles of sustainable forestry.</p> <p>About 95 % (22 million ha) of Finland's commercially managed forests are certified under the national Finnish Forest Certification System (FFCS), which is linked to the global Programme for the Endorsement of Forest Certification Schemes (also known as PEFC). The FFCS-certified forests belong to some 311,500 forest owners.</p> <p>There have also been trials in Finland of the FSC system, which is backed by environmental organisations, but the total area certified under the general principles of FSC in Finland so far only adds up to 92 hectares. The national FSC working group has prepared a set of FSC standards suitable for application in Finnish conditions, which was sent in May 2004 to the secretariat of the FSC to be evaluated and ratified.</p>			

## Forest ecosystem management projects

According to Section 20 of the Act on the Financing of Sustainable Forestry, Finland's regional forestry centres may organise or oversee the planning and implementation of separate forest ecosystem management project in co-operation with landowners. Such work is only carried out with the landowners' approval. These schemes may involve habitat management or restoration work carried out over several forest holdings, as well as the surveying of habitats of special importance, significant landscape restoration work in commercially managed forests, unusually extensive water protection work in artificially drained forests, the restoration of artificially drained forests in ecologically valuable areas, or other such projects. Other projects may include the management of forest habitats to promote biodiversity, to facilitate the multiple use of forests, or to improve features that are regionally significant for their landscape, cultural or recreational value. The municipal authorities and local and regional organisations also participate in forest ecosystem management projects. Almost 200 forest ecosystem management projects have been completed or are ongoing, with individual projects covering areas between a few hectares and several thousand hectares.

## Agriculture and biodiversity

The Ministry of Agriculture and Forestry has given the preservation, management and sustainable use of biodiversity a high priority in its activities. The ministry has attempted to ensure that the preservation of species and their habitats is considered as much as possible in all use of natural resources, and has also been developing planning systems and training for people working in forestry and agriculture related to the management of biodiversity. Such measures are necessary because most of Finland's threatened species are primarily associated with forest and farmland habitats. Another objective is ensure that the genetic resources in animals and plants, including those used in agriculture, horticulture and forestry, are protected, maintained and used sustainably, in order to preserve their genetic diversity to meet future needs.

In the administrative sphere of the Ministry of **Transport and Communications**, special consideration has been given to the needs of wild animals during the planning of transportation routes. Major routes and the game-proof fences erected along main roads restrict the natural movements of wild animals, which could have negative effects on the genetic structure of their local populations. The movements of wild animals should be facilitated on the grounds of road safety, as well as nature conservation. The National Road Administration's *guidelines on biodiversity and road maintenance* specify that wherever new roads are planned, safe routes should be created and preserved also for wildlife by surveying their territories and habitual routes, and by providing opportunities for them to cross over or under roads as necessary along their natural routes.

Overpasses and underpasses designed for wildlife are planned and sited in co-operation with the local authorities to ensure they are in areas where housing or industrial developments are not likely to be planned subsequently. The National Road Administration has surveyed wildlife movements through special research and monitoring projects, for instance.<sup>6</sup> Such research has indicated that the four special motorway underpasses already provided for wildlife have been well used by deer and elk. The underpasses have also led to improvements in road safety on these roads, since the numbers of collisions with elk per year have fallen from 5–10 to 0–1.

Research into *road accident mortality rates for small and medium-sized vertebrates* has shown that 65 % of the animals killed in such incidents were birds, 15 % mammals, 15 % amphibians, and less than 5 % reptiles. The report suggests that the populations of certain bird species (including nightjars, house sparrows, starlings, red-backed shrikes and certain birds of prey and game birds) may particularly suffer from roadkill. The road accident mortality rates of rare animals such as otters, grass snakes and amphibians are also worryingly high.

During the period 2003–2004 the Ministry of Transport and Communications has funded a research project examining *the impacts of road traffic on the genetic structure of amphibian populations*, in order to find out how roads used by different levels of traffic affect gene flows between separate

<sup>6</sup> 1) Monitoring of the use of the wildlife underpass at Pernaja, 1998–2001; Summary.

2) Motorways and wildlife, research and monitoring of the E18 (Highway 7) Koskenkylä – Loviisa, 1995–2001; Summary.

3) Road accident mortality rates for small and medium-sized vertebrates in Finland.

animal populations, and thus the degree of genetic differentiation. The study has focussed on the two most common amphibian species in Finland. It is hoped that the study's results will indicate how the related risks to these animals can be reduced through planning and technical solutions.

Over the period 2003–2005 the Ministry of Transport and Communications and the National Road Administration are jointly funding research into *the effects of roads on animal populations and their mobility*. This research will particularly examine how roads affect elk populations and their movements near roads, while also assessing how accurately elks' habitual routes can be defined from the knowledge of local hunters, as how much elks' routes are used by other animal species. The project will also examine how the structures planned to facilitate the movements of animals can be installed in practice in the road network. The related research will be conducted along stretches of road in Southern Finland where animals' movements may be restricted by heavy traffic and game-proof fences.

The Ministry of Transport and Communications, the National Road Administration, the Finnish Rail Administration, the Finnish Maritime Administration and Fingrid Oyj are involved in the financing of a report into species listed in EU directives, as part of the environmental cluster research programme. The two-year project (2003–2004) concerns how directive species should be considered during the planning of infrastructural developments.

Related guidelines are to be drafted in two phases: starting with a background review concerning the listed species and how legislation affects planning; followed by recommendations that can be followed by developers to ensure that the requirements of the directives are duly considered. The guidelines are particularly being drafted with regard to the requirements for transport routes and land use planning.

The aim of forest policy including forest legislation and National Forest Programme is to promote sustainable forest management, which includes conservation of biodiversity.

IV) Please provide information on current status and trends in relation to this target.

Forests: 95% of forests (total 22 mill. ha) in Finland have been certified under the Finnish Forest Certification System (FFCS), which has been endorsed under the Programme for the Endorsement of Forest Certification schemes (PEFC).

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.

VII) Please provide any other relevant information.

#### Box IX.

Target 4.2	Unsustainable consumption, of biological resources, or that impacts upon biodiversity, reduced
I) National target: Has a national target been established corresponding to the global target above?	
a) No	
b) Yes, the same as the global target	x
c) Yes, one or more specific national targets have been established	
Please provide details below.	



The Government in Finland has committed to the practical implementation of the action plan formulated at the UN World Summit on Sustainable Development in Johannesburg. The Finnish Government has resolved to prepare a national programme to promote sustainable production and consumption. In November 2003, the Ministry of the Environment and the Ministry of Trade and Industry appointed a committee with members drawn from a wide range of stakeholder groups and influential organisations to draft proposals for this programme. The programme should define the additional goals and environmental policy measures that will have to be adopted for Finland to become a truly eco-efficient society. The committee is due to work out the national program by the end of May 2005.

The proposal will prioritise certain policy actions and instruments that will be recommended. Elements that are likely to be included:

- Dialogue in different sectors which aim to set targets on material- and energy-efficiency and a road map how to achieve these targets;
- Economical tools that will promote SPC ;
- Suggestions on how to promote more efficient use of materials and to prevent waste;
- Actions that will promote environmental technology;
- Suggestions on how to promote organic farming;
- Tools to enhance green public procurement. and
- Ideas on how to replace products with eco-efficient services.

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	Yes	No	Details
a) Agricultural		x	
b) Inland water		x	
c) Marine and coastal		x	
d) Dry and subhumid land		N/A	
e) Forest	x		Targets and activities are included in the promotion of sustainable forest management
f) Mountain		N/A	

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	
b) Yes, into national biodiversity strategy and action plan	
c) Yes, into sectoral strategies, plans and programmes	x

Please provide details below.

See above for forests and the national consumption and sustainable production programme.

IV) Please provide information on current status and trends in relation to this target.

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.
VII) Please provide any other relevant information.

**Box X.**

<b>Target 4.3</b>	<b>No species of wild flora or fauna endangered by international trade</b>		
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
b) Yes, the same as the global target (EU target)			x
c) Yes, one or more specific national targets have been established			
Please provide details below.			
For wild flora and fauna the relevant EU CITES legislation (Council Regulation (EC) No 338/97 on the protection of species of wild fauna and flora by regulating trade therein and its updates together with Commission Regulation (EC) no 776/2004 amending Regulation (EC) No 349/2003 suspending the introduction into the Community of specimens of certain species of wild fauna and flora) set the target by introducing a flexible system of stricter measures compared to the CITES Convention.			
II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).			
<b>Programme of work</b>	<b>Yes</b>	<b>No</b>	<b>Details</b>
a) Agricultural		x	
b) Inland water		x	
c) Marine and coastal		x	
d) Dry and subhumid land		x	
e) Forest		x	
f) Mountain		x	
III) Has the global or national target been incorporated into relevant plans, programmes and strategies?			
a) No			x
b) Yes, into national biodiversity strategy and action plan			
c) Yes, into sectoral strategies, plans and programmes			
Please provide details below.			

IV) Please provide information on current status and trends in relation to this target.
V) Please provide information on indicators used in relation to this target.
VI) Please provide information on challenges in implementation of this target.
VII) Please provide any other relevant information.

**Box XI .**

<b>Goal 5</b>	<b>Pressures from habitat loss, land use change and degradation, and unsustainable water use, reduced.</b>		
<b>Target 5.1</b>	<b>Rate of loss and degradation of natural habitats decreased</b>		
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
b) Yes, the same as the global target			
c) Yes, one or more specific national targets have been established			x
Please provide details below.			
<p>Certain elements of the agri-environmental subsidies programme (2000–2006) directly aim to promote the preservation and management of biodiversity. The programme's basic measures include the maintenance or biodiversity and landscapes; additional measures relate to winter vegetation cover and farmland biodiversity hotspots; and special environmental subsidy agreements can be made for the establishment and management of buffer zone vegetation, wetlands and sedimentation ponds, for the preservation of traditional farmland biotopes, for promoting other aspects of biodiversity, for improving and managing landscapes, or for raising traditional native livestock breeds and crop varieties.</p> <p>The Ministry of Agriculture and Forestry has provided funding since 2001 for local land use planning related to agricultural biodiversity. Farmers are encouraged to manage ecologically valuable areas through such planning, and through useful advice on funding opportunities. This form of planning helps to keep farmers, landowners and local residents informed about ecologically valuable features and areas. Information obtained through local land use planning processes can also be used during negotiations with individual farmers related to applications for special environmental subsidies, for instance. The Ministry aims to increase the numbers of wetlands and buffer zones in farmland as part of the Baltic Sea Protection Programme, and these measures also serve to promote biodiversity.</p> <p>The objective of the national aid scheme is to complement the measures based on the common agricultural policy (CAP) of the EU, secure the preconditions for agriculture in the different production lines and regions as well as maintain the viability of rural areas.</p>			
II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).			
<b>Programme of work</b>	<b>Yes</b>	<b>No</b>	<b>Details</b>

a) Agricultural	x		
b) Inland water	x		
c) Marine and coastal	x		
d) Dry and subhumid land		N/A	
e) Forest	x		
f) Mountain		N/A	
III) Has the global or national target been incorporated into relevant plans, programmes and strategies?			
a) No			
b) Yes, into national biodiversity strategy and action plan			x
c) Yes, into sectoral strategies, plans and programmes			x
Please provide details below.			
See above			
IV) Please provide information on current status and trends in relation to this target.			
V) Please provide information on indicators used in relation to this target.			
VI) Please provide information on challenges in implementation of this target.			
VII) Please provide any other relevant information.			

**Box XII.**

<b>Goal 6</b>	<b>Control threats from invasive alien species.</b>
<b>Target 6.1</b>	<b>Pathways for major potential alien invasive species controlled</b>
I) National target: Has a national target been established corresponding to the global target above?	
a) No	
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	x
Please provide details below.	

See part II below.

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	Yes	No	Details
a) Agricultural	x		
b) Inland water		x	
c) Marine and coastal	x		
d) Dry and subhumid land		N/A	
e) Forest	x		
f) Mountain		N/A	

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	
b) Yes, into national biodiversity strategy and action plan	x
c) Yes, into sectoral strategies, plans and programmes	x

Please provide details below.

Finland has published a review of the current situation regarding invasive alien species (see Nummi 2001). Although this report does not consist of a plan of action, it recommends suitable measures to reduce observed problems, as does a report on the same issue prepared by the Nordic Council of Ministers. Such measures are jointly planned by the ministries concerned according to the need to target specific invasive species.

An amendment to the EU Plant Health Directive (2000/29/EC), which came into force in March 2005, stipulates that phytosanitary certificate and plant health inspection are required for all conifer timber imported to EU from third countries. The national authority responsible for plant health inspections is Plant Production Inspection Centre KTTK.

IV) Please provide information on current status and trends in relation to this target.

Several introduced game animals have established thriving populations in the wild in Finland, including Canadian beaver (*Castor canadensis*), white-tailed deer (*Odocoileus virginianus*), Canada goose (*Branta canadensis*) and muskrat (*Ondatra zibethica*). These species are so well established that it would be very difficult to wipe them out, and in some cases this may not be deemed necessary. White-tailed deer, for instance, were introduced about 70 years ago, and have become Finland's second most important game animal in economic terms. Populations of invasive game species will be systematically managed through regulated hunting (e.g. white-tailed deer). No attempts will be made to hinder such control of invasive species, or to promote the expansion of these species' distributions into new areas. Any proposals for introducing game species will be considered extremely critically. Imports and releases of non-native species have not been permitted in recent years.

It has been officially decided that Canadian beavers should be exterminated within the Lapland Game Management District, to stop this invasive species spreading into neighbouring Norway and Sweden. Elsewhere in Finland, measures are being taken to prevent the spread of Canadian beavers into areas still occupied by the native European beaver (*Castor fiber*). In the Archipelago Sea, Metsähallitus and local hunters have been working for several years to exterminate American minks (*Mustela vison*), which have been widely raiding seabirds' nests. During 2001, a project involving the trapping of mink in the outer islands of the Quark Archipelago in W. Finland was begun by

Metsähallitus and local hunters, as part of the *Quark environment* Interreg project. Trapping was later expanded to islands nearer the mainland, and is still continuing in both the Quark, and islands in the Archipelago National Park of SW Finland. A two-year campaign commenced in the beginning of 2001 aiming to intensify the hunting and trapping of two invasive small predatory mammals – American mink and raccoon dog (*Nyctereutes procyonoides*). In 2002 a special project was started up to intensify the trapping of mink and raccoon dogs in wetlands in the Helsinki region. Over the two-year project a total of 300 raccoon dogs and 27 mink were caught. A related research project has been assessing the effects of such trapping on nesting birds' breeding success rates.

Four new marine species spread into Finnish waters during the 1990s, in ships' ballast water. Some of these species have had detrimental effects on local livelihoods, particularly fishing. The invasive species may also threaten native species, if they out-compete them in local conditions.

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.

Alternative solutions are being sought for unresolved problems related to the presence of invasive species in ships' ballast water, through continued research and experimentation. An international agreement prepared by the *International Maritime Organisation* (IMO) with the aim of curbing these problems was signed in summer 2004. Finland's Ministry of Transport and Communications participated in the Academy of Finland's Baltic Sea Research Programme during the period 2003–2004. A research project on *Invasive species in the Baltic Sea*, jointly funded by the Ministry and the Academy, examined how invasive species get into the waters of the Baltic, and assessed their ecological significance, particularly with regard to plankton communities, algal blooms and zoobenthic communities in the Gulf of Finland.

VII) Please provide any other relevant information.

#### Box XIII.

Target 6.2	Management plans in place for major alien species that threaten ecosystems, habitats or species		
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
b) Yes, the same as the global target (Johannesburg plan of action, 2002)			x
c) Yes, one or more specific national targets have been established			
Please provide details below.			
See also 6.1. Management plans and their targets will be included in the national alien invasive species report developed by year 2007.			
II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).			
Programme of work	Yes	No	Details
a) Agricultural		x	
b) Inland water		x	
c) Marine and coastal		x	

d) Dry and subhumid land		N/A	
e) Forest		x	
f) Mountain		N/A	
III) Has the global or national target been incorporated into relevant plans, programmes and strategies?			
a) No. Not yet.			
b) Yes, into national biodiversity strategy and action plan			
c) Yes, into sectoral strategies, plans and programmes			x
Please provide details below.			
<p>The draft national plant protection strategy 2006-2016 and invasive alien species. The IPPC decisions and requirements.</p> <p>In 2002, the Finnish Ministry of Agriculture and Forestry, the Central Union of Agricultural Producers and Forest Owners (MTK) and the Finnish Forest Industries Federation (Metsäteollisuus ry) together designed a crisis action plan to be used in case of a pinewood nematode (<i>Bursaphelenicus xylophilus</i>) appearance in Finland.</p> <p>A comprehensive Finnish Plant Protection Strategy for the years 2004-2013 was prepared in 2004. One of the central targets addressed in the strategy is to prepare crisis action plans for potential invasive forest pests in addition to the pine wood nematode.</p>			
IV) Please provide information on current status and trends in relation to this target.			
V) Please provide information on indicators used in relation to this target.			
VI) Please provide information on challenges in implementation of this target.			
VII) Please provide any other relevant information.			

**Box XIV.**

<b>Goal 7</b>	<b>Address challenges to biodiversity from climate change, and pollution.</b>		
<b>Target 7.1</b>	<b>Maintain and enhance resilience of the components of biodiversity to adapt to climate change</b>		
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
b) Yes, the same as the global target			
c) Yes, one or more specific national targets have been established			x
Please provide details below.			

Finland's National climate change strategy was prepared in 2001, and Finland's National Strategy for Adaptation to Climate Change was finalized at the end of 2004. The climate change impacts on different sectors, ecosystems and environment has been evaluated in the adaptation strategy. Finland submitted information to the SCBD on case studies to illustrate the role of biodiversity in mitigating and adapting to global climate change, including lessons learned in November 2004.

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	Yes	No	Details
a) Agricultural	x		
b) Inland water	x		
c) Marine and coastal	x		
d) Dry and subhumid land		N/A	
e) Forest	x		
f) Mountain		N/A	

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	
b) Yes, into national biodiversity strategy and action plan	
c) Yes, into sectoral strategies, plans and programmes	x

Please provide details below.

See above. Maintenance and enhancement of the resilience of forest species to climate change has been addressed in Finland's National Strategy for Adaptation to Climate Change, which was prepared in 2004.

IV) Please provide information on current status and trends in relation to this target.

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.

VII) Please provide any other relevant information.



**Box XV.**

<b>Target 7.2</b>		<b>Reduce pollution and its impacts on biodiversity</b>	
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
b) Yes, the same as the global target		x	
c) Yes, one or more specific national targets have been established			
Please provide details below.			
II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).			
<b>Programme of work</b>	<b>Yes</b>	<b>No</b>	<b>Details</b>
a) Agricultural		x	
b) Inland water	x		
c) Marine and coastal	x		
d) Dry and subhumid land		N/A	
e) Forest	x		
f) Mountain		N/A	
III) Has the global or national target been incorporated into relevant plans, programmes and strategies?			
a) No			
b) Yes, into national biodiversity strategy and action plan			
c) Yes, into sectoral strategies, plans and programmes		x	
Please provide details below.			
<p>Finland has partly implemented the EU:s Water framework Directive, which includes requirements on the reduction of pollution to water ecosystems.</p> <p>The new Act on the Management of Water Resources came into force on 31.12.2004. This new legislation primarily aims to meet the obligations of the EU's Water Framework Directive with regard to the management of water resources. The main objectives of water resource management are to protect, enhance and restore water resources so as to prevent deterioration in the state of groundwater and surface water bodies, and to ensure that their water quality status is at least "good". The quality status of surface water resources is defined on the basis of their ecological or chemical state, whichever is worse. Groundwater resources are classified according to their quantitative and chemical properties. Water resource management involves the joint consideration of the needs of different water users, taking into account factors including the need to promote sustainable use with regard to protecting resources in the long term, the recreational use of water resources, the economic aspects of the water supply, flood protection, water-borne diseases, and the need to protect aquatic ecosystems and the terrestrial and wetland ecosystems linked to them. For more information: <a href="http://www.ymparisto.fi/lumonet/">www.ymparisto.fi/lumonet/</a> (CBD/CHM).</p>			

IV) Please provide information on current status and trends in relation to this target.
V) Please provide information on indicators used in relation to this target.
VI) Please provide information on challenges in implementation of this target.
VII) Please provide any other relevant information.

**Box XVI .**

<b>Goal 8</b>	<b>Maintain capacity of ecosystems to deliver goods and services and support livelihoods.</b>		
<b>Target 8.1</b>	<b>Capacity of ecosystems to deliver goods and services maintained</b>		
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
b) Yes, the same as the global target			x
c) Yes, one or more specific national targets have been established			
Please provide details below.			
II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).			
<b>Programme of work</b>	<b>Yes</b>	<b>No</b>	<b>Details</b>
a) Agricultural	x		
b) Inland water	x		
c) Marine and coastal	x		
d) Dry and subhumid land		N/A	
e) Forest	x		
f) Mountain		N/A	
III) Has the global or national target been incorporated into relevant plans, programmes and strategies?			
a) No			

b) Yes, into national biodiversity strategy and action plan	
c) Yes, into sectoral strategies, plans and programmes	
Please provide details below.	
One of the main purposes of the National Forest Programme 2010 is to secure sustainable use of forest goods and services. This target is included in the aim of forest policy (forest legislation and National Forest Programme) to promote sustainable forest management. The same aim and purpose for all other ecosystems as well.	
IV) Please provide information on current status and trends in relation to this target.	
V) Please provide information on indicators used in relation to this target.	
VI) Please provide information on challenges in implementation of this target.	
VII) Please provide any other relevant information.	

**Box XVII.**

<b>Target 8.2</b>	<b>Biological resources that support sustainable livelihoods, local food security and health care, especially of poor people maintained</b>		
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
b) Yes, the same as the global target			
c) Yes, one or more specific national targets have been established			x
Please provide details below.			
The prevention of international environmental threats and poverty eradication are the main goals of Finland's Development Policy (Government Resolution 2004). The Resolution stresses that Finland includes consideration for the environment as a cross-cutting theme in all its development operation. According to the Resolution the promotion of the implementation of multilateral environmental agreements is an important tool to safeguard the environmental considerations. The MFA's current funding is primarily directed to the three Rio conventions (the UN Convention to Combat Desertification, the UN Convention on Biodiversity and the UN Framework Convention on Climate Change) as well as the UN Forum on Forests.			
II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).			
<b>Programme of work</b>	<b>Yes</b>	<b>No</b>	<b>Details</b>
a) Agricultural	X		
b) Inland water	X		

c) Marine and coastal	X		
d) Dry and subhumid land		N/A	
e) Forest	X		
f) Mountain		N/A	
III) Has the global or national target been incorporated into relevant plans, programmes and strategies?			
a) No (N/A)			
b) Yes, into national biodiversity strategy and action plan			
c) Yes, into sectoral strategies, plans and programmes			x
Please provide details below.			
One of the aims of the National Forest Programme is to keep forestry profitable and to create employment. The forests are of vital importance in terms of promoting the welfare of Finland as a whole and its countryside in particular. The forest industry has given wood a solid value which has justified investments in forest management, which in turn has resulted in a continuous growth in volume and value of wood productions.			
IV) Please provide information on current status and trends in relation to this target.			
V) Please provide information on indicators used in relation to this target.			
VI) Please provide information on challenges in implementation of this target.			
VII) Please provide any other relevant information.			

**Box XVIII.**

<b>Goal 9</b>	<b>Maintain socio-cultural diversity of indigenous and local communities.</b>
<b>Target 9.1</b>	<b>Protect traditional knowledge, innovations and practices</b>
I) National target: Has a national target been established corresponding to the global target above?	
a) No	
b) Yes, the same as the global target	x
c) Yes, one or more specific national targets have been established	x
Please provide details below.	
According to the National Action Plan for Biodiversity in Finland: "The management, use and protection of natural resources within the Sámi homeland region will be co-ordinated as a co-operative effort involving the Sámi Parliament and other authorities to ensure that indigenous livelihoods and the Sámi culture are preserved" (see UNEP-WCMC 2003).	

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).			
Programme of work	Yes	No	Details
a) Agricultural		x	
b) Inland water	x		Lake Inarinjärvi
c) Marine and coastal		x	
d) Dry and subhumid land			
e) Forest	x		
f) Mountain	x		
III) Has the global or national target been incorporated into relevant plans, programmes and strategies?			
a) No			
b) Yes, into national biodiversity strategy and action plan			x
c) Yes, into sectoral strategies, plans and programmes			x
Please provide details below.			
<p>The Ministry of Agriculture and Forestry made a Decision in February 2005 concerning the objectives for Metsähallitus in 2005. The Decision took into account the social obligations laid down in the new Act on Metsähallitus concerning the employment, Sami culture and reindeer husbandry in Upper Lapland (northernmost part of the Finnish Lapland). Included in the Decision is an action plan to harmonise forestry and reindeer activities in the region.</p> <p>The revision of the natural resources plan (NRP) during 2005 is part of the action plan. Metsähallitus started the revision of the NRP in February 2005. Employment in the Upper Lapland nature management region is promoted through special measures so that 90% of the work in the harvesting of wood is done as human labour. According to the Reindeer Husbandry Act, State land reserved for reindeer herding may not be used in a manner that may significantly hinder reindeer herding. This does not however, prevent other forms of land use in the area. The management, use and protection of forests by Metsähallitus must be adjusted to each other so that the Sami people as the indigenous population preserve their right to practice their traditional livelihoods, reindeer herding, hunting and fishing. The obligations to the society restrict the forestry operations of Metsähallitus in Upper Lapland so that it produces very little financial gain to the State, and the revenue mainly covers the costs. The Wilderness Act prevents building and constructions of permanent roads in large wilderness areas in Northern Lapland.</p> <p>In May 2005, Metsähallitus was negotiating with the Inari Herding Cooperative to find a solution which all the stakeholders could accept. This would allow the continuation of regular reindeer herding and forestry activities and would thus remove the risk of layoffs among the present employees. A proposal on annual harvesting volumes which would ensure the continuation of both reindeer husbandry and forestry will be made on the basis of the work of a joint working group with representatives of all stakeholders. Forestry activities will be continued in accordance with this.</p>			
IV) Please provide information on current status and trends in relation to this target.			
See above			
V) Please provide information on indicators used in relation to this target.			

VI) Please provide information on challenges in implementation of this target.
VII) Please provide any other relevant information.

**Box XIX.**

<b>Target 9.2</b>	<b>Protect the rights of indigenous and local communities over their traditional knowledge, innovations and practices, including their rights to benefit sharing</b>		
I) National target: Has a national target been established corresponding to the global target above?			
a) No			x
b) Yes, the same as the global target			
c) Yes, one or more specific national targets have been established			
Please provide details below.			
Finland has attempted to remove obstacles to the ratification of the International Labour Organisation (ILO) convention on indigenous peoples (no.169). A report completed in 1999 assessed <i>Land rights, water rights and rights to natural resource and traditional livelihoods in the Sámi homeland region</i> . The proposals had to fulfil the minimum requirements enabling the removal of barriers to the ratification of the ILO convention. A separate report, finalised in 2001, examined land ownership patterns and trends in the Sámi homeland region. Legislation on this issue is still under preparation, however, since contradictory viewpoints related to the report's key proposals remain unresolved.			
II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).			
Programme of work	Yes	No	Details
a) Agricultural		x	
b) Inland water		x	
c) Marine and coastal		x	
d) Dry and subhumid land		N/A	
e) Forest		x	
f) Mountain		N/A	
III) Has the global or national target been incorporated into relevant plans, programmes and strategies?			
a) No			
b) Yes, into national biodiversity strategy and action plan (ONGOING)			x
c) Yes, into sectoral strategies, plans and programmes			

Please provide details below.
See answer 9.1.
IV) Please provide information on current status and trends in relation to this target.
V) Please provide information on indicators used in relation to this target.
VI) Please provide information on challenges in implementation of this target.
VII) Please provide any other relevant information.

**Box XX.**

<b>Goal 10</b>	<b>Ensure the fair and equitable sharing of benefits arising out of the use of genetic resources.</b>
<b>Target 10.1</b>	<b>All transfers of genetic resources are in line with the Convention on Biological Diversity, the International Treaty on Plant Genetic Resources for Food and Agriculture and other applicable agreements</b>
I) National target: Has a national target been established corresponding to the global target above?	
a) No	
b) Yes, the same as the global target	x
c) Yes, one or more specific national targets have been established	
Please provide details below.	
<p>The preservation and sustainable use of plant and animal genetic resources, ownership rights over genetic resources and questions related to the distribution of the benefits from their exploitation have all been key issues since these topics were first covered by international conferences in the 1990s. The relationship between ownership rights and intellectual property rights with regard to genes, and the equitable allocation of the benefits from their exploitation, are new issues in legislative terms, and international conferences have not yet been able to define common positions on these issues.</p> <p>Finland may supply or procure genetic resources through international trade. Natural genetic resources in Finland are common property, and merely discovering some usage cannot be considered as an invention.</p> <p>The Forestry and Agriculture Genetic Resources Committee was established in 2004 to prepare Finland's position for Nordic and international issues related to gene resources used in forestry and agriculture, including the negotiation and implementation of international agreements. The committee's mandate was later widened to cover the availability of genetic resources used outside agriculture and forestry, and the equitable allocation of the benefits from their exploitation, with regard to the Bonn Guidelines.</p> <p>The Bonn Guidelines aim to ensure that suitable legislative and administrative measures are developed to control the availability of genetic resources, and the equitable allocation of the benefits from their exploitation. To facilitate this work the committee set up in November 2004 a sub-</p>	

committee who will examine issues including the aims and national implementation of the Bonn Guidelines, the development of the related legislation, and roles and responsibilities concerning the legal availability of genetic resources and the distribution of the benefits from their exploitation, with regard to Article 15 of the CBD, and certain obligations under other agreements (WTO/TRIPS, WIPO, UPOV, FAO/IT) as necessary. The sub-committee will also draft proposals for a national strategy or a national action plan on the availability of genetic resources and the distribution of the benefits from their exploitation, including the definition of any related regulations and tasks. This work is to be completed by 1.6.2006.

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	Yes	No	Details
a) Agricultural	x		
b) Inland water		x	
c) Marine and coastal	x		
d) Dry and subhumid land		N/A	
e) Forest	x		
f) Mountain		N/A	

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	
b) Yes, into national biodiversity strategy and action plan (ONGOING)	x
c) Yes, into sectoral strategies, plans and programmes	x

Please provide details below.

Finnish National Plant Genetic Resources Programme for Agriculture and Forestry (2001)  
The National programme for farm animal genetic resources (2004).

The most visible manifestation of this co-operation is the Nordic Gene Bank (NGB), maintained under the auspices of the Nordic Council of Ministers. The NGB was established in 1979, and is located at Alnarp, Sweden. Its task is to preserve and document genetic diversity in cultivated plants that are significant for agriculture in the Nordic region. The bank's collections at Alnarp include about 27,000 seed samples, of which some 1,600 are of Finnish origin. The corresponding Nordic Gene Bank for animal genetic resources (NGH) was set up in 1984 at the Agricultural University of Norway. The NGH serves as an information centre and the focus of a co-operation network, but it does not directly preserve genetic resources, as this responsibility is shared between all the countries involved. The NGB and the NGH both actively maintain links with other institutes and organisations working with genetic resources in the region (e.g. the Vavilov Institute – VIR), at European level (e.g. the European Co-operative programme for Crop Genetic Resources Networks ECP/GR), and globally (e.g. the UN FAO). The EURORGEN Programme was set up in 1994 to facilitate co-operation in Europe on forest genetic resources. Finland has made significant contributions to EUFORGEN during the establishment and the implementation of the programme.

IV) Please provide information on current status and trends in relation to this target.

V) Please provide information on indicators used in relation to this target.



VI) Please provide information on challenges in implementation of this target.

VII) Please provide any other relevant information.

**Box XXI .**

<b>Target 10.2</b>		<b>Benefits arising from the commercial and other utilization of genetic resources shared with the countries providing such resources</b>	
I) National target: Has a national target been established corresponding to the global target above?			
a) No		x	
b) Yes, the same as the global target			
c) Yes, one or more specific national targets have been established			
Please provide details below.			
See above the work is ongoing.			
II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).			
<b>Programme of work</b>	<b>Yes</b>	<b>No</b>	<b>Details</b>
a) Agricultural		x	
b) Inland water		x	
c) Marine and coastal		x	
d) Dry and subhumid land		N/A	
e) Forest		x	
f) Mountain		N/A	
III) Has the global or national target been incorporated into relevant plans, programmes and strategies?			
a) No (ongoing)		x	
b) Yes, into national biodiversity strategy and action plan			
c) Yes, into sectoral strategies, plans and programmes			
Please provide details below.			
The Bonn Guidelines aim to ensure that suitable legislative and administrative measures are developed to control the availability of genetic resources, and the equitable allocation of the benefits from their exploitation. To facilitate this work the committee set up in November 2004 a sub-committee who will examine issues including the aims and national implementation of the Bonn Guidelines, the development of the related legislation, and roles and responsibilities concerning the			

legal availability of genetic resources and the distribution of the benefits from their exploitation, with regard to Article 15 of the CBD, and certain obligations under other agreements (WTO/TRIPS, WIPO, UPOV, FAO/IT) as necessary.

The National Genetic Resource sub-committee will also draft proposals for a national strategy or a national action plan on the availability of genetic resources and the distribution of the benefits from their exploitation, including the definition of any related regulations and tasks. This work is to be completed by 1.6.2006.

IV) Please provide information on current status and trends in relation to this target.

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.

VII) Please provide any other relevant information.

#### Box XXII.

<b>Goal 11</b>	<b>Parties have improved financial, human, scientific, technical and technological capacity to implement the Convention.</b>	
<b>Target 11.1</b>	<b>New and additional financial resources are transferred to developing country Parties, to allow for the effective implementation of their commitments under the Convention, in accordance with Article 20</b>	
I) National target: Has a national target been established corresponding to the global target above?		
a) No		
b) Yes, the same as the global target		x
c) Yes, one or more specific national targets have been established		x
Please provide details below.		
<p>Finland has supported the work of the Global Environmental Facility (GEF), founded in 1991, which primarily finances projects in developing countries designed to promote the preservation and sustainable use of biodiversity, to curb climate change, to promote international co-operation on water protection, and to prevent erosion. Finland's share of the additional funding of \$2,920 million raised for the GEF's third period (2002–2006) has been about one percent (€26.7 million). Finland has also given an additional €2.9 million to the GEF to ensure its ability to operate.</p> <p>Funding has also been provided for the multilateral development co-operation work of the World Bank's Trust Fund for Environmentally and Socially Sustainable Development (TFESSD) and the Consultative Group on International Agricultural Research (CGIAR). Both of these organisations are currently running projects related to biodiversity. Finland has additionally funded several bilateral development projects related to the protection of biodiversity. Finland's financial contributions for development co-operation work related to biodiversity have been rising in recent years.</p> <p>Protecting biodiversity is an essential part of many environmental administration development projects. One of the largest such projects, Nicaragua's PROAMBIENTE environmental programme, is</p>		

focusing on the comprehensive development of environmental administration. Funding is being provided for an environmental administration development project in South Africa's NW Province, which includes biodiversity surveys that will form the basis for planning. The development of the environmental data banks used by Kyrgyzstan's environment ministry is being financed. A Tanzanian project focuses on integrated land use in Zanzibar and improvements to environmental administration. Other environmental and forestry development projects also involve the preservation of biodiversity.

Finnish funding has been used by the Peruvian Government to create a sustainable use of biodiversity strategy for Peruvian Amazonia. In the East Usambara Mountains of Tanzania support has been provided for projects that promote the preservation of biodiversity and the sustainable use of natural resources. This successful project has now been transferred into Tanzanian hands, after 12 years of support from Finland. Other development programmes incorporating the consideration of forest biodiversity include a Namibian forestry programme focusing on the sustainable use of forest products and services. Finland has also supported the activities of NGOs, including projects related to the preservation and sustainable use of biodiversity run in developing countries by WWF Finland and the Siemenpuu Foundation. Development co-operation funds have also been used to support biodiversity research organised by the Finnish Academy in Peru, and a project commissioned by the Finnish Foreign Ministry in Zanzibar.

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	Yes	No	Details
a) Agricultural	x		
b) Inland water	x		
c) Marine and coastal	x		
d) Dry and subhumid land	x		Developing aid /povery eradication/MDG
e) Forest	x		- " -
f) Mountain		N/A	

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	
b) Yes, into national biodiversity strategy and action plan	
c) Yes, into sectoral strategies, plans and programmes	x

Please provide details below.

The prevention of international environmental threats is one of the main goals of Finland's Development Policy (Government Resolution 2004). The Resolution stresses that Finland includes consideration for the environment as a cross-cutting theme in all its development operation. According to the Resolution the promotion of the implementation of multilateral environmental agreements is an important tool to safeguard the environmental considerations.

IV) Please provide information on current status and trends in relation to this target.

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.
VII) Please provide any other relevant information.

**Box XXIII.**

<b>Target 11.2</b>	<b>Technology is transferred to developing country Parties, to allow for the effective implementation of their commitments under the Convention, in accordance with its Article 20, paragraph 4</b>		
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
b) Yes, the same as the global target			x
c) Yes, one or more specific national targets have been established			
Please provide details below.			
II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).			
Programme of work	Yes	No	Details
a) Agricultural	x		
b) Inland water			
c) Marine and coastal	x		
d) Dry and subhumid land		N/A	
e) Forest	x		
f) Mountain		N/A	
III) Has the global or national target been incorporated into relevant plans, programmes and strategies?			
a) No			
b) Yes, into national biodiversity strategy and action plan			
c) Yes, into sectoral strategies, plans and programmes			x
Please provide details below.			
Ministry for Foreign Affairs is responsible for the CBD relevant development cooperation in Finland. The objectives of the CBD have been integrated into state financed development projects. In addition to the traditional conservation actions (e.g. creating protected areas) the developing projects have new tools, such as environmental education, alternative livelihood creating and community based			

conservation projects e.g. in small villages. The thematic report on Transfer of Technology was sent to the SCBD 22.9.2003 and includes information on both the projects, targets and actions in this field ([www.biodiv.org](http://www.biodiv.org)). The Finnish CBD CHM (LUMONET) includes general information on Finland's possibilities to enhance the access and transfer of CBD technologies.

PEBLDS information service project (2000-2004) which Finland has supported, has also been important for promoting CHM developments in countries with economies in transition.

IV) Please provide information on current status and trends in relation to this target.

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.

VII) Please provide any other relevant information.

### Global Strategy for Plant Conservation (GSPC)

The Conference of the Parties, in decision VI/9, annex, adopted the Global Strategy for Plant Conservation. Parties and Governments are invited to develop their own targets with this flexible framework. The Conference of the Parties considered the Strategy as a pilot approach for the use of outcome oriented targets under the Convention. In decision VII/10, the Conference of the Parties decided to integrate the targets into the reporting framework for the Third National Reports. Please provide relevant information by responding to the questions and requests contained in the following tables.

#### Box XXIV.

<b>Target 1. A widely accessible working list of known plant species, as a step towards a complete world flora.</b>	
I) Has your country established national target corresponding to the above global target?	
a) Yes (draft)	x
b) No	
Please specify	
Preparation of working lists for plant and fungi groups is the responsibility of the Finnish Museum of Natural history, Botanical Museum. Lists exist for most groups (incomplete list for algae) and they will be renewed regularly (Kempainen & Jäkäläniemi 2005, A proposal for a national action plan for plant conservation).	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No (Not yet, ongoing)	x
Please specify	

Kemppainen & Jäkäläniemi 2005: A proposal for a national action plan for plant conservation includes 39 national targets that are grouped under nine projects:

1. Important plant areas (IPA),
2. Evaluation of threat and species specific conservation and monitoring programmes,
3. Control of invasive alien species,
4. Conservation of socio-economically important plants,
5. Increase of research and voluntary inventories,
6. Working lists for all plant and fungi groups,
7. Promoting *ex situ* conservation,
8. Monitoring and management of habitats, and
9. Increase of public awareness, education and cooperation

Some of the targets should be fulfilled nationally and some of them in cooperation with international bodies (e.g. Planta Europa, other countries).

III) Current status (please indicate current status related to this target)

So far no decision has been made of the realization of the above mentioned national proposal for an action plan.

IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)

V) Progress made towards target (please specify indicators used to monitor progress towards the target)

VI) Constraints to achieving progress towards the target

VII) Any other relevant information

**Box XXV.**

**Target 2. A preliminary assessment of the conservation status of all known plant species, at national, regional and international levels.**

I) Has your country established national target corresponding to the above global target?

a) Yes

b) No

x

Please specify

II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?

a) Yes

x

b) No	
Please specify	
<p>A preliminary assessment of the conservation status of the species included in the appendix II of the Habitats' Directive has been made in 2000 (Ilmonen et al. 2001).</p> <p>A present status of all main plant and fungi groups has been evaluated in 2000 while threat was assessed using the new IUCN criteria (Rassi et al. 2001).</p>	
III) Current status (please indicate current status related to this target)	
<p>Measures are necessary because most of Finland's threatened species are primarily associated with forest and farmland habitats. Another objective is ensure that the genetic resources in animals and plants, including those used in agriculture, horticulture and forestry, are protected, maintained and used sustainably, in order to preserve their genetic diversity to meet future needs.</p>	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

**Box XXVI.**

<b>Target 3. Development of models with protocols for plant conservation and sustainable use, based on research and practical experience.</b>	
I) Has your country established national target corresponding to the above global target?	
a) Yes	
b) No	X
Please specify	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	X
Please specify	

III) Current status (please indicate current status related to this target)
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)
V) Progress made towards target (please specify indicators used to monitor progress towards the target)
VI) Constraints to achieving progress towards the target
VII) Any other relevant information

**Box XXVII.**

<b>Target 4. At least ten percent of each of the world's ecological regions effectively conserved.</b>	
I) Has your country established national target corresponding to the above global target?	
a) Yes	X
b) No	
Please specify	
Natura 2000 (see above Goal 1, target 1.1)	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	



V) Progress made towards target (please specify indicators used to monitor progress towards the target)
VI) Constraints to achieving progress towards the target
VII) Any other relevant information

**Box XXVIII.**

<b>Target 5. Protection of fifty percent of the most important areas for plant diversity assured.</b>	
I) Has your country established national target corresponding to the above global target?	
a) Yes	
b) No	X
Please specify	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	x
b) No	
Please specify	
A plan has been made to start a project for selecting Important Plant Areas (IPA) in Finland (Kemppainen & Jäkäläniemi 2005: A proposal for a national action plan for plant conservation).	
III) Current status (please indicate current status related to this target)	
So far no decision has been made of the realization of the above mentioned national action plan.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

**Box XXIX.**

<b>Target 6. At least thirty percent of production lands managed consistent with the conservation of plant diversity.</b>	
I) Has your country established national target corresponding to the above global target?	
a) Yes	
b) No	X
Please specify	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	X
Please specify	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

**Box XXX.**

<b>Target 7. Sixty percent of the world's threatened species conserved <i>In-situ</i>.</b>	
I) Has your country established national target corresponding to the above global target?	
a) Yes	
b) No	X
Please specify	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	X
Please specify	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

**Box XXXI.**

<b>Target 8. Sixty percent of threatened plant species in accessible <i>Ex-situ</i> collections, preferably in the country of origin, and 10 percent of them included in recovery and restoration programmes.</b>	
I) Has your country established national target corresponding to the above global target?	
a) Yes	
b) No (Not yet)	X
Please specify	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	X
Please specify	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

**Box XXXII.**

<b>Target 9. Seventy percent of the genetic diversity of crops and other major socio-economically valuable plant species conserved, and associated indigenous and local knowledge maintained.</b>	
I) Has your country established national target corresponding to the above global target?	
a) Yes	
b) No	X
Please specify	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	X
Please specify	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

**Box XXXIII.**

<b>Target 10. Management plans in place for at least 100 major alien species that threaten plants, plant communities and associated habitats and ecosystems.</b>	
I) Has your country established national target corresponding to the above global target?	
a) Yes	
b) No	X
Please specify	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No (Ongoing)	X
Please specify	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

**Box XXXIV.**

<b>Target 11. No species of wild flora endangered by international trade.</b>	
I) Has your country established national target corresponding to the above global target?	
a) Yes (ongoing)	<input checked="" type="checkbox"/>
b) No	<input type="checkbox"/>
Please specify	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	<input type="checkbox"/>
b) No (Not yet, ongoing)	<input checked="" type="checkbox"/>
Please specify	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

**Box XXXV.**

<b>Target 12. Thirty percent of plant-based products derived from sources that are sustainably managed.</b>	
I) Has your country established national target corresponding to the above global target?	
a) Yes	
b) No	X
Please specify	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	X
Please specify	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	



**Box XXXVI.**

<b>Target 13. The decline of plant resources, and associated indigenous and local knowledge, innovations and practices that support sustainable livelihoods, local food security and health care, halted.</b>	
I) Has your country established national target corresponding to the above global target?	
a) Yes	
b) No	X
Please specify	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	X
Please specify	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

**Box XXXVII .**

<b>Target 14. The importance of plant diversity and the need for its conservation incorporated into communication, educational and public-awareness programmes.</b>	
I) Has your country established national target corresponding to the above global target?	
a) Yes (Ongoing)	x
b) No	
Please specify	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
<p>Planta Europa is a network of organizations working with plant conservation in Europe. One of the main targets of Planta Europa cooperation is to increase awareness of plant conservation issues on national, regional and international level. In Finland SYKE - Finnish Environment Institute and Metsähallitus are members of Planta Europa. European targets for plant conservation, described and published by Planta Europa and Council of Europe in 2002 (EPCS – European Plant Conservation Strategy), are included in the proposal for a national action plan for plant conservation (Kemppainen &amp; Jäkäläniemi 2005).</p>	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

**Box XXXVIII.**

<b>Target 15. The number of trained people working with appropriate facilities in plant conservation increased, according to national needs, to achieve the targets of this Strategy.</b>	
I) Has your country established national target corresponding to the above global target?	
a) Yes	
b) No	X
Please specify	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	X
Please specify	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

**Box XXXIX.**

<b>Target 16. Networks for plant conservation activities established or strengthened at national, regional and international levels.</b>	
I) Has your country established national target corresponding to the above global target?	
a) Yes	X
b) No	
Please specify	
Nordic cooperation/Nordic gene bank/Natura 2000 (see above target)	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	x
Please specify	
Cooperation with Planta Europa network (see target 14). National expert groups for vascular plants, bryophytes, lichens and fungi work with nature conservation authorities in plant conservation issues. The role of expert groups is to coordinate conservation, management and monitoring of plants and fungi and their habitats with national and local authorities. The expert groups are supported by the Ministry of the Environment annually with ca. 110 000 euros. In addition inventories and monitoring of threatened plants and fungi and their habitats done by voluntary amateurs is supported by SYKE (Finnish Environment Institute).	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

**Box XL.**

Please elaborate below on the implementation of this strategy specifically focusing on:

- a) outcomes and impacts of actions taken;
- b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
- c) contribution to progress towards the 2010 target;
- d) progress in implementing national biodiversity strategies and action plans;
- e) contribution to the achievement of the Millennium Development Goals;
- f) constraints encountered in implementation.

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### Ecosystem Approach

The ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. Application of the ecosystem approach will help to reach a balance of the three objectives of the Convention. At its second meeting, the Conference of the Parties has affirmed that the ecosystem approach is the primary framework for action under the Convention (decision II/8). The Conference of the Parties, at its fifth meeting, endorsed the description of the ecosystem approach and operational guidance and recommended the application of the principles and other guidance on the ecosystem approach. The seventh meeting of the Conference of the Parties agreed that the priority at this time should be facilitating implementation of the ecosystem approach. Please provide relevant information by responding to the following questions.

**3. ?<sup>7</sup>** Is your country applying the ecosystem approach, taking into account the principles and guidance contained in the annex to decision V/6? (decision V/6)

a) No	
b) No, but application is under consideration	
c) Yes, some aspects are being applied	x
d) Yes, substantially implemented	

**4. ?** Is your country developing practical expressions of the ecosystem approach for national policies and legislation and for implementation activities, with adaptation to local, national, and regional conditions? (decision V/6)

a) No	
b) No, but development is under consideration	
c) Yes, practical expressions have been developed for applying some principles of the ecosystem approach	x
d) Yes, practical expressions have been developed for applying most principles of the ecosystem approach	

<sup>7</sup> Please note that all the questions marked with ? have been previously covered in the second national reports and some thematic reports.

**5. Is your country strengthening capacities for the application of the ecosystem approach, and providing technical and financial support for capacity-building to apply the ecosystem approach? (decision V/6)**

a) No	
b) Yes, within the country	x
c) Yes, including providing support to other Parties	

**6. ? Has your country promoted regional cooperation in applying the ecosystem approach across national borders? (decision V/6)**

a) No	
b) Yes, informal cooperation (please provide details below)	
c) Yes, formal cooperation (please provide details below)	x

**Further comments on regional cooperation in applying the ecosystem approach across national borders.**

In 2003 Finland served as leading country in a pilot project designed to test how HELCOM's ecosystem approach could be applied in the protection of the Baltic Sea. The study 'Establishment of ecological quality objectives (EcoQOs) for a regional ecosystem approach in the Baltic Sea' was finalised at an international seminar and project meeting were organised in autumn 2003 at the Ministry of the Environment. This process has been continued by the HELCOM Secretariat, with Finland participating in various related working groups.

The ecosystem approach also formed the basis for the revision in 2002 of the EU common fisheries policy (Council Regulation (EC) No. 2371/2002), meaning that this approach now forms a guiding principle behind all council legislation related to fisheries. The scientific advice provided (through ICES) to facilitate estimates of fish stocks is also being developed in this direction in Finland and the EU as a whole.

**7. Is your country facilitating the exchange of experiences, capacity building, technology transfer and awareness raising to assist with the implementation of the ecosystem approach? (decisions VI/12 and VII/11)**

a) No	
b) No, some programmes are under development	
c) Yes, some programmes are being implemented (please provide details below)	x
d) Yes, comprehensive programmes are being implemented (please provide details below)	

**Further comments on facilitating the exchange of experiences, capacity building, technology transfer and awareness raising to assist with the implementation of the ecosystem approach.**

The Finnish report on the Ecosystem approach (2004) has been prepared in line with decision CBD VI/12 and also VII/11. The report is an introduction to the general principles of the ecosystem approach. The report is specifically intended for Finnish authorities and those planning the use of natural resources, and it also evaluates the currently used multi-goal planning. It contains proposals for the implementation of the ecosystem approach in Finland. The publication aims at making this approach better known and at integrating the ecosystem approach into the discussion on the protection, management and sustainable use of biodiversity. It is intended for use both at the national and local levels. (see more information: Finnish environment 733, 2004, www.edita.fi/netmarket)

8. Is your country creating an enabling environment for the implementation of the ecosystem approach, including through development of appropriate institutional frameworks? (decision VII/11)	
a) No	
b) No, but relevant policies and programmes are under development	
c) Yes, some policies and programmes are in place (please provide details below)	x
d) Yes, comprehensive policies and programmes are in place (please provide details below)	
Further comments on the creation of an enabling environment for the implementation of the ecosystem approach.	

## C. ARTICLES OF THE CONVENTION

### Article 5 – Cooperation

9. <b>?</b> Is your country actively cooperating with other Parties in respect of areas beyond national jurisdiction for the conservation and sustainable use of biological diversity?	
a) No	
b) Yes, bilateral cooperation (please give details below)	
c) Yes, multilateral cooperation (please give details below)	x
d) Yes, regional and/or subregional cooperation (please give details below)	x
e) Yes, other forms of cooperation (please give details below)	
Further comments on cooperation with other Parties in respect of areas beyond national jurisdiction for the conservation and sustainable use of biodiversity.	
Finland has been actively involved in the co-operation on marine environmental issues between HELCOM (Helsinki Commission for the Protection of the Baltic Marine Environment) and OSPAR, which plays an important role in preserving the biodiversity of Northern Europe's marine biotopes, for example through the creation of HELCOM and OSPAR's joint marine protected area network. This network aims to protect threatened and declining species and habitats, while also meeting the requirements of the EU Marine Strategy and Natura 2000. An ecologically coherent and well-managed network of marine protected areas must be created by 2010 together as part of the Natura 2000 network.	

10. Is your country working with other Parties to develop regional, subregional or bioregional mechanisms and networks to support implementation of the Convention? (decision VI/27 A)	
a) No	
b) No, but consultations are under way	
c) Yes, some mechanisms and networks have been established (please provide details below)	
d) Yes, existing mechanisms have been strengthened (please provide details below)	x

Further comments on development of regional, subregional or bioregional mechanisms and networks to support implementation of the Convention.

Sustainable Development- New Bearings for the Nordic Countries. Revised, with goals and initiatives for 2005-08. Tema Nord 2004:568, Chapter 5. Biological diversity and genetic resources. www.norden.dk

Finland is cooperating in the work of implementation and reporting requirements to the CBD and the CSD, both tasks are coordinated by the Ministry of the Environment.

Finland has striven systematically to promote sustainable development by integrating environmental consideration into sectoral policies. In 1993, the Finnish National Commission on Sustainable Development (FNCSD) was established to promote and co-ordinate the implementation of sustainable development at different levels. In practice this means that the commission gives political impetus and guidance to these issues as well as makes practical proposals and follows their implementation.

The principle of broad stakeholdership is also an important part of all the strategic work on sustainable development done in different sectors. The main actors from the NGOs and business organisations are also involved in preparing Finland`s positions for international negotiations on sustainable development issues.

The Finnish Government`s Programme for Sustainable Development was adopted on 4 June 1998 and a new strategy is under development. The sectors concerned were responsible for preparing the programme and the Ministry of the Environment coordinated the work.

The programme includes an analysis of different aspects (ecological, economic, social and cultural) of sustainable development from the Finnish perspective. The programme identifies both short and long-term goals, strategic targets and guidelines for action for sectors that are central to sustainable development (i.e. production, products and consumption patterns, transport and human settlements, rural development and energy).

**11.** Is your country taking steps to harmonize national policies and programmes, with a view to optimizing policy coherence, synergies and efficiency in the implementation of various multilateral environment agreements (MEAs) and relevant regional initiatives at the national level? (decision VI/20)

a) No	
b) No, but steps are under consideration	
c) Yes, some steps are being taken (please specify below)	x
d) Yes, comprehensive steps are being taken (please specify below)	

Further comments on the harmonization of policies and programmes at the national level.

Finland puts special emphasis on the implementation, monitoring and updating of international environmental conventions, and takes part in this work together with other EU member states. Finland is a party to more than one hundred environmental or environmentally-related multi- or bilateral agreements.

International biodiversity co-operation constitutes an important part of the implementation of the Finnish biodiversity programme. Finland has actively supported and improved co-operation in neighbouring regions, in co-operation with the other Nordic Countries, and in the Arctic region, as well as elsewhere in Europe and at global level.

#### Nordic co-operation and other regional co-operation

Finland has continued to participate in the programme for developing sustainable forestry and the preservation of biodiversity in northwestern Russia. Finland has striven to promote sustainable



forestry and the preservation of biodiversity in the Republic of Karelia and the St. Petersburg, Murmansk, Arkhangelsk, and Vologda districts. A total of 40 conservation programmes have been carried out in these areas since 1997. These programmes aim to preserve biodiversity, to develop and complement the conservation network in northwestern Russia, to improve the protected areas' ability to serve the needs of training and nature-based tourism, and to educate the public about nature.

In addition to the bilateral co-operation, the development programme also promotes more extensive international co-operation by actively participating in the activities of the International Contact Forum on Habitat Conservation in the Barents Region (HCF). This forum was founded in 1999 to promote and co-ordinate multilateral nature conservation co-operation between Finland, Norway, Russia, and Sweden. The goal is to improve the management of the protected areas in the Barents region, to make recommendations for improving the conservation network, and to support other activities that further habitat preservation.

The most important part of the nature conservation element of the development programme's third period (2005–2007) is GAP analysis in northwestern Russia. This will assess the comprehensiveness and deficiencies of the current network of protected areas. Based on this analysis, recommendations will be made for additions to the network. The project will produce a practical research-based tool for land use planning at the regional and federation level in northwestern Russia. Over the next three-year period, the programme's forestry section will increasingly focus on improving the training of forestry sector employees in northwestern Russia.

Since the 1990s, the "Fennoscandian Green Belt" project has been developed as part of co-operation on nature conservation between Finland and Russia. This network of protected areas along the Finnish-Russian border forms the backbone of nature conservation co-operation between the two countries. Other co-operation has involved strict nature reserves and national parks (including natural feature surveys, facilities for services, the management of traditional agricultural landscapes, and environmental education). Some of the most significant projects in neighbouring regions have been carried out in northwestern Russia (e.g. *Developing and Monitoring Sustainable Forest Management on the Karelian Isthmus*, Ministry of Agriculture and Forestry (2002–2003); and *Forest Regeneration and Management of Young Stands in the Murmansk and Arkhangelsk Regions*, Ministry of Agriculture and Forestry (2002–2004)). In addition, the Nordic Council of Ministers financed the realisation of the project *National Parks for Joint Benefits* (2002–2004) in NW Russia ([www.parksandbenefits.com](http://www.parksandbenefits.com)).

In addition to projects funded by Finland, Finnish experts have carried out internationally sponsored projects that have improved and promoted the regional preservation, management, and sustainable use of biodiversity. Examples of such projects include the EU TACIS projects *Karelia Parks Development* (–2002); the Improvement of *Transfrontier Nature Conservation System in Verkhovyna* (2002–2003); a World Bank project in Moldova: *Biodiversity Conservation in the Lower Dniester River Basin – Institutional, Legal, and Financial Assessment of the Proposed National Park* (2003); World Bank projects in Georgia on *Assistance with Forest Inventory and Forest Management Planning – Forest Development Project* (2004); and the World Bank project *Armenia Natural Resources Management and Poverty Reduction Project – Preparation of Forest Management Plans for Ijevan and Sevqar Forest Enterprises* (2004).

TACIS funding (1999–2001) has been used to promote the integration of the preservation of biodiversity into the planning of national parks, nature-based tourism, and projects designed to support local livelihoods (*Karelia Parks Development*, <http://parks.karelia.ru>). Landscape ecological planning has also been carried out on the Karelian Isthmus, and there has been participation in projects developing sustainable forestry in Arkhangelsk's *Kenozero* protected area and in the Murmansk District. Finland has also participated using TACIS funding in Ukraine in the *Carpathian Transfrontier Environment Network* conservation and land use project, which aims to develop an international network of protected areas.

The preservation of biodiversity in the Fennoscandian boreal zone has been furthered by, for example, co-operating in the management of protected areas in border regions with the authorities in Norway, Russia, and Sweden. The joint Finnish-Swedish project *A Green Bridge for the Gulf of Bothnia* aims to develop visitor guidance in the areas on either side of the narrowest stretch of the Gulf of Bothnia, to provide guidelines for the management of protected areas, and to prepare an application for World Heritage Site status for the area. A proposal to obtain world natural heritage

site status for the Kvarken Archipelago section of the post-glacial uplift coast was submitted to the Ministry of the Environment in September 2004.

Finland has also been active in promoting regional co-operation between the Nordic and Baltic countries concerning nature conservation. On an initiative by Finland, the Nordic-Baltic section of EUROPARC was founded in 2003 to further co-operation between the authorities in charge of protected areas in Nordic and Baltic countries, with one aim being to improve the quality and efficiency of protected area management. Finland has closely co-operated with Estonia to help improve the management and administration of Estonia's protected areas, while also promoting Estonia's Natura 2000 programme. The project *Habitat Restoration in Estonia's Protected Areas* has been carried out in co-operation with the Estonian Ministry of the Environment, the Union of Protected Areas of Estonia (EKAL), and the Lahemaa and the Karula National Park ([www.ekal.org.ee/ekal/index-en.htm](http://www.ekal.org.ee/ekal/index-en.htm)). This project supports Estonia's Natura 2000 process (LIFE Nature projects) and EU integration. Estonia's Centre of Forest Protection and Silviculture received consulting help from Finland in relation to the development of an environmental management system based on the ISO 14001 standard.

The Nordic Countries have also traditionally co-operated closely on preserving genetic resources used in agriculture. The most visible manifestation of this co-operation is the Nordic Gene Bank (NGB), maintained under the auspices of the Nordic Council of Ministers. The NGB was established in 1979, and is located at Alnarp, Sweden.

The states around the Baltic Sea have long been involved in cooperation on pollution prevention in the Baltic Sea through the framework of the intergovernmental Baltic Marine Environment Protection Commission (HELCOM) set up by the Helsinki Convention in 1974. In 1992 the conservation of the biodiversity of the marine environment was added to the Helsinki Convention's goals. The aim is to reduce pollution in the Baltic Sea by agreeing on the phase-out of all sources of pollution. HELCOM also convenes meetings of environment ministries to support and further the implementation of the Convention and the Baltic Sea Joint Comprehensive Environmental Action Programme.

Finland has been actively involved in the co-operation on marine environmental issues between HELCOM (Helsinki Commission for the Protection of the Baltic Marine Environment) and OSPAR, which plays an important role in preserving the biodiversity of Northern Europe's marine biotopes, for example through the creation of HELCOM and OSPAR's joint marine protected area network. This network aims to protect threatened and declining species and habitats, while also meeting the requirements of the EU Marine Strategy and Natura 2000. An ecologically coherent and well-managed network of marine protected areas must be created by 2010 together as part of the Natura 2000 network. Other cases of co-operation concern fisheries and shipping issues in these areas as well as mitigating possible harmful environmental effects of genetically modified organisms.

Metsähallitus's marine strategy includes the surveying of threatened biotopes as defined by HELCOM, a major inventory of underwater marine biotopes, and improvements to seal monitoring. Finland has also implemented HELCOM Recommendations by establishing special protected areas for seals, and by participating in intensified porpoise monitoring in the Baltic Sea. International co-operation is also necessary in such matters as reducing bycatch, developing selective fishing gear and better fishing techniques, and in protecting threatened species. These objectives can be furthered by increasing co-operation with the International Baltic Sea Fishery Commission (IBSFC).

Finland has also participated in a three-year joint project of the forestry and environmental sector organised by the Nordic Council of Ministers, *Managing forest habitats – challenges for the forestry and environmental sectors in the Nordic Countries*, and in its continuation, which dealt with new Nordic forest biotope conservation methods.

#### Arctic co-operation

Finland has continued to participate in the Arctic Council's Conservation of Arctic Flora and Fauna (CAFF) working group, and began its two-year chairmanship in November 2004. The 2003 meeting of the subgroup CAFF Flora Group was held in Helsinki. CAFF's most important recent project has been the development of a circumpolar biodiversity monitoring network. The related proposals, prepared with the help of €15,000 of funding from the Ministry of the Environment, were submitted to a ministerial meeting of the Arctic Council in November 2004 for approval.

Another important Arctic project is the Arctic Climate Impact Assessment (ACIA), in which CAFF, the Arctic Monitoring and Assessment Programme (AMAP), and the International Arctic Science Committee (IASC) are active. The project evaluates in detail the impacts of climate change and increased ultraviolet radiation on the environment and its living resources, on human health, and on infrastructure. Finnish researchers participated in the preparation of the project's report, which has more than 1,000 pages. The report deals with the already observed effects of climate change on plants and animals and their habitats, in addition to predicting future developments. Policy recommendations based on the scientific conclusions are being prepared.

#### Pan-European co-operation

Finland has actively participated in pan-European development work on biodiversity, for example in the biodiversity group founded by the European Commission in 2002 and the related subgroups set up to help the Commission renew the EU's biodiversity strategy and action plans. They also supported the Commission in drawing up the action plan for the EU objective for 2010, i.e. to halt the decline in biodiversity by 2010. In spring 2004, Finland participated in the conference organised by Ireland in Malahide, which proposed measures necessary for achieving this objective (Message from Malahide 2004). Finnish experts have also participated in working groups set up to promote the protection of ecologically valuable European frontier areas and to facilitate cross-border co-operation on conservation (EUROPARC and IUCN/WCPA/Europe).

Finland has already for a long time participated in preparing conferences for forestry ministers (Strasbourg 1990, Helsinki 1993, Lisbon 1998, and Vienna 2003), and in carrying out the decisions of these conferences. About a quarter of the resolutions of forestry ministers' conferences have concerned preserving and increasing forest biodiversity in Europe. Related measures have included the acceptance of guidelines for assessing the classification of European protected forests and protection forests, and the establishment of a framework for co-operation between the forestry ministers' conferences and the Pan-European Biological and Landscape Diversity Strategy (PEBLDS). Finland has also participated in the monitoring of the decisions of the Vienna conference, for example, in the expert conference held in spring 2004 in Poland. This conference examined similarities and differences between the ecosystem approach and the sustainable management and use of forests under European conditions.

#### Global co-operation

Finland supported the work of the *Ad hoc Technical Expert Group* (AHTEG), which was established by the CBD, and dealt with the relationship between biodiversity and climate change. The working group convened three times; in January 2002 (Helsinki), September 2002 (Montreal), and May 2003 (Helsinki). The AHTEG was co-chaired by Mr. Robert Watson (USA) and Mrs. Outi Berghäll (Finland). The result of the work was drawn up as a report (*Ad hoc Technical Expert Group on Biological Diversity and Climate Change 2003*), which was distributed at the 7<sup>th</sup> Ordinary Meeting of the Conference of the Parties to the CBD in Kuala Lumpur in February 2004.

Finland has supported the establishment of the intergovernmental UN Forum on Forests (UNFF), and is promoting the implementation of measures proposed by the IPF and the IFF, while also working towards a global agreement on forests. The work of the UNFF is being supported through participation in the CBD's *Ad Hoc Technical Expert Group on Forest Biological Diversity* (AHTEG). The Ministries of Agriculture and Forestry, Trade and Industry, Foreign Affairs, and Education, and the Finnish Academy are working with the Ministry of the Environment to obtain a place for a Finnish forest expert in the CBD Secretariat.

In the years 2001–2002, the work of a Finnish forest expert in the CBD Secretariat was funded by the Finnish ministries of foreign affairs, trade and industry, agriculture and forestry, and the environment. The Finnish expert played an important role in the preparation of the expanded forest work programme on preservation and sustainable use of forest biodiversity approved at the 6<sup>th</sup> Ordinary Meeting of the Conference of the Parties to the CBD (The Hague, 2002). The implementation in Finland of the forest work programme's recommendations has been assessed by the Ministry of Agriculture and Forestry.

A Finnish expert also served as a secretary and member of the Ad Hoc Technical Expert Group on Forest Biological Diversity. In the CBD Secretariat, the expert was also responsible for the preparation of matters concerning forest biodiversity, co-operation between the CBD and the UNFF, and climate change.

Finland has actively participated in the work of the UNFF (2001–2005) and helped to finance the UNFF's activities. Finland has emphasised the importance of co-operation between UNFF and CBD through, for example, the Collaborative Partnership on Forests (CPF). Finland's main goal is still to ensure that the work of the UNFF results in a global forest convention.

Finland has supported the work of the Global Environmental Facility (GEF), founded in 1991, which primarily finances projects in developing countries designed to promote the preservation and sustainable use of biodiversity, to curb climate change, to promote international co-operation on water protection, and to prevent erosion.

Funding has also been provided for the multilateral development co-operation work of the World Bank's Trust Fund for Environmentally and Socially Sustainable Development (TFESSD) and the Consultative Group on International Agricultural Research (CGIAR). Both of these organisations are currently running projects related to biodiversity. Finland has additionally funded several bilateral development projects related to the protection of biodiversity. Finland's financial contributions for development co-operation work related to biodiversity have been rising in recent years.

Protecting biodiversity is an essential part of many environmental administration development projects. One of the largest such projects, Nicaragua's PROAMBIENTE environmental programme, is focusing on the comprehensive development of environmental administration. Funding is being provided for an environmental administration development project in South Africa's NW Province, which includes biodiversity surveys that will form the basis for planning. The development of the environmental data banks used by Kyrgyzstan's environment ministry is being financed. A Tanzanian project focuses on integrated land use in Zanzibar and improvements to environmental administration. Other environmental and forestry development projects also involve the preservation of biodiversity.

Finnish funding has been used by the Peruvian Government to create a sustainable use of biodiversity strategy for Peruvian Amazonia. In the East Usambara Mountains of Tanzania support has been provided for projects that promote the preservation of biodiversity and the sustainable use of natural resources. This successful project has now been transferred into Tanzanian hands, after 12 years of support from Finland. Other development programmes incorporating the consideration of forest biodiversity include a Namibian forestry programme focusing on the sustainable use of forest products and services. Finland has also supported the activities of NGOs, including projects related to the preservation and sustainable use of biodiversity run in developing countries by WWF Finland and the Siemenpuu Foundation. Development co-operation funds have also been used to support biodiversity research organised by the Finnish Academy in Peru, and a project commissioned by the Finnish Foreign Ministry in Zanzibar.

Important areas for cooperation include protection of biological diversity in the marine environment, reduction of transboundary air pollution, environmental information and monitoring. Other projects have also involved central and eastern European countries, such as Poland, Belarus and Moldova. The inclusion of natural diversity protection in agriculture, forestry and fishing, for example, is being promoted through joint Nordic efforts.

Finland has i.e bilateral environmental agreements with the Russian Federation, Baltic states, Poland, Hungary, Ukraine and China.

Finland co-operates with Kyrgyzstan, Peru, Tanzania, Namibia and South-Africa in biodiversity programs within the framework of bilateral development co-operation.

A central theme of the Barents council of Foreign ministers has been the Barents forest sector initiative. Within this framework new projects based on economic cooperation have been created, mainly covering the Russian parts of the Barents region.

**Box XLI.**

Please elaborate below on the implementation of this strategy specifically focusing on:

- a) outcomes and impacts of actions taken;
- b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
- c) contribution to progress towards the 2010 target;
- d) progress in implementing national biodiversity strategies and action plans;
- e) contribution to the achievement of the Millennium Development Goals;
- f) constraints encountered in implementation.

**Article 6 - General measures for conservation and sustainable use**

**12.** Has your country put in place effective national strategies, plans and programmes to provide a national framework for implementing the three objectives of the Convention? (Goal 3.1 of the Strategic Plan)

a) No	
b) No, but relevant strategies, plans and programmes are under development	
c) Yes, some strategies, plans and programmes are in place (please provide details below)	
d) Yes, comprehensive strategies, plans and programmes are in place (please provide details below)	x

Further comments on the strategies, plans and programmes for implementing the three objectives of the Convention.

The action plan, as presented to the Ministry of the Environment on 11.9.1997, sets out a series of 124 measures related to the preservation, management and sustainable use of biodiversity, to be implemented by 2005. The plan also allocates sectoral responsibility and defines the needs for resources. Maintaining biodiversity in Finland involves both guaranteeing that there are enough protected areas, and ensuring that commercially exploited areas and resources are used and managed sustainably, while also considering society's other needs. The action plan aims to maintain the viability of Finland's natural habitats and ecosystems in all their diversity in all the country's biogeographical zones. The aim is to protect and manage threatened aspects of biodiversity, so that no species, genetic resources or habitats become extinct in Finland. The plan also aims to promote the sustainable use of natural resources, and economic opportunities related to the use of biodiversity, which can be considerable in terms of promoting enterprise and job creation. The plan seeks for instance to preserve the valuable genetic diversity of important traditional cultivated plant varieties and local livestock breeds. Diverse natural habitats are also a significant resource in terms their recreational amenity value and in promoting health.

The aim is that the goal of preserving biodiversity will become integrated into national, regional and local planning and decision-making; and into co-operation between different sectors. The action plan should gradually steer the activities of all economic and administrative sectors towards more sustainable courses in terms of the preservation, management and sustainable use of biodiversity. This must be done without weakening Finland's economical competitiveness in the longer term. The goal is that biodiversity will be given suitable consideration in the routine course of administrative and economic activities. The plan also allocates responsibility for bearing the financial costs of preserving biodiversity, but the goal is that these costs should mainly be integrated into routine

spending within administrative sectors. Achieving sustainable development in terms of biodiversity above all involves changing production and consumption patterns that have significant detrimental effects on the environment.

Finland's national plant genetic resources programme for agriculture and forestry, defined in 2001, seeks to guarantee that the genetic resources and natural variation of the plants grown in farms, gardens and forests are preserved and used sustainably. A *plant genetic resources committee* was set up in 2003 under the Ministry of Agriculture and Forestry to oversee the co-ordination and implementation of the plan.

The implementation of a corresponding national programme for animal gene resources was finalised in the beginning of 2005, overseen by the *animal genetic resources committee*. MTT Agrifood Research Finland is co-ordinating a programme for the preservation of domestic animal breeds, and representing Finland in related international programmes run by the FAO and the Nordic Council. Within the national plan, preservation programmes are being set up for endangered Finnish native breeds, involving the registration of individual animals, and the establishment of embryo and sperm banks.

The Nordic Countries have traditionally co-operated closely on preserving genetic resources used in agriculture. The most visible manifestation of this co-operation is the Nordic Gene Bank (NGB), maintained under the auspices of the Nordic Council of Ministers. The NGB was established in 1979, and is located at Alnarp, Sweden. Its task is to preserve and document genetic diversity in cultivated plants that are significant for agriculture in the Nordic region. The bank's collections at Alnarp include about 27,000 seed samples, of which some 1,600 are of Finnish origin. The corresponding Nordic Gene Bank for animal genetic resources (NGH) was set up in 1984 at the Agricultural University of Norway. The NGH serves as an information centre and the focus of a co-operation network, but it does not directly preserve genetic resources, as this responsibility is shared between all the countries involved. The NGB and the NGH both actively maintain links with other institutes and organisations working with genetic resources in the region (e.g. the Vavilov Institute – VIR), at European level (e.g. the European Co-operative programme for Crop Genetic Resources Networks ECP/GR), and globally (e.g. the UN FAO). The EURORGEN Programme was set up in 1994 to facilitate co-operation in Europe on forest genetic resources. Finland has made significant contributions to EURORGEN during the establishment and the implementation of the programme.

**13. ?** Has your country set measurable targets within its national strategies and action plans? (decisions II/7 and III/9)

a) No	
b) No, measurable targets are still in early stages of development	
c) No, but measurable targets are in advanced stages of development	
d) Yes, relevant targets are in place (please provide details below)	
e) Yes, reports on implementation of relevant targets available (please provide details below)	x

Further comments on targets set within national biodiversity strategies and action plans.

#### **The objectives of the national action plan**

To meet its obligations under the CBD, Finland prepared the *National Action Plan for Biodiversity in Finland, 1997–2005*, whose implementation is overseen by a monitoring group consisting of representatives of various administrative sectors and other stakeholder organisations. The **first progress report** prepared by the monitoring group in 2000 examined how the 124 measures within the action plan had been implemented over the period 1997–1999. On the basis of these results, the National Action Plan for Biodiversity in Finland monitoring group defined 12 important areas for development, and set short-term goals. Progress during the next phase of the action plan was assessed in the **second progress report** of the monitoring group, which was submitted to the

Secretary General of the Convention on Biological Diversity on 12.11.2002. This **third progress report** describes progress with the action plan and its associated development areas over the period 2002–2004.

In order to monitor the implementation of both the action plan and the Convention on Biological Diversity, the Ministry of the Environment set up the *National Action Plan for Biodiversity in Finland Monitoring Group* (to operate 15.10.1998–31.12.2005). The monitoring group is a co-operative body involving representatives from various stakeholder organisations, and is responsible for co-ordinating and overseeing the national monitoring of biodiversity as well as the implementation of the CBD and the action plan.

The aim is to monitor natural and anthropogenic changes in biodiversity to ensure the preservation and sustainable use of biodiversity. If significant changes are observed, attempts are made to determine their cause and prevent harmful changes.

The backbone of the proposed monitoring programme consists of the 57 current national biodiversity monitoring projects, which mainly focus on species. The programme will include both special monitoring projects<sup>8</sup> required by different statutes and international agreements, and general monitoring.<sup>9</sup> Proposals for the general monitoring projects were completed in 2001, and for special monitoring at the end of 2004. The proposals cover habitat-specific improvement needs (TST Expert Group 2001, 2005) as well as the need for funding for monitoring projects. The proposals were made by the TST expert group, which during 2005 will also deliberate on the possibility of developing a national set of indicators for the state of biodiversity, related trends, and the effectiveness of biodiversity policies.

In spring 2003, the EU Environment Council approved the EU Regulation concerning the monitoring of forests and environmental interactions (Forest Focus). The objective is implement a programme in Finland during the years 2003–2008 to develop a system for long-term monitoring of the state of forests, including their biodiversity. This process will be partly financed by the EU. Finland has considered it important that the EU's monitoring system is not developed separately from systems used in Finland and other member states, and the Regulation does in fact oblige the European Commission to develop the system in close co-operation with EU member states.

The ecological data needed to enable the preservation of biodiversity has been saved in geographical data systems for the purposes of nature conservation and land use planning, for instance. The environmental administration has developed a system for managing data on threatened species and other species that require monitoring. This TAXON data system promotes the joint use of species data and encourages other necessary co-operation between users within and outside the environmental administration.

**14.** Has your country identified priority actions in its national biodiversity strategy and action plan? (decision VI/27 A)

a) No	
b) No, but priority actions are being identified	
c) Yes, priority actions identified (please provide details below)	x

Further comments on priority actions identified in the national biodiversity strategy and action plan.

- The activities of the monitoring group during 2002-04 have particularly focussed on:
- the sectoral integration of the preservation, management and sustainable use of biodiversity, especially with regard to the preservation, management and sustainable

<sup>8</sup> Special monitoring is concerned with habitats, species, and populations that are internationally and nationally rare or in danger of disappearing (species, biotopes, areas, commercially exploited species, cultivated plants, livestock and ecologically harmful non-native species). Monitoring data is needed for planning conservation measures and evaluating their effects (TST Expert Group 2005).

<sup>9</sup> General monitoring collects data on the biodiversity of forests, peatlands, fells, marine areas, coasts, lakes and rivers, and farmland habitats, as well as on changes in the natural state at the species, biotope, and landscape level (TST Expert Group 2001).

- use of farmland and forest ecosystems;
- economic and other mechanisms to maintain biodiversity;
- the Ecosystem approach, regarding the functions and services provided by ecosystems;
- networks of protected areas, green corridors and major biodiversity "hot spots";
- invasive species;
- the conservation and sustainable use of genetic resources, and the availability of genetic resources and the benefits from their exploitation; and
- the state of biodiversity in Finland, and an evaluation of the impacts and adequacy of the national action plan, with regard to the coming revision of the action plan.

These themes will also be important during 2005. (see above Part B page 9-).

**15.** Has your country integrated the conservation and sustainable use of biodiversity as well as benefit sharing into relevant sectoral or cross-sectoral plans, programmes and policies? (decision VI/27 A)

a) No	
b) Yes, in some sectors (please provide details below)	
c) Yes, in major sectors (please provide details below)	x
d) Yes, in all sectors (please provide details below)	

Further information on integration of the conservation and sustainable use of biodiversity and benefit-sharing into relevant sectoral or cross-sectoral plans, programmes and policies.

See above and the third national progress report (2004): The Implementation of the National Action Plan for Biodiversity in Finland 2002-2004. Ministry of the Environment.

**16.** Are migratory species and their habitats addressed by your country's national biodiversity strategy or action plan (NBSAP)? (decision VI/20)

a) Yes	
b) No	x

I) If **YES**, please briefly describe the extent to which it addresses

(a) Conservation, sustainable use and/or restoration of migratory species	
(b) Conservation, sustainable use and/or restoration of migratory species' habitats, including protected areas	
(c) Minimizing or eliminating barriers or obstacles to migration	
(d) Research and monitoring for migratory species	
(e) Transboundary movement	

II) If **NO**, please briefly indicate below

(a) The extent to which your country addresses migratory species at national level	Finland is a party to the CMS, ASCOBANS; Eurobats and AEWA. Most of the migratory vertebrate species are protected by Nature Conservation Act or exploitation regulated by the Hunting Act. Important breeding and staging sites are protected e.g. in Natura 2000 network. Several EU LIFE-funded projects targeting migratory birds.
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(b) Cooperation with other Range States since 2000	Cooperation with Range States of the Lesser White-fronted Goose
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### Biodiversity and Climate Change

<b>17. Has your country implemented projects aimed at mitigating and adapting to climate change that incorporate biodiversity conservation and sustainable use? (decision VII/15)</b>	
a) No	
b) No, but some projects or programs are under development	
c) Yes, some projects have been implemented (please provide details below)	x
Further comments on the projects aimed at mitigating and adapting to climate change that incorporate biodiversity conservation and sustainable use.	
<p>Finland's National Climate Strategy was prepared in 2001. The Ministry of Trade and Industry coordinated its preparation and its implementation. The National Climate Strategy of 2001 focuses mainly on mitigation. The National Climate Strategy was based on sector-specific surveys by the Ministry of Trade and Industry, Ministry of the Environment, Ministry of Transport and Communications and Ministry of Agriculture and Forestry.</p> <p>The work on the Strategy has been lead by a Ministerial Working Group on Climate and Energy representing the ministers responsible for the trade and industry, environment, agriculture and forestry, transport and communications, foreign affairs, and finance. Under the Ministerial Work Group there is an inter-ministerial task force. A strategic environment assessment, including consideration of biodiversity related aspects, was carried out as part of the preparation of the climate strategy. The climate strategy 2001 was forwarded to the Parliament and it was implemented.</p> <p>The Climate and energy strategy will be updated in early 2005. The new strategy will cover a wide array of policies and measures in relevant sectors such as energy, transport, biodiversity, transport, tourism, land use planning, agriculture and forestry. In addition to activities aimed at mitigating climate change, the new climate and energy strategy 2005 will also include new elements and measures for adaptation to climate change for 2005-2080. Assessment and identification of actions and measures by different sectors and stakeholders including research community is an important part of the ongoing work. In the preparation of the new climate and energy strategy, a strategic environment assessment will be carried out.</p> <p><b>2. Finland's National Strategy for Adaptation to Climate Change (completed and under implementation)</b></p> <p>The Parliament's reply to the National Climate Strategy submitted to the Parliament in March 2001 identified the need to draft a programme for adaptation to climate change. The preparation of the National Strategy for Adaptation to Climate Change was started in the latter part of 2003. The work was coordinated by the Ministry of Agriculture and Forestry and representatives from the Ministry of Traffic and Communications, Ministry of Trade and Industry, Ministry of Social Affairs and Health, Ministry of the Environment, Ministry for Foreign Affairs, Finnish Meteorological Institute and Finnish Environment Institute took part in the preparation. Each Ministry was responsible for assessing the impacts and identifying adaptation measures in its own sector. The adaptation strategy was based on the available research information and expert assessments and judgements. A large number of leading Finnish researchers of climate change and its impacts, other experts and representatives of different sectors were involved in the preparation process. The comments sent by stakeholders were also taken into account in finalising the strategy. The increase in the greenhouse gas concentration in the atmosphere leads to global warming and changes in the climate systems. The Finnish Meteorological Institute compiled the climate change scenarios based on the existing international and national data. According to the estimates on the future climate change in Finland, by 2080 the average temperature could rise by 4 - 6°C and the average precipitation would grow by 15 - 25 %. Extreme weather events, such as storms, droughts and heavy rains, are likely to increase. The Government Institute for Economic Research drew up a background study on the long-term scenarios for the economy and the Finnish Environment Institute examined the future development trends in natural conditions.</p>	

The strategy describes the impacts of climate change in the following sectors: agriculture and food production, forestry, fisheries, reindeer husbandry, game husbandry, water resources, biological diversity, industry, energy, traffic, land use and communities, building, health, tourism and recreation, and insurance. The strategy describes the present sensitivity to climate change and outlines actions and measures to improve the capacity and to adapt to future climate change. The strategy aims at reducing the negative consequences and taking advantage of the opportunities associated with climate change. The adaptation strategy includes a proposal on starting a research programme.

The Strategy for Adaptation to Climate Change was drawn up as a self-standing and comprehensive work. The main content will be included in the National Climate and Energy Strategy to be updated in 2005.

The information supports also other information needs, e.g. 4<sup>th</sup> national report to UNFCCC and the third national country report to CBD.

### **3. Research activities on climate change and biodiversity in Finland (completed and ongoing)**

In last years significant research efforts on climate change [and biodiversity] has been conducted in Finland.

Research on climate change has been ongoing since 1990 in Finland. The SILMU research project financed by the Finnish Academy focused on assessment of climate change (SILMU 1990-1995, funding was about 5 ME). It was followed by the FIGARE research program (1999-2002)<sup>10</sup> on Global climate change, which updated the climate change scenarios and broadened its scope also in the field of social sciences. The Climtech research program's 1999-2002 aim was to develop technology for mitigating climate change.<sup>11</sup> As a follow up the ClimBus –program (funding 70 ME) 2004-2008<sup>12</sup> will focus on mitigation and business potentials for Finnish enterprises in emission trading.

The Finnish Environment Institute (FEI) 2003 concluded in 2003 a pre-study on adaptation to climate change in Finland. Based on the study, the FINADAPT –project 2004-2005 (funding 0,3 ME) will focus on the adaptation and the impacts on e.g. biodiversity and different natural systems (soil, water, air, flora and fauna).<sup>13</sup> The FINADAPT seeks to address both scientific and policy needs by conducting the first in-depth investigation of the adaptive capacity of the Finnish environment and society to the potential impacts of climate change. The Consortium is being funded for the period 2004-2005 as part of the Finnish Environmental Cluster Research Programme, co-ordinated by the Ministry of the Environment ([FINADAPT proposal](#)).

The Consortium comprises fourteen sub-projects described as Work Packages (WP), involving eleven main Partner institutions and a number of collaborating institutions. WPs are divided into four Research Themes (RT). RT 1 covers project management, integration and data and scenario provision (two WPs). RT 2 focuses on adaptation to climate change in sectors associated with the natural environment (four WPs). RT 3 deals with adaptation to climate change for infrastructure and human well-being (five WPs). Finally, RT 4 considers integrating issues that cut across sectors and disciplines (three WPs). Descriptions of each WP can be found on (<http://www.ymparisto.fi/default.asp?contentid=103220&lan=fi&clan=en>)

Assessment and identification of actions and measures by different sectors are important. The impacts on climate change are still uncertain and more research and cooperation is needed both nationally and internationally. The ACIA (Arctic Climate Impact Assessment) report which will be published in November 2004<sup>14</sup> (The work has been a joint exercise between Convention on Arctic Flora and Fauna (CAFF), Arctic monitoring and assessment Program, (AMAP) and the International Arctic Science Committee (IASC) in evaluating the climate change effects on the environment, public health and the infrastructure in the region.

<sup>10</sup> For more information, see: <http://www.aka.fi/eng>

<sup>11</sup> For more information, see: [http://www.tekes.fi/julkaisut/Climtech\\_final.pdf](http://www.tekes.fi/julkaisut/Climtech_final.pdf)

<sup>12</sup> For more information, see: <http://www.tekes.fi/eng/>

<sup>13</sup> For more information, see: <http://www.ymparisto.fi/default.asp?contentid=103220&lan=fi&clan=en>

<sup>14</sup> For more information, see : <http://www.amap.no/acia/index.html> OR <http://www.artic-council.org/index.html>

Finland has also supported the CBD and AHTEG group on climate change and biodiversity in the preparation of the report on "Interlinkages between biological diversity and climate change. Advice on the integration of biodiversity considerations into implementation of UNFCCC and its Kyoto protocol."<sup>15</sup> The report provides scientific advice for the development of recommendations and for setting priorities for future work. The report mainly focuses on mitigation impacts/activities and less on a daptation.

The implementation of the CBD commitments demands research activities and new information. The Finnish Biodiversity Research program (FIBRE) 1997-2002<sup>16</sup>, has assisted Finland in implementing the CBD at the national level incl. among other things research projects on aquatic biodiversity, agricultural biodiversity, forest biodiversity and developing countries and biodiversity issues. The integration and synthesis project BITUMI was carried out 2000-2002 and its aim was to promote the applicability and use research results, by finalizing synthesis reports for both scientists and decision makers on biodiversity issues.

As a follow up to the FIBRE/BITUMI research program, the MOSSE research program (2003-2007) particularly examines the ecological, economical and social impacts of the measures carried out to conserve forest biodiversity.

#### **4. Examples of strategies and programmes addressing climate change and biodiversity**

In Finland many National strategies and actions plans has been developed for different sectors where impacts of climate change and biodiversity has also been taken into consideration or recognized. For instance these strategies/programs has been adopted among others:

- Regional Forest Programmes (compiled in 1998, revised in 2001)
- National Forest Programme 2010 (compiled in 1999, first evaluation in 2002; for more information see [www.mmm.fi/english/forestry/program.htm](http://www.mmm.fi/english/forestry/program.htm)).

The general and basic element of these programmes is sustainable development. The aim of the National Forest Programme and the Regional Forest Programmes is to achieve and preserve a favourable standard of conservation of species and habitats in the forests by a combination of conservation areas and ecosystem management in commercial forests. To decrease the climatic changes and to maintain biodiversity there are goals and measures (e.g. the use of wood for bioenergy) under different priorities of the programme. One priority "Ecological sustainability will be secured" is totally devoted to ecological measures. The idea of the forest programmes is the continuous dialogue between the forest policy and other policies like the environment, energy or industry policies.

- FINNISH CDM/JI Pilot Programme: Carbon Sequestration – Ecuador, inception phase 2002-2003.

Under the Clean Development Mechanism/Joint Implementation Pilot Programme, coordinated by the Ministry for Foreign Affairs, there has been project activities integrating issues relating to biodiversity (e.g eligibility criteria; land, landowners, indigenous species, incentives and local perceptions on the CDM) and local participation<sup>17</sup>.

Additionally, the new Finnish development policy lays a special emphasis on the multilateral environmental agreements. Therefore, Finland aims increasingly to support the developing countries in implementing their commitments under these agreements.

Need for integrating mitigation and adaptations measures/scenarios as part of sectoral planning and implementation will be a challenge in the future. Need for more research and knowledge is obvious both nationally and internationally.

#### **5. Climate change, and biodiversity policies and sustainable development**

<sup>15</sup> For more information, see: <http://www.biodiv.org>

<sup>16</sup> For more information, see: <http://www.aka.fi/eng>

<sup>17</sup> For more information, see: <http://www.global.finland.fi/english/projects/cdm/index.html>

The continuing and accelerating rate of climate change and its potential impacts on nature and human society call for policy responses. These responses should mitigate climate change and its impacts as far as possible and to help adapt to the consequences. Adaptation to climate change is also increasingly receiving attention, as part of sustainable development.

**18.** Has your country facilitated coordination to ensure that climate change mitigation and adaptation projects are in line with commitments made under the United Nations Framework Convention on Climate Change and the United Nations Convention to Combat Desertification? (decision VII/15)

a) No	
b) No, but relevant mechanisms are under development	x
c) Yes, relevant mechanisms are in place (please provide details below)	x

Further comments on the coordination to ensure that climate change mitigation and adaptation projects are in line with commitments made under the UNFCCC and the UNCCD.

Besides the ongoing activities under the CBD, Finland also welcome the outcome of the joint UNFCCC SBI/SBSTA workshops on synergy with other multilateral environmental conventions held in Finland 2003. Recognizing the recent encouraging progress in different fora, we believe that it is now time to move from policy-planning/preparation to implementation.

**Box XLII .**

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

- a) outcomes and impacts of actions taken;
- b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
- c) contribution to progress towards the 2010 target;
- d) progress in implementing national biodiversity strategies and action plans;
- e) contribution to the achievement of the Millennium Development Goals;
- f) constraints encountered in implementation.

**Article 7 - Identification and monitoring**

**19. ?** On Article 7(a), does your country have an ongoing programme to identify components of biological diversity at the genetic, species, ecosystem level?

a) No	
b) Yes, selected/partial programmes at the genetic, species and/or ecosystem level only (please specify and provide details below)	x
c) Yes, complete programmes at ecosystem level and selected/partial inventories at the genetic and/or species level (please specify and provide details below)	

Further comments on ongoing programmes to identify components of biodiversity at the genetic, species and ecosystem level.

See question 20.

20. ? On Article 7(b), which components of biological diversity identified in accordance with Annex I of the Convention, have ongoing, systematic monitoring programmes?

a) at ecosystem level (please provide percentage based on area covered)	x
b) at species level (please provide number of species per taxonomic group and percentage of total known number of species in each group)	x
c) at genetic level (please indicate number and focus of monitoring programmes)	

Further comments on ongoing monitoring programmes at the genetic, species and ecosystem level.

The National biodiversity action plan includes calls for agreements on the national network-based monitoring of biodiversity, on the content and extent of monitoring, on the sharing of costs, and on national and international reporting of the monitoring results. The aim is to monitor natural and anthropogenic changes in biodiversity to ensure the preservation and sustainable use of biodiversity. If significant changes are observed, attempts are made to determine their cause and prevent harmful changes.

The backbone of the proposed monitoring programme consists of the 62 current national biodiversity monitoring projects, which mainly focus on species. The programme will include both special monitoring projects<sup>18</sup> required by different statutes and international agreements, and general monitoring.<sup>19</sup> Proposals for the general monitoring projects were completed in 2001, and for special monitoring at the end of 2004. The proposals cover habitat-specific improvement needs (TST Expert Group 2001, 2005) as well as the need for funding for monitoring projects. The proposals were made by the TST expert group, which during 2005 will also deliberate on the possibility of developing a national set of indicators for the state of biodiversity, related trends, and the effectiveness of biodiversity policies.

	No. of species	Details of monitoring	Comments
<b>Mammals</b>	68	almost half monitored	relative abundance; numbers of large carnivores and seals
<b>Birds</b>	258	almost all monitored	number of nesting pairs for almost all species
<b>Reptiles</b>	5	observations of all species compiled	approximate distribution
<b>Amphibians</b>	5	observations of all species compiled	approximate distribution
<b>Fish</b>	68	approx. 5 species monitored	catch statistics also compiled for commercially exploited species
<b>Molluscs'</b>	161	no monitoring	
<b>Insects*</b>	approx. 19 850	approx. 1000 species monitored in total, including 950 Macrolepidoptera species, and the occurrences of some threatened insects.	
<b>Other invertebrates'</b>	approx. 6 400	approx. 100 benthic animal species or invertebrate taxa monitored in surveys of the state of water bodies (including some insects)	
<b>Vascular plants</b>	approx. 3 200	approx. 30 threatened species monitored; monitoring data on approx. 100 common forest species published in national forest inventories	
<b>Mosses and algae</b>	approx. 5 900	approx. 140 species of macroalgae monitored in surveys of aquatic plants	

		along coasts	
<b>Fungi</b>	5 454	no monitoring	
<b>Lichens</b>	1 452	no monitoring	
<b>Total</b>	<b>n. 42 800</b>		
		approx. 1700 monitored	

Insects, molluscs and other invertebrates can be combined into the wider category Invertebrates

A Finnish National monitoring system is being set up to evaluate the state of biodiversity and related trends, as stipulated in EU legislation, Finland's Nature Conservation Act and the National Action Plan for Biodiversity. New aspects of monitoring will be developed and there may be changes in existing monitoring schemes. The Ministry of Agriculture and Forestry is also monitoring the sustainability of the use of natural resources and attempting to guide agriculture, fisheries, game management and reindeer husbandry and the use of water resources in the right direction through a series of indicators of the sustainable use of natural resources.

The preparation (satellite images and other numerical data) and the field work related to the National Forest Inventories, add to the knowledge on the status of biodiversity. Other geographical data systems have also been developed within the administrative sphere of the Ministry of Agriculture and Forestry (including the METE survey of important habitats, data on hunters' bags, game monitoring, fish tagging data banks, and registers of the occurrence of fish).

**21. ?** On Article 7(c), does your country have ongoing, systematic monitoring programmes on any of the following key threats to biodiversity?

a) No	
b) Yes, invasive alien species (please provide details below)	
c) Yes, climate change (please provide details below)	x
d) Yes, pollution/eutrophication (please provide details below)	x
e) Yes, land use change/land degradation (please provide details below)	x
f) Yes, overexploitation or unsustainable use (please provide details below)	x

Further comments on monitoring programmes on key threats to biodiversity.

National monitoring programmes in Finland for 2003-2005 publication presents environmental monitoring activities incl. data on environmental threats carried out. The publication includes a 49 page extended English summary. The publication includes also chapters on the State of the environment in Finland. The publication is available in the internet: <http://www.ymparisto.fi/palvelut/julkaisu/elektro/sy616/sy616.htm>

c) The Finnish Environment Institute (SYKE) produces information on emissions for environmental planning and policy making, for research and for public use. Emission data are reported according to international conventions such as UNFCCC, the UNECE Convention on Long Range Transboundary Air pollution and according to the EU Directives on atmospheric pollution as well as regional conventions of HELCOM and OSPAR. The Air Emissions Data System is part of the Environmental Information system on the Environmental Protection Act and produces emission data of both air emissions and greenhouse gases at the level of individual processes and on local and national scales. Statistics Finland uses ILMARI calculation model to produce comprehensively analysed data on air emissions in Finland.

d) The national waste monitoring system is to great extent based on the waste section of the Environmental Protection Monitoring System (VAHTI) of the Environmental Administration. Information to this system is obtained on the basis of obligations given in the Environmental legislation. Legislation requires that various producers of waste provide information on their wastes to the authorities. Regional Environmental Centres keep registers on waste transporters, waste sellers and brokers and producer corporations. In the national waste plans and regional waste plans, targets have been set for waste quantities, recovery and for the development of waste management. The follow-up of these targets is based on annual data collected in the information system.

In Finland the percentage of agricultural land is 9% of the total land area. In particularly south-western Finland, agriculture is a significant source of pollution. Eutrophication of surface waters is the major environmental problem caused by agriculture. Diffuse loading from agriculture, forestry and scattered settlement is not directly monitored. The overall effects can be estimated by monitoring water flow and quality in small representative river basins and river basins representing different land uses. Intensive automatic water sampling provides accurate estimates of nutrient loads. The results from the 15 basins have been widely used e.g. for model testing and estimation of total nutrient load to surface waters. The use of chemicals in Finland is monitored jointly by Health and Environmental authorities and the Finnish Environmental Institute (SYKE) is responsible for the environmental aspects of monitoring of harmful substances. At present very limited data exists on concentrations of such substances in the Finnish Environment.

d) Statistics Finland has published a national Land Use Classification, compiled using international land use classifications and the SLICES project of the National Land Survey of Finland as the starting points. The classification is a binding standard for official statistics but is also recommended for other information systems describing the use of land.

Extraction of gravel and rock aggregates and the information on the extracted aggregate volumes is collected by municipalities, responsible also for granting the permissions, and recorded in a database by inspecting authorities (Regional Environment Centres). Also an account keeping system on the extraction volumes is being developed by SYKE and the Geological Survey of Finland which is published annually.

**22. ?** On Article 7 (d), does your country have a mechanism to maintain and organize data derived from inventories and monitoring programmes and coordinate information collection and management at the national level?

a) No	
b) No, but some mechanisms or systems are being considered	
c) Yes, some mechanisms or systems are being established	
d) Yes, some mechanisms or systems are in place (please provide details below)	x
e) Yes, a relatively complete system is in place (please provide details below)	

Further information on the coordination of data and information collection and management.

The environmental administration has developed a system for managing data on threatened species and other species that require monitoring. This TAXON data system promotes the joint use of species data and encourages other necessary co-operation between users within and outside the environmental administration. The forestry centres and environment centres, for example, need occurrence data on threatened species for the needs of forest planning and forest certification. Due to the fairly new TAXON system, data on threatened species is processed more rapidly and better than before. Geographical data on species can now be saved and studied using maps. Forestry organisations have already procured some of this data for themselves in accordance with their needs. The Finnish Road Administration also uses a geographical data system to ensure that valuable natural and cultural sites are considered in the planning of roads. The collected data and research results can be used in national nature conservation registers.

There are still deficiencies in the TAXON system's data content, but the systematic complementation and improvement of the data is under way. There is still valuable species occurrence data that has not been compiled, verified, or converted into easily usable geographical data. The TAXON system should be complemented with, for example, species data available in museums of natural history and at forestry centres. Researchers and amateur naturalists also have species data, which is stored in various reports and the databases of organisations. In order to improve data management, the environmental administration has had to increase efforts in collecting, verifying, and storing occurrence data on threatened species. More resources are needed to expand and verify the database. The environmental administration has also begun to develop a data system for protected areas (ALKU), which will become a part of the nature conservation data system.

Since 1995, Metsähallitus has been using a geographical data system for natural resources that

covers almost all state-owned lands (about 7 million ha). This continually improved system comprises about one million polygonal map segments, known as "compartments", into each of which data can be entered for nearly 200 parameters and characteristics. This planning tool for natural resource use enables efficient access to natural resource data for the purposes of analysis. The collection of basic data on protected areas administered by Metsähallitus began in 2003 as a four-year METSO project. Data is being collected on an area of about 1.7 million ha, with fieldwork carried out on about 500,000 ha. The data stored in the geographical data system (Suti-GIS) is used in planning the management and use of protected areas (natural management, restoration), and in monitoring Natura 2000 sites. During 2003 Metsähallitus collected data on a total area of more than 136,000 ha in the METSO region, and nearly 100,000 ha elsewhere. In 2004, the corresponding collection of basic data was also begun on privately owned protected areas.

Finland has actively participated in the development of the Global Biodiversity Information Facility (GBIF). The GBIF is an interoperable network of biodiversity databases (taxonomy) and information technology tools that will enable users to use biodiversity information for national, economic, environmental and social benefits. The purpose of establishing GBIF has been to promote, co-ordinate, design and implement the compilation, linking, standardization, digitization and global dissemination of biodiversity data.

Finland signed the Memorandum of understanding for the GBIF in 2001.

The signers of the MoU have decided that a co-ordinated international scientific effort is needed to enable users throughout the world to discover and put to vast quantities of global biodiversity data, thereby advancing scientific research in many disciplines, promoting technological and sustainable development, facilitating the equitable sharing of the benefits of biodiversity, and enhancing the quality of life of members in society.

GBIF is an open-ended international co-ordinating body set up with the overall aim of furthering technical and scientific efforts to develop a global digitised information facility for biodiversity data.

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The results of the frequent National Forest Inventories are widely distributed and freely available in the Internet.

**23. ?** Does your country use indicators for national-level monitoring of biodiversity? (decision III/10)

a) No



b) No, but identification of potential indicators is under way (please describe)	x
c) Yes, some indicators identified and in use (please describe and, if available, provide website address, where data are summarized and presented)	
d) Yes, a relatively complete set of indicators identified and in use (please describe and, if available, provide website address, where data are summarized and presented)	
Further comments on the indicators identified and in use.	
<p>The national criteria and indicators for sustainable forestry in Finland are also being developed on the basis of experiences with their application, and new research data. Pan-European criteria and indicators are being developed through the framework of the Pan-European ministerial conference on forests.</p> <p>Many sectors making use of living natural resources need indicators of biodiversity to help them assess the environmental impacts of their activities. Because of the varied nature of biodiversity, constituent parts can only be measured relative to others. Even then, developing trustworthy measurement techniques requires methodical analyses. The prerequisites for finding reliable biodiversity indicators are better understood as a result of increased research. Simultaneously new data on species and habitats is being obtained, gradually also long time data series.</p> <p>A series of indicators of sustainable development in Finland were published in April 2000 by the Ministry of the Environment. The publication on sustainable development indicators for Finland includes some preliminary indicators for biodiversity. Suitable species and habitat data were available, but not interpretations on their relationship with biodiversity overall, or on questions of scale. Indicators for whole ecosystems or for genetic diversity have not yet been sufficiently elaborated. New information on different habitats will, however, be available in the near future.</p> <p>Indicators that describe biodiversity are:</p> <ul style="list-style-type: none"> <li>• Numbers of threatened species</li> <li>• Population trends in farmland and forest birds</li> <li>• Numbers of grey seals</li> <li>• Area of nature reserves</li> <li>• Implementation of nature conservation programmes</li> </ul> <p>The ministry of Agriculture and Forestry published a set of Criteria and Indicators for Sustainable Forest Management in Finland in January 2001. One criteria in this indicator set is maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems and it contains 8 indicators which describe biological diversity in production forests. The indicators handle e.g. endangered species, protection of valuable biotopes and tree species composition.</p> <p>The Ministry of Agriculture and Forestry drafted a preliminary set of indicators for the sustainable use of renewable natural resources (agriculture, game husbandry, reindeer husbandry, fisheries, rural areas and water resources) which were approved in February 1999.</p> <p>Through these indicators it is possible to gather nationally reliable data on renewable natural resources and obtain information on pressures and threats, including on qualitative and quantitative future trends for the resources. The rural landscape (countryside) and biodiversity are also considered as important natural resources. There are few indicators which try to describe the change of biodiversity in agriculture. These indicators are e.g. the number of certain key farmland birds and the known distribution of the butterfly violet copper (<i>Lycaena helle</i>).</p>	

**Box XLIII.**

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

- a) outcomes and impacts of actions taken;
- b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
- c) contribution to progress towards the 2010 target;
- d) progress in implementing national biodiversity strategies and action plans;
- e) contribution to the achievement of the Millennium Development Goals;
- f) constraints encountered in implementation.

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**Decisions on Taxonomy**

**24.?** Has your country developed a plan to implement the suggested actions as annexed to decision IV/1? (decision IV/1)

a) No	x
b) No, but a plan is under development	
c) Yes, a plan is in place (please provide details below)	
d) Yes, reports on implementation available (please provide details below)	

Further information on a plan to implement the suggested actions as annexed to decision IV/1.

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**25.?** Is your country investing on a long-term basis in the development of appropriate infrastructure for your national taxonomic collections? (decision IV/1)

a) No	
b) Yes (please provide details below)	x

Further information on investment on a long-term basis in the development of appropriate infrastructure for your national taxonomic collections.

Finland has actively participated in the development of the Global Biodiversity Information Facility (GBIF). The GBIF is an interoperable network of biodiversity databases (taxonomy) and information technology tools that will enable users to use biodiversity information for national, economic, environmental and social benefits. The purpose of establishing GBIF has been to promote, co-ordinate, design and implement the compilation, linking, standardization, digitization and global dissemination of biodiversity data.

Finland signed the Memorandum of understanding for the GBIF in 2001.

The signers of the MoU have decided that a co-ordinated international scientific effort is needed to enable users throughout the world to discover and put to vast quantities of global biodiversity data, thereby advancing scientific research in many disciplines, promoting technological and sustainable development, facilitating the equitable sharing of the benefits of biodiversity, and enhancing the quality of life of members in society.

GBIF is an open-ended international co-ordinating body set up with the overall aim of furthering

technical and scientific efforts to develop a global digitised information facility for biodiversity data.

**26.?** Does your country provide training programmes in taxonomy and work to increase its capacity of taxonomic research? (decision IV/1)

a) No

x

b) Yes (please provide details below)

Further information on training programmes in taxonomy and efforts to increase the capacity of taxonomic research.

**27.?** Has your country taken steps to ensure that institutions responsible for biological diversity inventories and taxonomic activities are financially and administratively stable? (decision IV/1)

a) No

b) No, but steps are being considered

c) Yes, for some institutions

x

d) Yes, for all major institutions

**28.\*** <sup>20</sup> Is your country collaborating with the existing regional, subregional and global initiatives, partnerships and institutions in carrying out the programme of work, including assessing regional taxonomic needs and identifying regional-level priorities? (decision VI/8)

a) No

b) No, but collaborative programmes are under development

c) Yes, some collaborative programmes are being implemented (please provide details about collaborative programmes, including results of regional needs assessments)

X

d) Yes, comprehensive collaborative programmes are being implemented (please provide details about collaborative programmes, including results of regional needs assessment and priority identification)

Further information on the collaboration your country is carrying out to implement the programme of work for the GTI, including regional needs assessment and priority identification.

**29.\*** Has your country made an assessment of taxonomic needs and capacities at the national level for the implementation of the Convention? (annex to decision VI/8)

a) No

x

b) Yes, basic assessment made (please provide below a list of needs and capacities identified)

c) Yes, thorough assessment made (please provide below a list of needs and capacities identified)

Further comments on national assessment of taxonomic needs and capacities.

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<b>30. *</b> Is your country working on regional or global capacity building to support access to, and generation of, taxonomic information in collaboration with other Parties? (annex to decision VI/8)	
a) No	
b) Yes, relevant programmes are under development	
c) Yes, some activities are being undertaken for this purpose (please provide details below)	x
d) Yes, many activities are being undertaken for this purpose (please provide details below)	
Further comments on regional or global capacity-building to support access to, and generation of, taxonomic information in collaboration with other Parties.	

<b>31. *</b> Has your country developed taxonomic support for the implementation of the programmes of work under the Convention as called upon in decision VI/8? (annex to decision VI/8)	
a) No	x
b) Yes, for forest biodiversity (please provide details below)	
c) Yes, for marine and coastal biodiversity (please provide details below)	
d) Yes, for dry and sub-humid lands (please provide details below)	
e) Yes, for inland waters biodiversity (please provide details below)	
f) Yes, for mountain biodiversity (please provide details below)	
g) Yes, for protected areas (please provide details below)	
h) Yes, for agricultural biodiversity (please provide details below)	
i) Yes, for island biodiversity (please provide details below)	
Further comments on the development of taxonomic support for the implementation of the programmes of work under the Convention.	

<b>32. *</b> Has your country developed taxonomic support for the implementation of the cross-cutting issues under the Convention as called upon in decision VI/8?	
a) No	x
b) Yes, for access and benefit-sharing (please provide details below)	
c) Yes, for Article 8(j) (please provide details below)	
d) Yes, for the ecosystem approach (please provide details below)	
e) Yes, for impact assessment, monitoring and indicators (please provide	

details below)	
f) Yes, for invasive alien species (please provide details below)	
g) Yes, for others (please provide details below)	
Further comments on the development of taxonomic support for the implementation of the cross-cutting issues under the Convention.	

### **Article 8 - *In-situ* conservation [excluding paragraphs (a) to (e), (h) and (j)]**

<b>33. ?</b> On Article 8(i), has your country endeavored to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and sustainable use of its components?	
a) No	
b) No, but potential measures are being identified	
c) Yes, some measures undertaken (please provide details below)	x
d) Yes, comprehensive measures undertaken (please provide details below)	
Further comments on the measures taken to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and sustainable use of its components.	
<p>The Council of State made a decision-in-principle in October 2002 that the METSO action plan for forest biodiversity should be added to the National Forest Programme 2010.<sup>21</sup> This decision was based on the deliberations of the government-appointed <i>Southern Finland Forest Protection Programme Committee</i> (METSO Committee)<sup>22</sup> – a widely based committee including representatives of 25 interest groups, 5 experts, a chairperson and 3 secretaries. Before the committee started work, needs and deficiencies relating to forest protection in Southern Finland and Ostrobothnia were examined by the ESSU expert group, appointed by the Ministry of the Environment (Ministry of the Environment 2000a).</p> <p>The METSO Programme for the preservation of biodiversity in forests in Southern Finland, Oulu Province and SW Lapland includes proposals for 17 measures aiming to promote forest biodiversity particularly over the period 2003–2007, but with some measures continuing until 2014 (see 5.5). Some of these measures are based on existing methods, while others are new types of measures that have to be evaluated through pilot projects or preliminary reports. The basic principle behind the committee’s proposals is that forest biodiversity should be safeguarded through co-operation between different stakeholders, with landowners involved on a voluntary basis. The protection of biodiversity in existing protected areas and state-owned commercially managed forests is also being improved through the programme. In May 2003 the METSO criteria working group set up by the Ministry of the Environment published ecological criteria for the selection of sites for habitat restoration and management projects in protected areas, as well as sites on privately owned land for inclusion in pilot conservation projects (Ministry of the Environment 2003b). Adopted criteria are already being applied in thematic pilot projects within the METSO Programme.</p> <p>A comprehensive evaluation of the ecological, social and economic impacts of the METSO Programme is to be compiled by the end of 2006. The Ministry of Agriculture and Forestry is responsible for the overall monitoring and evaluation of the programme, which is supported by the Forest Council. The Finnish Forest Research Institute (Metla) is responsible for the evaluation of economic and social impacts, while the Finnish Environment Institute (SYKE) will assess ecological impacts. The monitoring and impact evaluation of METSO is supported by the MOSSE biodiversity research programme, the environmental cluster research programme and a research programme examining data deficient forest species. The Forest Council’s <i>Safeguarding ecological sustainability working</i></p>	

*group* is responsible for monitoring and the related reporting to the council. The biodiversity impacts of METSO are monitored by the Ministry of the Environment through the monitoring group for the national action plan for biodiversity. The METSO Programme has been actively publicised ([www.mmm.fi/metso](http://www.mmm.fi/metso)).

### **Protecting natural values in commercial forests**

According to Section 20 of the Act on the Financing of Sustainable Forestry, Finland's regional forestry centres may organise or oversee the planning and implementation of separate forest ecosystem management project in co-operation with landowners. Such work is only carried out with the landowners' approval. These schemes may involve habitat management or restoration work carried out over several forest holdings, as well as the surveying of habitats of special importance, significant landscape restoration work in commercially managed forests, unusually extensive water protection work in artificially drained forests, the restoration of artificially drained forests in ecologically valuable areas, or other such projects. Other projects may include the management of forest habitats to promote biodiversity, to facilitate the multiple use of forests, or to improve features that are regionally significant for their landscape, cultural or recreational value. The municipal authorities and local and regional organisations also participate in forest ecosystem management projects. Almost 200 forest ecosystem management projects have been completed or are ongoing, with individual projects covering areas between a few hectares and several thousand hectares.

The Forestry Development Centre Tapio co-ordinates the monitoring of forest management in privately owned forests and forests owned by forest industry companies in Finland through an annual evaluation of the environmental impacts of logging, based on systematic sampling. Metsähallitus similarly evaluates the management methods used in state-owned forests. Monitoring has continued since 1994, and compiled data on the occurrence and preservation of valuable ecological features in areas to be logged, as well as the numbers of trees spared from felling for the sake of biodiversity, water protection measures, the quality of ground preparation and landscape management work, and the costs incurred in natural management. The results show a rapid increase in the use of natural forest management methods during the late 1990s, which levelled off at a favourable level during the period 2002–2003. Estimates indicate that ecologically valuable sites were preserved during cuttings in commercially managed forests in an average of nine out of ten cases.

Monitoring in 2003 indicated that out of a total surveyed area of 3,859 ha, ecologically valuable features with a total area of some 75 ha had been spared from felling – amounting to almost 2 % of the total area. This suggests that the proportion of areas spared during felling is as large as the percentage of the total commercially forested area of Southern Finland that has been protected for the purposes of nature conservation. More than half of the ecologically valuable sites spared from felling were stands along shores, small wetlands, or other features that forest owners are not obliged to spare by legislation or forest certification criteria, so these valuable landscapes and ecological features are in effect being preserved voluntarily. The average value of the timber in the ecologically valuable sites spared from felling was 570 euros per site (2003). The quantity of timber left uncut due to the application of natural forest management methods amounted to about 3 % of the total volume in the sites designated for logging.

The Forestry Development Centre Tapio and the Ministry of Agriculture and Forestry are implementing a project related to the reduction and monitoring of loads entering water bodies. The preparation of this project was finalised in March 2004. This project has been designed to improve water protection measures in drainage improvement schemes, regeneration felling, ground preparation and fertilisation, while also clarifying present practices and procedures related to official statements, water quality monitoring, and environmental and water permits.

### **Safe refuges for species of traditional biotopes**

Grassy roadside verges can provide refuges for threatened plants and insects associated with traditional agricultural biotopes, as long as verges are left undisturbed for long enough periods. Surveys carried out by the National Road Administration revealed the occurrences of 41 meadowland plants on road verges and grassy areas around road intersections. Diverse meadowland vegetation communities can particularly thrive where verges are wider than average. The mowing of verges helps to maintain suitable growth sites for meadowland plants, even if such areas are often mown too early from the plants' point of view. Other deficiencies in the management of such areas include

the use of machinery that chops up the vegetation too much, and the way cuttings are left on verges.<sup>23</sup>

Airports and airfields provide uniquely open, exposed and well-lit and exposed habitats by Finnish standards. A survey of grassy habitats at Lappeenranta Airport revealed highly significant and previously unknown occurrences of 11 threatened butterfly species, of which two are classified as critically endangered in Finland, three as endangered and six as vulnerable.

The **recreational fishing development strategy** of the Ministry of Agriculture and Forestry was finalised in 2001. The strategy is based on regional recreational fishing development programmes prepared by the fisheries units of the Employment and Economic Development Centres. The strategy aims to safeguard favourable conditions for the recreational fishing enjoyed by many people in Finland, in line with the sustainable use of natural resources. Such measures include the wider restoration of inland waters, continued work on the restoration of water courses, the creation of a restoration programme for fishing waters, and the careful preservation and suitable extension of the biodiversity of fish stocks.

Many Employment and Economic Development Centres (TE Centres) have prepared and carried out their own projects and programmes designed to safeguard biodiversity. One example is a plan for the protection and sustainable use of sea trout stocks in the Gulf of Finland, which was prepared jointly by the Uusimaa Environment Centre and the Uusimaa Employment and Economic Development Centre in 2001. The plan aims to reinforce sea trout stocks so they do not suffer from fishing at sea or along the coast or on rivers, while also protecting the remaining natural breeding populations, and where possible restoring stocks into rivers where sea trout are no longer found.

Nature tourism and the recreational use of natural areas helps to promote employment in declining regions in Finland. The Ministry of the Environment's *Recreational Use of Natural Areas and Nature Tourism Development Group* (VILMAT) has drafted proposals for a programme to meet the Government's objectives. These proposals were circulated for official statements, and in February 2003 the Government made a decision-in-principle on an action plan to boost nature tourism and the recreational use of natural areas.

The plan suggests that the number of jobs in this sector could be doubled by 2010 – to a total of 64,000. Promoting nature tourism can help to keep local economies viable in remote rural regions. These goals are also included in the current Government Programme. Finland's first nature tourism plan was drafted in 2001 for the Syöte area. The plan attempts to harmonise the conservation goals for the region with increasing tourism and entrepreneurial activity. In 2003, the Finnish Forest Research Institute (Metla), the University of Lapland and Metsähallitus jointly appointed Finland's first Professor of Nature Tourism – a position deemed necessary since tourism related to forests and protected areas is considered to be growing faster than any other tourism sector.

**34. ?** On Article 8(k), has your country developed or maintained the necessary legislation and/or other regulatory provisions for the protection of threatened species and populations?

a) No	
b) No, but legislation is being developed	
c) Yes, legislation or other measures are in place (please provide details below)	x

Further information on the legislation and/or regulations for the protection of threatened species and populations.

The requirements of biodiversity are considered in all the legislation on the use of natural resources which has been renewed during the 1990s (The Nature Conservation Act, the Water Act, Land Use and Building Act, the Forests Act, the Act on the Financing of Sustainable Forestry, Forestry centres, and legislation on the Forestry Development Centre Tapio, Metsähallitus). Other legislation has also recently been revised to promote the conservation and sustainable use of biodiversity. Also, the opportunities for local authorities to consider biodiversity in their activities have improved thanks to the new legislation, education and information sharing.

The Nature conservation act (1096/96) has been important in also implementing the EU habitat and bird directives for the protection of threatened species and populations.

The new Act on the Management of Water Resources came into force on 31.12.2004. This new legislation primarily aims to meet the obligations of the EU's Water Framework Directive with regard to the management of water resources. The main objectives of water resource management are to protect, enhance and restore water resources so as to prevent deterioration in the state of groundwater and surface water bodies, and to ensure that their water quality status is at least "good". The quality status of surface water resources is defined on the basis of their ecological or chemical state, whichever is worse. Groundwater resources are classified according to their quantitative and chemical properties. Water resource management involves the joint consideration of the needs of different water users, taking into account factors including the need to promote sustainable use with regard to protecting resources in the long term, the recreational use of water resources, the economic aspects of the water supply, flood protection, water-borne diseases, and the need to protect aquatic ecosystems and the terrestrial and wetland ecosystems linked to them.

### **Proposals from the Water Act commission for a new Water Act**

Proposals related to the complete renewal of the Water Act (264/1961) were submitted to the Ministry of Justice by the Water Act Commission on 16.6.2004 (Commission report 2004:2 Ministry of Justice). This report contains proposals for a new Water Act drafted in the form of government proposals, which will be further processed within the Ministry of Justice. The objective of the act is to promote, organise and harmonise the use of water resources to make it socially, economically and ecologically sustainable; while also reducing and preventing damage caused by water and the use of water resources; and improving the state of water resources and aquatic environments.

### **Legislation on flying squirrels in the Nature Conservation Act and the Forest Act**

At the request of the European Commission, the Nature Conservation Act was changed on 1.7.2004 to bring the wording of Section 49 into line with the 12<sup>th</sup> Article of the Habitats Directive. Section 49 of the Act forbids the destruction or degradation of breeding and resting sites used by species listed in Annex IV (a) of the Habitats Directive. Negotiations are still continuing between EU member states and the Commission about guidelines for the interpretation of Article 12, through a special working group set up by the Habitats Committee. Section 49 of the Nature Conservation Act has been particularly controversial within the forestry sector with regard to the habitats of the flying squirrel – a species listed in Annex IV (see 4.3). The presence of flying squirrels is very difficult to ascertain, and in some areas breeding and resting sites may be quite abundant.

At the end of 2002, a working group set up by the Ministry of Agriculture and Forestry issued proposals on how flying squirrels should be considered in forestry. Several issues related to flying squirrels remained unresolved in 2003. One problem was that there were no detailed definitions concerning what changes would constitute the destruction or degradation of the squirrels' breeding and resting sites. Some light was cast on this issue by a Supreme Administrative Court decision (2003: 38). Another problem has been that there are no clear regulations connected to Section 49 of the Nature Conservation Act on compensation for forest owners, and that logging could be interrupted and delayed indefinitely due to the lack of speedy official procedures.

The issue of compensation has now been resolved by changing the Act to allow forest owners to obtain compensation for any significant losses they incur due to conservation measures. New official regulations related to flying squirrels were added to the Forest Act and the Nature Conservation Act to speed up and clarify such proceedings. Laws protecting flying squirrels have been clarified in the new Section 14b of the revised Forest Act, which defines the procedures to be followed where flying squirrels' breeding and resting sites are identified in areas where logging is planned. If a declaration of intent to log a site, as submitted to the regional forestry centre at latest 14 days before logging is due to commence, concerns a site where flying squirrels rest or breed, the forestry centre must immediately notify the regional environment centre, the landowner and any of his/her representatives, and the holder of the logging rights. In this context legislation was added to the Nature Conservation Act in the new Section 72a, which stipulates that on receipt of notification from the forestry centre the environment centre should start to define the precise location of the squirrels' breeding and resting site, and the forestry methods which can be applied therein. The environment centre must present its decision without delay after receiving the notification from the forestry



centre.

The Ministry of Agriculture and Forestry and the Ministry of the Environment have also provided guidelines for the forestry centres and regional environment centres concerning how to define, delimit and safeguard the breeding and resting sites of flying squirrels during the management of forests.

The changes in the legislation on forests and nature conservation related to flying squirrels came into force on 1.7.2004.

### The Forest Act

Using funding provided by the Ministry of Agriculture and Forestry, the Forestry Development Centre Tapio and WWF Finland prepared a report during 2003 about the need to modify the application of Section 6 of the Forest Act. If a forest site to be logged contain features that have special significance in terms of the preservation of biodiversity, the landscape, or the basis for the multiple use of the forest, Section 6 of the Forest Act allows felling to be carried out as long as due consideration is given to the area's special features. The report indicated that new guidelines are needed, since this legislation is currently being applied inconsistently.

In 2004 Parliament added a new Section 18a to the Forest Act, making deliberately obstructing logging work an offence punishable by fines. This deliberate obstruction of logging is defined as any unauthorised presence in the immediate vicinity of a site where logging is to take place, with the intent to disrupt the logging work, which effectively prevents logging. According to the Forest Act's new Section 14c, landowners or their appointed holders of logging rights may apply to forestry centres for information on key habitats with regard to proposals for the use of a forest site. This information legally binds the forestry centres, and is intended to improve and guarantee landowners' legal rights.

**35. ?** On Article 8(l), does your country regulate or manage processes and categories of activities identified under Article 7 as having significant adverse effects on biological diversity?

a) No	
b) No, but relevant processes and categories of activities being identified	
c) Yes, to a limited extent (please provide details below)	
d) Yes, to a significant extent (please provide details below)	x

Further comments on the regulation or management of the processes and categories of activities identified by Article 7 as having significant adverse effects on biodiversity.

The EU Natura 2000 process and the aim of favourable conservation status of species and habitats is important in promoting and managing the biodiversity issues in different sectors if society in a sustainable manner. For more information, see the Third Progress Report of the National Biodiversity Action Plan in Finland 2002-2004 **Chapters: 4.1 on EIA, 4.2 legislation and 4.10 Education and Awareness building and 4.11 Research and development.**

### Box XLIV.

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

- outcomes and impacts of actions taken;
- contribution to the achievement of the goals of the Strategic Plan of the Convention;
- contribution to progress towards the 2010 target;
- progress in implementing national biodiversity strategies and action plans;
- contribution to the achievement of the Millennium Development Goals;
- constraints encountered in implementation

### Programme of Work on Protected Areas (Article 8 (a) to (e))

**36.** Has your country established suitable time bound and measurable national-level protected areas targets and indicators? (decision VII/28)

a) No (please specify reasons)	
b) No, but relevant work is under way	
c) Yes, some targets and indicators established (please provide details below)	
d) Yes, comprehensive targets and indicators established (please provide details below)	x

Further comments on targets and indicators for protected areas.

In January 2004 the Government decided on Finland's last proposals to complete the national Natura 2000 network according to the request of the European Commission and based on the Habitats Directive. The additions brought up the total area of Finland's proposed Natura 2000 network to around 4.9 million hectares. About 3.6m ha (73 %) of this total area consists of land areas, and 1.31m ha (27 %) is covered by water. The complete proposed network includes 1,813 sites that meet the requirements of the EU's Bird and Habitats Directives, of which 87 are in the autonomous Åland Islands Province. In autumn 2004 proposals concerning the reassessment of data or the inclusion in the network of 133 sites were presented for public comment.

Most of the areas within these new proposals are already protected or designated for protection under existing conservation programmes. Almost all of the Natura sites (97 %) have already been established as protected areas through national decisions, or are already included in national conservation programmes, or are otherwise protected. The European Commission approved Finland's Natura 2000 network proposals on 13.1.2005.

**37.** Has your country taken action to establish or expand protected areas in any large or relatively unfragmented natural area or areas under high threat, including securing threatened species? (decision VII/28)

a) No	
b) No, but relevant programmes are under development	
c) Yes, limited actions taken (please provide details below)	
d) Yes, significant actions taken (please provide details below)	x

Further comments on actions taken to establish or expand protected areas.

**Threatened habitats**

In 2003 the Finnish Environment Institute (SYKE) launched a major evaluation of the threatened status of Finnish biotopes, which will result in a Red list of Finland's threatened biotopes, due to be published in 2007. This project began with a preliminary report covering possible ways to evaluate biotopes. This report will help to improve future evaluations of the state of biotopes and the need for habitat restoration; improve the coverage of insufficiently known biotopes in inventories; channel conservation and management efforts to biotopes where the need is greatest; direct monitoring more purposefully for various biotopes; and ensure that ecological surveys, monitoring and assessment work carried out in different parts of the country are standardised and more comparable.

**Heritage landscapes**

The Ministry of the Environment's *Heritage Landscape Management Working Group* examined the current state of Finland's heritage landscapes and their management, as well as the need for more management and restoration work (Ministry of the Environment 2000b). The working group's proposals included improved heritage landscape management methods, new objectives and management organisation, funding, and the development of support organisations (management, restoration, methods and funding). On the basis of these considerations, co-operation between various interest groups has been improved, and research and monitoring work has been intensified. Such developments have been based on the experiences of local farmers and other residents, as well as the desire to preserve meadowland, wooded pastures and grazing lands with their characteristic flora and fauna.

Surveys conducted over the period 1992–1998 recorded 3,694 sites with valuable traditional agricultural biotopes, covering a total area of 18,640 hectares. About half of this total area consists of forest pastures. Marshland meadows, dry and moist meadows, seashore meadows, wooded pastures and other biotopes each accounted for about a tenth of the total area. The category other biotopes here includes fields and former fields, as well as farmyards and areas of forest included in heritage landscape sites. Moorland, rocky meadows and areas of forest previously cleared for cultivation using "slash and burn" methods each account for about 1–2 % of the total area. The scarcest biotopes are wooded meadows used for the collection of hay and leafy fodder, of which there is a total area of about 20–30 hectares in Finland. Traditional agricultural biotopes are much more numerous and extensive in SW Finland than elsewhere in the country. Extensive flood meadows, marshland meadows and seashore meadows occur widely in northern provinces, but are virtually absent from the province of Uusimaa on the south coast.

### **Aquatic ecosystems**

A major 10-year Finnish Inventory Programme for the Underwater Marine Environment (VELMU) was started up by the Ministry of the Environment in 2004. One of the main goals of the Finnish Baltic Sea Protection Programme is to maintain and increase biodiversity in the marine environment. The inventories are conducted during 2004–2014. The information gathered under VELMU will be of central importance both for the planning of nature conservation and the exploitation of natural resources. VELMU forms part of the implementation of the national Baltic Sea Protection Programme approved by the Finnish Government on 26.4.2002, which involves various administrative organisations working under different ministries, as well as universities, research institutes, NGOs and businesses.

The Baltic Sea Protection Programme includes more than 30 measures designed to reduce emissions of the nutrients that lead to eutrophication. Domestic measures focus on emissions from the agricultural sector, while foreign investments are largely directed towards improving the treatment of wastewater in St Petersburg. The programme is to be implemented over a period of 10–15 years, at a cost of some 200–370 million euros.

One element of the VELMU programme as part of the MERLIN inventory of state-owned waters in the Baltic Sea administered by Metsähallitus is to increase the biodiversity knowledge in the marine environment. MERLIN will provide information on local and regional needs related to the planning, management, use and protection of these waters, as well as ecological data. Metsähallitus drafted a strategy in 2000 covering an almost unbroken belt of state-owned waters and marine protected areas stretching from the eastern Gulf of Finland all the way to the northern end of the Gulf of Bothnia. This strategy aims to improve the protection, management, use and monitoring of the marine life and habitats within this zone.

### **Other valuable habitats**

Surveys of the habitats of special importance defined in the Forest Act (1093/1996), the key biotopes specified in the Nature Conservation Act (1096/1996), and other key biotopes have been continuing in areas under various types of ownership.

### **Valuable forest habitats**

The METE survey of forest habitats of special importance as defined in the Forest Act in privately owned forests was completed during 2004 after six years of work. Surveys of forest habitats by the Lapland Regional Forestry Centre nevertheless continued during 2004, and will continue into 2005 in Northern Ostrobothnia. A summary of the survey data revealed that 95,922 sites containing habitats

of special importance were found in private forests, covering a total area of 59,905 hectares. The most abundant of these habitats were the surroundings of brooks and streams (30 %), sparsely wooded mires (25 %) and rocky habitats (10 %). Considering that not all such habitats were likely to have been identified during the surveys, it can be estimated that habitats covered by the Forest Act may cover a total area of 75,000 ha of privately owned forests, in 120,000 sites when property boundaries are considered.

The habitats of special importance accounted overall for an average of 0.5 % of the commercially managed forests surveyed. Field surveyors also collected data on sites that were not thought to fulfil the criteria for habitats of special importance as defined in the Forest Act, but which differed enough from the surrounding commercially managed forests to be valuable in terms of biodiversity (known as "other valuable habitats"). Approximately 58,000 such sites were surveyed, with a total area of 66,800 ha.

The data from the METE surveys can be used to prepare summaries of the numbers and distribution of sites at regional forestry centre and municipal level. The policy of the Ministry of Agriculture and Forestry is that information on specific sites is covered by privacy laws, and such information can only be published with the forest owner's permission. The completion of the METE surveys meant that the related funding became available for environmental forestry subsidies.

### **Biotopes specified in the Nature Conservation Act**

The key biotopes specified in the Nature Conservation Act were surveyed by regional environment centres over the period 1998–2004, co-ordinated by the Finnish Environment Institute (SYKE). Of the approximately 2,000 potential sites surveyed, about half met the relevant criteria within the Act. Most of these sites are on private land. The emphasis during surveys conducted in 2004 was on forest biotopes. The average extent of the sites surveyed was about two hectares, but the forest biotopes were typically smaller than two hectares. A total of 257 forest sites dominated by nemoral deciduous tree species have been delimited, as well as 89 hazel groves and 31 common alder woods. The boundaries of 454 of these biotopes (with a total area of 816 ha) had been defined altogether by the end of October 2004.

**38.** Has your country taken any action to address the under representation of marine and inland water ecosystems in the existing national or regional systems of protected areas? (decision VII/28)

a) No	
b) Not applicable	
c) No, but relevant actions are being considered	
d) Yes, limited actions taken (please provide details below)	x
e) Yes, significant actions taken (please provide details below)	

Further comments on actions taken to address the under representation of marine and inland water ecosystems in the existing national or regional systems of protected areas.

See above answer 37 Aquatic ecosystems and the VELMU programme.

**39.** Has your country identified and implemented practical steps for improving the integration of protected areas into broader land and seascapes, including policy, planning and other measures? (decision VII/28)

a) No	
b) No, but some programmes are under development	
c) Yes, some steps identified and implemented (please provide details below)	
d) Yes, many steps identified and implemented (please provide details)	x

below)

Further comments on practical steps for improving integration of protected areas into broader land and seascapes, including policy, planning and other measures.

The principles applied in the management and use of protected areas in Finland are in accordance with the requirements of the CBD, the EU's nature conservation directives and Finland's own Nature Conservation Act (1096/1996). Metsähallitus Natural Heritage Services, the authority responsible for the management of protected areas in Finland, has measured and assessed the effectiveness, productivity and economic viability of the management of protected areas, using purposefully developed methods.

During 2004 Metsähallitus organised a comprehensive international evaluation of the management effectiveness of protected areas in Finland, whose findings were published in April 2005. Its results will be used in the coming evaluation of the state of biodiversity in Finland and the impacts of the national action plan. Metsähallitus's activities have meanwhile been improved, expanded and internationalised as the national protected area network has been developed. The report (Brian Gilligan, Nigel Dudley, Antonio Fernandez de Tejada & Heikki Toivonen 2005: Management effectiveness evaluation of Finland's protected areas. Nature Protection Publications of Metsähallitus, Series A 147, 175 pp) can be downloaded from the web-site <http://www.mets.fi/mee/>. The evaluation gave the general rating that Finland's protected areas are well-managed, and with some exceptions, they appear to be achieving their aims in conserving biodiversity. The evaluators gave a number of recommendations for improvements, summed up in ten areas of suggested action. As recommended by the evaluation team, Metsähallitus will further improve its information management and start State of the Parks reporting on a regular five-year basis to analyse and communicate the natural and cultural values of the protected areas, the threats and the management effectiveness, and to support a culture of adaptive management. The first State of the Parks Report will be published in 2006.

**40.** Is your country applying environmental impact assessment guidelines to projects or plans for evaluating effects on protected areas? (decision VII/28)

a) No

b) No, but relevant EIA guidelines are under development

c) Yes, EIA guidelines are applied to some projects or plans (please provide details below)

d) Yes, EIA guidelines are applied to all relevant projects or plans (please provide details below)

x

Further comments on application of environmental impact assessment guidelines to projects or plans for evaluating effects on protected areas.

Environmental impact assessment (EIA) is applied to various types of projects. Biological diversity is one of the impacts required to be assessed in the procedure. Also a proposal of action to prevent and mitigate adverse environmental impact and monitoring is required. This applies also to the SEA. Significant SEAs have been carried out (e.g. Finland's Natura 2000 network proposal, the National Forest Programme for 2010, SEAs in the transport sector). A monitoring system programme has been developed to follow-up actual impacts of the National Forest Programme. Prior to the implementation of the National Forest Programme 2010 detailed estimation of its environmental impact was made. More information: National report of Finland on Forest ecosystems, 2001.

The Convention on Environmental Impact Assessment in a Transboundary context (Espoo Convention) was ratified in 1995.

<b>41. Has your country identified legislative and institutional gaps and barriers that impede effective establishment and management of protected areas? (decision VII/28)</b>	
a) No	x
b) No, but relevant work is under way	
c) Yes, some gaps and barriers identified (please provide details below))	
d) Yes, many gaps and barriers identified (please provide details below)	
Further comments on identification of legislative and institutional gaps and barriers that impede effective establishment and management of protected areas.	

<b>42. Has your country undertaken national protected-area capacity needs assessments and established capacity building programmes? (decision VII/28)</b>	
a) No	
b) No, but assessments are under way	
c) Yes, a basic assessment undertaken and some programmes established (please provide details below)	
d) Yes, a thorough assessment undertaken and comprehensive programmes established (please provide details below)	x
Further comments on protected-area capacity needs assessment and establishment of capacity building programmes.	
<p>In 2003 the Finnish Environment Institute (SYKE) launched a major evaluation of the threatened status of Finnish biotopes, which will result in a red list of Finland's threatened biotopes, due to be published in 2007. This project began with a preliminary report covering possible ways to evaluate biotopes. This report will help to improve future evaluations of the state of biotopes and the need for habitat restoration; improve the coverage of insufficiently known biotopes in inventories; channel conservation and management efforts to biotopes where the need is greatest; direct monitoring more purposefully for various biotopes; and ensure that ecological surveys, monitoring and assessment work carried out in different parts of the country are standardised and more comparable.</p>	

<b>43. Is your country implementing country-level sustainable financing plans that support national systems of protected areas? (decision VII/28)</b>	
a) No	
b) No, but relevant plan is under development	
c) Yes, relevant plan is in place (please provide details below)	x
d) Yes, relevant plan is being implemented (please provide details below)	x
Further comments on implementation of country-level sustainable financing plans that support national systems of protected areas.	
<p>In 1996, the Finnish government's ministerial economic policy committee approved a nature conservation funding programme for 1996–2007, earmarking a total sum of €552.5 million for the implementation of conservation programmes, land acquisition for the State, and compensation for landowners, aiming to ensure that the government-approved nature conservation programmes can be duly implemented. The goal has been to negotiate with the owners of areas belonging to nature conservation programmes about sale, exchange, or compensation contracts to be agreed before the</p>	

funding period ends in 2007. Income from the sale of state-owned lands administered by Metsähallitus has been used to implement nature conservation programmes in accordance with the abovementioned funding programme.

The funding programme has accounted for other obligations as well as the official conservation programmes, including the financing of planning restrictions, measures focusing on species in need of special protection, the protection of old-growth forests, and other possible costs such as additional expenses related to the establishment of the Natura 2000 protected areas network. It was made clear when the Government established the METSO committee to set up a programme for the conservation of forests in southern Finland on 13.12.2000, that "the committee's proposals must ensure that any public expenses can be met within the framework of the ministerial economic policy committee's comprehensive funding programme for nature conservation activities of 552.5 million euros, as approved on 4.6.1996 for the years 1996–2007."

The aim of this funding programme is to complete current nature conservation programmes by the end of 2007. According to the programme of Prime Minister Matti Vanhanen's Government, the implementation and scope of the funding programme will be reviewed during 2005. This review is necessary, since the contents and cost levels of the programme have changed somewhat since it was first defined. The funds budgeted for the implementation of nature conservation programmes have fallen short of the levels envisaged in the funding programme, and this deficit must be made up over the final years of the funding programme in order for its objectives to be achieved. Table shows the funding allocated for the implementation of conservation programmes in the years 1996–2003.

**Table:** Funds (1 000 €) allocated 1996–2003 to the implementation of nature conservation programmes (Ministry of the Environment 2003).

Year	Env. Min. land acquisitions	Metsähallitus land purchases	Metsähallitus land exchanges	Env. Min. compensation	Total
1996	14 622	2 857	10 992	3 193	31 664
1997	18 655	12 605	8 740	7 227	47 227
1998	19 664	10 925	8 067	7 815	46 471
1999	14 118	22 353	8 740	12 941	58 152
2000	12 440	16 555	7 059	11 600	47 654
2001	17 155	9 580	5 550	11 604	43 890
2002	13 355	9 580	5 550	16 405	44 890
2003	6 760	9 580	5 550	9 200	31 090

**44.** Is your country implementing appropriate methods, standards, criteria and indicators for evaluating the effectiveness of protected areas management and governance? (decision VII/28)

a) No

b) No, but relevant methods, standards, criteria and indicators are under development

c) Yes, some national methods, standards, criteria and indicators developed and in use (please provide details below)

d) Yes, some national methods, standards, criteria and indicators developed and in use and some international methods, standards, criteria and indicators in use (please provide details below)

x

Further comments on methods, standards, criteria and indicators for evaluating the effectiveness of protected areas management and governance.

The principles applied in the management and use of protected areas in Finland are in accordance with the requirements of the CBD, the EU's nature conservation directives and Finland's own Nature Conservation Act (1096/1996). Metsähallitus Natural Heritage Services, the authority responsible for the management of protected areas in Finland, has measured and assessed the effectiveness,

productivity and economic viability of the management of protected areas, using purposefully developed methods.

During 2004 Metsähallitus organised a comprehensive international evaluation of the management effectiveness of protected areas in Finland, whose findings were published in April 2005. Its results will be used in the coming evaluation of the state of biodiversity in Finland and the impacts of the national action plan. Metsähallitus's activities have meanwhile been improved, expanded and internationalised as the national protected area network has been developed. The report (Brian Gilligan, Nigel Dudley, Antonio Fernandez de Tejada & Heikki Toivonen 2005: Management effectiveness evaluation of Finland's protected areas. Nature Protection Publications of Metsähallitus, Series A 147, 175 pp) can be downloaded from the web-site <http://www.mets.fi/mee/>. The evaluation gave the general rating that Finland's protected areas are well-managed, and with some exceptions, they appear to be achieving their aims in conserving biodiversity. The evaluators gave a number of recommendations for improvements, summed up in ten areas of suggested action. As recommended by the evaluation team, Metsähallitus will further improve its information management and start State of the Parks reporting on a regular five-year basis to analyse and communicate the natural and cultural values of the protected areas, the threats and the management effectiveness, and to support a culture of adaptive management. The first State of the Parks Report will be published in 2006.

**Box XLV.**

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

- a) outcomes and impacts of actions taken;
- b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
- c) contribution to progress towards the 2010 target;
- d) progress in implementing national biodiversity strategies and action plans;
- e) contribution to the achievement of the Millennium Development Goals;
- f) constraints encountered in implementation.

**Article 8(h) - Alien species**

**45.** Has your country identified alien species introduced into its territory and established a system for tracking the introduction of alien species?

a) No	
b) Yes, some alien species identified but a tracking system not yet established	
c) Yes, some alien species identified and tracking system in place	x
d) Yes, alien species of major concern identified and tracking system in place	

**46. ?** Has your country assessed the risks posed to ecosystems, habitats or species by the introduction of these alien species?

a) No	
b) Yes, but only for some alien species of concern (please provide details)	x



below)	
c) Yes, for most alien species (please provide details below)	
Further information on the assessment of the risks posed to ecosystems, habitats or species by the introduction of these alien species.	
<p>Finland has published a review of the current situation regarding invasive species (see Nummi 2001, Alien species in Finland (National report provided to the Secretariat in 2001) (Available at: <a href="http://www.vyh.fi/luosuo/lumo/lumonet/aliens.htm">http://www.vyh.fi/luosuo/lumo/lumonet/aliens.htm</a>)</p> <p>Although this report does not consist of a plan of action, it recommends suitable measures to reduce observed problems, as does a report on the same issue prepared by the Nordic Council of Ministers. Such measures are jointly planned by the ministries concerned according to the need to target specific invasive species.</p> <p>Several introduced game animals have established thriving populations in the wild in Finland, including Canadian beaver (<i>Castor canadensis</i>), white-tailed deer (<i>Odocoileus virginianus</i>), Canada goose (<i>Branta canadensis</i>) and muskrat (<i>Ondatra zibethica</i>). These species are so well established that it would be very difficult to wipe them out, and in some cases this may not be deemed necessary. White-tailed deer, for instance, were introduced about 70 years ago, and have become Finland's second most important game animal in economic terms. Populations of invasive game species will be systematically managed through regulated hunting (e.g. white-tailed deer). No attempts will be made to hinder such control of invasive species, or to promote the expansion of these species' distributions into new areas. Any proposals for introducing game species will be considered extremely critically. Imports and releases of non-native species have not been permitted in recent years.</p> <p>It has been officially decided that Canadian beavers should be exterminated within the Lapland Game Management District, to stop this invasive species spreading into neighbouring Norway and Sweden. Elsewhere in Finland, measures are being taken to prevent the spread of Canadian beavers into areas still occupied by the native European beaver (<i>Castor fiber</i>). In the Archipelago Sea, Metsähallitus and local hunters have been working for several years to exterminate American minks (<i>Mustela vison</i>), which have been widely raiding seabirds' nests. During 2001, a project involving the trapping of mink in the outer islands of the Quark Archipelago in W. Finland was begun by Metsähallitus and local hunters, as part of the <i>Quark environment</i> Interreg project. Trapping was later expanded to islands nearer the mainland, and is still continuing in both the Quark, and islands in the Archipelago National Park of SW Finland. A two-year campaign commenced in the beginning of 2001 aiming to intensify the hunting and trapping of two invasive small predatory mammals – American mink and raccoon dog (<i>Nyctereutes procyonoides</i>). In 2002 a special project was started up to intensify the trapping of mink and raccoon dogs in wetlands in the Helsinki region. Over the two-year project a total of 300 raccoon dogs and 27 mink were caught. A related research project has been assessing the effects of such trapping on nesting birds' breeding success rates.</p> <p>Four new marine species spread into Finnish waters during the 1990s, in ships' ballast water. Some of these species have had detrimental effects on local livelihoods, particularly fishing. The invasive species may also threaten native species, if they out-compete them in local conditions.</p> <p>Alternative solutions are being sought for unresolved problems related to the presence of invasive species in ships' ballast water, through continued research and experimentation. An international agreement prepared by the <i>International Maritime Organisation</i> (IMO) with the aim of curbing these problems was signed in summer 2004. Finland's Ministry of Transport and Communications participated in the Academy of Finland's Baltic Sea Research Programme during the period 2003–2004. A research project on <i>Invasive species in the Baltic Sea</i>, jointly funded by the Ministry and the Academy, examined how invasive species get into the waters of the Baltic, and assessed their ecological significance, particularly with regard to plankton communities, algal blooms and zoobenthic communities in the Gulf of Finland.</p>	

**47. ?** Has your country undertaken measures to prevent the introduction of, control or eradicate, those alien species which threaten ecosystems, habitats or species?

a) No	
b) No, but potential measures are under consideration	
c) Yes, some measures are in place (please provide details below)	x
d) Yes, comprehensive measures are in place (please provide details below)	

Further information on the measures to prevent the introduction of, control or eradicate those alien species that threaten ecosystems, habitats or species.

The Nature Conservation Act (1096/1996) restricts the introduction of non-native species into Finland. Non-native plant species are not to be planted or sown outside gardens, fields or other sites designated for special purposes. If a non-native plant or animal species is known to spread rapidly in the wild, and there is a reasonable cause to suspect that it might constitute a health hazard or have a detrimental effect on indigenous Finnish species, the Ministry of Environment may issue any regulations as prove necessary to prevent the spread of such species. In accordance with the Hunting Act (615/1993, 1268/1993), wild bird or mammal species of foreign origin can not be imported or released in the wild without a permission of the Ministry of Agriculture and Forestry.

The Plant Protection Law (1203/1994) lays down provisions to prevent the introduction of pests and diseases of plants into Finland. In addition, pests and pathogens which are present in Finland as native or introduced, but which are not widely distributed, can be controlled in order to prevent their further spread. Secondary legislation lays down detailed provisions for import, monitoring, eradication, control and containment, and is enforced by a central authority, the Plant Production Inspection Centre.

See also: Multilateral/Nordic research cooperation on alien species. Publication: Introduced Species in the Nordic Countries, Nord 2000: 13.

<http://www.skovognaturstyrelsen.dk/natur/nnis>

**48. ?** In dealing with the issue of invasive species, has your country developed, or involved itself in, mechanisms for international cooperation, including the exchange of best practices? (decision V/8)

a) No	
b) Yes, bilateral cooperation	
c) Yes, regional and/or subregional cooperation	x
d) Yes, multilateral cooperation	

**49. ?** Is your country using the ecosystem approach and precautionary and bio-geographical approaches as appropriate in its work on alien invasive species? (decision V/8)

a) No	
b) Yes (please provide details below)	x

Further comments on the use of the ecosystem approach and precautionary and bio-geographical approaches in work on alien invasive species.

See above answers 47 and 48.

<b>50. Has your country identified national needs and priorities for the implementation of the Guiding Principles? (decision VI/23)</b>	
a) No	
b) No, but needs and priorities are being identified	x
c) Yes, national needs and priorities have been identified (please provide below a list of needs and priorities identified)	
Further comments on the identification of national needs and priorities for the implementation of the Guiding Principles.	

<b>51. Has your country created mechanisms to coordinate national programmes for applying the Guiding Principles? (decision VI/23)</b>	
a) No	
b) No, but mechanisms are under development	x
c) Yes, mechanisms are in place (please provide details below)	
Further comments on the mechanisms created to coordinate national programmes for implementing the Guiding Principles.	

<b>52. Has your country reviewed relevant policies, legislation and institutions in the light of the Guiding Principles, and adjusted or developed policies, legislation and institutions? (decision VI/23)</b>	
a) No	
b) No, but review under way	
c) Yes, review completed and adjustment proposed (please provide details below)	
d) Yes, adjustment and development ongoing	x
e) Yes, some adjustments and development completed (please provide details below)	
Further information on the review, adjustment or development of policies, legislation and institutions in light of the Guiding Principles.	

<b>53. Is your country enhancing cooperation between various sectors in order to improve prevention, early detection, eradication and/or control of invasive alien species? (decision VI/23)</b>	
a) No	
b) No, but potential coordination mechanisms are under consideration	x
c) Yes, mechanisms are in place (please provide details below)	
Further comments on cooperation between various sectors.	

<b>54. Is your country collaborating with trading partners and neighboring countries to address threats of invasive alien species to biodiversity in ecosystems that cross international boundaries? (decision VI/23)</b>	
a) No	
b) Yes, relevant collaborative programmes are under development	x
c) Yes, relevant programmes are in place (please specify below the measures taken for this purpose)	
Further comments on collaboration with trading partners and neighboring countries.	

<b>55. Is your country developing capacity to use risk assessment to address threats of invasive alien species to biodiversity and incorporate such methodologies in environmental impact assessment (EIA) and strategic environmental assessment (SEA)? (decision VI/23)</b>	
a) No	
b) No, but programmes for this purpose are under development	
c) Yes, some activities for developing capacity in this field are being undertaken (please provide details below)	x
d) Yes, comprehensive activities are being undertaken (please provide details below)	
Further information on capacity development to address threats of invasive alien species.	
See art.14 answers 101-102 and question 160 on alien species in the marine and coastal environment.	

<b>56.</b> Has your country developed financial measures and other policies and tools to promote activities to reduce the threats of invasive species? (decision VI/23)	
a) No	
b) No, but relevant measures and policies are under development	
c) Yes, some measures, policies and tools are in place (please provide details below)	x
d) Yes, comprehensive measures and tools are in place (please provide details below)	
Further comments on the development of financial measures and other policies and tools for the promotion of activities to reduce the threats of invasive species.	
See above 47	

**Box XLVI.**

<p>Please elaborate below on the implementation of this article and associated decisions specifically focusing on:</p> <ul style="list-style-type: none"> <li>a) outcomes and impacts of actions taken;</li> <li>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;</li> <li>c) contribution to progress towards the 2010 target;</li> <li>d) progress in implementing national biodiversity strategies and action plans;</li> <li>e) contribution to the achievement of the Millennium Development Goals;</li> <li>f) constraints encountered in implementation.</li> </ul>

**Article 8(j) - Traditional knowledge and related provisions**

**GURTS**

<b>57.</b> Has your country created and developed capacity-building programmes to involve and enable smallholder farmers, indigenous and local communities, and other relevant stakeholders to effectively participate in decision-making processes related to genetic use restriction technologies?	
a) No	x
b) No, but some programmes are under development	
c) Yes, some programmes are in place (please provide details below)	
d) Yes, comprehensive programmes are in place (please provide details below)	
Further comments on capacity-building programmes to involve and enable smallholder farmers, indigenous and local communities and other relevant stakeholders to effectively participate in decision-making processes related to GURTS.	

### Status and Trends

<b>58.</b> Has your country supported indigenous and local communities in undertaking field studies to determine the status, trends and threats related to the knowledge, innovations and practices of indigenous and local communities? (decision VII/16)	
a) No	
b) No, but support to relevant studies is being considered	x
c) Yes (please provide information on the studies undertaken)	
Further information on the studies undertaken to determine the status, trends and threats related to the knowledge, innovations and practices of indigenous and local communities, and priority actions identified.	

### Akwé:Kon Guidelines

<b>59.</b> Has your country initiated a legal and institutional review of matters related to cultural, environmental and social impact assessment, with a view to incorporating the Akwé:Kon Guidelines into national legislation, policies, and procedures?	
a) No	
b) No, but review is under way	x
c) Yes, a review undertaken (please provide details on the review)	
Further information on the review.	

<b>60.</b> Has your country used the Akwé:Kon Guidelines in any project proposed to take place on sacred sites and/or land and waters traditionally occupied by indigenous and local communities? (decision VII/16)	
a) No	x
b) No, but a review of the Akwé: Kon guidelines is under way	
c) Yes, to some extent (please provide details below)	
d) Yes, to a significant extent (please provide details below)	
Further information on the projects where the Akwé:Kon Guidelines are applied.	

## Capacity Building and Participation of Indigenous and Local Communities

**61.** Has your country undertaken any measures to enhance and strengthen the capacity of indigenous and local communities to be effectively involved in decision-making related to the use of their traditional knowledge, innovations and practices relevant to the conservation and sustainable use of biodiversity? (decision V/16)

a) No	
b) No, but some programmes being developed	
c) Yes, some measures taken (please provide details below)	x
d) Yes, comprehensive measures taken (please provide details below)	

Further information on the measures to enhance and strengthen the capacity of indigenous and local communities.

The Sami Parliament is a member in the Finnish National Biodiversity Committee and its monitoring group to, among other things safeguard the information exchange. A financial support has been given for reporting on national measures and for cooperation with the SCBD according to the Artic report 2005.

**62.** Has your country developed appropriate mechanisms, guidelines, legislation or other initiatives to foster and promote the effective participation of indigenous and local communities in decision making, policy planning and development and implementation of the conservation and sustainable use of biodiversity at international, regional, subregional, national and local levels? (decision V/16)

a) No	
b) No, but relevant mechanisms, guidelines and legislation are under development	
c) Yes, some mechanisms, guidelines and legislation are in place (please provide details below)	x

Further information on the mechanisms, guidelines and legislation developed.

**63.** Has your country developed mechanisms for promoting the full and effective participation of indigenous and local communities with specific provisions for the full, active and effective participation of women in all elements of the programme of work? (decision V/16, annex)

a) No	
b) No, but relevant mechanisms are being developed	
c) Yes, mechanisms are in place (please provide details below)	x

Further comments on the mechanisms for promoting the full and effective participation of women of indigenous and local communities in all elements of the programme of work.

### Support to implementation

<b>64.</b> Has your country established national, subregional and/or regional indigenous and local community biodiversity advisory committees?	
a) No	
b) No, but relevant work is under way	
c) Yes	x

<b>65.</b> Has your country assisted indigenous and local community organizations to hold regional meetings to discuss the outcomes of the decisions of the Conference of the Parties and to prepare for meetings under the Convention?	
a) No	x
b) Yes (please provide details about the outcome of meetings)	
Further information on the outcome of regional meetings.	

<b>66.</b> Has your country supported, financially and otherwise, indigenous and local communities in formulating their own community development and biodiversity conservation plans that will enable such communities to adopt a culturally appropriate strategic, integrated and phased approach to their development needs in line with community goals and objectives?	
a) No	
b) Yes, to some extent (please provide details below)	x
c) Yes, to a significant extent (please provide details below)	
Further information on the support provided.	
Finland participates with some co-financing to the GEF's ECORA-project ( <a href="http://www.grida.no/ecora">www.grida.no/ecora</a> ). The project aims to apply the ecosystem approach to conserve biodiversity in three model areas inhabited by indigenous peoples in Russian Arctic.	

**Box XLVII.**

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:
<ul style="list-style-type: none"> <li>a) outcomes and impacts of actions taken;</li> <li>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;</li> <li>c) contribution to progress towards the 2010 target;</li> <li>d) progress in implementing national biodiversity strategies and action plans;</li> <li>e) contribution to the achievement of the Millennium Development Goals;</li> <li>f) constraints encountered in implementation.</li> </ul>



## Article 9 - *Ex-situ* conservation

**67. ?** On Article 9(a) and (b), has your country adopted measures for the *ex-situ* conservation of components of biological diversity native to your country and originating outside your country?

a) No	
b) No, but potential measures are under review	
c) Yes, some measures are in place (please provide details below)	x
d) Yes, comprehensive measures are in place (please provide details below)	

Further information on the measures adopted for the *ex-situ* conservation of components of biodiversity native to your country and originating outside your country.

The protection of the genetic diversity of Finnish domestic animals and cultivated plants combines both in situ and ex situ conservation. Certain breeds of domestic animals are conserved both in living populations and embryo banks. Finland is contributing actively to the Nordic Gene Bank of domesticated animal species.

At the Nordic Gene Bank (NGB) species used in Nordic agriculture and horticulture and their wild relatives are preserved. In addition, species of current interest to biotechnology, as well as landscape plants, medicinal plants, culinary herbs and plants with industrial uses are being considered for preservation. Species that are cultivated elsewhere and found in the wild in the Nordic countries, are also considered. ([www.ngb.se](http://www.ngb.se)).

The NGB was established in 1979, and is located at Alnarp, Sweden. Its task is to preserve and document genetic diversity in cultivated plants that are significant for agriculture in the Nordic region. The bank's collections at Alnarp include about 27,000 seed samples, of which some 1,600 are of Finnish origin. The corresponding Nordic Gene Bank for animal genetic resources (NGH) was set up in 1984 at the Agricultural University of Norway. The NGH serves as an information centre and the focus of a co-operation network, but it does not directly preserve genetic resources, as this responsibility is shared between all the countries involved. The NGB and the NGH both actively maintain links with other institutes and organisations working with genetic resources in the region (e.g. the Vavilov Institute – VIR), at European level (e.g. the European Co-operative programme for Crop Genetic Resources Networks ECP/GR), and globally (e.g. the UN FAO). The EURORGEN Programme was set up in 1994 to facilitate co-operation in Europe on forest genetic resources. Finland has made significant contributions to EURORGEN during the establishment and the implementation of the programme.

The Nordic Council of Ministers accepted the Nordic gene strategy in year 2000 and a revised new strategy on 'Access and Rights to Genetic Resources' was adopted in 2003.

Ex situ conservation is gaining global importance. Education services provided by biological parks or centres are being increased, as are practical demonstrations of ecosystems and conservation biology. Korkeasaari Zoo, for example, has already increased its cooperation with international organisations and institutions.

The Nature Conservation Act (1096/1996) regulates any naturally occurring threatened species or species under strict protection including trade in Finland.

**68. ?** On Article 9(c), has your country adopted measures for the reintroduction of threatened species into their natural habitats under appropriate conditions?

a) No	
b) No, but potential measures are under review	
c) Yes, some measures are in place (please provide details below)	x
d) Yes, comprehensive measures are in place (please provide details below)	

Further comments on the measures for the reintroduction of threatened species into their natural habitats under appropriate conditions.

See above

**69. ?** On Article 9(d), has your country taken measures to regulate and manage the collection of biological resources from natural habitats for *ex-situ* conservation purposes so as not to threaten ecosystems and *in-situ* populations of species?

a) No

b) No, but potential measures are under review

c) Yes, some measures are in place (please provide details below)

d) Yes, comprehensive measures are in place (please provide details below)

x

Further information on the measures to regulate and manage the collection of biological resources from natural habitats for *ex-situ* conservation purposes so as not to threaten ecosystems and *in-situ* populations of species.

#### Box XLVIII .

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

- a) outcomes and impacts of actions taken;
- b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
- c) contribution to progress towards the 2010 target;
- d) progress in implementing national biodiversity strategies and action plans;
- e) contribution to the achievement of the Millennium Development Goals;
- f) constraints encountered in implementation.

### Article 10 - Sustainable use of components of biological diversity

**70. ?** On Article 10(a), has your country integrated consideration of the conservation and sustainable use of biological resources into national decision-making?

a) No

b) No, but steps are being taken

c) Yes, in some relevant sectors (please provide details below)

d) Yes, in most relevant sectors (please provide details below)

x

Further information on integrating consideration of conservation and sustainable use of biological resources into national decision-making.

**71. ?** On Article 10(b), has your country adopted measures relating to the use of biological resources that avoid or minimize adverse impacts on biological diversity?

a) No	
b) No, but potential measures are under review	
c) Yes, some measures are in place (please provide details below)	x
d) Yes, comprehensive measures are in place (please provide details below)	x

Further information on the measures adopted relating to the use of biological resources that avoid or minimize adverse impacts on biological diversity.

**72. ?** On Article 10(c), has your country put in place measures that protect and encourage customary use of biological resources that is compatible with conservation or sustainable use requirements?

a) No	
b) No, but potential measures are under review	
c) Yes, some measures are in place (please provide details below)	x
d) Yes, comprehensive measures are in place (please provide details below)	

Further information on the measures that protect and encourage customary use of biological resources that is compatible with conservation or sustainable use requirements.

**73. ?** On Article 10(d), has your country put in place measures that help local populations develop and implement remedial action in degraded areas where biological diversity has been reduced?

a) No	
b) No, but potential measures are under review	
c) Yes, some measures are in place (please provide details below)	x
d) Yes, comprehensive measures are in place (please provide details below)	

Further information on the measures that help local populations develop and implement remedial action in degraded areas where biodiversity has been reduced.

In Finland some restoration projects have been developed for instance for restoring peatlands, lakes and river basins. For more information look at [www.metsa.fi](http://www.metsa.fi) and [www.ymparisto.fi](http://www.ymparisto.fi)

**74. ?** Has your country identified indicators and incentive measures for sectors relevant to the conservation and sustainable use of biodiversity? (decision V/24)

a) No	
-------	--

b) No, but assessment of potential indicators and incentive measures is under way	x
c) Yes, indicators and incentive measures identified (please describe below)	
Further comments on the identification of indicators and incentive measures for sectors relevant to the conservation and sustainable use of biodiversity.	

<b>75. ?</b> Has your country implemented sustainable use practices, programmes and policies for the sustainable use of biological diversity, especially in pursuit of poverty alleviation? (decision V/24)	
a) No	
b) No, but potential practices, programmes and policies are under review	
c) Yes, some policies and programmes are in place (please provide details below)	x
d) Yes, comprehensive policies and programmes are in place (please provide details below)	
Further information on sustainable use programmes and policies.	
The Finnish Government White Paper on Development Policy (2004) confirms the sustainable development as one of the guiding principle of Finnish development cooperation. The policy paper also takes environment as a cross cutting issue. Supporting multilateral environment agreements is according to the policy one of the most important tools to reach the goal. Ministry of Foreign Affairs Dept. Int. Cooperation and Policy has adopted a work program to support MEAs via Finnish development cooperation.	

<b>76. ?</b> Has your country developed or explored mechanisms to involve the private sector in initiatives on the sustainable use of biodiversity? (decision V/24)	
a) No	
b) No, but mechanisms are under development	x
c) Yes, mechanisms are in place (please describe below)	
Further comments on the development of mechanisms to involve the private sector in initiatives on the sustainable use of biodiversity.	

<b>77.</b> Has your country initiated a process to apply the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity? (decision VII/12)	
a) No	
b) No, but the principles and guidelines are under review	
c) Yes, a process is being planned	
d) Yes, a process has been initiated (please provide detailed information)	x
Further information on the process to apply the Addis Ababa Principles and Guidelines for the	

### Sustainable Use of Biodiversity.

The Sustainable Use of Biological Resources expert group in Finland will publish a report as introduction to the general principles and to the implementation of the Addis Ababa principles. The report is specifically intended for Finnish authorities and those planning the use of natural resources, and for analysing the currently used multi stakeholder approach. The work will be finalised by year 2006.

**78.** Has your country taken any initiative or action to develop and transfer technologies and provide financial resources to assist in the application of the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity? (decision VII/12)

a) No	x
b) No, but relevant programmes are under development	
c) Yes, some technologies developed and transferred and limited financial resources provided (please provide details below)	
d) Yes, many technologies developed and transferred and significant financial resources provided (please provide details below)	
Further comments on the development and transfer of technologies and provision of financial resources to assist in the application of the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity.	

### Biodiversity and Tourism

**79. ?** Has your country established mechanisms to assess, monitor and measure the impact of tourism on biodiversity?

a) No	
b) No, but mechanisms are under development	
c) Yes, mechanisms are in place (please specify below)	
d) Yes, existing mechanisms are under review	x
Further comments on the establishment of mechanisms to assess, monitor and measure the impact of tourism on biodiversity.	
In accordance with the Finnish government ´s programme, the Ministry of the Environment set up a working group in year 2000 to draft a programme for developing recreation in the wild and nature tourism. The report was finalized in 2002. The working group proposed 29 different steps to be taken to promote recreation in the wild and nature tourism. The aim is to clarify and harmonise the responsibilities and goals of different actors, to give better preconditions for activities in the wild, and to preserve the attractiveness of important natural areas (i.e. Natura 2000 areas). (www.ymparisto.fi; The Finnish Environment publication 651: Sustainable ecotourism – Integration of conservation and usage in Natura 2000 areas, workshop proceedings, 2003)	

**80. ?** Has your country provided educational and training programmes to the tourism operators so as to increase their awareness of the impacts of tourism on biodiversity and upgrade the technical capacity at the local level to minimize the impacts? (decision V/25)

a) No	x
b) No, but programmes are under development	
c) Yes, programmes are in place (please describe below)	

Further comments on educational and training programmes provided to tourism operators.

**81.** Does your country provide indigenous and local communities with capacity-building and financial resources to support their participation in tourism policy-making, development planning, product development and management? (decision VII/14)

- |  |   |
|--|---|
| a) No  | x |
| b) No, but relevant programmes are being considered                          |   |
| c) Yes, some programmes are in place (please provide details below)          |   |
| d) Yes, comprehensive programmes are in place (please provide details below) |   |

Further comments in the capacity-building and financial resources provided to indigenous and local communities to support their participation in tourism policy-making, development planning, product development and management.

**82.** Has your country integrated the Guidelines on Biodiversity and Tourism Development in the development or review of national strategies and plans for tourism development, national biodiversity strategies and actions plans, and other related sectoral strategies? (decision VII/14)

- |   |   |
|---|---|
| a) No, but the guidelines are under review  |   |
| b) No, but a plan is under consideration to integrate some principles of the guidelines into relevant strategies                          |   |
| c) Yes, a few principles of the guidelines are integrated into some sectoral plans and NBSAPs (please specify which principle and sector) | x |
| d) Yes, many principles of the guidelines are integrated into some sectoral plans and NBSAPs (please specify which principle and sector)  |   |

Further information on the sectors where the principles of the Guidelines on Biodiversity and Tourism Development are integrated.

The Ministry of the Environment's *Recreational Use of Natural Areas and Nature Tourism Development Group* (VILMAT) has drafted proposals for a programme to meet the Government's objectives. In February 2003 the Government made a decision-in-principle on an action plan to boost nature tourism and the recreational use of natural areas. The plan suggests that the number of jobs in this sector could be doubled by 2010 – to a total of 64,000. Promoting nature tourism can help to keep local economies viable in remote rural regions. These goals are also included in the current Government Programme. Finland's first nature tourism plan was drafted in 2001 for the Syöte area. The plan attempts to harmonise the conservation goals for the region with increasing tourism and entrepreneurial activity.

**Box XLIX.**

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

- a) outcomes and impacts of actions taken;
- b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
- c) contribution to progress towards the 2010 target;
- d) progress in implementing national biodiversity strategies and action plans;
- e) contribution to the achievement of the Millennium Development Goals;
- f) constraints encountered in implementation.

### Article 11 - Incentive measures

**83. ?** Has your country established programmes to identify and adopt economically and socially sound measures that act as incentives for the conservation and sustainable use of components of biological diversity?

a) No	
b) No, but relevant programmes are under development	
c) Yes, some programmes are in place (please provide details below)	x
d) Yes, comprehensive programmes are in place (please provide details below)	

Further comments on the programmes to identify and adopt incentives for the conservation and sustainable use of biodiversity.

See above comment 82 (VILMAT programme)

Certain elements of the agri-environmental subsidies programme (2000–2006) directly aim to promote the preservation and management of biodiversity. The programme's basic measures include the maintenance of biodiversity and landscapes; additional measures relate to winter vegetation cover and farmland biodiversity hotspots; and special environmental subsidy agreements can be made for the establishment and management of buffer zone vegetation, wetlands and sedimentation ponds, for the preservation of traditional farmland biotopes, for promoting other aspects of biodiversity, for improving and managing landscapes, or for raising traditional native livestock breeds and crop varieties.

The Ministry of Agriculture and Forestry has provided funding since 2001 for local land use planning related to agricultural biodiversity. Farmers are encouraged to manage ecologically valuable areas through such planning, and through useful advice on funding opportunities. This form of planning helps to keep farmers, landowners and local residents informed about ecologically valuable features and areas. Information obtained through local land use planning processes can also be used during negotiations with individual farmers related to applications for special environmental subsidies, for instance. The Ministry aims to increase the numbers of wetlands and buffer zones in farmland as part of the Baltic Sea Protection Programme, and these measures also serve to promote biodiversity.

Of the various forms of special environmental subsidies, farmers have been most interested in agreements on the management of traditional agricultural biotopes. In 2003 valuable traditional agricultural biotopes covering a total area of 20,625 ha were managed with the help of agri-environmental subsidies, and this figure is gradually rising. The Ministry of Agriculture and Forestry aims to have a total area of 60,000 ha under such management by 2010, with agri-environmental

subsidies used to finance the management of a total area of just over 30 000 ha. The management of the remaining traditional biotopes, in areas not used for agriculture, would be financed through the Ministry of the Environment.

The METSO Forest Biodiversity Programme for Southern Finland provides new funding mechanisms for the management, restoration and protection of traditional wooded biotopes, and will also facilitate the restoration and management of state-owned wooded traditional biotopes administered by Metsähallitus over the period 2003–2012 in Southern Finland, western parts of Oulu province and SW Lapland.

Many Employment and Economic Development Centres (TE Centres) have prepared and carried out their own projects and programmes designed to safeguard biodiversity. One example is a plan for the protection and sustainable use of sea trout stocks in the Gulf of Finland, which was prepared jointly by the Uusimaa Environment Centre and the Uusimaa Employment and Economic Development Centre in 2001. The plan aims to reinforce sea trout stocks so they do not suffer from fishing at sea or along the coast or on rivers, while also protecting the remaining natural breeding populations, and where possible restoring stocks into rivers where sea trout are no longer found. The Employment and Economic Development Centres' recreational fishing development programmes also include separate projects where the emphasis is more on conserving biodiversity. Watercourses have been restored and special fish-ways have been provided to facilitate the migrations of natural trout populations to and from their spawning rivers. The centres' fisheries units also provide expert advice during the preparation of management and exploitation plans for fishing waters. The fisheries units also define the nature of fishing waters (for example whether they are salmon waters or whitefish waters), in order to protect threatened fish stocks from overexploitation.

**84. ?** Has your country developed the mechanisms or approaches to ensure adequate incorporation of both market and non-market values of biological diversity into relevant plans, policies and programmes and other relevant areas? (decisions III/18 and IV/10)

a) No	
b) No, but relevant mechanisms are under development	x
c) Yes, mechanisms are in place (please provide details below)	
d) Yes, review of impact of mechanisms available (please provide details below)	
Further comments on the mechanism or approaches to incorporate market and non-market values of biodiversity into relevant plans, policies and programmes.	

**85. ?** Has your country developed training and capacity-building programmes to implement incentive measures and promote private-sector initiatives? (decision III/18)

a) No	
b) No, but relevant programmes are under development	
c) Yes, some programmes are in place	x
d) Yes, many programmes are in place	



<b>86.</b> Does your country take into consideration the proposals for the design and implementation of incentive measures as contained in Annex I to decision VI/15 when designing and implementing incentive measures for the conservation and sustainable use of biodiversity? (decision VI/15)	
a) No	x
b) Yes (please provide details below)	
Further information on the proposals considered when designing and implementing the incentive measures for the conservation and sustainable use of biodiversity.	

<b>87.</b> Has your country made any progress in removing or mitigating policies or practices that generate perverse incentives for the conservation and sustainable use of biological diversity? (decision VII/18)	
a) No	
b) No, but identification of such policies and practices is under way	x
c) Yes, relevant policies and practices identified but not entirely removed or mitigated (please provide details below)	
d) Yes, relevant policies and practices identified and removed or mitigated (please provide details below)	
Further information on perverse incentives identified and/or removed or mitigated.	

**Box L.**

<p>Please elaborate below on the implementation of this article and associated decisions specifically focusing on:</p> <ul style="list-style-type: none"> <li>a) outcomes and impacts of actions taken;</li> <li>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;</li> <li>c) contribution to progress towards the 2010 target;</li> <li>d) progress in implementing national biodiversity strategies and action plans;</li> <li>e) contribution to the achievement of the Millennium Development Goals;</li> <li>f) constraints encountered in implementation.</li> </ul>

## Article 12 - Research and training

**88. ?** On Article 12(a), has your country established programmes for scientific and technical education and training in measures for the identification, conservation and sustainable use of biological diversity and its components?

a) No	
b) No, but programmes are under development	
c) Yes, programmes are in place (please provide details below)	x

Further information on the programmes for scientific and technical education and training in the measures for identification, conservation and sustainable use of biodiversity.

### **The FIBRE and MOSSE biodiversity research programmes**

The Finnish Biodiversity Research Programme FIBRE (1997–2002) was mainly funded by the Finnish Academy, and produced research data of high scientific quality on biological, economic, social, legal, and technological aspects of biodiversity (Publications of the Academy of Finland 3/2003; Markkanen et al. 2002). At the end of 2003, Finland organised an event to present FIBRE research and results at SBSTTA 9, the ninth meeting of the Subsidiary Body on Scientific, Technical, and Technological Advice (of the CBD) in Montreal, Canada. Three extensive biodiversity textbooks (in Finnish) have been published within the framework of the FIBRE/BITUMI project, which promotes the practical application of research results. A summary of FIBRE's research subjects has also been published in the LUMONET information system.

The biodiversity research programme MOSSE began in 2003 and will continue until 2006. MOSSE is based on the experience gained through FIBRE, but is clearly more practically oriented. MOSSE will produce new research data on methods of preserving the biodiversity of forests, lakes and watercourses and farmland habitats, in addition to the ecological, economic, and social impacts of these methods. Such data can be used to support practical conservation and management measures and to improve biodiversity monitoring. The programme allocates annually a total of about €2 million of funds, obtained from the Ministry of Agriculture and Forestry, the Ministry of the Environment, the Ministry of Transport and Communications, the Central Union of Agricultural Producers and Forest-owners (MTK), and the forest industries. More than half of the financed projects deal with forest habitats, providing several years of work for several research groups concentrating on forest biodiversity. The programme also provides funds for researching the taxonomy of poorly known species. Research funding from the Ministry of the Environment amounting to €1 million was provided during 2003 for research into poorly known and threatened forest species as part of the METSO Forest Biodiversity Programme for Southern Finland. Resources allocated to species research will continue to increase. During 2004 the Finnish Academy's biological sciences and environmental research committee allocated some €1.2 million for research in the fields of taxonomy and systematics.

### **The SUNARE research programme on sustainable use of natural resources**

The Sustainable Use of Natural Resources research programme (SUNARE 2001–2004) has aimed to produce research data that can be used to improve decision-making on the sustainable use of natural resources, to develop relevant multidisciplinary research, to promote the dissemination of research results from researchers to users, to create new national and international research contacts, and to improve and diversify the sustainable management and use of natural resources. The total budget of SUNARE, which supports the Finnish government's sustainable development programme (1998), was about €9.25 million over the period 2001–2004. The programme was financed by the Finnish Academy (€8.2 million), the Ministry of Agriculture and Forestry (€0.8 million), and TEKES (€0.25 million). The SUNARE research programme was co-ordinated by the Department of Forest Ecology of the University of Helsinki ([www.sunare.helsinki.fi](http://www.sunare.helsinki.fi)). An evaluation report on the programme is due to be published in 2005.

### **The Baltic Sea Research Programme BIREME**

The Finnish Academy's Baltic Sea Research Programme BIREME (2003–2005), aims to strengthen the scientific know-how required to solve environmental problems in the Baltic Sea. Research in the

BIREME programme focuses on such issues as environmental problems related to eutrophication and hazardous substances in the marine environment. The programme also aims to produce data to help promote biodiversity in the Baltic Sea and the sustainable use of marine resources ([www.aka.fi/bireme](http://www.aka.fi/bireme)).

### **Research Programme on the Environmental, Social and Health Effects of Genetically Modified Organisms (ESGEMO)**

Using funding from the Finnish Academy, the Ministry of Agriculture and Forestry, and the Ministry of the Environment, the ESGEMO research programme (2004–2007) aims to study the direct and indirect ecological, health, and social effects of the use of genetically modified organisms (GMOs). This will strengthen the scientific basis of GMO risk assessment and management, and provide much-needed expertise and information on the effects of GMOs.

The research programme aims to create new knowledge about environmental and health effects and potential risks of GMO use in agriculture, aquaculture, forestry, and environmental applications, particularly in boreal conditions; to develop new tools for research and assessment of the potential impacts of GMOs on nature and complex natural processes; and to evaluate the socio-economic and technological impacts of the use of GMOs, including ethical considerations and the public acceptance of new biotechnological methods (<http://honeybee.helsinki.fi/esgemo>).

### **Agrifood Research Finland**

Agrifood Research Finland (MTT) has intensified its biodiversity research. MTT produces data on the biodiversity of agricultural environments, and develops means to measure diversity, aiming to develop practical measures and applications, to protect agricultural biodiversity and genetic resources, and to build up wide-ranging multi-disciplinary expertise. MTT has actively participated in national research programmes including the FIBRE and MOSSE biodiversity research programmes; the SUSAGRI project (1997–1999) of indicators, controls and presentations related to sustainable development for agriculture; the MYTVAS project (1995–2007), which monitors the effectiveness of agri-environmental subsidies; and the SUNARE research programme on the sustainable use of natural resources. Research groups from MTT also participated in the preparation of the environmental programme for agriculture (2000–2006). The institute also plays an important role in the implementation of the national plant and animal gene resources programme, and in the activities of the Nordic plant and animal gene bank. MTT additionally represents Finland in the FAO's livestock gene resources programme. Since 1999, MTT has also participated in the work of the expert group for the national action plan for biodiversity in Finland.

### **Finnish Platform for Biodiversity Research Strategy**

The University of Helsinki has represented Finland and the Nordic countries on the European Platform for Biodiversity Research Strategy (EPBRS). The objective of this network of researchers and research users is to harness research to help achieve the EU's biodiversity objective for 2010 (Message from Malahide 2004). The EU wants to found a corresponding national forum and co-operation network in each member country. In Finland, this matter was raised at a seminar organised by the University of Helsinki on 28.4.2004, which discussed the role of research in protecting biodiversity, and the ways in which collaboration between researchers and research users in relation to the FIBRE/BITUMI programmes could be continued. The seminar felt that it was necessary to establish a permanent co-operation network between researchers and research users in Finland. Once established, this Finnish Platform for Biodiversity Research Strategy (FPBRS) would pursue the tried and tested objectives of the FIBRE programme. This issue was also discussed in the monitoring group of the National Action Plan for Biodiversity in Finland on 10.6.2004, which decided to strengthen its Research, Monitoring, and Information Systems (TST) expert group through participation in the co-operation network co-ordinated by the University of Helsinki. This network would have an important role in future too, for example in drawing up the new national biodiversity action plan (2006–2010) and in providing scientific experts to support the plan's implementation. A representative of the Finnish Academy was also asked to join the monitoring group. These decisions enable the monitoring group to maintain close links with the research sector.

### **Global Taxonomy Initiative**

In 2003, the Ministry of the Environment designated the Finnish Museum of Natural History of the

University of Helsinki as the national responsible party for the Global Taxonomy Initiative (GTI) in connection with the CBD.

**89. ?** On Article 12(b), does your country promote and encourage research which contributes to the conservation and sustainable use of biological diversity?

a) No

b) Yes (please provide details below)

x

Further information on the research which contributes to the conservation and sustainable use of biodiversity.

See information 88.

**90. ?** On Article 12(c), does your country promote and cooperate in the use of scientific advances in biological diversity research in developing methods for conservation and sustainable use of biological resources?

a) No

b) Yes (please provide details below)

x

Further information on the use of scientific advances in biodiversity research in developing methods for conservation and sustainable use of biodiversity.

See above and also article 13 below.

#### Box LI.

Please elaborate below on the implementation of this article specifically focusing on:

- a) outcomes and impacts of actions taken;
- b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
- c) contribution to progress towards the 2010 target;
- d) progress in implementing national biodiversity strategies and action plans;
- e) contribution to the achievement of the Millennium Development Goals;
- f) constraints encountered in implementation.

### Article 13 - Public education and awareness

**91.** Is your country implementing a communication, education and public awareness strategy and promoting public participation in support of the Convention? (Goal 4.1 of the Strategic Plan)

a) No

b) No, but a CEPA strategy is under development

c) Yes, a CEPA strategy developed and public participation promoted to a limited extent (please provide details below)

d) Yes, a CEPA strategy developed and public participation promoted to a significant extent (please provide details below)

x

Further comments on the implementation of a CEPA strategy and the promotion of public participation in support of the Convention.

**92.** Is your country undertaking any activities to facilitate the implementation of the programme of work on Communication, Education and Public Awareness as contained in the annex to decision VI/19? (decision VI/19)

a) No	
b) No, but some programmes are under development	
c) Yes, some activities are being undertaken (please provide details below)	x
d) Yes, many activities are being undertaken (please provide details below)	

Further comments on the activities to facilitate the implementation of the programme of work on CEPA.

The Convention on Biological Diversity has created new needs for knowledge when states endeavour to act in accordance with the agreements signed.

New information is needed in research, administration as well as in economy. Versatile and scientifically profound research is an essential prerequisite for these actions. One of the objectives of the Academy of Finland is to advance high-quality research in issues related to biodiversity.

The goals of sustainable development and the preservation of biodiversity are included in national guidelines for educational programmes at all levels. The National Board of Education supports schools and educational institutions in their efforts to make students aware of environmental issues and to encourage them to adopt sustainable lifestyles. This is done by defining the main content and aims for teaching about sustainable development in the guidelines for educational programmes, for instance. The National Board of Education also supports the participation of schools and educational institutions in local environmental initiatives. The guidelines for educational programmes also define course content and aims related to active citizenship, student welfare, and student support services, for instance.

According to the development plan (2003–2008) for the National Board of Education approved by the Council of State in December 2003, Finland's educational and research system has traditionally been of central importance in guaranteeing the country's social welfare and economic competitiveness. Because Finland has committed itself internationally to the principles of sustainable ecological, social, and economic development, the development plan calls for this point of view to be increasingly emphasised in education in the coming years.

### **Pre-schooling and basic education**

According to the core curriculum aims for *pre-school education* (2000), children should become interested in nature, and learn that people are both dependent on and responsible for nature. At the end of 2001, the National Board of Education started to prepare the basis of a core curriculum for *primary education*. Sustainable development and the preservation of biodiversity are key topics in the preparation of curricula for primary, secondary, and upper secondary schooling. In reforming the core curriculum, the National Board of Education also takes into consideration the objective of the National Forest Programme 2010<sup>24</sup> to improve know-how in the forest sector.

During the years 2000–2001, the National Board of Education approved the basis of a national core curriculum for the restructuring of *secondary professional education*. Related curricula have subsequently been developed and adopted in certain educational institutions. Needs related to sustainable resource use have been especially taken into consideration in reforming education in the field of natural resources (for example in the bachelor's degree in forestry and its constituent training programmes on forest machinery and the multiple use of forests). Training programmes on natural

forest management, reindeer husbandry, and the economic exploitation of natural products are also important. The study of forest biodiversity is also of central importance in *professional training*, for example in the professional degree programmes approved by the National Board of Education in the years 2004–2005 for reindeer husbandry, organic farming, ecological surveyors, and wilderness and nature guides. The other new natural resource degree programmes – such as the special professional degrees due to be approved in 2005 for senior game wardens and senior foresters – also comprehensively cover the various aspects of sustainable development, and include extensive compulsory study sections on ecological awareness, multiple use, environmental management, and nature conservation.

**93.** Is your country strongly and effectively promoting biodiversity-related issues through the press, the various media and public relations and communications networks at national level? (decision VI/19)

a) No	
b) No, but some programmes are under development	
c) Yes, to a limited extent (please provide details below)	x
d) Yes, to a significant extent (please provide details below)	

Further comments on the promotion of biodiversity-related issues through the press, the various media and public relations and communications networks at national level.

MH, YM viestintä.

**94.** Does your country promote the communication, education and public awareness of biodiversity at the local level? (decision VI/19)

a) No	
b) Yes (please provide details below)	x

Further information on the efforts to promote the communication, education and public awareness of biodiversity at the local level.

The forestry sector trains its own personnel and experts from outside the sector in the preservation, management, and sustainable use of biodiversity (see Table 3). In the years 1997–2003, a total of 4,947 people earned diplomas in natural management in the forest sector. During the same time, 3,408 people successfully completed a diploma programme aimed at forestry professionals and experts from stakeholder organisations. Training and assessment has been provided for forestry workers, forest machine operators, and forestry service-providers since 1999, and 1,347 of them have satisfactorily completed courses. In 2003, these groups clearly constituted the largest group of participants. The number of forest owners participating in such training and assessment has risen only very slowly; over the period 1998–2003, only 192 forest owners successfully passed the degree programme's assessment tests.

**Table.** Approximate number of participants in and successful graduates of natural management training and assessment organised by the Forestry Development Centre Tapio, forestry centres, and forestry colleges in the years 1999–2001 (Forestry Development Centre Tapio 2004).

	1997	1998	1999	2000	2001	2002	2003	2004
Approx. no. of participants in natural management training and assessment	Pilot course (6 ECTS study units)	200 + pilot course (4.5 ECTS study units)	880	1 160	1 080	1 160	1 570	1 600
No. of successful passes	33	154	678	1 050	932	935	1 165	approx. 1 300

In 2003, a total of 1,165 people candidates successfully completed the natural management diploma,

about 150 of whom were repeating some of the five sections of the examination. The national average percentage of candidates that have successfully completed the programme has varied annually between 75 % and 84 %. It is thought that the number of forestry professionals participating in 2004 dropped somewhat, but that the corresponding figures for forest machine operators and forestry service-providers increased. Participation of forest owners is still low.

The Forestry Development Centre Tapio is responsible for national co-ordination, teaching materials, updating examination materials, and the registration of examination results. The regional forestry centres are responsible for arranging the examinations and for evaluating participants' answers. The educational institutions provide the preparatory training. Successful candidates receive a diploma and a special black woodpecker badge from Tapio and the examiners.

Metsähallitus has striven to unify and improve fieldwork methodology. The *Fieldwork Workbook* project (2002–2003) produced a continually updated folder and intranet pages describing working methods and compiling fieldworkers' best practices for use by the organisation's entire field personnel.

In connection with this work, an exceptionally extensive *Field Personnel Training* project was carried out by Metsähallitus Natural Heritage Services in the years 2002–2004. This training has included the equivalent of 16.5 ECTS (European Credit Transfer System) study units, and has aimed to develop professional expertise in the multiple use of forests. About half of the training has been on site, with the rest taking place in the form of distance training at the workplace. In addition, practical exercises have been performed by each student for each part of the training programme.

The training programme comprised the following parts (official names in parentheses), and each included a separate examination:

- Planning (structures and machines employed in multiple use)
- Supervision and leadership (personnel development)
- Customer service and education (information and education)
- Nature conservation biology and visitor monitoring (urban and recreational forest management)
- Game and fisheries management, and commercial collection of mushrooms and berries.

The training project was organised by the Taivalkoski Forestry College, and almost 60 people participated. The two-year programme ended in autumn 2004 after completion of the on-site training periods and the distance training. Nearly half of the students were in apprenticeship training, which reduced the costs.

### **Metsähallitus visitor centres**

Metsähallitus provides information, environmental education, and visitor centres in connection with protected areas on state-owned land, also working to promote the use of protected areas for teaching purposes by providing special publicity and teaching materials. Metsähallitus runs 19 visitor centres in national parks and hiking areas, as well as many other customer service points. About 566,000 people used these visitor centres in 2003. The centres were visited in 2003 by about 2,000 groups, of which most were school groups. Visitor centres aim to become recognised attractions and popular sources of information.

The numbers of people visiting the national parks administered by Metsähallitus have risen dramatically (from 358,000 in 1992, to 832,000 in 2000, to 1,123,000 in 2003).<sup>25</sup> In 2003, about 350,000 people visited Finland's national hiking areas. Hiking routes, nature trails, bird-watching towers, campfire-sites, and camping areas have been established in national parks, national hiking areas, and other popular areas; while attempts have been made through the selective provision of such facilities to guide visitors so as to minimise any undesirable effects on the natural environment. Metsähallitus also works to increase general awareness of nature through other publicity work. In 2004, the websites Luontoon.fi and Utinaturen.fi were opened to serve the information needs of hikers and other visitors (the corresponding English-language website outdoors.fi will open during 2005). Metsähallitus also produces other websites (e.g. www.metsa.fi), books, brochures, posters, and nature studies materials. These publications are distributed to stakeholder organisations and educational institutions.

The National Board of Education has participated in several educational projects related to sustainable development and the preservation of biodiversity (including *The Baltic Sea Project within UNESCO Aspnet*, the Finnish-Russian *Boreal Forest Ecosystems and Education* project, the *GLOBE* programme, the *Environment and School Initiatives (ENSI)* project on new information technology in environmental education, and several EU-funded environmental education projects). There are also sustainable development projects in the field of education in Africa and Asia.

Finland is participating in the creation of an international nature observation network and a discussion forum in the Internet designed for European primary and secondary school teachers and pupils ([www.biodets.net](http://www.biodets.net)). This project aims to support the CBD and to encourage schoolchildren and teachers to take up hobbies related to nature. The project's pilot phase, which Finland has monitored, was due to end in autumn 2004. The pilot phase is now being evaluated, and plans are to be drawn up for the continuation of the project. This project will continue to depend on the participation of primary school teachers and pupils, as well as the expertise of the National Board of Education and Metsähallitus.

Finland's agricultural administration has arranged training for farmers as well as for counsellors and trainers. Counsellors and trainers work mostly in rural centres, in various NGOs, and in the regional environment centres. Together with farmers, these counsellors can set up farm management plans that take into consideration such factors as landscape and biodiversity management. Counselling and training also make use of model farms, where biodiversity management has been especially well applied. These farms can be visited to see how such management is applied in practice.

In connection with the FIBRE/BITUMI programme, researchers and professionals working in the forestry and environmental sectors arranged a research excursion and field seminar in 2002 to assess the natural state of natural forest habitats and commercially managed forests in Finland and the Republic of Karelia. In a development project run by the Forestry Development Centre Tapio in the years 2002–2003, professional foresters employed by the regional forestry centres were trained to plan and implement natural forest management projects. Where necessary, this has been done in co-operation with experts on water protection and nature conservation from the regional environment centres.

In 2003, the Forestry Development Centre Tapio and WWF Finland together arranged three expert seminars and field excursions, in which experts from about 140 different fields participated. The purpose of these events was to create and promote the appreciation, identification, and management planning of traditional wooded biotopes on private lands. These events were also designed to increase forestry experts' and planners' knowledge about the biodiversity values of heritage landscapes, and how they can be taken into consideration in forestry.

**95.** Is your country supporting national, regional and international activities prioritized by the Global Initiative on Education and Public Awareness? (decision VI/19)

a) No	
b) No, but some programmes are under development	
c) Yes, some activities supported (please provide details below)	x
d) Yes, many activities supported (please provide details below)	

Further comments on the support of national, regional and international activities prioritized by the Global Initiative on Education and Public Awareness.

See information above.



<b>96. Has your country developed adequate capacity to deliver initiatives on communication, education and public awareness?</b>	
a) No	
b) No, but some programmes are under development	x
c) Yes, some programmes are being implemented (please provide details below)	
d) Yes, comprehensive programmes are being implemented (please provide details below)	
Further comments on the development of adequate capacity to deliver initiatives on communication, education and public awareness.	

<b>97. Does your country promote cooperation and exchange programmes for biodiversity education and awareness at the national, regional and international levels? (decisions IV /10 and VI/19)</b>	
a) No	
b) Yes (please provide details below)	x
Further comments on the promotion of cooperation and exchange programmes for biodiversity education and awareness, at the national, regional and international levels.	
The European Platform for Biodiversity Research Strategy (EPBRS) has been an important forum for exchange of scientific knowledge in Europe on a regional base. EPBRS has been promoting and discussing science policy, with the aim of identifying strategic goals for biodiversity science in Europe, in particular in light of the EU target set in Gotenborg to halt the biodiversity loss by 2010 and the review of the EU Biodiversity Strategy and the Biodiversity Action Plans that have emerged from it and for preparing the 7 <sup>th</sup> Research Framework Programme in EU. Nationally see also article 12 and article 13 questions 88-100.	

<b>98. Is your country undertaking some CEPA activities for implementation of cross-cutting issues and thematic programmes of work adopted under the Convention?</b>	
a) No (please specify reasons below)	
b) Yes, some activities undertaken for some issues and thematic areas (please provide details below)	
c) Yes, many activities undertaken for most issues and thematic areas (please provide details below)	x
d) Yes, comprehensive activities undertaken for all issues and thematic areas (please provide details below)	
Further comments on the CEPA activities for implementation of cross-cutting issues and thematic programmes of work adopted under the Convention.	

**99. ?** Does your country support initiatives by major groups, key actors and stakeholders that integrate biological diversity conservation matters in their practice and education programmes as well as into their relevant sectoral and cross-sectoral plans, programmes and policies? (decision IV/10 and Goal 4.4 of the Strategic Plan)

a) No	
b) Yes (please provide details below)	x
Further comments on the initiatives by major groups, key actors and stakeholders that integrate biodiversity conservation in their practice and education programmes as well as their relevant sectoral and cross-sectoral plans, programmes and policies.	
<p>The National Board of Education has participated in several educational projects related to sustainable development and the preservation of biodiversity (including <i>The Baltic Sea Project within UNESCO Aspnet</i>, the Finnish-Russian <i>Boreal Forest Ecosystems and Education</i> project, the <i>GLOBE</i> programme, the <i>Environment and School Initiatives (ENSI)</i> project on new information technology in environmental education, and several EU-funded environmental education projects). There are also sustainable development projects in the field of education in Africa and Asia.</p> <p>Finland is participating in the creation of an international nature observation network and a discussion forum in the Internet designed for European primary and secondary school teachers and pupils (<a href="http://www.biodets.net">www.biodets.net</a>). This project aims to support the CBD and to encourage schoolchildren and teachers to take up hobbies related to nature. The project's pilot phase, which Finland has monitored, was due to end in autumn 2004. The pilot phase is now being evaluated, and plans are to be drawn up for the continuation of the project. This project will continue to depend on the participation of primary school teachers and pupils, as well as the expertise of the National Board of Education and Metsähallitus.</p> <p>Finland's agricultural administration has arranged training for farmers as well as for counsellors and trainers. Counsellors and trainers work mostly in rural centres, in various NGOs, and in the regional environment centres. Together with farmers, these counsellors can set up farm management plans that take into consideration such factors as landscape and biodiversity management. Counselling and training also make use of model farms, where biodiversity management has been especially well applied. These farms can be visited to see how such management is applied in practice.</p>	

**100.** Is your country communicating the various elements of the 2010 biodiversity target and establishing appropriate linkages to the Decade on Education for Sustainable Development in the implementation of your national CEPA programmes and activities? (decision VII/24)

a) No	
b) No, but some programmes are under development	X
c) Yes, some programmes developed and activities undertaken for this purpose (please provide details below)	
d) Yes, comprehensive programmes developed and many activities undertaken for this purpose (please provide details below)	
Further comments on the communication of the various elements of the 2010 biodiversity target and the establishment of linkages to the Decade on Education for Sustainable Development.	

**Box LII .**

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

- a) outcomes and impacts of actions taken;
- b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
- c) contribution to progress towards the 2010 target;
- d) progress in implementing national biodiversity strategies and action plans;
- e) contribution to the achievement of the Millennium Development Goals;
- f) constraints encountered in implementation.

### Article 14 - Impact assessment and minimizing adverse impacts

**101. ?** On Article 14.1(a), has your country developed legislation requiring an environmental impact assessment of proposed projects likely to have adverse effects on biological diversity?

a) No	
b) No, legislation is still in early stages of development	
c) No, but legislation is in advanced stages of development	
d) Yes, legislation is in place (please provide details below)	x
e) Yes, review of implementation available (please provide details below)	x

Further information on the legislation requiring EIA of proposed projects likely to have adverse effects on biodiversity.

The Act on Environmental Impact Assessment (EIA) was adopted in 1994. It mainly regulates the project EIA procedure but has a general supervising duty of policies, plans and programmes (strategic EIA= SEA). The Ministry of the Environment has issued general guidelines for SEA by the authority given in the Act.

Environmental impact assessment (EIA) is applied to various types of projects. Biological diversity is one of the impacts required to be assessed in the procedure. Also a proposal of action to prevent and mitigate adverse environmental impact and monitoring is required. This applies also to the SEA. Significant SEAs have been carried out (e.g. Finland's Natura 2000 network proposal, the National Forest Programme for 2010, SEAs in the transport sector). A monitoring system programme has been developed to follow-up actual impacts of the National Forest Programme. Prior to the implementation of the National Forest Programme 2010 detailed estimation of its environmental impact was made.

The National Road Administration has developed and standardised EIA procedures to facilitate the planning of road maintenance and decision-making. The legally defined EIA methods were applied during the period 2002–2003 for ten road projects, a rail project (the new Kerava-Lahti line) and one seaway project (at Örö in the Archipelago Sea). The National Road Administration has published various guides examining EIA processes through examples, and has also prepared special road maintenance programmes (Guidelines for project impact analysis; Road maintenance plan for the Savo-Karelia road district 2000–2010; Guidelines for the development of trunk roads; Guidelines for winter road maintenance 2001; and National Road Administration strategy 2003–2006).

A handbook has been published by the Finnish Environment Institute (SYKE) to help local planners to consider biodiversity while drafting plans and to help assess the impacts of proposed developments

on nature (Söderman 2003). This handbook contains guidelines for the ecological and biodiversity impact surveys carried out during EIAs, planning processes, and surveys required for the Natura 2000 network according to the Nature Conservation Act. The handbook also contains background information on evaluating ecological impacts, legislation, survey methods and checklists, and is intended for project leaders, consultants, planners, regional environment centres and the permit authorities. The Finnish Environment Institute has also published a preliminary report on the need for ecological surveys to be duly certified.

Improvements were made during 2004 in the participation of forestry organisations in planning, through a project carried out by the Ministry of Agriculture and Forestry and the Forestry Development Centre Tapio. The project has aimed to develop new forms of co-operation between planners and forestry organisations, in order to improve the quality of planning with regard to the needs of forestry. The project involved key stakeholder groups in the areas being planned.

**102. ?** On Article 14.1(b), has your country developed mechanisms to ensure that due consideration is given to the environmental consequences of national programmes and policies that are likely to have significant adverse impacts on biological diversity?

a) No	
b) No, mechanisms are still in early stages of development	
c) No, but mechanisms are in advanced stages of development	
d) Yes, mechanisms are in place (please provide details below)	x

Further comments on the mechanisms developed to ensure that due consideration is given to the environmental consequences of national programmes and policies that are likely to have significant adverse impacts on biodiversity.

Environmental impact assessment (EIA) is applied to various types of projects. Biological diversity is one of the impacts required to be assessed in the procedure. Also a proposal of action to prevent and mitigate adverse environmental impact and monitoring is required. This applies also to the SEA. Significant SEAs have been carried out (e.g. Finland's Natura 2000 network proposal, the National Forest Programme for 2010, SEAs in the transport sector). A monitoring system programme has been developed to follow-up actual impacts of the National Forest Programme. Prior to the implementation of the National Forest Programme 2010 detailed estimation of its environmental impact was made. More information: National report of Finland on Forest ecosystems, 2001. See also 101.

**103. ?** On Article 14.1(c), is your country implementing bilateral, regional and/or multilateral agreements on activities likely to significantly affect biological diversity outside your country's jurisdiction?

a) No	
b) No, but assessment of options is in progress	
c) Yes, some completed, others in progress (please provide details below)	
d) Yes (please provide details below)	x

Further information on the bilateral, regional and/or multilateral agreements on activities likely to significantly affect biodiversity outside your country's jurisdiction.

The Convention on Environmental Impact Assessment in a Transboundary context (Espoo Convention) was ratified in 1995.

**104. ?** On Article 14.1(d), has your country put mechanisms in place to prevent or minimize danger or damage originating in your territory to biological diversity in the territory of other Parties or in areas beyond the limits of national jurisdiction?

a) No	
b) No, mechanisms are still in early stages of development	
c) No, but mechanisms are in advanced stages of development	
d) Yes, mechanisms are in place based on current scientific knowledge	x

**105. ?** On Article 14.1(e), has your country established national mechanisms for emergency response to activities or events which present a grave and imminent danger to biological diversity?

a) No	x
b) No, mechanisms are still in early stages of development	
c) No, but mechanisms are in advanced stages of development	
d) Yes, mechanisms are in place (please provide details below)	

Further information on national mechanisms for emergency response to the activities or events which present a grave and imminent danger to biodiversity.

**106.** Is your country applying the Guidelines for Incorporating Biodiversity-related Issues into Environment-Impact-Assessment Legislation or Processes and in Strategic Impact Assessment as contained in the annex to decision VI/7 in the context of the implementation of paragraph 1 of Article 14? (decision VI/7)

a) No	
b) No, but application of the guidelines under consideration	
c) Yes, some aspects being applied (please specify below)	
d) Yes, major aspects being applied (please specify below)	x

Further comments on application of the guidelines.

**107.** On Article 14 (2), has your country put in place national legislative, administrative or policy measures regarding liability and redress for damage to biological diversity? (decision VI/11)

a) No	x
b) Yes (please specify the measures)	

Further comments on national legislative, administrative or policy measures regarding liability and redress for damage to biological diversity.

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108. Has your country put in place any measures to prevent damage to biological diversity?	
a) No	
b) No, but some measures are being developed	
c) Yes, some measures are in place (please provide details below)	x
d) Yes, comprehensive measures are in place (please provide details below)	
Further information on the measures in place to prevent damage to biological diversity.	

109. Is your country cooperating with other Parties to strengthen capacities at the national level for the prevention of damage to biodiversity, establishment and implementation of national legislative regimes, policy and administrative measures on liability and redress? (decision VI/11)	
a) No	
b) No, but cooperation is under consideration	
c) No, but cooperative programmes are under development	
d) Yes, some cooperative activities being undertaken (please provide details below)	x
e) Yes, comprehensive cooperative activities being undertaken (please provide details below)	
Further comments on cooperation with other Parties to strengthen capacities for the prevention of damage to biodiversity.	

**Box LIII.**

<p>Please elaborate below on the implementation of this article and associated decisions specifically focusing on:</p> <ul style="list-style-type: none"> <li>a) outcomes and impacts of actions taken;</li> <li>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;</li> <li>c) contribution to progress towards the 2010 target;</li> <li>d) progress in implementing national biodiversity strategies and action plans;</li> <li>e) contribution to the achievement of the Millennium Development Goals;</li> <li>f) constraints encountered in implementation.</li> </ul>

## Article 15 - Access to genetic resources

**110. ?** Has your country endeavored to facilitate access to genetic resources for environmentally sound uses by other Parties, on the basis of prior informed consent and mutually agreed terms, in accordance with paragraphs 2, 4 and 5 of Article 15?

a) No

b) Yes (please provide details below)

x

Further information on the efforts taken by your country to facilitate access to genetic resources for environmentally sound uses by other Parties, on the basis of prior informed consent and mutually agreed terms.

The National Plant Genetic Resources Programme for Agriculture and Forestry, finalised in 2001, seeks to guarantee that the genetic resources and natural variation of the plants grown in farms, gardens and forests are preserved and used sustainably. A *genetic resources committee* covering plants, forests and animals was set up in 2003 under the Ministry of Agriculture and Forestry to oversee the co-ordination and implementation of the plan.

The implementation of a corresponding national programme for animal genetic resources was finalised in 2004, overseen by the *animal genetic resources committee*. MTT Agrifood Research Finland is co-ordinating a programme for the preservation of domestic animal breeds, and representing Finland in related international programmes run by the FAO and the Nordic Council. Within the national plan, preservation programmes are being set up for endangered Finnish native breeds, involving the registration of individual animals, and the establishment of embryo and sperm banks.

The Nordic Countries have co-operated closely on preserving genetic resources used in agriculture. The most visible manifestation of this co-operation is the Nordic Gene Bank (NGB), maintained under the auspices of the Nordic Council of Ministers. The NGB was established in 1979, and is located at Alnarp, Sweden. Its task is to preserve and document genetic diversity in cultivated plants that are significant for agriculture in the Nordic region. The bank's collections at Alnarp include about 27,000 seed samples, of which some 1,600 are of Finnish origin.

The Bonn Guidelines aim to ensure that suitable legislative and administrative measures are developed to control the availability of genetic resources, and the equitable allocation of the benefits from their exploitation. To facilitate this work the Genetic Resources Committee of Finland, set up in November 2004 a sub-committee who will examine issues including the aims and national implementation of the Bonn Guidelines, the development of the related legislation, and roles and responsibilities concerning the legal availability of genetic resources and the distribution of the benefits from their exploitation, with regard to Article 15 of the CBD, and certain obligations under other agreements (WTO/TRIPS, WIPO, UPOV, FAO/IT) as necessary. The sub-committee will also draft proposals for a national strategy or a national action plan on the availability of genetic resources and the distribution of the benefits from their exploitation, including the definition of any related regulations and tasks. This work is to be completed by 31.6.2006.

Finland has participated since 2000 in the activities of WIPO's *Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore* (IGC). The countries involved in the committee have discussed issues related to the availability of genetic resources and the distribution of the benefits from their exploitation, also covering questions concerning the protection of traditional knowledge and folklore. The 6<sup>th</sup> Conference of Parties to the CBD asked WIPO to report on obligations to provide information on the use of genetic resources and traditional knowledge in patent applications. A technical report on the activities of the IGC was submitted to the 7<sup>th</sup> Conference of Parties to the CBD in February 2004 (WIPO Technical Study on Patent Disclosure Requirements Related to Genetic Resources and Traditional Knowledge).

**111. ?** Has your country taken measures to ensure that any scientific research based on genetic resources provided by other Parties is developed and carried out with the full participation of such Parties, in accordance with Article 15(6)?

a) No	
b) No, but potential measures are under review	x
c) Yes, some measures are in place (please provide details below)	
d) Yes, comprehensive measures are in place (please provide details below)	

Further information on the measures to ensure that any scientific research based on genetic resources provided by other Contracting Parties is developed and carried out with the full participation of such Contracting Parties.

**112. ?** Has your country taken measures to ensure the fair and equitable sharing of the results of research and development and of the benefits arising from the commercial and other use of genetic resources with any Contracting Party providing such resources, in accordance with Article 15(7)?

a) No	
b) No, but potential measures are under review	x
c) Yes, some measures are in place (please provide details below)	x
d) Yes, comprehensive legislation is in place (please provide details below)	
e) Yes, comprehensive statutory policy or subsidiary legislation are in place (please provide details below)	
f) Yes, comprehensive policy and administrative measures are in place (please provide details below)	

Further information on the type of measures taken.

Finland reiterates its full support of the Bonn Guidelines. The national ABS working group is established to implement the Bonn guidelines in Finland. The working group has its mandate until end of June 2006. The working group composes of different representatives from different ministries and stakeholders. Also the indigenous peoples representative for successful work is considered important. The national discussion has emphasized the need to disseminate information on the CBD, the Bonn guidelines and the ABS by also developing the exchange of information between scientists and users of genetic resources through our CHM.

From regional perspective Finland is also taking part in the Nordic cooperation on genetic resources. A new Nordic strategy for the sustainable management of genetic resources lays down the objectives for the period of 2005-08. The Nordic cooperation has been important for facilitating the implementation of the Bonn guidelines. The work has been carried out by the Nordic Genetic Resources Council, which includes representatives from the Ministry of Environment, Agriculture and Forestry, Fisheries and Food. The Ministerial Declaration on Access and Rights to Genetic Resources in 2003, establishes the objectives on how Nordic Countries will address issues related to access and rights to genetic resources. As an important part of this work the Nordic Genetic Resources Council will in spring 2005 present a Manual targeted at users of genetic resources informing them about how to follow the Bonn guidelines in their work.

The Nordic Gene Bank established in 1979 has an important role in ex situ conservation and management of genetic resources. Its accessions are under common Nordic management and in public domain.



**113. ?** In developing national measures to address access to genetic resources and benefit-sharing, has your country taken into account the multilateral system of access and benefit-sharing set out in the International Treaty on Plant Genetic Resources for Food and Agriculture?

a) No

b) Yes (please provide details below)

x

Further information on national measures taken which consider the multilateral system of access and benefit-sharing as set out in the International Treaty on Plant Genetic Resources for Food and Agriculture.

FAO/IT sopimus toimeenpannaan Suomessa suurilta osin kansallisten geenivaraohjelmien avulla. Kansallinen kasvigeenivaraohjelma perustettiin vuonna 2003 tehostamaan maa- ja metsätalouden geenivarojen suojelua Suomessa. Pohjoismaat ovat Pohjoismaiden ministerineuvoston julkilausumassa sopineet (2003) että Pohjoismaisen geenipankin kokoelmat ovat julkisia ja ne kuuluvat IT-sopimuksen mononvälisen järjestelmän piiriin. Pohjoismaisesta geenipankin siemeniä tilattaessa vastaanottaja allekirjoittaa materiaalisopimuksen (MTA).

See also 112.

**114.** Is your country using the Bonn Guidelines when developing and drafting legislative, administrative or policy measures on access and benefit-sharing and/or when negotiating contracts and other arrangements under mutually agreed terms for access and benefit-sharing? (decision VII/19A)

a) No

b) No, but steps being taken to do so (please provide details below)

c) Yes (please provide details below)

x

Please provide details and specify successes and constraints in the implementation of the Bonn Guidelines.

The work is ongoing and the mandate for drafting and developing an action program implementing the Bonn Guidelines is 1.6.2006.

See above 110 and 112 also.

**115.** Has your country adopted national policies or measures, including legislation, which address the role of intellectual property rights in access and benefit-sharing arrangements (i.e. the issue of disclosure of origin/source/legal provenance of genetic resources in applications for intellectual property rights where the subject matter of the application concerns, or makes use of, genetic resources in its development)?

a) No

b) No, but potential policies or measures have been identified (please specify below)

x

c) No, but relevant policies or measures are under development (please specify below)

d) Yes, some policies or measures are in place (please specify below)

e) Yes, comprehensive policies or measures adopted (please specify below)

Further information on policies or measures that address the role of IPR in access and benefit-sharing arrangements.

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<b>116.</b> Has your country been involved in capacity-building activities related to access and benefit-sharing?	
a) Yes (please provide details below)	
b) No	x
Please provide further information on capacity-building activities (your involvement as donor or recipient, key actors involved, target audience, time period, goals and objectives of the capacity-building activities, main capacity-building areas covered, nature of activities). Please also specify whether these activities took into account the Action Plan on capacity-building for access and benefit-sharing adopted at COP VII and available in annex to decision VII/19F.	

**Box LIV.**

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:
<ul style="list-style-type: none"> <li>a) outcomes and impacts of actions taken;</li> <li>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;</li> <li>c) contribution to progress towards the 2010 target;</li> <li>d) progress in implementing national biodiversity strategies and action plans;</li> <li>e) contribution to the achievement of the Millennium Development Goals;</li> <li>f) constraints encountered in implementation.</li> </ul>

**Article 16 - Access to and transfer of technology**

<b>117. ?</b> On Article 16(1), has your country taken measures to provide or facilitate access for and transfer to other Parties of technologies that are relevant to the conservation and sustainable use of biological diversity or make use of genetic resources and do not cause significant damage to the environment?	
a) No	x
b) No, but potential measures are under review	
c) Yes, some measures are in place (please provide details below)	
d) Yes, comprehensive measures are in place (please provide details below)	
Further information on the measures to provide or facilitate access for and transfer to other Parties of technologies that are relevant to the conservation and sustainable use of biodiversity or make use of genetic resources and do not cause significant damage to the environment.	

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**118. ?** On Article 16(3), has your country taken measures so that Parties which provide genetic resources are provided access to and transfer of technology which make use of those resources, on mutually agreed terms?

a) No	
b) No, but potential measures are under review	x
c) Yes, some measures are in place	x
d) Yes, comprehensive legislation is in place	
e) Yes, comprehensive statutory policy or subsidiary legislation are in place	
f) Yes, comprehensive policy and administrative arrangements are in place	
g) Not applicable	

**119. ?** On Article 16(4), has your country taken measures so that the private sector facilitates access to joint development and transfer of relevant technology for the benefit of Government institutions and the private sector of developing countries?

a) No	x
b) No, but potential measures are under review	
c) Yes, some policies and measures are in place (please provide details below)	
d) Yes, comprehensive policies and measures are in place (please provide details below)	
e) Not applicable	

Further information on the measures taken.

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**Box LV.**

Please elaborate below on the implementation of this article specifically focusing on:

- a) outcomes and impacts of actions taken;
- b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
- c) contribution to progress towards the 2010 target;
- d) progress in implementing national biodiversity strategies and action plans;
- e) contribution to the achievement of the Millennium Development Goals;
- f) constraints encountered in implementation.

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## Programme of Work on transfer of technology and technology cooperation

**120.** Has your country provided financial and technical support and training to assist in the implementation of the programme of work on transfer of technology and technology cooperation? (decision VII/29)

a) No	
b) No, but relevant programmes are under development	
c) Yes, some programmes being implemented (please provide details below)	x
d) Yes, comprehensive programmes being implemented (please provide details below)	

Further comments on the provision of financial and technical support and training to assist in the implementation of the programme of work on transfer of technology and technology cooperation.

### **Marine and coastal biodiversity**

- Support to Secretariat for Eastern Africa Coast Area Management (SEACAM) for managing the Eastern African Coastal Management Database (2001-2003, 300 000 €).
- Information and communication service for sustainable development in Namibia, including environmental database development (2000-2003, 410 000 €).
- Masoala Marine Parks Management, Madagascar (2001-2003, 160 000 €).

### **Agricultural biodiversity**

- Support to FAO Support to the local agricultural production and crop diversification in DPR Korea (2000-2001, 168 200 €).
- Sustainable food production and soil protection in China by the help of symbiotic leguminous species, via The Academy of Finland (2003-2005, 300 000 €).

### **Forest biodiversity**

#### Malawi, Tanzania and Zambia

Regional SADC Forestry College Development Programme, phase IV 2003-2005. Support is given to the forestry college curriculum revision in Malawi, Tanzania and Zambia.  
East-Usambara Conservation Area Management Programme, EUCAMP – East Usambara Catchment Forest Project, EUCFP

#### Vietnam

Support to the development of Forest Development Strategy and Forest Strategy Support Programme 2003-2005.

#### Mozambique

Support to the forest inventory system that applies the principles of community based natural resource management during 1999-2004.

#### Namibia

Namibia-Finland Forest Programme, phase III during 2001-2005. The aim of the programme is to strengthen the role of forest sector in the socio-economic development.

#### Zambia

Forest sector support programme, phase II during 2000-2005. The aim of the programme is to implement forestry programmes developed during the earlier phase of the programme. The programmes endeavour to develop forest management knowledge, skills and tools among village communities, businesses, NGOs and the forestry administration.

#### Tanzania

Development of a national forest programme, phase II during 2003-2005.

Implementation of the NFP, preparatory phase during 2004-2005.

#### Burkina Faso

Project on suppression of forest fires, phase II during 2001-2004. The aim is the strengthening of the organisations fighting against forest fires.

Malawi

Forest sector development programme, which aims at transferring the governance of forests to the communities and private sector 1999-2004.

Brazil

Project on the protection of the environment. Support is given to the development of natural rubber production and other local community needs during 2002-2005.

Peru

Creation of national strategy for biodiversity in the Amazon region, including biodiversity database (SIAMAZONIA), Support to sustainable management of Allpahuayo-Mishana Reserve.

**Through NGO –support**

- Cooperation in forest conservation and sustainable development in Brazil, the creation, trial and dissemination of a replicable model of sustainable development for nature conservation (2003, 600 000 €).
- Forest corridors, an alternative approach for the Golden Lion Tamarin habitat restoration in Brazil.
- Project of participative management and conservation of biodiversity in Ecuador, Conservation of biodiversity at the Alto Choco Biological Reserve's mountain cloud forests area.
- Development and support project for the Itatiaia National Park in Brazil, to improve and develop the Itatiaia national park to receive nature-tourism in ecologically sustainable way and to renovate the surrounding areas of the park and promote environmental protection.
- Conservation of Endangered Species of Fishes and Forests of Lake Malawi National Park: Environmental and Economic Strategies.
- Restoration of biological corridors in the Terai Arc landscape, Nepal.

**121.** Is your country taking any measures to remove unnecessary impediments to funding of multi-country initiatives for technology transfer and for scientific and technical cooperation? (decision VII/29)

a) No	
b) No, but some measures being considered	x
c) Yes, some measures are in place (please provide details below)	
d) Yes, comprehensive measures are in place (please provide details below)	

Further comments on the measures to remove unnecessary impediments to funding of multi-country initiatives for technology transfer and for scientific and technical cooperation.

**122.** Has your country made any technology assessments addressing technology needs, opportunities and barriers in relevant sectors as well as related needs in capacity building? (annex to decision VII/29)

a) No	x
b) No, but assessments are under way	
c) Yes, basic assessments undertaken (please provide details below)	
d) Yes, thorough assessments undertaken (please provide details below)	

Further comments on technology assessments addressing technology needs, opportunities and barriers in relevant sectors as well as related needs in capacity building.

In bilateral development cooperation the assessment of the need for relevant CBD technologies is being carried out (in individual development projects). However, there is no comprehensive or general assessment being made on the need for CBD relevant technologies in developing countries.

**123.** Has your country made any assessments and risk analysis of the potential benefits, risks and associated costs with the introduction of new technologies? (annex to decision VII/29)

a) No	x
b) No, but assessments are under way	
c) Yes, some assessments undertaken (please provide details below)	
d) Yes, comprehensive assessments undertaken (please provide details below)	

Further comments on the assessments and risk analysis of the potential benefits, risks and associated costs with the introduction of new technologies.

**124.** Has your country identified and implemented any measures to develop or strengthen appropriate information systems for technology transfer and cooperation, including assessing capacity building needs? (annex to decision VII/29)

a) No	
b) No, but some programmes are under development	
c) Yes, some programmes are in place and being implemented (please provide details below)	x
d) Yes, comprehensive programmes are being implemented (please provide details below)	

Further comments on measures to develop or strengthen appropriate information systems for technology transfer and cooperation.

In 2003, a *genetic technology strategy and action plan for agriculture and forestry* for the period 2003–2007 was completed (Working group memorandum 2003:18 MAF). This strategy is based on the earlier *Biotechnology and Gene Technology Strategy for Agriculture* (2000), but also encompasses forestry, game management and fishery sectors, and is intended to ensure the safety of any GMOs used in agriculture and foodstuffs, while also preventing any negative environmental impacts. The new strategy particularly focuses on the need for training and publicity. The implementation of the strategy and the related publicity work are the responsibility of a working group within the Ministry of Agriculture and Forestry.

According to the government decision-in-principle of 4.10.2001, the Ministry of Trade and Industry is responsible for the administrative co-ordination of biotechnology issues in Finland. A special network of official contacts in various ministries has also been set up to ensure the flow of information. Finland's official body for the implementation of the biosafety protocol is the board for gene technology board, which also serves as the national contact organisation for the Biosafety Clearing-House (BCH). The Ministry of the Environment serves as the national information centre for biosafety issues, and has overall responsibility for contacts with the Cartagena Protocol Secretariat.

The Cartagena Protocol has had little effect on Finland's national legislation. Its requirements were incorporated into amendments to the Gene Technology Act enforced from September 2004. Finland's

Penal Code additionally prohibits any violations of the EU Regulation 1946/2003 on the transboundary movement of GMOs.

**125.** Has your country taken any of the measures specified under Target 3.2 of the programme of work as a preparatory phase to the development and implementation of national institutional, administrative, legislative and policy frameworks to facilitate cooperation as well as access to and adaptation of technologies of relevance to the Convention? (annex to decision VII/29)

a) No	
b) No, but a few measures being considered	x
c) Yes, some measures taken (please specify below)	
d) Yes, many measures taken (please specify below)	

Further comments on the measures taken as a preparatory phase to the development and implementation of national institutional, administrative, legislative and policy frameworks to facilitate cooperation as well as access to and adaptation of technologies of relevance to the Convention.

**Box LVI.**

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

- a) outcomes and impacts of actions taken;
- b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
- c) contribution to progress towards the 2010 target;
- d) progress in implementing national biodiversity strategies and action plans;
- e) contribution to the achievement of the Millennium Development Goals;
- f) constraints encountered in implementation.

**Article 17 - Exchange of information**

**126. ?** On Article 17(1), has your country taken measures to facilitate the exchange of information from publicly available sources with a view to assist with the implementation of the Convention and promote technical and scientific cooperation?

a) No	
b) No, but potential measures are under review	
c) Yes, some measures are in place	x
d) Yes, comprehensive measures are in place	

**The following question (127) is for DEVELOPED COUNTRIES**

<b>127. ?</b> On Article 17(1), do these measures take into account the special needs of developing countries and include the categories of information listed in Article 17(2), such as technical, scientific and socio-economic research, training and surveying programmes, specialized knowledge, repatriation of information and so on?	
a) No	
b) Yes, but they do not include the categories of information listed in Article 17(2), such as technical, scientific and socio-economic research, training and surveying programmes, specialized knowledge, repatriation of information and so on	x
c) Yes, and they include categories of information listed in Article 17 (2), such as technical, scientific and socio-economic research, training and surveying programmes, specialized knowledge, repatriation of information and so on	

**Box LVII .**

<p>Please elaborate below on the implementation of this article and associated decisions specifically focusing on:</p> <ul style="list-style-type: none"> <li>a) outcomes and impacts of actions taken;</li> <li>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;</li> <li>c) contribution to progress towards the 2010 target;</li> <li>d) progress in implementing national biodiversity strategies and action plans;</li> <li>e) contribution to the achievement of the Millennium Development Goals;</li> <li>f) constraints encountered in implementation.</li> </ul>

**Article 18 - Technical and scientific cooperation**

<b>128. ?</b> On Article 18(1), has your country taken measures to promote international technical and scientific cooperation in the field of conservation and sustainable use of biological diversity?	
a) No	
b) No, but potential measures are under review	x
c) Yes, some measures are in place (please provide details below)	x
d) Yes, comprehensive measures are in place (please provide details below)	
Further information on the measures to promote international technical and scientific cooperation.	



**129. ?** On Article 18(4), has your country encouraged and developed methods of cooperation for the development and use of technologies, including indigenous and traditional technologies, in pursuance of the objectives of this Convention?

a) No	
b) No, but relevant methods are under development	x
c) Yes, methods are in place	

**130. ?** On Article 18(5), has your country promoted the establishment of joint research programmes and joint ventures for the development of technologies relevant to the objectives of the Convention?

a) No	
b) Yes (please provide some examples below)	x

Examples for the establishment of joint research programmes and joint ventures for the development of technologies relevant to the objectives of the Convention.

FIBRE/MOSSE BITUMI etc. See answers to Article 12 and 13 questions 88-100.

**131.** Has your country established links to non-governmental organizations, private sector and other institutions holding important databases or undertaking significant work on biological diversity through the CHM? (decision V/14)

a) No	
b) No, but coordination with relevant NGOs, private sector and other institutions under way	
c) Yes, links established with relevant NGOs, private sector and institutions	x

***The following question (132) is for DEVELOPED COUNTRIES***

**132.** Has your country further developed the CHM to assist developing countries and countries with economies in transition to gain access to information in the field of scientific and technical cooperation? (decision V/14)

a) No	
b) Yes, by using funding opportunities	
c) Yes, by means of access to, and transfer of technology	x
d) Yes, by using research cooperation facilities	
e) Yes, by using repatriation of information	x
f) Yes, by using training opportunities	
g) Yes, by using promotion of contacts with relevant institutions, organizations and the private sector	x
h) Yes, by using other means (please specify below)	

Further comments on CHM developments to assist developing countries and countries with economies in transition to gain access to information in the field of scientific and technical cooperation.

The thematic report on Transfer of Technology was sent to the SCBD 22.9.2003 and includes information on both the projects, targets and actions in this field ([www.biodiv.org](http://www.biodiv.org)). The Finnish CBD CHM (LUMONET) includes general information on Finland's possibilities to enhance the access and transfer of CBD technologies.

PEBLDS information service project (2000-2004) has also been important in promoting CHM developments in countries with economies in transition.

The Ministry for Foreign Affairs is responsible for the CBD relevant development cooperation in Finland. The objectives of the CBD has been integrated into state financed development projects. In addition to the traditional conservation actions (e.g. creating protected areas) the developing projects have new tools, such as environmental education, alternative livelihood creating and community based conservation projects e.g. in small villages.

**133.** Has your country used CHM to make information available more useful for researchers and decision-makers? (decision V/14)

a) No	
b) No, but relevant initiatives under consideration	
c) Yes (please provide details below)	x

Further comments on development of relevant initiatives.

The Finnish CHM was established in 1998. CHM is available in Finnish (<http://www.vyh.fi/luosuo/lumo/lumonet/kansi.htm>) and in English (<http://www.vyh.fi/eng/environ/bdclearh/kansi.htm>). The information system is based on the articles of CBD, and the Finnish National Strategy and Action Plan for Biodiversity. Finnish CHM is designed for researchers, decision-makers, civil servants, teachers, journalists and other specialists, but also for the general public.

Finnish CHM is part of the European Community Clearing-House Mechanism (EC CHM) and the Coordinator of Finnish CHM is a member of EC CHM Steering group and Task Force. Finnish CHM will take actively part in the future work and cooperation of CBD CHM.

Finnish biodiversity researchers are supporting the development of biodiversity information systems in some developing countries (e.g. Peru, Nicaragua and Guatemala). Finnish CHM has tried to establish a CHM – partnership project with the CHM of Ecuador.

When biodiversity data is stored so as to facilitate such harmonisation, the recommendations of the global GBIF project should be followed as much as possible, through a national adaptation of the GBIF.

Progress has been achieved as planned with the national clearing-house system for biodiversity data (LUMONET). Progress on the co-ordination of LUMONET and the LUOMUS GBIF project with regard to the proposals made by the TST group has been slow, however. Intensifying this co-ordination could lead to significant improvements nationally and internationally.

**134.** Has your country developed, provided and shared services and tools to enhance and facilitate the implementation of the CHM and further improve synergies among biodiversity-related Conventions? (decision V/14)

a) No	x
b) Yes (please specify services and tools below)	

Further comments on services and tools to enhance and facilitate the implementation of CHM and further improve synergies among biodiversity-related Conventions.

**Box LVIII.**

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

- a) outcomes and impacts of actions taken;
- b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
- c) contribution to progress towards the 2010 target;
- d) progress in implementing national biodiversity strategies and action plans;
- e) contribution to the achievement of the Millennium Development Goals;
- f) constraints encountered in implementation.

**Article 19 - Handling of biotechnology and distribution of its benefits**

**135. ?** On Article 19(1), has your country taken measures to provide for the effective participation in biotechnological research activities by those Contracting Parties which provide the genetic resources for such research?

a) No	
b) No, but potential measures are under review	
c) Yes, some measures are in place	x
d) Yes, comprehensive legislation are in place	
e) Yes, comprehensive statutory policy and subsidiary legislation are in place	
f) Yes, comprehensive policy and administrative measures are in place	

**136. ?** On Article 19(2), has your country taken all practicable measures to promote and advance priority access by Parties, on a fair and equitable basis, to the results and benefits arising from biotechnologies based upon genetic resources provided by those Parties?

a) No	
b) No, but potential measures are under review	
c) Yes, some measures are in place	x
d) Yes, comprehensive measures are in place	

**Box LIX.**

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

- a) outcomes and impacts of actions taken;
- b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
- c) contribution to progress towards the 2010 target;
- d) progress in implementing national biodiversity strategies and action plans;
- e) contribution to the achievement of the Millennium Development Goals;

f) constraints encountered in implementation.

## Article 20 – Financial resources

### Box LX.

Please describe for each of the following items the quantity of financial resources, both internal and external, that have been utilized, received or provided, as applicable, to implement the Convention on Biological Diversity, on an annual basis, since your country became a Party to the Convention.

The management of protected areas on state-owned land is primarily the responsibility of Metsähallitus Natural Heritage Services. The regional environment centres are mainly responsible for managing private protected areas. The amounts of funds allocated in the national government budget for the management and maintenance of protected areas have increased favourably in recent years (see Table). The Ministry of the Environment increased its funding of Metsähallitus's management and maintenance work in protected areas by almost 50 % over the period 1999–2003. Funds for this work from the Ministry of Labour and the EU have also risen, but further increases are unlikely. The Ministry of Labour has made considerable cutbacks in spending on job creation schemes across the country, and one hindrance to applying for more EU project funding is the shortage of complementary national funding.

**Table.** Government funds budgeted for the management and maintenance of protected areas 1997–2003, in thousands of euros (Ministry of the Environment 2003).

1997	1998	1999	2000	2001
11 269	11 469	12 395	12 627	13 679

The Ministry of the Environment has allocated resources amounting to €0.2–0.5 million per year during the period 1998–2004 for use in projects, reports, and planning related to the management and protection of threatened species on private land. The recipients of these funds included the Finnish Environment Institute, the regional environment centres, WWF expert groups for different species groupings, universities, and natural history museums (see Table). Resources have been allocated by species grouping, with the most endangered species prioritised. The funds have also had to be used to finance many of the protection and management surveys of areas where threatened species occur, as well as evaluations of species' threatened status. The Finnish Environment Institute has financed more than 1,000 surveys of the occurrence of threatened species at a cost of approximately €20,000–30 000 a year since 2000.

**Table.** Annual budgets 1998–2004 for the protection and management of threatened species on private land, in millions of euros (Finnish Environment Institute 2004).

1998	1999	2000	2001	2002	2003	2004
0.22	0.22	0.24	0.29	0.32	0.48	0.48

### ***Nature conservation programmes***

In 1996, the Finnish government's ministerial economic policy committee approved a nature conservation funding programme for 1996–2007, earmarking a total sum of €552.5 million for the implementation of conservation programmes, land acquisition for the State, and compensation for landowners, aiming to ensure that the government-approved nature conservation programmes can be duly implemented.

The funding programme has accounted for other obligations as well as the official conservation programmes, including the financing of planning restrictions, measures focusing on species in need of special protection, the protection of old-growth forests, and other possible costs such as additional expenses

a) Budgetary allocations by national and local Governments as well as different sectoral ministries

<p>b) Extra-budgetary resources (identified by donor agencies)</p>	<p>The report <i>Red List of Threatened Species in Finland 2000</i> included calculations of the additional resources needed for research on and the monitoring, protection, and management of threatened species (Rassi et al. 2001, p. 377–379). These expenses amount to a total of €3.9 million a year over the next ten years (research: €0.6m, monitoring €1.4m, protection €0.8m, and management €1.2m).</p> <p>The Ministry of the Environment has allocated resources amounting to €0.2–0.5 million per year during the period 1998–2004 for use in projects, reports, and planning related to the management and protection of threatened species on private land. The recipients of these funds included the Finnish Environment Institute, the regional environment centres, WWF expert groups for different species groupings, universities, and natural history museums (see Table 5). Resources have been allocated by species grouping, with the most endangered species prioritised. The funds have also had to be used to finance many of the protection and management surveys of areas where threatened species occur, as well as evaluations of species' threatened status. The Finnish Environment Institute has financed more than 1,000 surveys of the occurrence of threatened species at a cost of approximately €20,000–30 000 a year since 2000.</p> <p><b>Table.</b> Annual budgets 1998–2004 for the protection and management of threatened species on private land, in millions of euros (Finnish Environment Institute 2004).</p> <table border="1" data-bbox="662 984 1576 1045"> <thead> <tr> <th>1998</th> <th>1999</th> <th>2000</th> <th>2001</th> <th>2002</th> <th>2003</th> <th>2004</th> </tr> </thead> <tbody> <tr> <td>0.22</td> <td>0.22</td> <td>0.24</td> <td>0.29</td> <td>0.32</td> <td>0.48</td> <td>0.48</td> </tr> </tbody> </table>	1998	1999	2000	2001	2002	2003	2004	0.22	0.22	0.24	0.29	0.32	0.48	0.48
1998	1999	2000	2001	2002	2003	2004									
0.22	0.22	0.24	0.29	0.32	0.48	0.48									
<p>c) Bilateral channels (identified by donor agencies)</p>	<p>During the 1990s, Metsähallitus Natural Heritage Services annually spent some €0.5–0.8m of funds from the Ministry of the Environment on the protection and management of protected species and their habitats on state-owned land. In 2003, the corresponding figure was about €1 million. These figures do not include funds used for the management and restoration of natural habitats, although these activities also significantly support the management of threatened species. Over the period 1998 – 2004, the authorities paid out around €2.3 million in compensation for damage caused to reindeer by golden eagles.</p>														
<p>d) Regional channels (identified by donor agencies)</p>	<p><b>The EU's LIFE Nature fund</b></p> <p>EU LIFE Nature funds are allocated for the protection of species and habitats listed in the bird directive and the habitats directive, particularly in areas proposed for the Natura 2000 network of protected areas (up to 50 % of total costs; or in exceptional cases up to 75 %). Since joining the EU in 1995, Finland has received a total of nearly €38m in EU LIFE Nature funding for 40 different projects, each lasting 2–4 years (see Table).</p> <p><b>Table.</b> EU LIFE-Nature funding received by Finland (millions of euros) and the number of development projects started each year over the period 1995–2003. Applications for funding in 2000 were postponed until 2001 due to the preparations for</p>														

	changes in LIFE funding procedures (Ministry of the Environment 2004).					
	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000–2006</b>
<b>Funding (€ mill.)</b>	2.8	5.3	11.4	0.4	4.6	4.4
<b>New projects</b>	5	5	7	1	7	5
	Agri-environmental programmes and subsidies, see BOX LXI.					
e) Multilateral channels (identified by donor agencies)	<p>Finland has supported the work of the Global Environmental Facility (GEF), founded in 1991, which primarily finances projects in developing countries designed to promote the preservation and sustainable use of biodiversity, to curb climate change, to promote international co-operation on water protection, and to prevent erosion. Finland's share of the additional funding of \$2,920 million raised for the GEF's third period (2002–2006) has been about one percent (€26.7 million). Finland has also given an additional €2.9 million to the GEF to ensure its ability to operate.</p> <p>Funding has also been provided for the multilateral development co-operation work of the World Bank's Trust Fund for Environmentally and Socially Sustainable Development (TFESSD) and the Consultative Group on International Agricultural Research (CGIAR). Both of these organisations are currently running projects related to biodiversity. Finland has additionally funded several bilateral development projects related to the protection of biodiversity. Finland's financial contributions for development co-operation work related to biodiversity have been rising in recent years.</p>					
f) Private sources (identified by donor agencies)						
g) Resources generated through financial instruments, such as charges for use of biodiversity						

#### Box LXI.

Please describe in detail below any major financing programmes, such as biodiversity trust funds or specific programmes that have been established in your country.

#### Agri-environmental subsidies

The agri-environmental subsidies system (with the programme periods 1995–1999 and 2000–2006), which forms part of Finland's rural development programme, aims to reduce the environmental burden of agriculture, and to promote biodiversity in farmland habitats. In 2003, a total of €290 million in environmental subsidies was paid to 93 % of all farmers receiving agricultural subsidies. Basic and supplementary measures accounted for more than €255.9 million of the total sum, and special subsidies amounted to about €34.1 million. The Ministry of Agriculture and Forestry supported environmental training and consulting in agriculture to the tune of €1.3 million in 2003. Special agri-environmental subsidies may be granted for establishing buffer zones, creating and managing wetlands, organic farming, managing traditional agricultural biotopes and raising native livestock breeds, for instance (Table 11). More than half of these subsidies come from EU funds (EU funding amounts to 75 % in Objective 1 areas and 50 % elsewhere).

**Table.** Total values of agri-environmental subsidy agreements (€); nos. of farms; and total areas involved (ha); 2000–2003 (Ministry of Agriculture and Forestry 2004).

SUBSIDY TYPE	2000			2001					200
	FARMS	HA	SUBSIDIES EUR	FARMS	HA	SUBSIDIES EUR	FARMS		
2010 Creation and management of buffer zones, 5 yrs. (2000-)	71	140.81	66 499.61	274	673.92	298 979.90	450		
2011 Creation and management of buffer zones, 10 yrs.(2000-)	51	165.61	74 125.45	145	469.35	207 421.22	208		
2012 Creation and management of wetlands and sedimentation ponds, 5 yrs. (2000-)	4	2.39	1 017.38	25	19.72	6 441.67	28		
2013 Creation and management of wetlands and sedimentation ponds, 10 yrs. (2000-)				10	16.90	6 517.04	11		
2019 Landscape improvement and management, 5 yrs. (2000-)	43	291.99	50 457.61	235	814.58	200 436.88	378		
2020 Landscape improvement and management, 10 yrs.(2000-)	13	58.04	17 359.59	82	317.37	90 059.78	130		
2021 Promoting biodiversity, 5 yrs. (2000-)	21	70.04	19 236.27	204	936.26	295 614.76	369		
2022 promoting biodiversity, 10 yrs. (2000-)	11	143.68	32 559.21	79	419.62	113 257.13	127		
2023 Trad. agric. biotopes (not fields) 5 yrs. (2000-)	217	979.70	202.41	991	070.51	2 418 308.08	1 579		
2027 Raising native livestock breeds	93	650.00	76 965.83	236	531.00	2 677.27	763		
2028 Growing native crop varieties 5 yrs. (2000-)	2	2.00	689.90	2	2.00	520.25	7		

**Table.** Allocation of statutory funding within government budgets for *Promoting natural management in commercially managed forests*, 1997–2003, in millions of euros, approx. (Ministry of Agriculture and Forestry 2004).

	1997	1998	1999	2000	2001	2002	2003
Surveys of key habitats specified in the Forest Act (Section 10) (METE)	2.0 (pilot stage 1996–1997)	1.48 (first survey year)	1.7	2.17	2.18	2.02	2.09
Environmental subsidies (Section 19)	< 0.10	0.30	0.80	1.37	1.54	1.47	1.25
Regional natural management projects (Section 20)	0.30	0.25	0.50	0.68	0.61	0.62	0.85
Natural values trading (Section 19a)	-	-	-	-	-	-	0.20
National natural management development projects **)	0.1	0.1	0.25	0.23	0.03	0.04	0.08

\*\*) This funding includes financing for the development of studies related to natural management over the period



1997–1999 (approx. €0.1m per year). From 2000 onwards, this financial subsidy has been included in the funding for regional natural management projects.

The criteria for environmental subsidies for forestry were changed in 2000 and 2004. In 2000, the basis for calculating subsidies was changed from the taxable value of a cubic metre of timber to the average stumpage price, and subsidy periods were shortened from 30 years to 10 years. The change that came into effect at the beginning of 2004 restricted the length of environmental subsidy agreements to 10 years. The changed subsidy conditions produced uncertainty that could be seen in the use of the 2003 environmental subsidies, with forest owners waiting until the changed subsidy conditions were presented in the METSO programme.

By the end of 2003, agreements had been made covering a total area of 7,850 hectares. About two-thirds of the sites are streamside habitats, many of which also consist of herb-rich woodland or nutrient-rich spruce mire habitats. The rest of the areas covered by subsidies are divided fairly evenly between other habitat types. The priority sites for subsidies have been the key habitats specified in Section 10 of the Forest Act. Within the framework of the finances available, regional forest centres may grant environmental subsidies to preserve other valuable habitats, or for other habitat management measures.

The demand for environmental subsidies varies greatly from region to region. The results of the special survey of Forest Act sites completed in summer 2004 (the METE project) enable the more precise allocation of environmental subsidies to each forest centre, thus facilitating the planning natural management projects that preserve biodiversity.

The natural values trading begun in the Satakunta region of Western Finland in 2003 is a new METSO pilot project. This scheme received funding from both the Ministry of the Environment and the Ministry of Agriculture and Forestry. The project had €400,000 at its disposal, which enabled 38 agreements to be concluded covering a total area of 228 ha. Forest owners have been especially interested in voluntary conservation methods. Sites with a total area of 1,450 ha were offered for natural values trading.

The METSO programme (see 4.3) required additional funding totalling €61.7 million in the years 2003–2007, of which the Ministry of the Environment is to contribute almost €30 million, and the Ministry of Agriculture and Forestry more than €11 million. Metsähallitus's income from the sale of state-owned lands minus personnel costs amounts have amounted to €21 million. METSO funding is ensured in the programme of Prime Minister Vanhanen's government.

A Ministry of Agriculture and Forestry working group has considered the need for changes in the Act on the Funding of Sustainable Forestry. The aim is to include the implementation of the METSO pilot projects in the Act, and the corresponding bill was presented to Parliament on 22.5.2003. Deficiencies related to the payment of environmental subsidies are to be corrected.

The completion of the surveys of the key habitats specified in the Forest Act frees up funds for environmental subsidies. The funds annually allocated to environmental subsidies and natural management projects will be raised to €8 million by 2007, in accordance with the METSO Programme. Table 10 shows the funds allocated to environmental subsidies for forestry over the period 1999–2003.

**Table.** Environmental subsidies (million euros), numbers of agreements, and total areas covered (hectares) over the period 1999–2003 (Ministry of Agriculture and Forestry 2004).

	1999	2000	2001	2002	2003
<b>Environmental subsidies</b> (million euros)	0.76	1.4	1.5	1.7	1.4
<b>Agreements</b> (no.)	74	132	223	251	176
<b>Total area</b> (ha)	250	1,584	1,300	1,959	2,574

<b>137. ?</b> On Article 20(1), has your country provided financial support and incentives to those national activities that are intended to achieve the objectives of the Convention?	
a) No	
b) Yes, incentives only (please provide a list of such incentives below)	
c) Yes, financial support only	
d) Yes, financial support and incentives (please provide details below)	x
Further comments on financial support and incentives provided.	
See above	

***The next question (138) is for DEVELOPED COUNTRIES***

<b>138. ?</b> On Article 20(2), has your country provided new and additional financial resources to enable developing country Parties to meet the agreed incremental costs to them of implementing measures which fulfill the obligations of the Convention?	
a) No	
b) Yes (please indicate the amount, on an annual basis, of new and additional financial resources your country has provided)	x
Further comments on new and additional financial resources provided.	
In year 2003 bilateral funding supporting CBD has been 10 million euros and support through multilateral source was 3.3 million euros.	

***The next question (139) is for DEVELOPING COUNTRIES OR COUNTRIES WITH ECONOMIES IN TRANSITION***

<b>139. ?</b> On Article 20(2), has your country received new and additional financial resources to enable it to meet the agreed full incremental costs of implementing measures which fulfill the obligations of the Convention?	
a) No	
b) Yes	

<b>140. ?</b> Has your country established a process to monitor financial support to biodiversity, including support provided by the private sector? (decision V/11)	
a) No	
b) No, but procedures being established	
c) Yes (please provide details below)	x
Further comments on processes to monitor financial support to biodiversity, including support provided by the private sector.	

**141. ?** Has your country considered any measures like tax exemptions in national taxation systems to encourage financial support to biodiversity? (decision V/11)

a) No	
b) No, but exemptions are under development (please provide details below)	
c) Yes, exemptions are in place (please provide details below)	x

Further comments on tax exemptions for biodiversity-related donations.

Finland has largely based its environmental policy on administrative regulations, on site-based emission permits and mandatory reporting systems. In the 1990s, however, a number of economic instruments were introduced for environmental purposes. The system has been further developed so that the emphasis in taxation could gradually be shifted from taxation of labour to taxation of the use of natural resources and of activities polluting the environment.

The requirements of biodiversity are considered in all the legislation on the use of natural resources which has been renewed during the 1990s (The Nature Conservation Act, the Water Act, Land Use and Building Act, the Forests Act, the Act on the Financing of Sustainable Forestry, Forestry centres, and legislation on the Forestry Development Centre Tapio, Metsähallitus – Forest and Park Service and the Forestry associations). Other legislation has also recently been revised to promote the conservation and sustainable use of biodiversity. Also, the opportunities for local authorities to consider biodiversity in their activities have improved thanks to the new legislation, education and information sharing.

The proposed energy conservation measures can be divided into the following seven categories: 1) funding the development and commercialisation of energy-efficient technology, 2) using economic steering methods, e.g., taxation, 3) improving the efficient use of control by norms, 4) further enforcing voluntary energy conservation agreements, 5) further developing energy audits and analyses, 6) supporting energy conservation measures with information services, training and motivation as well as 7) supporting energy conservation activities of the EU and international organisations.

#### 1. ECONOMIC INSTRUMENTS FOR WATER POLLUTION CONTROL

Municipalities have the primary responsibility for providing delivery of fresh water and treatment of waste water. These services are financed by charges collected from the users. Municipal water charges are based on a "full-cost principle". This means that the total cost of providing the water services should be paid by the users.

To improve energy efficiency, voluntary agreements have been signed with industry and municipal sectors, covering the use, production, transfer and distribution of energy. Companies joining an agreement must perform an energy audit, appoint an energy manager and prepare an energy conservation plan. Then, they must implement the measures identified in the plan and report annually to the sectoral association. The Government will provide funding for the energy audits and for the investments of companies participating in the agreements. Some companies have also participated in the EMAS (Eco-management and Audit Scheme) Programme of the EU (see chart on [www.vyh.fi/eng/environ/sustdev/indicat/emas.htm](http://www.vyh.fi/eng/environ/sustdev/indicat/emas.htm)).

**142.** Has your country reviewed national budgets and monetary policies, including the effectiveness of official development assistance allocated to biodiversity, with particular attention paid to positive incentives and their performance as well as perverse incentives and ways and means for their removal or mitigation? (decision VI/16)

a) No	
b) No, but review is under way	x
c) Yes (please provide results of review below)	

Further comments on review of national budgets and monetary policies, including the effectiveness of official development assistance.

A study on incentive and perverse incentives is under review by a national research team and will be finalised during summer 2005. Additionally a comprehensive study about development assistance and MEA:s has been finalised for the period 2001-2003 including financial allocations for biodiversity from the national budget.

**143.** Is your country taking concrete actions to review and further integrate biodiversity considerations in the development and implementation of major international development initiatives, as well as in national sustainable development plans and relevant sectoral policies and plans? (decisions VI/16 and VII/21)

a) No	
b) No, but review is under way	
c) Yes, in some initiatives and plans (please provide details below)	
d) Yes, in major initiatives and plans (please provide details below)	x

Further comments on review and integration of biodiversity considerations in relevant initiatives, policies and plans.

See above chapter on cooperation.

**144.** Is your country enhancing the integration of biological diversity into the sectoral development and assistance programmes? (decision VII/21)

a) No	
b) No, but relevant programmes are under development	
c) Yes, into some sectoral development and assistance programmes (please provide details below)	x
d) Yes, into major sectoral development and assistance programmes (please provide details below)	

Further comments on the integration of biodiversity into sectoral development and assistance programmes

Finland supports programs through bilateral development co-operations in Namibia, Burkina Faso and North Africa/Middle East which include components on biodiversity conservation within the framework of these Decisions.

***The next question (145) is for DEVELOPED COUNTRIES***

**145.** Please indicate with an "X" in the table below in which area your country has provided financial support to developing countries and/or countries with economies in transition. Please elaborate in the space below if necessary.

A r e a s	Support provided
a) Undertaking national or regional assessments within the framework of MEA (decision VI/8)	x
b) <i>In-situ</i> conservation (decision V/16)	x

c) Enhance national capacity to establish and maintain the mechanisms to protect traditional knowledge (decision VI/10)	
d) <i>Ex-situ</i> conservation (decision V/26)	<b>x</b>
e) Implementation of the Global Strategy for Plant Conservation (decision VI/9)	
f) Implementation of the Bonn Guidelines (decision VI/24)	<b>x</b>
g) Implementation of programme of work on agricultural biodiversity (decision V/5)	<b>x</b>
h) Preparation of first report on the State of World's Animal Genetic Resources (decision VI/17)	
i) Support to work of existing regional coordination mechanisms and development of regional and sub regional networks or processes (decision VI/27)	
j) Development of partnerships and other means to provide the necessary support for the implementation of the programme of work on dry and subhumid lands biological diversity (decision VII/2)	<b>x</b>
k) Financial support for the operations of the Coordination Mechanism of the Global Taxonomy Initiative (decision VII/9)	<b>x</b>
l) Support to the implementation of the Action Plan on Capacity Building as contained in the annex to decision VII/19 (decision VII/19)	
m) Support to the implementation of the programme of work on mountain biological diversity (decision VII/27)	
n) Support to the implementation of the programme of work on protected areas (decision VII/28)	<b>x</b>
o) Support to the development of national indicators (decision VII/30)	
p) Others (please specify)	<b>x</b>
Further information on financial support provided to developing countries and countries with economies in transition.	
ODA/Supporting developing country delegates to participate in meetings (CBD/SBSTTA, Biosafety); CBD/BE fund. The most important ongoing project is support to the Government of Peru to implement CBD in Amazonia (BIODAMAZ-project).	

**The next question (146) is for DEVELOPING COUNTRIES OR COUNTRIES WITH ECONOMIES IN TRANSITION**

**146.** Please indicate with an "X" in the table below in which areas your country has applied for funds from the Global Environment Facility (GEF), from developed countries and/or from other sources. The same area may have more than one source of financial support. Please elaborate in the space below if necessary.

Areas	Applied for funds from		
	GEF	Bilateral	Other
a) Preparation of national biodiversity strategies or action plans			
b) National capacity self-assessment for implementation of Convention (decision VI/27)			
c) Priority actions to implement the Global Taxonomy Initiative (decision V/9)			
d) <i>In-situ</i> conservation (decision V/16)			
e) Development of national strategies or action plans to deal with alien species (decision VI/23)			
f) <i>Ex-situ</i> conservation, establishment and maintenance of <i>Ex-situ</i> conservation facilities (decision V/26)			
g) Projects that promote measures for implementing Article 13 (Education and Public Awareness) (decision VI/19)			
h) Preparation of national reports (decisions III/9, V/19 and VI/25)			
i) Projects for conservation and sustainable use of inland water biological diversity (decision IV/4)			
j) Activities for conservation and sustainable use of agricultural biological diversity (decision V/5)			
k) Implementation of the Cartagena Protocol on Biosafety (decision VI/26)			
l) Implementation of the Global Taxonomy Initiative			
m) Implementation of the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity			
n) Others (please specify)			
Further information on application for financial support.			

**Box LXII .**

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

- a) outcomes and impacts of actions taken;
- b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
- c) contribution to progress towards the 2010 target;
- d) progress in implementing national biodiversity strategies and action plans;
- e) contribution to the achievement of the Millennium Development Goals;
- f) constraints encountered in implementation.

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**D. THEMATIC AREAS**

**147.** Please use the scale indicated below to reflect the level of challenges faced by your country in implementing the thematic programmes of work of the Convention (marine and coastal biodiversity, agricultural biodiversity, forest biodiversity, inland waters biodiversity, dry and sub-humid lands and mountain biodiversity).

3 = High Challenge	1 = Low Challenge
2 = Medium Challenge	0 = Challenge has been successfully overcome
N/A = Not applicable	

Challenges	Programme of Work					
	Agricultural	Forest	Marine and coastal	Inland water ecosystem	Dry and subhumid lands	Mountain
(a) Lack of political will and support	2	1	2	2	N/A	N/A
(b) Limited public participation and stakeholder involvement	1	1	1	1		
(c) Lack of mainstreaming and integration of biodiversity issues into other sectors	2	2	2	2		
(d) Lack of precautionary and proactive measures	1	1	2	2		
(e) Inadequate capacity to act, caused by institutional weakness	1	1	1	1		
(f) Lack of transfer of technology and expertise	1	1	1	1		

(g) Loss of traditional knowledge	1	2	1	1		
(h) Lack of adequate scientific research capacities to support all the objectives	2	1	2	2		
(i) Lack of accessible knowledge and information	1	1	3	2		
(j) Lack of public education and awareness at all levels	2	2	3	2		
(k) Existing scientific and traditional knowledge not fully utilized	2	2	2	2		
(l) Loss of biodiversity and the corresponding goods and services it provides not properly understood and documented	3	3	3	3		
(m) Lack of financial, human, technical resources	3	3	3	3		
(n) Lack of economic incentive measures	2	2	2	2		
(o) Lack of benefit-sharing	1	1	1	1		
(p) Lack of synergies at national and international levels	1	1	2	2		
(q) Lack of horizontal cooperation among stakeholders	1	1	1	1		
(r) Lack of effective partnerships	1	1	1	1		
(s) Lack of engagement of scientific community	1	1	1	1		
(t) Lack of appropriate policies and laws	1	1	1	1		
(u) Poverty	0	0	0	0		
(v) Population pressure	1	1	1	1		
(w) Unsustainable consumption and production patterns	2	2	2	2		
(x) Lack of capacities for local communities	2	2	2	2		



(y) Lack of knowledge and practice of ecosystem-based approaches to management	2	2	2	2		
(z) Weak law enforcement capacity	1	1	1	1		
(aa) Natural disasters and environmental change	2	2	2	2		
(bb) Others (please specify)						

### Inland water ecosystems

148. Has your country incorporated the objectives and relevant activities of the programme of work into the following and implemented them? (decision VII/4)				
Strategies, policies, plans and activities	No	Yes, partially, integrated but not implemented	Yes, fully integrated and implemented	N/A
a) Your biodiversity strategies and action plans		x		
b) Wetland policies and strategies		x		
c) Integrated water resources management and water efficiency plans being developed in line with paragraph 25 of the Plan of Implementation of the World Summit on Sustainable Development		x	?	
d) Enhanced coordination and cooperation between national actors responsible for inland water ecosystems and biological diversity		x		
Further comments on incorporation of the objectives and activities of the programme of work				

149. Has your country identified priorities for each activity in the programme of work, including timescales, in relation to outcome oriented targets? (decision VII/4 )	
a) No	
b) Outcome oriented targets developed but priority activities not developed	
c) Priority activities developed but not outcome oriented targets	x
d) Yes, comprehensive outcome oriented targets and priority activities	

developed	
Further comments on the adoption of outcome oriented targets and priorities for activities, including providing a list of targets (if developed).	

<b>150.</b> Is your country promoting synergies between this programme of work and related activities under the Ramsar Convention as well as the implementation of the Joint Work Plan (CBD-Ramsar) at the national level? (decision VII/4 )	
a) Not applicable (not Party to Ramsar Convention)	
b) No	
c) No, but potential measures were identified for synergy and joint implementation	x
d) Yes, some measures taken for joint implementation (please specify below)	
e) Yes, comprehensive measures taken for joint implementation (please specify below)	
Further comments on the promotion of synergies between the programme of work and related activities under the Ramsar Convention as well as the implementation of the Joint Work Plan (CBD-Ramsar) at the national level.	

<b>151.</b> Has your country taken steps to improve national data on: (decision VII/4 )			
Issues	Yes	No	No, but development is under way
a) Goods and services provided by inland water ecosystems?			x
b) The uses and related socioeconomic variables of such goods and services?			x
c) Basic hydrological aspects of water supply as they relate to maintaining ecosystem function?	x		
d) Species and all taxonomic levels?	x		
e) On threats to which inland water ecosystems are subjected?	x		
Further comments on the development of data sets, in particular a list of data sets developed in case you have replied "YES" above.			

**152.** Has your country promoted the application of the guidelines on the rapid assessment of the biological diversity of inland water ecosystems? (decision VII/4 )

a) No, the guidelines have not been reviewed	x
b) No, the guidelines have been reviewed and found inappropriate	
c) Yes, the guidelines have been reviewed and application/promotion is pending	
d) Yes, the guidelines promoted and applied	x

Further comments on the promotion and application of the guidelines on the rapid assessment of the biological diversity of inland water ecosystems.

The new Act on the Management of Water Resources came into force on 31.12.2004. This new legislation primarily aims to meet the obligations of the EU's Water Framework Directive with regard to the management of water resources. The main objectives of water resource management are to protect, enhance and restore water resources so as to prevent deterioration in the state of groundwater and surface water bodies, and to ensure that their water quality status is at least "good". The quality status of surface water resources is defined on the basis of their ecological or chemical state, whichever is worse. Groundwater resources are classified according to their quantitative and chemical properties. Water resource management involves the joint consideration of the needs of different water users, taking into account factors including the need to promote sustainable use with regard to protecting resources in the long term, the recreational use of water resources, the economic aspects of the water supply, flood protection, water-borne diseases, and the need to protect aquatic ecosystems and the terrestrial and wetland ecosystems linked to them.

**Proposals from the Water Act commission for a new Water Act**

Proposals related to the complete renewal of the Water Act (264/1961) were submitted to the Ministry of Justice by the Water Act Commission on 16.6.2004 (Commission report 2004:2 Ministry of Justice). This report contains proposals for a new Water Act drafted in the form of government proposals, which will be further processed within the Ministry of Justice. The objective of the act is to promote, organise and harmonise the use of water resources to make it socially, economically and ecologically sustainable; while also reducing and preventing damage caused by water and the use of water resources; and improving the state of water resources and aquatic environments.

**Box LXIII.**

Please elaborate below on the implementation of this programme of work and associated decisions specifically focusing on:

- a) outcomes and impacts of actions taken;
- b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
- c) contribution to progress towards the 2010 target;
- d) progress in implementing national biodiversity strategies and action plans;
- e) contribution to the achievement of the Millennium Development Goals;
- f) constraints encountered in implementation.

## Marine and coastal biological diversity

### General

<b>153.</b> Do your country's strategies and action plans include the following? Please use an "X" to indicate your response. (decisions II/10 and IV/15)	
a) Developing new marine and coastal protected areas	
b) Improving the management of existing marine and coastal protected areas	x
c) Building capacity within the country for management of marine and coastal resources, including through educational programmes and targeted research initiatives (if yes, please elaborate on types of initiatives in the box below)	x *)
d) Instituting improved integrated marine and coastal area management (including catchments management) in order to reduce sediment and nutrient loads into the marine environment	x
e) Protection of areas important for reproduction, such as spawning and nursery areas	x
f) Improving sewage and other waste treatment	x
g) Controlling excessive fishing and destructive fishing practices	x
h) Developing a comprehensive oceans policy (if yes, please indicate current stage of development in the box below)	
i) Incorporation of local and traditional knowledge into management of marine and coastal resources (if yes, please elaborate on types of management arrangements in the box below)	x
j) Others (please specify below)	
k) Not applicable	
Please elaborate on the above activities and list any other priority actions relating to conservation and sustainable use of marine and coastal biodiversity.	
<p>*) One of the main goals of the Finnish Baltic Sea Protection Programme is to maintain and increase biodiversity in the marine environment. The Finnish Inventory Programme for the Underwater Marine Environment (VELMU) started in spring 2004. The inventories are conducted during 2004-2014. The information gathered under VELMU will be of central importance both for the planning of nature conservation and the exploitation of natural resources.</p>	

### Implementation of Integrated Marine and Coastal Area Management

<b>154.</b> Has your country established and/or strengthened institutional, administrative and legislative arrangements for the development of integrated management of marine and coastal ecosystems?	
a) No	
b) Early stages of development	x
c) Advanced stages of development	
d) Arrangements in place (please provide details below)	
e) Not applicable	

Further comments on the current status of implementation of integrated marine and coastal area management.

Finland has been supporting integrated coastal management in the Mediterranean through the World Bank led METAP-programme.

**155.** Has your country implemented ecosystem-based management of marine and coastal resources, for example through integration of coastal management and watershed management, or through integrated multidisciplinary coastal and ocean management?

a) No	
b) Early stages of development	
c) Advanced stages of development	x
d) Arrangements in place (please provide details below)	
e) Not applicable	

Further comments on the current status of application of the ecosystem to management of marine and coastal resources.

### Marine and Coastal Living Resources

**156.** Has your country identified components of your marine and coastal ecosystems, which are critical for their functioning, as well as key threats to those ecosystems?

a) No	
b) Plans for a comprehensive assessment of marine and coastal ecosystems are in place (please provide details below)	
c) A comprehensive assessment is currently in progress	x
d) Critical ecosystem components have been identified, and management plans for them are being developed (please provide details below)	
e) Management plans for important components of marine and coastal ecosystems are in place (please provide details below)	
f) Not applicable	

Further comments on the current status of assessment, monitoring and research relating to marine and coastal ecosystems, as well as key threats to them

**157.** Is your country undertaking the following activities to implement the Convention's work plan on coral reefs? Please use an "X" to indicate your response.

Activities	Not implemented nor a priority	Not implemented but a priority	Currently implemented	Not applicable
a) Ecological assessment and monitoring of reefs				x
b) Socio-economic assessment and monitoring of communities and stakeholders				x
c) Management, particularly through application of integrated coastal management and marine and coastal protected areas in coral reef environments				x
d) Identification and implementation of additional and alternative measures for securing livelihoods of people who directly depend on coral reef services				x
e) Stakeholder partnerships, community participation programmes and public education campaigns				x
f) Provision of training and career opportunities for marine taxonomists and ecologists				x
g) Development of early warning systems of coral bleaching				x
h) Development of a rapid response capability to document coral bleaching and mortality				x
i) Restoration and rehabilitation of degraded coral reef habitats				x
j) Others (please specify below)				

Please elaborate on ongoing activities.

### Marine and Coastal Protected Areas

158. Which of the following statements can best describe the current status of marine and coastal protected areas in your country? Please use an "X" to indicate your response.	
a) Marine and coastal protected areas have been declared and gazetted (please indicate below how many)	x
b) Management plans for these marine and coastal protected areas have been developed with involvement of all stakeholders	x (partly)
c) Effective management with enforcement and monitoring has been put in place	x (partly)
d) A national system or network of marine and coastal protected areas is under development	
e) A national system or network of marine and coastal protected areas has been put in place	x
f) The national system of marine and coastal protected areas includes areas managed for purpose of sustainable use, which may allow extractive activities	
g) The national system of marine and coastal protected areas includes areas which exclude extractive uses	x
h) The national system of marine and coastal protected areas is surrounded by sustainable management practices over the wider marine and coastal environment.	
i) Other (please describe below)	
j) Not applicable	
Further comments on the current status of marine and coastal protected areas.	
a) 22 marine and coastal protected areas (Natura 2000 site and BSPA = Baltic Sea Protected areas)	

### Mariculture

159. Is your country applying the following techniques aimed at minimizing adverse impacts of mariculture on marine and coastal biodiversity? Please check all that apply.	
a) Application of environmental impact assessments for mariculture developments	X
b) Development and application of effective site selection methods in the framework of integrated marine and coastal area management	X
c) Development of effective methods for effluent and waste control	X
d) Development of appropriate genetic resource management plans at the hatchery level	
e) Development of controlled hatchery and genetically sound reproduction methods in order to avoid seed collection from nature.	
f) If seed collection from nature cannot be avoided, development of environmentally sound practices for spat collecting operations, including use of selective fishing gear to avoid by-catch	
g) Use of native species and subspecies in mariculture	X

h)	Implementation of effective measures to prevent the inadvertent release of mariculture species and fertile polypoids.	
i)	Use of proper methods of breeding and proper places of releasing in order to protect genetic diversity	X
j)	Minimizing the use of antibiotics through better husbandry techniques	
k)	Use of selective methods in commercial fishing to avoid or minimize by-catch	X
l)	Considering traditional knowledge, where applicable, as a source to develop sustainable mariculture techniques	
m)	Not applicable	
Further comments on techniques that aim at minimizing adverse impacts of mariculture on marine and coastal biodiversity.		

### Alien Species and Genotypes

<b>160.</b> Has your country put in place mechanisms to control pathways of introduction of alien species in the marine and coastal environment? Please check all that apply and elaborate on types of measures in the space below.		
a)	No	
b)	Mechanisms to control potential invasions from ballast water have been put in place (please provide details below)	x *)
c)	Mechanisms to control potential invasions from hull fouling have been put in place (please provide details below)	
d)	Mechanisms to control potential invasions from aquaculture have been put in place (please provide details below)	**)
e)	Mechanisms to control potential invasions from accidental releases, such as aquarium releases, have been put in place (please provide details below)	***)
f)	Not applicable	
Further comments on the current status of activities relating to prevention of introductions of alien species in the marine and coastal environment, as well as any eradication activities.		
<p>b) Not yet but Finland is actively involved in preparing Draft Documents for HELCOM recommendations in accordance with the IMO Ballast Water Convention 2004</p> <p>d) Not applicable. The only non-native fish species in coastal aquaculture in Finland is the rainbow trout that does not breed successfully in natural waters. As the fish pathogens, practically all juvenile fish reared for fish farming are vaccinated against both native and non-native pathogenic micro-organisms.</p> <p>e) Not applicable. Species released from warm-water aquaria do not survive the low winter temperatures; species kept at sea-water salinity conditions do not tolerate the low-saline water of the Baltic Sea.</p>		



**Box LXIV.**

Please elaborate below on the implementation of this programme of work and associated decisions specifically focusing on:

- a) outcomes and impacts of actions taken;
- b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
- c) contribution to progress towards the 2010 target;
- d) progress in implementing national biodiversity strategies and action plans;
- e) contribution to the achievement of the Millennium Development Goals;
- f) constraints encountered in implementation.

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**Agricultural biological diversity**

**161. ?** Has your country developed national strategies, programmes and plans that ensure the development and successful implementation of policies and actions that lead to the conservation and sustainable use of agrobiodiversity components? (decisions III/11 and IV/6)

a) No	
b) No, but strategies, programmes and plans are under development	
c) Yes, some strategies, programmes and plans are in place (please provide details below)	
d) Yes, comprehensive strategies, programmes and plans are in place (please provide details below)	x

Further comments on agrobiodiversity components in national strategies, programmes and plans.

Ministry of Agriculture and Forestry: strategy for renewable resources, 2001  
 Biological diversity under Ministry of Agriculture and Forestry, 2003  
 National biological diversity strategy (1997-2005)  
 The National Plant Genetic Resources Programme for Agriculture and Forestry, 2003  
 National strategy and action plan for conservation and sustainable use of farm animal genetic resources, 2004

**162. ?** Has your country identified ways and means to address the potential impacts of genetic use restriction technologies on the *In-situ* and *Ex-situ* conservation and sustainable use, including food security, of agricultural biological diversity? (decision V/5)

a) No	x
b) No, but potential measures are under review	
c) Yes, some measures identified (please provide details below)	
d) Yes, comprehensive measures identified (please provide details below)	

Further information on ways and means to address the potential impacts of genetic use restriction technologies on the *In-situ* and *Ex-situ* conservation and sustainable use of agricultural biodiversity.

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## Annex to decision V/5 - Programme of work on agricultural biodiversity

Programme element 1 – Assessment	
<b>163.</b> Has your country undertaken specific assessments of components of agricultural biodiversity such as on plant genetic resources, animal genetic resources, pollinators, pest management and nutrient cycling?	
a) No	
b) Yes, assessments are in progress (please specify components below)	
c) Yes, assessments completed (please specify components and results of assessments below)	x
Further comments on specific assessments of components of agricultural biodiversity.	
<p>Inventories of farm animal breeds and their keepers.</p> <p>Analysis of state of genetic variation in chicken, sheep and cattle landrace breeds</p> <p>Biodiversity of plant genetic resources (apple, plum, cherry, barley, potato, reed canary grass etc.)</p> <p>See also:</p> <p>Kuussaari, M., Tiainen, J., Helenius, J., Hietala-Koivu, R. &amp; Heliölä, J. (eds.) 2004: Maatalouden ympäristötuen merkitys luonnon monimuotoisuudelle ja maisemalle: MYTVAS-seurantatutkimus 2000–2003 (Abstract: Significance of the Finnish agri-environmental support scheme for biodiversity and landscape: Results of the MYTVAS project 2000–2003). – Suomen Ympäristö 709. 212 p.</p> <p>Horisontaalisen maaseudun kehittämissuunnitelman väliarviointi. Manner-Suomi. (In Finnish with English summary [Mid-term evaluation of the Horizontal Rural Development Programme. Continental Finland].) MMM:n julkaisu 1/2004.</p>	
<b>164.</b> Is your country undertaking assessments of the interactions between agricultural practices and the conservation and sustainable use of the components of biodiversity referred to in Annex I of the Convention (e.g. ecosystems and habitats; species and communities; genomes and genes of social, scientific or economic importance)?	
a) No	
b) Yes, assessments are under way	
c) Yes, some assessments completed (please provide details below)	
d) Yes, comprehensive assessments completed (please provide details below)	x
Further comments on assessment of biodiversity components (e.g. ecosystems and habitats; species and communities; genomes and genes of social, scientific or economic importance).	
<p>Population genetic analysis of landrace animal breeds for important genome regions</p> <p>Social studies on farms keeping landrace animal breeds</p> <p>Registration of landraces of field crops (KTTK).</p>	
<b>165.</b> Has your country carried out an assessment of the knowledge, innovations and practices of farmers and indigenous and local communities in sustaining agricultural biodiversity and agro-ecosystem services for food production and food security?	
a) No	
b) Yes, assessment is under way	x

c) Yes, assessment completed (please specify where information can be retrieved below)	
Further comments on assessment of the knowledge, innovations and practices of farmers and indigenous and local communities.	
Media analysis on landrace animal breeds.	
Study on social and economic benefits of keeping landrace animal breeds.	

<b>166.</b> Has your country been monitoring an overall degradation, status quo or restoration/rehabilitation of agricultural biodiversity since 1993 when the Convention entered into force?	
a) No	
b) Yes, no change found (status quo)	
c) Yes, overall degradation found (please provide details below)	x
d) Yes, overall restoration or rehabilitation observed (please provide details below)	x
Further comments on observations.	
Monitoring carried out for landrace breeds in cattle, sheep and chicken	
<p>Point (c): Degradation, as a consequence of various processes, of the landscape structure of farmland is observed and continues which has led in a decrease of diversity of field margin plant, pollinator (Hymenoptera, Lepidoptera) and bird communities (tens of scientific papers and reports, several Ph.D. theses, a recent Finnish review [Tiainen, J., Kuussaari, M., Laurila, I. P. &amp; Toivonen, T. (eds.) 2004: <i>Elämää pellossa – Suomen maatalousympäristön monimuotoisuus</i>. Edita Publishing, Helsinki. 366 p.]; see also Kuussaari, M., Tiainen, J., Helenius, J., Hietala-Koivu, R. &amp; Heliölä, J. (toim.) 2004: Maatalouden ympäristötuen merkitys luonnon monimuotoisuudelle ja maisemalle: MYTVAS-seurantatutkimus 2000–2003 (Abstract: Significance of the Finnish agri-environmental support scheme for biodiversity and landscape: Results of the MYTVAS project 2000–2003). – Suomen Ympäristö 709. 212 s.)</p> <p>Point (d): Overall restoration has happened, but the impact cannot be described strong as yet. The national agri-environmental support scheme provides some measures which to a small extent compensate habitat losses caused by a general and overwhelming decline of animal husbandry in the country. The scheme provides also some special measures for the restoration of permanent grasslands (meadows) which have almost vanished because of cessation of grazing.</p>	

<b>Programme element 2 - Adaptive management</b>	
<b>167.</b> Has your country identified management practices, technologies and policies that promote the positive, and mitigate the negative, impacts of agriculture on biodiversity, and enhance productivity and the capacity to sustain livelihoods?	
a) No	
b) No, but potential practices, technologies and policies being identified	
c) Yes, some practices, technologies and policies identified (please provide details below)	
d) Yes, comprehensive practices, technologies and policies identified (please provide details below)	x
Further comments on identified management practices, technologies and policies.	

Network collaboration of keepers of chicken and cattle landrace breeds

EU and national subsidies for rare landrace breeds and field crops

### Programme element 3 - Capacity-building

**168.** Has your country increased the capacities of farmers, indigenous and local communities, and their organizations and other stakeholders, to manage sustainable agricultural biodiversity and to develop strategies and methodologies for *In-situ* conservation, sustainable use and management of agricultural biological diversity?

a) No

b) Yes (please specify area/component and target groups with increased capacity)

x

Further comments on increased capacities of farmers, indigenous and local communities, and their organizations and other stakeholders.

Seminars, newsletter, leaflets and web-site for landrace animal breeds and field crops  
2–3 % of the national agri-environmental support is devoted to measures designed for maintenance and management of agricultural biodiversity.

**169.** Has your country put in place operational mechanisms for participation by a wide range of stakeholder groups to develop genuine partnerships contributing to the implementation of the programme of work on agricultural biodiversity?

a) No

b) No, but potential mechanisms being identified

c) No, but mechanisms are under development

d) Yes, mechanisms are in place

x

**170.** Has your country improved the policy environment, including benefit-sharing arrangements and incentive measures, to support local-level management of agricultural biodiversity?

a) No

b) No, but some measures and arrangements being identified

c) No, but measures and arrangements are under development

d) Yes, measures and arrangements are being implemented (please specify below)

x

Further comments on the measures taken to improve the policy environment.

#### General

Agri-environmental support is paid as part of the Horizontal Rural Development Programme for 2000-2006 approved by the EU. Environmental support is mainly a compensation for the costs and income losses relating to the measures, but it also involves an incentive, which may be considered an income component. Agri-environmental support consists of basic and additional measures as well as contracts concerning special measures. The objective of the measures is to maintain and improve the productive capacity of the land, reduce the load on the environment and damages due to pesticides, enhance biodiversity and manage the rural landscapes.

#### Support based on the CAP

**1. Income support/direct payments** of the EU are used to compensate farmers for the income losses due to the decrease in institutional prices as a result of the agricultural policy reforms (reform of 1992 and Agenda 2000).

**Compensatory allowances (LFA support)** improve the profitability of agriculture and secure the continuation of agricultural production in farming regions with unfavourable natural conditions.

**Environmental support** for the programming period 2000-2006 consists of the basic and additional measures intended for all farmers and special measures requiring more efficient environmental protection and management measures. The [objective of environmental support](#) is to reduce the load on the environment, in particular, surface waters and groundwater as well as the air through more efficient utilization of plant nutrients and reduction of the risk due to the use of pesticides. Further objectives are the preservation of biodiversity and plant and animal species as well as management of farming landscapes. Environmental support is compensation for the costs and income losses due to the required measures, and the support also includes an incentive.

## 2. Other national measures

The objective of the national aid scheme is to complement the measures based on the common agricultural policy (CAP) of the EU, secure the preconditions for agriculture in the different production lines and regions as well as maintain the viability of rural areas.

### Programme element 4 – Mainstreaming

**171.** Is your country mainstreaming or integrating national plans or strategies for the conservation and sustainable use of agricultural biodiversity in sectoral and cross-sectoral plans and programmes?

a) No	
b) No, but review is under way	
c) No, but potential frameworks and mechanisms are being identified	
d) Yes, some national plans or strategies mainstreamed and integrated into some sectoral plans and programmes (please provide details below)	
e) Yes, some national plans or strategies mainstreamed into major sectoral plans and programmes (please provide details below)	x

Further comments on mainstreaming and integrating national plans or strategies for the conservation and sustainable use of agricultural biodiversity in sectoral and cross-sectoral plans and programmes.

Conservation and sustainable use of genetic resources part of overall government strategy on natural resources and environment

Within animal genetic resources, conservation and sustainable use are dealt with under the same strategy and action plan.

Plant genetic resources programme

**172.** Is your country supporting the institutional framework and policy and planning mechanisms for the mainstreaming of agricultural biodiversity in agricultural strategies and action plans, and its integration into wider strategies and action plans for biodiversity?

a) No	
b) Yes, by supporting institutions in undertaking relevant assessments	x

c) Yes, by developing policy and planning guidelines	x
d) Yes, by developing training material	x
e) Yes, by supporting capacity-building at policy, technical and local levels	x
f) Yes, by promoting synergy in the implementation of agreed plans of action and between ongoing assessment and intergovernmental processes.	x
Further comments on support for institutional framework and policy and planning mechanisms.	
See 171 above . MTT Agrifood Research Finland is coordinating the action plans for plant and animal genetic resources State farms participate in the conservation of farm animal genetic resources  Finland belongs to Nordic collaborative network both in plant (NGB) and animal genetic resources (NGH)	

<b>173.</b> In the case of centers of origin in your country, is your country promoting activities for the conservation, on farm, <i>In-situ</i> , and <i>Ex-situ</i> , of the variability of genetic resources for food and agriculture, including their wild relatives?	
a) No	
b) Yes (please provide details below)	x
Further comments on of the conservation of the variability of genetic resources for food and agriculture in their center of origin.	
Finnsheep is globally widely used as a genetic source of prolificacy and Finland has a conservation plan for the breed. Nordic material of field crops is conserved at the Nordic Gene bank (NGB), Sweden MTT Agrifood Research Finland is taking care of vegetatively conserved crops (horticultural species)	

**Box LXV.**

Please provide information concerning the actions taken by your country to implement the Plan of Action for the International Initiative for the Conservation and Sustainable Use of Pollinators.
Nordic collaboration of the conservation of Nordic Bee.

**Box LXVI.**

Please elaborate below on the implementation of this programme of work and associated decisions specifically focusing on:
<ul style="list-style-type: none"> <li>a) outcomes and impacts of actions taken;</li> <li>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;</li> <li>c) contribution to progress towards the 2010 target;</li> <li>d) progress in implementing national biodiversity strategies and action plans;</li> <li>e) contribution to the achievement of the Millennium Development Goals;</li> <li>f) constraints encountered in implementation.</li> </ul>

## Forest Biological Diversity

### General

<b>174.</b> Has your country incorporated relevant parts of the work programme into your national biodiversity strategies and action plans and national forest programmes?	
a) No	x
b) Yes, please describe the process used	
c) Yes, please describe constraints/obstacles encountered in the process	
d) Yes, please describe lessons learned	
e) Yes, please describe targets for priority actions in the programme of work	
Further comments on the incorporation of relevant parts of the work programme into your NBSAP and forest programmes	
<p>Finland's current National Action Plan for Biodiversity and National Forest Programme were prepared and endorsed before the adoption of the work programme on forest biodiversity at COP6 in 2002. However, a preliminary study on the implementation of the work programme on forest biodiversity in Finland has shown that the most relevant actions of the work programme have been addressed in the Finnish forest policy and practices.</p>	

#### Box LXVII.

Please indicate what recently applied tools (policy, planning, management, assessment and measurement) and measures, if any, your country is using to implement and assess the programme of work. Please indicate what tools and measures would assist the implementation.
<p>Legislation (forest, nature conservation, hunting)</p> <p>Programmes, strategies and action plans:</p> <ul style="list-style-type: none"> <li>- National Action Plan for Biodiversity in Finland 1997-2005</li> <li>- Regional Forest Programmes (compiled in 1998, first revision in 2001, currently under revision)</li> <li>- National Forest Programme 2010 (compiled in 1999, first evaluation in 2002, currently under revision)</li> </ul> <p>Forest Biodiversity Action Plan and Recommendations for Private Forests by the Central Union of Agricultural Producers and Forest Owners (compiled in 1995, revised in 2000).</p>

#### Box LXVIII.

Please indicate to what extent and how your country has involved indigenous and local communities, and respected their rights and interests, in implementing the programme of work.
<p>Different stakeholders, including indigenous and local communities, are represented in the working groups responsible for the planning, implementation, monitoring and revision of the above mentioned programmes, strategies and action plans. Also, public forums and participation through Internet has been used e.g. in the preparation of the National Forest Programme. Another example of the involvement of stakeholders is the participatory planning method of state owned forests.</p>

**Box LXIX.**

Please indicate what efforts your country has made towards capacity building in human and capital resources for the implementation of the programme of work.

Finland has invested strongly in biodiversity research during recent years. The Finnish Biodiversity Research Programme (FIBRE) was running during 1997-2002 and produced a good scientific base for a better understanding on biodiversity. The Finnish Global Change Research Programme (FIGARE) in 1999-2002 supported research with the objective to analyse and understand the changes taking place in the global system including climate change and its links to biodiversity. The research programme on Sustainable Use of Natural Resources (SUNARE) in 2001-2004 aimed at producing research knowledge to improve decision making on natural resources, developing multidisciplinary research on sustainable use of natural resources, enhancing the dissemination of research results from the researchers to the users of research results, creating new national and international contacts in the research on sustainable use of natural resources and improve and diversify the use and nurturing of natural resources. As part of the new biodiversity research programme (MOSSE) for years 2003-2006, several research projects related to forest biological diversity are currently underway.

Several adult education and study centres as well as folk high schools offer courses, study programmes and other education related to forest biodiversity. Information is also made available in books and other printed publications, on the Internet (e.g. Finnish clearing-house mechanism LUMONET), and in magazines published by various forestry organisations, NGOs and interest groups. Activities to increase forest-related knowledge and skills among children and young people have been stepped up in recent years.

For more on education, see *Article 13 - Public education and awareness* of this report.



**Box LXX.**

Please indicate how your country has collaborated and cooperated (e.g., south-south, north-south, south-north, north-north) with other governments, regional or international organizations in implementing the programme of work. Please also indicate what are the constraints and/or needs identified.

Forest biological diversity is one of the priorities in European cooperation within the framework of Ministerial Conferences on the Protection of Forests in Europe (MCPFE). In the Vienna Conference in 2003 the resolution V4 "Conserving and Enhancing Forest Biological Diversity in Europe" was adopted. In the resolution V4 also a framework for cooperation between the MCPFE and the "Environment for Europe" –process was strengthened.

Forest biodiversity is also dealt with within the EU. EU has its own biodiversity strategy and it tries harmonise policies of the international processes related to biodiversity. The most important EU method for safeguarding biodiversity is the EU Natura network. In 1998, the Council of the Baltic Sea States adopted the Baltic 21 Action Programme for Sustainable Development in the Baltic Sea Region. Its Forest Sector Action Programme aims at developing sustainable forest management at the Baltic region in co-operation with all countries of the region.

Sustainable forest management is also addressed in the Strategy for Sustainable Development for Nordic Countries, which was revised in 2004.

The Finnish-Russian Development Programme on Sustainable Forest Management and Conservation of Biological Diversity in Northwest Russia, consisting of forestry and nature protection projects, started in 1997. Forest biodiversity is also addressed in the cooperation between Finland and Mexico, China, Indonesia and Turkey.

For more activities related to forest biodiversity included in the development cooperation projects and programmes funded by Finland, see *Programme of work on transfer of technology and technology co-operation, question 120* of this document.

### Expanded programme of work on forest biological diversity

Programme element 1 – Conservation, sustainable use and benefit-sharing	
<b>175.</b> Is your country applying the ecosystem approach to the management of all types of forests?	
a) No (please provide reasons below)	
b) No, but potential measures being identified (please provide details below)	
c) Yes (please provide details below)	x
Comments on application of the ecosystem approach to management of forests (including effectiveness of actions taken, lessons learned, impact on forest management, constraints, needs, tools, and targets).	
<p>According to the COP decision VII/11 sustainable forest management can be considered as a means of applying ecosystem approach to forests. Promoting sustainable forest management is the leading principle of Finnish forest policy including forest legislation and National Forest Programme. A comprehensive set of practical guidelines and indicators for sustainable forest management have been developed, are periodically being revised and are being implemented.</p> <p>In 2004 the Ministry of the Environment gave out a report on ecosystem approach and it's appliance in Finland (<i>Ekosysteemilähestymistapa biodiversiteetin suojelussa, hoidossa ja kestävässä käytössä</i>).</p>	

In the report it is concluded that the Landscape Ecological Planning (LEP) applied by Metsähallitus on State forests - even though LEP was developed before the concept of ecosystem approach had been adopted by CBD - in principle follows the guidelines of ecosystem approach. In private forests some aspects of the ecosystem approach, e.g. the principle of involving different stakeholders to forest management planning, are very difficult to fulfil. On the other hand, fulfilment of all the principles of the approach is not even required. Some aspects emphasised in the ecosystem approach, like interactions of different ecosystems, could be given a better emphasis in sustainable forest management.

See also Target 4.1 of this report.

**176.** Has your country undertaken measures to reduce the threats to, and mitigate its impacts on forest biodiversity?

Options	X	Details
a) Yes	x	Please specify below the major threats identified in relation to each objective of goal 2 and the measures undertaken to address priority actions *)
b) No		Please provide reasons below

Further comments on measures to reduce threats to, and mitigate the impacts of threatening processes on forest biodiversity (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).

\*)

**(GOAL 2. To reduce the threats and mitigate the impacts of threatening processes on forest biological diversity)**

**(Objective 1. Prevent the introduction of invasive alien species that threaten ecosystems, and mitigate their negative impacts on forest biological diversity in accordance with international law)**

**Threat: the possible appearance of invasive alien species, such as pinewood nematode**

An amendment to the EU Plant Health Directive (2000/29/EC), which came into force in March 2005, stipulates that phytosanitary certificate and plant health inspections are required for all conifer timber imported to EU from third countries

The revised Finnish Plant Protection Act came into force in 2004. It lays down provisions to prevent the introduction of pests and diseases of plants into Finland. In addition, pests and pathogens which are present in Finland as native or introduced, but which are not widely distributed, can be controlled in order to prevent their further spread. Secondary legislation lays down detailed provisions for import, monitoring, eradication, control and containment, and is enforced by a central authority, the Plant Production Inspection Centre.

A comprehensive Finnish Plant Protection Strategy for the years 2004-2013 was also introduced in 2004. The main objectives are the strengthening of plant protection know-how and development of protection methods and supervision.

In 2002, the Finnish Ministry of Agriculture and Forestry, the Central Union of Agricultural Producers and Forest Owners (MTK) and the Finnish Forest Industries Federation (Metsäteollisuus ry) together designed a crisis action plan to be used in case of a pinewood nematode (*Bursaphelenchus xylophilus*) appearance in Finland.

See also *Article 8(h) - Alien species* of this report.

**(Objective 2. Mitigate the impact of pollution such as acidification and eutrophication on forest biodiversity)**

**Threat: changes in sensitive forest ecosystems**

Harmful emissions – notably of nitrogen and sulphur dioxide – have decreased significantly in Finland in the past 20 years owing to anti-air pollution measures. However, reduction of national emissions of sulphur and nitrogen oxide has a relatively slight mitigating effect on acid deposition on the national level, since, for example, only 12 % of sulphur and 20 % of nitrogen deposition originate from Finland.

In 2002, the Finnish Government approved a national programme setting maximum annual limits for emissions of sulphur dioxide, nitrogen oxides, ammonia and volatile organic compounds to be complied with from 2010 onwards. This Air Pollution Control Programme 2010 contains measures to reduce emissions from energy production, transport, agriculture and industry, and also sets out ways to curb emissions from machinery, leisure boats and the small-scale combustion of wood. The programme has been specifically designed to transpose the EU National Emission Ceilings Directive. The implementation of this directive throughout Europe should reduce the emissions and subsequent atmospheric deposition of pollutants that cause eutrophication and acidification in Finland, while also curbing long-range ozone and particle pollution, and thus improving air quality. (For more information see <http://www.ymparisto.fi/default.asp?contentid=73386&lan=EN>)

Since 1985, Finland has been participating in the International Cooperative Programme on the Assessment and Monitoring of Air Pollution Effects on Forests (ICP Forests), which is based on the UNECE Convention on Long-Range Transboundary Air Pollution (CLRTAP). The health and vitality of forests are assessed annually on 460 permanent sample plots. The relationships between the

condition of forests and atmospheric pollutants as well as other stress factors is monitored on 31 forest stands in various parts of the country. Since Finland joined the EU in 1995, these monitoring activities have been obligatory and co-funded by the European Commission. In 2003 Forest Focus Framework Regulation concerning monitoring of forests and environmental interactions in the European Community was elaborated. Forest Focus attempts to combine legislation on these issues into a piece of legislation designed to cater for the wider environmental concerns affecting European forests. Forest Focus aims to monitor and combat the threats to forests from air pollution and forest fire, and studies issues such as biodiversity, impacts of climate change, carbon sequestration and soil protection. Until 2007, the emphasis is on the planning and testing of new monitoring systems. The real benefits of the new regulation are likely to be seen during the next funding period, 2007 – 2013.

### **(Objective 3. Mitigate the negative impacts of climate change on forest biodiversity)**

#### **Threat: negative impacts on forest biodiversity**

The new National Strategy for Adaptation to Climate Change (2005) pays emphasis to forests and describes forest sector's present sensitivity to climate change and outlines actions to improve adaptation to the change (see <http://www.ymparisto.fi/default.asp?contentid=108113&lan=en>). According to the strategy, persistent conservation of biodiversity is the best way to ensure that forest ecosystems can cope with the climate change. The conservation is done by ensuring an adequate area of protected areas and promoting ecologically sustainable silvicultural practices in commercial forests.

The EU-funded SilviStrat project studies adaptive management strategies to enhance carbon sequestration in the European forests and to mitigate adverse impacts of the global climate change on them. In Finland, University of Joensuu plays an active part in the project. Related to this project new ways to combine forest biodiversity consideration and climate change mitigation are sought. For more information, see <http://www.efi.fi/projects/silvistrat>.

For more information on the new adaptation strategy and related research, see *Biodiversity and climate change, question 17*. of this report.

### **(Objective 4. To prevent and mitigate the adverse effects of forest fires and fire suppression)**

#### **Threat: biodiversity losses caused by a diminishing area of burnt forests**

Forest fires have stayed under control in Finland during the recent decades, owing to efficient fire control by authorities, the humid climate, and the relatively small amounts of dead wood in forests. In addition, fire is not used in the preparation of agricultural land and the prescribed burning is regulated in Finland. The average total area burnt in natural forest fires was only 556 hectares per year in 1994-2003. However, as forest fires are a natural phenomenon in the succession of boreal forests, they have a positive effect on forest biodiversity. To compensate the diminishing area of burnt forests, it has been necessary to promote prescribed burning; financial support is granted for prescribed burning in suitable areas (Act on the Financing of Sustainable Forestry, 1997). Prescribed burning was used on an average of 1,300 hectares per year in 1994-2003. In this context prescribed burning means the burning of slash and ground vegetation to be carried out in connection with forest regeneration or as a separate measure.

The Forestry Development Centre Tapio has developed and promoted a set of prescribed burning guidelines for forestry professionals.

### **(Objective 5. To mitigate effects of the loss of natural disturbances necessary to maintain biodiversity in regions where these no longer occur.)**

#### **Threat: the negative impact of the loss of natural disturbances on biodiversity**

This theme is actively studied in recent biodiversity research programmes (e.g. in the ongoing

MOSSE) and many field experiment sites have been established, particularly in protected areas. These activities include both use of prescribed burning and increase of decaying wood in forest ecosystems by various techniques. In protected areas active restoration methods are already in many cases included in management plans. Some of these areas are intensively monitored to increase the knowledge on the effects of fire and other restoration practices on forest biodiversity.

There are efforts to increase the amount of decaying wood in commercial forests by leaving some retention trees and windfalls in logging areas. Also limited use of prescribed burning is recommended in connection with forest regeneration to enhance forest biodiversity (for more on prescribed burning, see obj. 4.)

According to the Finnish Forest Certification System (FFCS) standards, retention trees and possible windfalls are to be left untouched for the duration of the forest's complete rotation cycle. However, larger arrays of windfalls are removed from forests in order to prevent possible pest outbreaks. Also requirements for the increased use of prescribed burning are included in the FFCS criteria (see <http://www.ffcs-finland.org>).

**(Objective 6. To prevent and mitigate losses due to fragmentation and conversion to other land uses)**

**Threat: losses of biodiversity due to fragmentation**

Changing land use, mostly construction, is causing forest fragmentation in the southern parts of Finland. However, urban network and roads (i.e. suburban sprawl as is happening in continental Europe) are not the main causes of biodiversity loss in Finland. Due to the ownership structure of forests in Finland the forest holdings are small in size (in average circa 30 ha). Consequently the forest blocks where forest management operations are taking place are very small, averaging 1-2 hectares. The advantage is that regeneration sites are generally small causing a little harm e.g. for the scenery. On the other hand, this kind of management breaks vast continuous forest areas, which are essential for some threatened forest species like western capercaillie (*Tetrao urogallus*).

To mitigate biodiversity losses due to fragmentation, the habitats of special importance to biodiversity are protected even in private commercial forests. These habitats (see 33. obj. 2) are listed in the Forest Act and Nature Conservation Act. Some of these areas, e.g. streams and their surroundings mentioned in the Forest Act, can form corridors linking together areas that would otherwise be separated by regeneration sites.

The long-term objective of Landscape Ecological Planning, as applied by Metsähallitus on state lands, is to assure the survival of the area's native species as viable populations. Among other things, this requires the conservation of existing valuable habitats and ensuring that new ones can evolve. In this way the planning contributes to the continued existence of valuable habitats as defined in the Forest Act and Nature Conservation Act in Finland. Planning can also be used to focus nature management activities including restorational operations on the sites that are the most crucial in ecological terms. The planning also involves the effort to assure the conditions for the spread of various species. In this effort, the valuable habitats and ecological links in managed forests complement and enhance already existing nature conservation areas. Together these form an ecological network.

The new Land Use and Building Act came into force in 2000. In addition to the regional land use plan, the local master plan and the local detailed plan, the new land use planning system comprises national land use guidelines (see <http://www.vyh.fi/eng/orginfo/publica/electro/eg93/eg93.htm>). These guidelines, set by the government, indicate which issues should be taken into account in all land use and its planning. The guidelines aim at implementing international conventions such as the CBD. Especially the guidelines on a more coherent community structure and the quality of the living environment help to guard forests against fragmentation.

**177.** Is your country undertaking any measures to protect, recover and restore forest biological diversity?

Options	X	Details
a) Yes	x	Please identify priority actions in relation to each objective of goal 3 and describe measures undertaken to address these priorities *)
b) No		Please provide reasons below

Further comments on measures to protect, recover and restore forest biological diversity (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).

\*)

**(GOAL 3. To protect, recover and restore forest biological diversity**

**Objective 1. Restore forest biological diversity in degraded secondary forests and in forests established on former forestlands and other landscapes, including in plantations.)**

**Priority: active management of habitats, especially restoration of some special features of boreal forests**

As part of the Forest Biodiversity Programme for Southern Finland (METSO), 33,000 hectares of forest ecosystems in conservation areas are being restored to as close to natural state as possible. The restoration work began at the end of 2002 and will be finished by the end of 2012. Up to Dec 31, 2004, a total of 15,500 ha of forests have been restored, the majority of them (11,500 ha) being forest-drained marshlands. On mineral soils the restoration consists mainly of prescribed burning and increasing the number of decaying trees and small gaps in the forests. On marshland ditches are blocked in order to restore the hydrological conditions. To enhance this some of tree stand may be removed.

See also answer in 176. obj. 6.

**(Objective 2. Promote forest management practices that further the conservation of endemic and threatened species.)**

According to the Evaluation of Threatened Species in Finland 2000 report (see <http://www.ymparisto.fi/default.asp?node=8366&lan=en>), 1,505 species are classified as threatened. Of the threatened species, 38 % lives in forests. Of these, 81 % live in herb-rich forests and old natural forests on mineral soil. Most of the forest species in Finland live and survive in commercial forests, but some species depend for their survival on certain natural features such as decaying wood. The Red List of Finnish Species is updated if changes occur. All the species groups are monitored by particular expert groups. These groups pay attention to possible changes in the populations and initiate action if needed.

The Nature Conservation Decree lists animal and plant species that are legally protected in Finland. At the present, there are 1,300 species on the list. However, according to the proposal for an updated decree, the number of protected species will rise to 1,410 during 2005. The Ministry of the Environment is required to compile a protection programme for species that require special protection. The law prohibits the destruction of habitats necessary for the survival of protected species, as well as any other actions that might impair their conditions of existence. The injunction enters into force when the relevant regional Environment Centre has determined the boundaries of the habitat and has notified the landowner of its decision.

In commercial forests, the habitats of special importance to biodiversity are protected. These habitats are stipulated in the Forest Act and in the Nature Conservation Act. The key biotopes protected by the Forest Act are:

- 1) The immediate surroundings of springs, streams, wet hollows in the permanent beds of streams, and small pools;
- 2) herb-rich and grassy hardwood-spruce swamps, ferny hardwood-spruce swamps, eutrophic paludal hardwood-spruce swamps, and eutrophic fens located to the south of the Province of Lapland;
- 3) fertile patches of herb-rich forest;
- 4) heathland forest islets in undrained wetlands;
- 5) gorges and ravines;
- 6) steep bluffs and the underlying forest; and
- 7) sandy soils, exposed bedrock, boulder fields, wetlands with sparse tree stand and flood meadows which are less productive than nutrient-poor heathland forests.

If these are in a natural state, or resemble a natural state, and are clearly distinguishable from their surroundings, the management and utilisation measures applied shall be carried out in a manner that

preserves the special features of the habitats.

The important protected forest habitat types listed in the Nature Conservation Act (1096/1996) are: wild woods rich in broad-leaved deciduous species, hazel woods, common alder woods, wooded meadows, and prominent single trees or groups of trees in an open landscape. It is prohibited to alter any of these natural habitat types in such a way as to jeopardize the preservation of the characteristic features of the area in question. The more detailed provisions on natural habitat types and monitoring are enacted by decree.

Metsähallitus published a new version of the Environmental Guidelines for forestry in state lands in 2004. Important goals of updating the guidelines were the implementation of new research findings and aligning forestry operations with the goals of the Forest Biodiversity Programme for Southern Finland (METSO). The guidelines focus on, in particular, safeguarding biodiversity in managed forests. Decreasing amounts of decaying wood is one of the major factors that have led to species being threatened in Finnish forests. The guidelines seek to remedy this by sorting the various forest types into different categories according to the desired amount of decaying wood. The targeted amounts of decaying wood are to be reached with trees left standing in felling operations. In special areas of particular ecological importance, the number of residual trees is twice as high as in regular managed forests. Such special areas include, for example, so-called ecological stepping stones and corridors, border zones of small conservation areas in southern Finland, as well as hiking and recreation areas.

95 % of the Finnish forests are certified by the FFCS, which is endorsed by the PEFC. The FFCS has criteria for ecologically sustainable forestry. For example, the amount of decayed wood in commercial forests is increased by leaving both living and decaying trees standing in regeneration sites.

### **(Objective 3. Ensure adequate and effective protected forest area networks.)**

Already from the 1970's, there has been a practice of assessing the gaps in the protected area network and filling them by habitat-specific conservation programmes which have been endorsed by the Government and then implemented, e.g. by purchasing the lands for the state. Since 1997 the Finnish Environment Institute has assessed the extent to which the existing network of protected areas covers all important areas in a gap analysis (SAVA) covering the whole national system of protected areas and various habitat types and threatened species. The SAVA reports are written mainly in Finnish, partly scattered in various scientific journals, and available from the Finnish Environment Institute (SYKE).

Along with the national legislation, the Natura 2000 Programme of the European Union and its implementation direct the planning and implementation of the national system of protected areas in Finland. Finland has a relatively comprehensive network of protected areas established under the Nature Conservation Act (national parks, strict nature reserves and other protected areas) and the Act on Wilderness Reserves (wilderness areas). The most valuable eskers have been protected by the Act of Soil Resources and the landscape values of shorelines by the Land Use and Building Act. Several valuable forest site types are protected by the Forest Act. The whole network of protected areas has been developed in a systematic way by implementing and financing protection programmes for various habitat types since 1970s. New national parks have been established on the basis of more detailed investigations.

In Finland, almost all state-owned protected areas are managed by the Natural Heritage Services of Metsähallitus, and its regional units (see <http://www.metsa.fi/natural/protectedareas/>). To guarantee that protected areas are managed in a wider regional context, each Natural Heritage Service unit has a regional responsibility of the whole network of protected areas in the region and on the cooperation with other stakeholders in surrounding areas in other use.

A comprehensive international Management Effectiveness Evaluation (MEE) of the Finnish protected area system was commissioned by Metsähallitus in 2004. The Finnish MEE is the first comprehensive agency-wide evaluation conducted in a developed country. As such, it serves as an example for future evaluations to be carried out in accordance with the targets of the Programme of Work on Protected Areas developed by the Convention on Biological Diversity (CBD). The report of the



evaluation was published on April, 2005. The evaluation gives the general rating that Finland's protected areas are well managed. However, the evaluators gave, as commissioned, a number of recommendations for improvement. For example in southern Finland, where the protected areas are small and the network is not as extensive as in the north, the evaluators saw that buffer zones and ecological corridors should be established around and between protected areas. For more information, see <http://www.metsa.fi/mee/>

In addition to the large state-owned protected areas, there are plenty of small privately-owned protected areas in Finland. Private landowners can ask the governmental bodies to establish privately-owned protected areas on the basis of the Nature Conservation Act. To an increasing degree, and on the basis of voluntary agreements, private landowners can also be in charge of the site management of those protected areas.

The forest area in strictly protected areas is 0.8 million hectares, which is 4.1% of the total forest area. In addition to the strictly protected forests, biodiversity is conserved in other special areas (e.g. wilderness reserves, high-altitude forests, state recreational areas, key biotopes of commercial forests). Forest conservation areas are mainly in northern part of Finland and in the south the share of strictly protected forests is only about 1-2 %. In 2002, the Finnish Government made a decision on the Forest Biodiversity Programme for Southern Finland 2003-2007 (METSO). METSO is an innovative forest conservation project to supplement the NFP. METSO contains altogether 17 sub-programmes, including pilot programmes to test new voluntary conservation means. METSO is supported by a large research programme, Forest Biodiversity and Monitoring Programme in Finland (MOSSE).

Lessons learned: Even though the available resources have considerably increased during the recent years, there are clear needs and shortfalls in full implementation of the protected areas network. The needs include the need of a more scientific basis and more comprehensive ecological information on the habitats and species of the forests in southern Finland. However, inventories and research projects to meet the needs are going on. The resources of protected area management lay behind the very rapid increase in the numbers and area of protected areas. In general, the technical work associated with the establishment, real estate practices, marking of borders and management planning cannot be properly carried out with the present resources in any due time. On the other hand, the threats involved in the time lag are not considered to be very serious. Active management of habitats, especially restoration of some special features of natural boreal forests, basic scientific inventories and development/maintenance of visitor facilities and services are considered to be the priorities.

**178.** Is your country undertaking any measures to promote the sustainable use of forest biological diversity?

Options	X	Details
a) Yes	x	Please specify priority actions in relation to each objective of goal 4 and describe measures undertaken to address these priorities *)
b) No		Please provide reasons below

Further comments on the promotion of the sustainable use of forest biological diversity (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).

\*)

**(GOAL 4. To promote the sustainable use of forest biological diversity)**

## **Objective 1. Promote sustainable use of forest resources to enhance the conservation of forest biological diversity)**

The principle of sustainable forest management is integrated into forest policy and legislation and is implemented through all forestry related programmes and action plans at different levels.

The National Forest Programme 2010 pays special emphasis on ecological sustainability. The programme is designed through a wide-spread process, open to interest groups and citizens. When necessary, changes are made to meet the changing ecological demands. The Forest Biodiversity Programme for Southern Finland METSO is an operational element of the NFP.

Regional forest programmes are planning instruments for enhancing sustainable forest management at the sub-national level. There are 13 Forestry Centres, which are responsible for drawing up these programmes in cooperation with environmental authorities, forestry organisations and other relevant parties including NGO's. The programmes contain an overall description of forests and forestry and of the needs and objectives for development. In addition they contain a description of biological diversity of forests, needs for wood production, description of forestry enterprises and recommendations for promoting employment opportunities created by forestry. An assessment of the economic, ecological and social impacts of the implementation of the Regional Forest Programme is also included in every programme. The Regional Forest Programmes will be continuously revised.

Private citizens own most of Finland's forests. There are some 440 000 private forest holdings in Finland, and nearly 900 000 individual citizens own forests. Finnish forestry is commonly termed family forestry: small-scale forestry run by ordinary families. Private persons' role is important, as they own about 60 per cent of all Finnish forests and supply more than 80 per cent of the industry's raw material in Finland. Private forest holdings are usually quite small, on average about 30 hectares. Finnish forest owners have easy access to expert advice relating to the management of their forests. There are 158 forest owners' associations, which are governed and financed totally by their members. The associations provide forest owners with advice for example on forest management, forest taxation and biodiversity conservation. The association's task, stipulated by law, is to promote private forestry by securing economic, ecological and social sustainability of forests.

Planning of forestry operations has always played an important part in steering the sustainable forest management of both in private and state forests. A forest management plan is usually a ten-year programme drawn up by forestry professionals for the management of a forest holding. It contains information e.g. on the tree species, volumes, ages and biodiversity of the forest including valuable ecological sites and species. The regional forestry centres and forest owners' associations draw up the forest management plans in private forests in cooperation with the forest owners. The forestry centres and forest owners' associations provide forest owners with training and other advisory services for the implementation of their forest management plans.

In 2004 altogether 63 million euros of Government support were used for forest management and improvement work in private forests. Government funds are used mainly for supporting such activities as tending of young stands, forest regeneration mainly in northern Finland, maintenance of forest drainage and basic improvement of forest roads. Government funds are also used for supporting conservation and enhancement of biological diversity in private forests. In 2004 a total of 5.7 million euros were allocated for environmental incentives/support and forest ecosystem management. Environmental support can be provided to a forest owner when the maintenance of the biological diversity of the forest is taken into account more extensively than what is provided in the Forest Act as the responsibility of the forest owner. Government funds can be given to ecosystem management projects concerning habitat restoration, landscape management, habitat surveys and prevention of watercourse damage caused by forest improvement work.

All people in Finland have the right to use forests for recreational purposes. The traditional Everyman's Right bestows on all people a free right to use land owned by others for hiking and picking wild berries and mushrooms. The Forest Research Institute Metla collects information on estimated crops of wild berries and mushrooms and informs the general public of the results. The annual production of wild berries is 200-400 million kg. Only some 5-10% of the yield is picked. For mushrooms this figure is even smaller; only some 6 million kg of edible mushrooms are picked annually while the production is 350-1000 million kg. Picking income is tax free and can be important

additional income for some families, especially in rural areas in eastern and northern Finland.

In May 2000 the Ministry of the Environment was instructed by the Government to set a working group to plan a programme for developing nature tourism and the recreational use of nature. The Working Group gave its report in 2001 (*Ohjelma luonnon virkistyskäytön ja luontomatkailun kehittämiseksi*). In 2003 the Government made a decision in principle to implement the programme. In addition to boosting the recreational use of nature the programme aims at doubling the workforce employed by the nature tourism industry by the year of 2010.

The Finnish Game and Fisheries Research Institute (see <http://www.rkti.fi/english/index.html>) is responsible for monitoring large mammal species and game birds. The sustainable management of game species is based on these statistics. The populations are managed by enforcing closed seasons and hunting quotas, which are set by the Ministry of Agriculture and Forestry. Those wishing to hunt must pass a hunting exam and pay an annual game management fee. Game habitats are improved by management activities carried out by hunting associations. The associations also release game animals into the wild.

Reindeer husbandry is regulated by reindeer husbandry legislation, which was passed for the first time in the 1930s. The current Reindeer Husbandry Act dates from 1990. The reindeer husbandry area is located in the northernmost areas of Finland and it covers around one-third of the entire area of the country. Reindeer herding has maintained its position well and is an integral part of Sami culture. Some 30 % of the reindeers are owned by the Sami people. The Finnish Game and Fisheries Research Institute monitors the state of reindeer feeding grounds. The Ministry of Agriculture and Forestry stipulates the maximum permitted number of reindeer based on what the feeding grounds can sustain.

In 1998, the Council of the Baltic Sea States adopted the Baltic 21 Action Programme for Sustainable Development in the Baltic Sea Region. It is a joint programme promoting sustainable development, emphasising regional development and focusing on seven economic sectors, including forests, spatial planning and education. Finnish-Baltic co-operation projects have been implemented under the Baltic 21 Action Programme on Forests (for more information, see [www.baltic21.org](http://www.baltic21.org)).

The Finnish-Russian Development Programme on Sustainable Forest Management and Conservation of Biological Diversity in Northwest Russia, consisting of forestry and nature protection projects, started in 1997. The third phase of the programme - 2005 to 2010 - will focus on capacity building of all levels of the continuous education structures in the forestry sector. The programme contributes to the Northern Dimension Forest Programme of the EU, which is elaborated in the framework of the Barents Euro-Arctic Council. (For more information and a list of projects, see <http://www.webstudio.fi/vyh>).

**(Objective 2. Prevent losses caused by unsustainable harvesting of timber and non-timber forest resources.)**

Unsustainable harvesting of forest resources is not a problem in Finland

**(Objective 3. Enable indigenous and local communities to develop and implement adaptive community-management systems to conserve and sustainably use forest biological diversity.)**

The Forest Biodiversity Programme for Southern Finland 2003-2007 (METSO), which is coordinated by the Ministry of Agriculture and Forestry and the Ministry of the Environment, is an operational element of the NFP for the part of biodiversity. In METSO Programme, new, innovative ways of protecting the forests on a voluntary basis will be tested. The decisions on the means to be applied in the protection of forest biodiversity after 2007 will be decided on the basis of the results of these experiments.

The METSO Programme aims to preserve valuable forest habitats while also allowing forests to be commercially utilised to the benefit of rural economies and livelihoods, thus helping to promote sustainable development in rural regions of Finland. The pilot projects tested are known as natural

values trading, competitive tendering, forest biodiversity co-operation networks and nature management areas.

Natural values trading allow forest owners to commit themselves through voluntary contracts to maintain or enhance valuable natural features in their forests over a certain period, typically for 10-20 years. In exchange, the forest owner receives compensation from the authorities.

Competitive tendering provides a way for landowners to offer to rent or sell ecologically valuable areas of forest to the authorities at an agreed price. The authorities then compare tenders from different landowners, and select the best sites for conservation by weighing up the financial costs and ecological benefits of each tender.

Forest biodiversity co-operation networks allow landowners, local environmental and forest authorities and other local interest groups to share their ideas and experiences related to conservation. Networks operate in specific areas and their main aim is to encourage forest owners to conserve biodiversity through various arrangements.

In nature management areas forestry and other land uses would be carefully planned to promote nature conservation, with forest owners fully compensated for any losses they incur.

For more information, see <http://www.mmm.fi/metso/international/index.html>

The Act on the Financing of Reindeer Husbandry and Natural Industries (45/2000) guarantees investment subventions for those living in Northern Finland and engaged in natural industries. Subventions for reindeer husbandry are granted for the whole reindeer management area of Northern Finland, but subventions for other natural industries are granted only for those living in the northernmost parts of Finland. Such natural industries include fishing, hunting, and picking wild berries as well as nature tourism and various other activities related to it.

According to the Act on the Sami Parliament (1995), the Sami choose a parliament from among themselves (7,500 Sami people in Finland) at an election and it functions under the administrative branch of the Ministry of Justice. The Parliament consists of 21 members. According to the Act, the task of the Sami Parliament is to look after the Sami language and culture, as well as to take care of matters relating to their status as an indigenous people. In pertaining to these tasks, the Parliament may make initiatives and proposals to the authorities, as well as issue statements. The authorities must also negotiate with the Parliament in all far-reaching and important measures which may directly and in a specific way affect the status of the Sami as an indigenous people and which concern in the Sami Homeland matters enumerated in the Act on the Sami Parliament.

According to the Reindeer Husbandry Act (1990), Metsähallitus (which manages State lands) and other State authorities must negotiate with the reindeer-grazing associations before any action that may essentially affect reindeer husbandry. The Act on Metsähallitus (2004) also states that natural resource management in the Sami Homeland area must be done in a way that does not cause harm to the traditional livelihood and culture of the Sami.

**(Objective 4. Develop effective and equitable information systems and strategies and promote implementation of those strategies for *in situ* and *ex situ* conservation and sustainable use of forest genetic diversity, and support countries in their implementation and monitoring.)**

The Ministry of Agriculture and Forestry appointed a working group in 1998 to draft a national plant genetic resources programme of Finland relating to the implementation of the CBD and the FAO Global Plan of Action (GPA) on Plant Genetic Resources for Food and Agriculture. The National Plant Genetic Resources Programme for Agriculture and Forestry was approved by the Ministry of Agriculture and Forestry in 2001. The Finnish Forest Research Institute was appointed to the implementation of the programme regarding to forest trees. The genetic resources of main tree species are secured mainly in gene reserve forests (currently about 7 000 ha) and *ex situ* collections. Nature conservation areas and breeding populations of forest tree species complement the network

of gene reserve forests. The main task in the near future is to complete the network of gene reserve forests and to double *ex situ* collections of noble hardwoods.

The Ministry of Agriculture and Forestry appointed an Advisory Board for Management and Sustainable Use of Plant Genetic Resources in 2003. The Advisory Board follows the implementation of international commitments and national strategies related to management and sustainable use of plant genetic resources. The Ministry of Agriculture and Forestry appointed an internal working group which composed a Gene Technology Strategy and Action Plan for Years 2003-2007.

The Nordic countries (Finland, Sweden, Norway, Denmark and Iceland) have close co-operation in conservation and sustainable use of genetic resources. Nordic co-operation policies are handled by a joint council of ministers for Fisheries, Agriculture, Forestry and Foodstuffs. A Nordic Network for Forest Gene Conservation was launched in 2003 by the Nordic Council for Forest Reproductive materials (NSFP). The main objective of the network is to promote exchange of data and knowledge and to increase general awareness on the importance of management and sustainable use of genetic resources.

The International Treaty on Plant Genetic Resources for Food and Agriculture was accepted at the FAO Conference in 2001. Finland signed this treaty in 2002 together with other EU countries. This contract is a binding international agreement concerning the protection and sustainable use of plant genetic resources for food and agriculture and the fair and equitable sharing of the benefits arising from their use.

Finland participates to EUFORGEN, a collaborative mechanism among European countries that promotes conservation and sustainable use of forest genetic resources (see [http://www.ipgri.cgiar.org/networks/euforgen/euf\\_home.asp](http://www.ipgri.cgiar.org/networks/euforgen/euf_home.asp)). It was established in 1994 to implement Resolution 2 (Conservation of forest genetic resources) of the Ministerial Conferences on the Protection of Forests in Europe, held in Strasbourg in 1990 and Helsinki in 1993. EUFORGEN operates through networks which bring together scientists and managers to exchange information, discuss needs and develop conservation methods for priority tree species. Finland signed the agreement to participate Phase III of EUFORGEN in 2004.

179. Is your country undertaking any measures to promote access and benefit-sharing of forest genetic resources?		
Options	X	Details
a) Yes	<input checked="" type="checkbox"/>	<p>Please specify priority actions in relation to each objective of goal 5 and describe measures undertaken</p> <p><b>(GOAL 5. Access and benefit sharing of forest genetic resources</b></p> <p><b>Objective 1. Promote the fair and equitable sharing of benefits resulting from the utilization of forest genetic resources and associated traditional knowledge)</b></p> <p>The Finnish Ministry of Agriculture and Forestry appointed an Advisory Board for Management and Sustainable Use of Plant Genetic Resources in 2003. The Advisory Board follows the implementation of international commitments and national strategies related to management and sustainable use of plant genetic resources.</p> <p>As a follow-up to "the Strategy for Conservation of Genetic Resources in the Nordic Region 2001-2004" (see answer in 34. ob. 4), a project group was established to submit proposals on how the Nordic region is to interpret the provisions in international legal instruments within the framework of co-operation on genetic resources (A Nordic Approach to Access and Rights to Genetic Resources, ANP 2003: 717). The group's main recommendations and conclusions were used as basis for a declaration by the Nordic Council of Ministers (fisheries, agriculture, forestry and food issues, and environmental questions) on the access and rights to genetic resources in the Nordic region. The Council recommended the Nordic countries to determine the legal status of their forest tree genetic resources. The Council concluded that there are no convincing reasons to suggest regulations regarding the exchange of forest trees genetic resources in the Nordic countries.</p>
b) No	<input type="checkbox"/>	<p>Please provide reasons below</p>
<p>Further comments on the promotion of access and benefit-sharing of forest genetic resources. (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets)</p> <p>Finnish Gene Technology Act (377/1995) and Decree (821/1995) were adopted in 1995, which brought Finnish legislation concerning genetically modified organisms (GMOs) in line with the relevant EU Directives on the contained use of GMOs (90/219/EEC) and on the deliberate release of GMOs (90/220/EEC). In 2000, both the Gene Technology Act (490/2000) and the Decree (491/2000) were amended in order to transpose the amendments of the EU Directive 90/219/EEC into Finnish legislation. A further revision of the Finnish legislation took place during 2001-2002, due to the comprehensive revision of the EU Directive on deliberate release of GMOs (2001/18/EC).</p>		

Programme element 2 – Institutional and socio-economic enabling environment		
<p><b>180.</b> Is your country undertaking any measures to enhance the institutional enabling environment for the conservation and sustainable use of forest biological diversity, including access and benefit-sharing?</p>		
Options	X	Details
a) Yes	x	<p>Please identify priority actions in relation to each objective of Goal 1 and describe measures undertaken to address these priorities</p> <p>*)</p>
b) No		<p>Please provide reasons below</p>
<p>Further comments on the enhancement of the institutional enabling environment for the conservation and sustainable use of forest biological diversity, including access and benefit-sharing (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).</p>		
<p>*)</p> <p><b>(GOAL 1. Enhance the institutional enabling environment</b></p> <p><b>Objective 1. Improve the understanding of the various causes of forest biological diversity losses )</b></p> <p>Relevant scientific information is provided by research programmes (e.g. Finnish Biodiversity Research Programme FIBRE, 1997-2002; research programme for diversity of forest, agricultural and aquatic ecosystems MOSSE 2003-2006), universities and research institutes. The threats to Finnish animal and plant species, including the threatened species living in protected areas, have been thoroughly assessed in the three subsequent, comprehensive red data books. Nationwide analyses of the threats to different habitat types have been conducted as part of the habitat conservation programmes.</p> <p>Latest comprehensive analysis was done in connection with the National Forest Programme 2010, when the adequacy of protection measures in the forests of southern Finland and Ostrobothnia region was assessed in 2000 by a working group appointed by the Ministry of the Environment. The group confirmed that the most important causes of forest biodiversity losses have been the drastic decrease of forest fires, losses of the diversity of forest structures, large-scale drainage of wetlands, decrease and fragmentation of natural forests, and the drastic decrease of decayed wood in forests. Based on the findings and recommendations of the working group the Forest Biodiversity Programme for Southern Finland (METSU) was launched.</p> <p><b>(Objective 2. Parties, Governments and organizations to integrate biological diversity conservation and sustainable use into forest and other sector policies and programmes.)</b></p> <p>The importance of the maintenance of biodiversity has been included in the Constitution of Finland, which states that responsibility for the environment and wildlife, for their diversity and for our cultural heritage is shared by all. Furthermore, forest biodiversity is one of the priority areas in the Finnish Government's Programme for Sustainable Development, in the National Action Plan for Biodiversity in Finland 1997-2005 and in the Finland's National Forest Programme (NFP) 2010. The Forest Biodiversity Programme for Southern Finland (METSU) 2003-2007 addresses specifically forest biodiversity and sets goals for the for the protection of forests in Southern Finland, which was identified as a priority area to enhance forest biodiversity in Finland's NFP 2010.</p>		

A monitoring group appointed by the Ministry of the Environment has been assessing the implementation of the National Action Plan for Biodiversity in Finland 1997–2005. Third progress report has been produced by the monitoring group to cover the period 2002–2004. Stakeholders' sectoral responsibility for the preservation, management and sustainable use of biodiversity as specified in the action plan has been relatively well realised in the various administrative sectors, with progress made towards the plan's objectives accordingly. In spite of reasonable success in the implementation of the action plan and other favourable trends, the measures within the action plan alone will not be able to halt or significantly slow the declining trend in biodiversity in Finland by 2010. This long-term decline has been difficult to reverse, due to factors such as the increasing uniformity of natural habitats after long periods of intensive land use.

Forest biological diversity is one of the priorities in European cooperation within the framework of Ministerial Conferences on the Protection of Forests in Europe (MCPFE). In the Helsinki Conference in 1993 the resolution H2 "General Guidelines for the Conservation of the Biodiversity of European Forests" was adopted. This resolution laid the basis for the reformulation of forest legislation and management guidelines in many European countries to take into account biodiversity issues in forest management.

MCPFE process established close collaboration with the Ministerial Process "Environment for Europe" by developing the joint "Work Programme on the Conservation and Enhancement of Biological and Landscape Diversity in Forest Ecosystems 1997-2000", which was endorsed in the Lisbon (MCPFE) and Aarhus (Environment for Europe) Conferences in 1998.

After the Lisbon Conference the participants of the MCPFE adopted a MCPFE Work Programme as a common framework for the implementation of the MCPFE commitments at the pan-European level. Within this work programme, the objectives set by the European ministers were addressed in four main areas of work, "Biodiversity and Conservation" being one of them. In the implementation, particular emphasis was given to the issue of protected forest areas by developing assessment guidelines for protected and protective forest and other wooded land in Europe. These guidelines were adopted in the Vienna Conference in 2003 in the resolution V4 "Conserving and Enhancing Forest Biological Diversity in Europe" was adopted. In the resolution V4 also a framework for cooperation between the MCPFE and the "Environment for Europe" –process was formalised. Priority themes for cooperation were identified as the following: ecosystem approach, protected forest areas, forest law enforcement with regard to biodiversity conservation, and recommendations for site selection for afforestation.

Forest biodiversity is also dealt with within the EU. EU has its own biodiversity strategy and it tries to harmonise policies of the international processes related to biodiversity. The most important EU method for safeguarding biodiversity is the EU Natura network.

In 1998, the Council of the Baltic Sea States adopted the Baltic 21 Action Programme for Sustainable Development in the Baltic Sea Region. Its Forest Sector Action Programme aims at developing sustainable forest management at the Baltic region in co-operation with all countries of the region. The Action Programme is being revised to address the regional forest issues that are currently on the agenda of the Baltic Sea Region. The Action Programme also aims at increasing co-operation. For more information, see [www.baltic21.org](http://www.baltic21.org).

**(Objective 3. Parties and Governments to develop good governance practices, review and revise and implement forest and forest-related laws, tenure and planning systems, to provide a sound basis for conservation and sustainable use of forest biological diversity.)**

Since the first Forest Act of 1886, the basic principle of Finnish forest legislation has been the prevention of forest destruction. This objective still remains in legislation, although the aims of forest policy have changed and legislation has been many times reformed. Since the late 1980s, the maintenance of biodiversity, forest protection, the multiple use of forests, and the preservation of forest landscapes have increased in importance as goals for the use of forests. The legislation was thoroughly reformed in the 1990s to implement the decisions of the UNCED: (i) Act on the Forest and Park Service (Metsähallitus) (1994 & 2004), (ii) Act on Forest Centres and the Forestry Development



Centre (1996), (iii) Forest Act (1997), (vi) Act on the Financing of Sustainable Forestry (1997), (v) Act on Forest Management Associations (1998), (vi) Act on Jointly Owned Forests (2003).

In Finland land tenure was defined in the general parcelling out of land done in the 18<sup>th</sup> and 19<sup>th</sup> century. At present, 61 % of forest land is owned by non-industrial private forest owners, 9 % by companies, 25 % by State (governed by Metsähallitus) and 5 % by others (mainly municipalities and parishes).

Land ownership guarantees the following rights: the right to sell timber and extractable soil resources (permit is required), hunting rights. However, the so called Every Man's Right guarantees free access to all forests and the right to e.g. pick wild berries and mushrooms.

#### **(Objective 4. Promote forest law enforcement and address related trade.)**

The Finnish legislation sets tight standards for forestry practices. In addition to that, all the major Finnish logging companies follow their own codes of conducts. Illegal activities as well as the procedures for punishments have been clearly defined in the Penal Code, the Nature Conservation Act, the Forest Act and the Hunting Act. Most commonly illegal activities are punished with a fine. However, if the case has been serious, imprisonment for not more than two years is also possible.

Regional Environment Centres have the responsibility to enforce the Nature Conservation Act, while Regional Forest Centres do the same concerning the Forest Act and Act on the Financing of Sustainable Forestry. The police, border stations, customs authorities and game wardens of game management associations supervise the observance of the Hunting Act in their respective territories. In addition, the land owner, being the hunting rights holder, has the right to monitor that the provisions of the Act are followed. In the case of state forests, the officers of Metsähallitus do the supervision.

The European Commission published an EU Action Plan for Forest Law Enforcement, Governance and Trade (FLEGT) in 2003. The core components of the Action Plan are support for improved governance in wood-producing countries, and a licensing scheme to ensure that only legal timber enters the EU. A regulation for the licensing scheme is currently under preparation.

Government of Finland is involved in two projects which aim to clarify the extent of illegal logging and to find solution to reduce the amount of illegal logging in Europe. The project "*Impacts of reduction of illegal logging in European Russia on the EU and European Russia forest sector and trade*" is financed by Finland and UK and carried out by European Forest Institute in collaboration with Russia. Finland has also participated to the EU financed preparatory phase of INTERREG project "*Transparent timber flows in the Baltic Sea Region*" and will be involved also with preparation of larger INTERREG project under the same theme.

When importing timber, the Finnish forest industry applies the means at its disposal to eradicate illegal logging. All the major Finnish companies have fibre tracking systems in place, whereby the fibre can be traced back through the supply chain all the way to forest. These systems are a result of several years development work. Tracking systems are based on ISO (14001 and 9002) and EMAS management systems, which are widely used in industries. With these traceability systems companies can verify legality of imported roundwood. Tracking systems are certified by independent third party certification bodies.

Creating the tracking systems has helped to choose right partners. This has led to the discontinuation of those wood suppliers that have not been able to show satisfactory commitment to the requirements. This has helped the industry to reach its aims: to concentrate the wood supply to reliable long term suppliers and the shortening of the supply chain. Both steps are essential in securing the reliability of wood suppliers. Furthermore, long-term business relations help suppliers to develop their operations and activities. Forest industry can also give expert assistance to the public administration in both national and international processes.

Finland is actively involved in the WTO, ITTO and CITES processes related to international trade regulations.

**Further comment:** Many of the indigenous Sami people are private land owners. However, 90 % of the Sami Homeland area, which means the areas of the municipalities of Enontekiö, Inari, Utsjoki and

part of Sodankylä in northern Lapland, is owned by the State. There is a prolonged dispute related to the land rights in this area.

181. Is your country undertaking any measures to address socio-economic failures and distortions that lead to decisions that result in loss of forest biological diversity?		
Options	X	Details
a) Yes		Please identify priority actions in relation to each objective of Goal 2 and describe measures undertaken to address these priorities
b) No	X	Please provide reasons below Socio-economic failures and distortions do not cause loss of forest biological diversity in Finland
Further comments on review of socio-economic failures and distortions that lead to decisions that result in loss of forest biological diversity (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).		

182. Is your country undertaking any measures to increase public education, participation and awareness in relation to forest biological diversity?		
Options	X	Details
a) Yes	X	Please identify priority actions in relation to each objective of goal 3 and describe measures undertaken to address these priorities  <b>(GOAL 3. Increase public education, participation, and awareness</b>  <b>Objective 1. Increase public support and understanding of the value of forest biological diversity and its goods and services at all levels.)</b>  The Government has since 1996 funded and the Finnish Forest Association (FFA) organised 16 Forest Forums for Decision-Makers, with 25-30 participants on each of them. It is a course and discussion forum on forest issues, directed at top-level decision-makers throughout the society. The Forum aims at improving the readiness of the participants to make far-reaching decisions on multi-dimensional and international forest issues. In these forums also biodiversity issues are discussed. In 2003, FFA initiated a new forum for capacity building and co-operation in the EU accession countries. This initiative supports EU's commitment for sustainable forest management, particularly in the new and applicant EU countries. The idea is to invite groups of top-level representatives of the forest sector to Finland for open brainstorming and exchanging information and experiences with major representatives of the Finnish forest sector, along with other European actors. During 2003-04 four international forums were arranged, resulting in the identification of European challenges for forest sector development, ideas for increased networking and cooperation in forest communication in Europe, and an international network of contacts for the future. For more details, see <a href="http://www.forestacademy.fi">http://www.forestacademy.fi</a> .

b) No		Please provide reasons below
Further comments on measures to increase public education, participation and awareness in relation to forest biological diversity (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).		
See also <i>Article 13 - Public education and awareness</i> of this report		

Programme element 3 – Knowledge, assessment and monitoring		
<b>183.</b> Is your country undertaking any measures to characterize forest ecosystems at various scales in order to improve the assessment of the status and trends of forest biological diversity?		
Options	X	Details
a) Yes	<input checked="" type="checkbox"/>	Please identify priority actions in relation to each objective of Goal 1 and describe measures undertaken to address these priorities *)
b) No	<input type="checkbox"/>	Please provide reasons below
Further comments on characterization of forest ecosystems at various scales (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).		
*)		
<p><b>(GOAL 1. To characterize and to analyse from forest ecosystems to global scale and develop general classification of forests on various scales in order to improve the assessment of status and trends of forest biological diversity.</b></p> <p><b>Objective 1. Review and adopt a harmonized global to regional forest classification system, based on harmonized and accepted forest definitions and addressing key forest biological diversity elements. )</b></p> <p>Finland participates in many international activities in this area. One of them is the European level ENFIN process, which was established in 2003. The purpose of the process is to harmonise European level national forest inventories in such a way that they can provide comparable forest resource information. The ENFIN process has lead to establishment of COST Action E43: Harmonisation of National Forest Inventories of Europe – Techniques for Common Reporting.</p> <p>Finland is participating in the development of forest classification systems within FAO and other relevant bodies.</p> <p><b>(Objective 2. Develop national forest classification systems and maps (using agreed international standards and protocols to enable regional and global synthesis).)</b></p> <p>The main indicators for Finnish forest ecosystem classification are flora composition and soil properties. The distribution of different forest ecosystems is studied in the continuous National Forest Inventories.</p> <p>The Finnish National Forest Inventory (NFI) is one of the world's oldest inventories based on sound statistical design. The first inventory was carried out 1921-1924. The complete results were</p>		

published in 1927, as the first in the world. The inventory is under continuous development and, e.g., satellite images were taken into operational use as first in the world, in 1990. The 10th NFI (NFI10) was launched in 2004. NFI10 is, like the earlier inventories, based on systematic cluster sampling. The field data is collected in years 2004–2008. The total number of field sample plots in NFI10 will be appr. 60,000. The field data consist on two main categories: stand description and measured tree data.

The main difference between NFI10 and previous inventories is that NFI10 is covering the whole country each year where as the previous inventories have been done district by district. Also, the cycle of NFI10 has been intensified from 8 to 5 years.

The official country level or Forestry Centre level statistics produced in NFI are based on the field sample data. For smaller areas, e.g. municipalities or single forest estates, forest resource estimates are produced with so-called multi-source NFI (MS-NFI) technique based on combining field data, satellite images and digital map data.

See <http://www.metla.fi/ohjelma/vmi/nfi.htm> for further details.

**Objective 3. To develop, where appropriate, specific forest ecosystems surveys in priority areas for conservation and sustainable use of forest biodiversity.**

Altogether 15 mill. hectares of private Finnish forests were surveyed for key biotopes stipulated in the Forest Act (see 33. obj. 2) between 1998-2004. A special survey was done on 10 mill. ha, the remaining 5 mill. ha was surveyed in connection to forest management planning. The aim was to locate these biotopes and inform forest owners about their existence. According to this survey, there are appr. 120,000 of these key biotopes in private forests, covering an area of 75,000 ha. The survey was initiated by the Ministry of Agriculture and Forestry and carried out by the Forestry Development Centre Tapio and the Regional Forest Centres.

Regional Environment Centres are surveying to find all the protected forest habitats types stipulated in the Nature Conservation Act (see 33. obj. 2). The work started after the new Act came into force in 1997 and is still continuing at least through 2005.

A comprehensive assessment of endangered natural habitat types is also being carried out. A list of threatened, near threatened and data-deficient habitats is due to be completed in 2007. The results of this study will make it easier to focus the research, protection and management of habitats on the most urgent needs. Assessments of endangered species have been made three times, the first one in the 1980's. The Red List of species has become a simple and useful means to demonstrate the changes in biodiversity. Now the perspective is being expanded to include natural habitat types. The preconditions for the assessment of endangered natural habitat types were created during 2004. As this is the first assessment of natural habitat types, even the methods and classifications had to be developed. Natural habitat types are defined as categories of land and water areas characterised by similar environmental conditions and similar fauna and flora. All natural habitat types in Finland are included in the study. The habitat types are divided into seven main categories, forests forming one category.

**Further comments:** The need for information about natural habitat types has become more urgent during the last few years. According to the present legislation, the nature values are to be surveyed when a town plan is made, and an environmental impact assessment is to be made for certain projects. Information about habitat types is also needed for the restoration and management of protected areas. The Habitats Directive of the European Union provides an international perspective. This directive obliges Finland to protect and monitor a number of natural habitat types.

**184.** Is your country undertaking any measures to improve knowledge on, and methods for, the assessment of the status and trends of forest biological diversity?

Options	X	Details
a) Yes	x	Please identify priority actions in relation to each objective of goal 2 and describe measures undertaken to address these priorities *)
b) No		Please provide reasons below

Further comments on improvement of knowledge on and methods for the assessment of the status and trends (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).

\*)

**(GOAL 2. Improve knowledge on and methods for the assessment of the status and trends of forest biological diversity, based on available information.**

**Objective 1. Advance the development and implementation of international, regional and national criteria and indicators based on key regional, sub-regional and national measures within the framework of sustainable forest management.)**

In Finland, work on the preparation of the first set of national criteria and indicators for sustainable forest management were launched already in 1994, and the first report was completed and published in 1997. The Pan-European criteria and indicators for sustainable forest management developed within the follow-up of the Helsinki Ministerial Conference on the Protection of Forests in Europe provided a framework for the development of national criteria and indicators. The Pan-European criteria were adopted as such but much more indicators were developed to meet the national needs.

The first revision and further development of the Finnish indicators were initiated in August 1998 as new scientific information and practical experiences of the applicability of the criteria and indicators became available. It was also important to take into account the development of international forestry processes (e.g. IPF/IFF proposals for action, the Lisbon Resolution L2 of MCPFE). Representatives from 13 different organisations such as ministries, research organisations, forest industries, forest owners, universities and non-governmental environmental organisations took part in this work. The work was finalised at the beginning of 2001, when the report "The State of Forests in Finland 2000 – Criteria and Indicators for Sustainable Forest Management in Finland" was published (see [www.mmm.fi/english/publications](http://www.mmm.fi/english/publications)).

The Pan-European Criteria and Indicators for Sustainable Forest Management were last updated and revised at the Ministerial Conference in Vienna in 2003. Consequently, the latest revision of the indicators for sustainable forest management in Finland was started in autumn 2003. The revision is being made by working group consisted of representatives of different interest groups. The results and renewed set of indicators are due to be presented to the Forest Council by the end of 2005. Different government sectors and stakeholders are represented in the Forest Council and its primary task is to follow-up and coordinate the implementation of the National Forest Programme.

**Lessons learned:** In Finland, criteria and indicators for sustainable forest management have contributed considerably on building national consensus concerning the content of sustainable forest management. Criteria and indicators have also been useful in the formulation of the National Forest Programme and its implementation. Some indicators are used in the monitoring of the regional forest programmes. Special emphasis in the current revision work is put to make a better linkage between

the criteria and indicators for SFM and the monitoring of the NFP and regional forest programmes.

185. Is your country undertaking any measures to improve the understanding of the role of forest biodiversity and ecosystem functioning?		
Options	X	Details
a) Yes	<input checked="" type="checkbox"/>	<p>Please identify priority actions in relation to each objective of goal 3 and describe measures undertaken to address these priorities</p> <p>See <i>Article 12 - Research and Training</i> of this report.</p>
b) No	<input type="checkbox"/>	<p>Please provide reasons below</p>
<p>Further comments on the improvement of the understanding of the role of forest biodiversity and ecosystem functioning (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).</p>		
<p> </p>		

186. Is your country undertaking any measures at national level to improve the infrastructure for data and information management for accurate assessment and monitoring of global forest biodiversity?		
Options	X	Details
a) Yes	<input checked="" type="checkbox"/>	<p>Please identify priority actions in relation to each objective of goal 4 and describe measures undertaken to address these priorities</p>

**(GOAL 4. Improve the infrastructure for data and information management for accurate assessment and monitoring of global forest biological diversity.**

**Objective 1. Enhance and improve the technical capacity at the national level to monitor forest biological diversity, benefiting from the opportunities offered through the CHM, and to develop associated databases as required on a global scale.)**

Finnish Biodiversity Information Facility (FBIF) - functioning under the University of Helsinki and the Finnish Museum of Natural History - aims at enhancing the use of biodiversity data in scientific analysis, environmental protection, ecological impact studies and a variety of other uses, including biodiversity monitoring and species abundance and distribution analysis. It forms a junction between international and national data sources, facilitating transfer and use of available data in all directions. It is the official Finnish node for the Global Biodiversity Information Facility (GBIF) and BioCASE, and an active member of several other large-scale projects, including EuroCat (also known as Species 2000 Europa) and the European Network of Biodiversity Information (ENBI). ENBI's Finnish partner is the Centre for Biodiversity in the University of Turku.

FBIF is currently developing state-of-the-art database storage and mining tools, including a national taxonomic database service and new online end-user interfaces for a variety of biodiversity monitoring and query purposes.

For more information, please follow the links below:

BioCASE, <http://www.biocase.org/>

Centre for Biodiversity in the University of Turku,  
[http://www.sci.utu.fi/biologia/biodiversiteetti/index\\_eng.html](http://www.sci.utu.fi/biologia/biodiversiteetti/index_eng.html)

EuroCat, <http://www.sp2000europa.org/>

European Community Biodiversity CHM, <http://biodiversity-chm.eea.eu.int/>

European Information and Observation Network (EIONET), <http://www.eionet.eu.int/>

European Network of Biodiversity Information (ENBI),  
<http://www.enbi.info/forums/enbi/index.php>

Finnish Biodiversity Information Facility (FBIF), <http://www.luomus.fi/>

Global Biodiversity Information Facility (GBIF), <http://www.gbif.org/>

b) No

Please provide reasons below

Further comments on the improvement of the infrastructure for data and information management (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).

**Box LXXI.**

Please elaborate below on the implementation of this programme of work and associated decisions specifically focusing on:

- a) outcomes and impacts of actions taken;
- b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
- c) contribution to progress towards the 2010 target;
- d) progress in implementing national biodiversity strategies and action plans;
- e) contribution to the achievement of the Millennium Development Goals;
- f) constraints encountered in implementation.

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### Biological diversity of dry and sub-humid lands

**187.** Is your country supporting scientifically, technically and financially, at the national and regional levels, the activities identified in the programme of work? (decisions V/23 and VII/2 )

a) No	
b) Yes (please provide details below)	x

Further comments on scientific, technical and financial support, at the national and regional levels, to the activities identified in the programme of work.

Within the UNCCD framework, the Ministry for Foreign Affairs contracted the Tropical Resources Institute of the University of Helsinki for designing a sub-regional programme on gum arabic production through cultivation of acacia species in 10 Sahelian and East African countries.

**188.** Has your country integrated actions under the programme of work of dry and sub-humid lands into its national biodiversity strategies and action plans or the National Action Programme (NAP) of the UNCCD? (decisions V/23, VI/4 and VII/2)

a) No	x
b) Yes (please provide details below)	

Further comments on actions under the programme of work of dry and sub-humid lands integrated into national biodiversity strategies and action plans or the National Action Programme (NAP) of the UNCCD.

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**189.** Has your country undertaken measures to ensure synergistic/collaborative implementation of the programme of work between the national UNCCD process and other processes under related environmental conventions? (decisions V/23, VI/4 and VII/2)

a) No	
b) Yes, some linkages established (please provide details below)	x
c) Yes, extensive linkages established (please provide details below)	

Further comments on the measures to ensure the synergistic/collaborative implementation of the programme of work between the national UNCCD processes and other processes under related



environmental conventions.

Finland has participated at expert level in a number of thematic workshops with a focus on synergistic implementation of the MEAS incl. the UNCCD. The Viterbo workshop (2004) hosted by Italy focussed on the role of forests in this thematic area. In cooperation with UNCCD, Finland has supported piloting workshops at the national level on the issue.

The prevention of international environmental threats is one of the main goals of Finland's Development Policy (Government Resolution 2004). The Resolution stresses that Finland includes consideration for the environment as a cross-cutting theme in all its development operation.

According to the Resolution the promotion of the implementation of multilateral environmental agreements is an important tool to safeguard the environmental considerations. The MFA's current funding is primarily directed to the three Rio conventions (the UN Convention to Combat Desertification, the UN Convention on Biodiversity and the UN Framework Convention on Climate Change) as well as the UN Forum on Forests.

### Programme Part A: Assessment

**190.** Has your country assessed and analyzed information on the state of dryland biological diversity and the pressures on it, disseminated existing knowledge and best practices, and filled knowledge gaps in order to determine adequate activities? (Decision V/23, Part A: Assessment, Operational objective, activities 1 to 6)

a) No	N/A
b) No, but assessment is ongoing	
c) Yes, some assessments undertaken (please provide details below)	
d) Yes, comprehensive assessment undertaken (please provide details below)	

Further comments on the relevant information on assessments of the status and trends and dissemination of existing knowledge and best practices.

### Programme Part B: Targeted Actions

**191.** Has your country taken measures to promote the conservation and sustainable use of the biological diversity of dry and sub-humid lands and the fair and equitable sharing of the benefits arising out of the utilization of its genetic resources, and to combat the loss of biological diversity in dry and sub-humid lands and its socio-economic consequences? (part B of annex I of decision V/23, activities 7 to 9)

a) No	x
b) Yes, some measures taken (please provide details below)	
c) Yes, many measures taken (please provide details below)	

Further comments on the measures taken to promote the conservation and sustainable use of the biological diversity of dry and sub-humid lands and the fair and equitable sharing of the benefits arising out of the utilization of its genetic resources, and to combat the loss of biological diversity in dry and sub-humid lands and its socio-economic consequences.

<b>192.</b> Has your country taken measures to strengthen national capacities, including local capacities, to enhance the implementation of the programme of work?	
a) No	N/A
b) Yes, some measures taken (please provide details below)	
c) Yes, comprehensive measures taken (please provide details below)	
d) Yes, all identified capacity needs met (please provide details below)	
Further comments on measures taken to strengthen national capacities, including local capacities, to enhance the implementation of the programme of work.	

**Box LXXII.**

<p>Please elaborate below on the implementation of this programme of work and associated decisions specifically focusing on:</p> <ul style="list-style-type: none"> <li>a) outcomes and impacts of actions taken;</li> <li>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;</li> <li>c) contribution to progress towards the 2010 target;</li> <li>d) progress in implementing national biodiversity strategies and action plans;</li> <li>e) contribution to the achievement of the Millennium Development Goals;</li> <li>f) constraints encountered in implementation.</li> </ul>

**Mountain Biodiversity**

<b>Programme Element 1. Direct actions for conservation, sustainable use and benefit sharing</b>	
<b>193.</b> Has your country taken any measures to prevent and mitigate the negative impacts of key threats to mountain biodiversity?	
a) No	
b) No, but relevant measures are being considered	
c) Yes, some measures taken (please provide details below)	
d) Yes, many measures taken (please provide details below)	
Further comments on the measures taken to prevent and mitigate the negative impacts of key threats to mountain biodiversity	

<b>194.</b> Has your country taken any measures to protect, recover and restore mountain biodiversity?	
a) No	
b) No, but some measures are being considered	
c) Yes, some measures taken (please provide details below)	
d) Yes, many measures taken (please provide details below)	
Further comments on the measures taken to protect, recover and restore mountain biodiversity	

<b>195.</b> Has your country taken any measures to promote the sustainable use of mountain biological resources and to maintain genetic diversity in mountain ecosystems?	
a) No	
b) No, but some measures are being considered	
c) Yes, some measures taken (please provide details below)	
d) Yes, many measures taken (please provide details below)	
Further comments on the measures to promote the sustainable use of mountain biological resources and to maintain genetic diversity in mountain ecosystems	

<b>196.</b> Has your country taken any measures for sharing the benefits arising from the utilization of mountain genetic resources, including preservation and maintenance of traditional knowledge?	
a) No	
b) No, but some measures are being considered	
c) Yes, some measures taken (please provide details below)	
d) Yes, many measures taken (please provide details below)	
Further comments on the measures for sharing the benefits arising from the utilization of mountain genetic resources	

**Programme Element 2. Means of implementation for conservation,  
sustainable use and benefit sharing**

**197.** Has your country developed any legal, policy and institutional framework for conservation and sustainable use of mountain biodiversity and for implementing this programme of work?

- |  |  |
|--|--|
| a) No  |  |
| b) No, but relevant frameworks are being developed                           |  |
| c) Yes, some frameworks are in place (please provide details below)          |  |
| d) Yes, comprehensive frameworks are in place (please provide details below) |  |

Further comments on the legal, policy and institutional frameworks for conservation and sustainable use of mountain biodiversity and for implementing the programme of work on mountain biodiversity.

**198.** Has your country been involved in regional and/or transboundary cooperative agreements on mountain ecosystems for conservation and sustainable use of mountain biodiversity?

- |   |  |
|---|--|
| a) No   |  |
| b) No, but some cooperation frameworks are being considered |  |
| c) Yes (please provide details below)                       |  |

Further information on the regional and/or transboundary cooperative agreements on mountain ecosystems for conservation and sustainable use of mountain biodiversity

**Programme Element 3. Supporting actions for conservation,  
sustainable use and benefit sharing**

**199.** Has your country taken any measures for identification, monitoring and assessment of mountain biological diversity?

- |  |  |
|--|--|
| a) No  |  |
| b) No, but relevant programmes are under development                       |  |
| c) Yes, some measures are in place (please provide details below)          |  |
| d) Yes, comprehensive measures are in place (please provide details below) |  |

Further comments on the measures for identification, monitoring and assessment of mountain biodiversity

<b>200.</b> Has your country taken any measures for improving research, technical and scientific cooperation and capacity building for conservation and sustainable use of mountain biodiversity?	
a) No	
b) No, but relevant programmes are under development	
c) Yes, some measures are in place (please provide details below)	
d) Yes, comprehensive measures are in place (please provide details below)	
Further comments on the measures for improving research, technical and scientific cooperation and capacity building for conservation and sustainable use of mountain biodiversity	

<b>201.</b> Has your country taken any measures to develop, promote, validate and transfer appropriate technologies for the conservation of mountain ecosystems?	
a) No	
b) No, but relevant programmes are under development	
c) Yes, some measures are in place (please provide details below)	
d) Yes, comprehensive measures are in place (please provide details below)	
Further comments on the measures to develop, promote, validate and transfer appropriate technologies for the conservation of mountain ecosystems	

**Box LXXIII .**

<p>Please elaborate below on the implementation of this programme of work and associated decisions specifically focusing on:</p> <ul style="list-style-type: none"> <li>a) outcomes and impacts of actions taken;</li> <li>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;</li> <li>c) contribution to progress towards the 2010 target;</li> <li>d) progress in implementing national biodiversity strategies and action plans;</li> <li>e) contribution to the achievement of the Millennium Development Goals;</li> <li>f) constraints encountered in implementation.</li> </ul>

**E. OPERATIONS OF THE CONVENTION**

<b>202.</b> Has your country actively participated in subregional and regional activities in order to prepare for Convention meetings and enhance implementation of the Convention? (decision V/20)	
a) No	
b) Yes (please provide details below)	x
Further comments on the regional and subregional activities in which your country has been involved.	
PEBLDS meetings/Europe	

<b>203.</b> Is your country strengthening regional and subregional cooperation, enhancing integration and promoting synergies with relevant regional and subregional processes? (decision VI/27 B)	
a) No	
b) Yes (please provide details below)	x
Further comments on regional and subregional cooperation and processes.	
<p>Finland puts special emphasis on the implementation, monitoring and updating of international environmental conventions, and takes part in this work together with other EU member states. Finland is a party to more than one hundred environmental or environmentally-related multi- or bilateral agreements.</p> <p>The main partners in regional cooperation have been Russian Federation, Baltic countries and the Nordic Council of Ministers. Important areas for cooperation include protection of biological diversity in the marine environment, reduction of transboundary air pollution, environmental information and monitoring. Other projects have also involved central and eastern European countries, such as Poland, Belarus and Moldova. The inclusion of natural diversity protection in agriculture, forestry and fishing, for example, is being promoted through joint Nordic efforts.</p> <p>Finland has i.e bilateral environmental agreements with the Russian Federation, Baltic states, Poland, Hungary, Ukraine and China.</p> <p>Finland co-operates with Kyrgyzstan, Peru, Tanzania, Namibia and South-Africa in biodiversity programs within the framework of bilateral development co-operation.</p> <p>A central theme of the Barents council of Foreign ministers has been the Barents forest sector initiative. Within this framework new projects based on economic cooperation have been created, mainly covering the Russian parts of the Barents region.</p> <p>The states around the Baltic Sea have long been involved in cooperation on pollution prevention in the Baltic Sea through the framework of the intergovernmental Baltic Marine Environment Protection Commission (HELCOM) set up by the Helsinki Convention in 1974. In 1992 the conservation of the biodiversity of the marine environment was added to the Helsinki Convention's goals.</p> <p>The aim is to reduce pollution in the Baltic Sea by agreeing on the phase-out of all sources of pollution. HELCOM also convenes meetings of environment ministries to support and further the implementation of the Convention and the Baltic Sea Joint Comprehensive Environmental Action Programme.</p> <p>Finland is cooperating in the work of implementation and reporting requirements to the CBD and the CSD, both tasks are coordinated by the Ministry of the Environment.</p>	

**The following question (204) is for DEVELOPED COUNTRIES**

<b>204.</b> Is your country supporting the work of existing regional coordination mechanisms and the development of regional and subregional networks or processes? (decision VI/27 B)	
a) No	
b) No, but programmes are under development	
c) Yes, included in existing cooperation frameworks (please provide details below)	x
d) Yes, some cooperative activities ongoing (please provide details below)	x
Further comments on support for the work of existing regional coordination mechanisms and the development of regional and subregional networks or processes.	
Finland has been actively involved in both Nordic and Pan-European European Biodiversity work and cooperation, and as an EU member participated in the EU coordination for many years. EU/EEA has established biodiversity networks and improved exchange of information/research knowledge between Parties. The European Biodiversity Platform (EPBRs) is one example among others. See above for more information (Cooperation art. 5, and articles 12, 17,18 above).	

<b>205.</b> Is your country working with other Parties to strengthen the existing regional and subregional mechanisms and initiatives for capacity-building? (decision VI/27 B)	
a) No	
b) Yes	x

<b>206.</b> Has your country contributed to the assessment of the regional and subregional mechanisms for implementation of the Convention? (decision VI/27 B)	
a) No	x
b) Yes (please provide details below)	
Further comments on contribution to the assessment of the regional and subregional mechanisms.	

**Box LXXIV.**

<p>Please elaborate below on the implementation of the above decisions specifically focusing on:</p> <ul style="list-style-type: none"> <li>a) outcomes and impacts of actions taken;</li> <li>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;</li> <li>c) contribution to progress towards the 2010 target;</li> <li>d) progress in implementing national biodiversity strategies and action plans;</li> <li>e) contribution to the achievement of the Millennium Development Goals;</li> <li>f) constraints encountered in implementation.</li> </ul>

## F. COMMENTS ON THE FORMAT

### Box LXXV.

Please provide below recommendations on how to improve this reporting format.

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