

4th NATIONAL REPORT
TO THE
CONVENTION ON BIOLOGICAL DIVERSITY

Latvia

2010

MINISTRY OF THE
ENVIRONMENT



OF THE REPUBLIC
OF LATVIA

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Executive Summary

(a) Overall status and trends in biodiversity, and major threats

There are 27 443 species known in Latvia so far (18 047 animal species (int.al. 62 mammal species and 223 nesting bird species), 5396 plant species and approximately 4000 fungi species) and it is being considered that only 75% of insect species and 60% of protista species are known. [5, 6]

According to the legislation 236 animal species, 426 plant and 62 fungi species are included in the list of specially protected species, but 22 animal and plant species are included in the list of specially protected species with exploitation limits. Overall 2,7% from known species are included in the list of specially protected species. There are also 86 protected habitat types in Latvia.

One of the most important and comprehensive evaluation of conservation status of habitats and species (other than birds) in Latvia was done according to the EU Habitats Directive. The results of the first evaluation (in 2009) show that only 31% of habitats and 50% of species (other than birds) of the EU importance are in favourable conservation status in Latvia.

As to the forests - indicators show that the total forest area and area of stocked forest land is increasing which is mainly related to overgrowing of agricultural land. There is also disproportion in age structure for the dominant tree species – young and middle aged stands are proportionally more than old stands. Such stand age structure does not ensure presence of uneven-aged trees in forest and continuity of plant and animal species related to them. In many cases forest is seen as the only income for inhabitants of the countryside, and this approach leads to unsustainable use of forests. Other factors with negative impact on forest biodiversity: melioration, construction of forest roads, lack of natural disturbance (e.g. burning) in particular forest habitats.

Regarding agricultural ecosystems - Latvian Farmland Bird index (LFBI) is important complex indicator which describes biodiversity in Latvian rural landscape. After 2004 LFBI is decreasing and there is a concern that negative changes are related to intensification of rural farming and insufficient activities in improvement of environment conditions in agricultural lands. Natural and extensively managed grasslands are biologically the most important, but nowadays they cover only 0.3% from the country's territory. These territories traditionally were managed by grazing and mowing, the extent of which has significantly reduced. Main threats to biodiversity in agricultural lands are: polarization of agricultural landscape, overgrowing due to lack of management, melioration etc.

As to threats to biodiversity for other ecosystems: peat extraction and overgrowing of bogs due to melioration; eutrophication, functioning of small hydro-electric power stations and poaching (in inland waters); in coastal areas the main threats are habitat degradation (due to tourism and recreational activities, illegal car driving), habitat loss (due to housing and inappropriate management) and expansion of invasive species. Low environmental awareness of general public and politicians can be also named as one of the major threats to biodiversity in Latvia.

(b) Key actions taken in support of the Convention's three objectives and to achieve the 2010 target and goals and objectives of the Strategic Plan of the Conventions

Traditionally the first objective of the Convention – conservation of biodiversity is the most comprehensible and, accordingly, actively dealt with.

As of February 1, 2010 there are 681 specially protected nature territories established in Latvia covering 11% from the country's terrestrial territory (not including North Vidzeme biosphere reserve covering alone 7% from the terrestrial territory of the country). In 2004 when Latvia joined the European Union, network of protected areas of the EU importance *Natura 2000* sites was designated in Latvia. As a basis for *Natura 2000* network the existing national system of specially protected territories was used and amended. Therefore the total number of national specially protected territories increased from 576 (as of 2003) to 674 (as of 2009), 327 sites out of them being designated as *Natura 2000* sites. 7 marine protected territories were established at the beginning of 2010 which will be designated also as *Natura 2000* sites during the 2010. *Natura 2000* sites in Latvia were designated for protection of 127 species and 58 types of habitats represented in Latvia and enlisted in the annexes of the Birds and Habitats directives.

For the protection of rare, as well as disperse species and habitats also micro-reserves are being established in Latvia. There are 1050 micro-reserves established outside specially protected nature territories from 2001-2007 covering in total 22 471 ha.

According to the legislation 236 animal species, 426 plant and 62 fungi species are included in the list of specially protected species, but 22 animal and plant species are included in the list of specially protected species with exploitation limits. Overall 2,7% from known species are included in the list of specially protected species. There are also 86 protected habitat types in Latvia.

In order to achieve the main targets of the Convention, several strategic documents have been elaborated, e.g. the first National Programme on Biological Diversity was adopted by the Government in 2000. At the moment the Environmental Policy Concept is the actual and the most important environmental planning document in force also covering biodiversity protection issues. The Programme on Sustainable Use and Long-term Conservation of Genetic Resources of Plants and Animals, Forest and Fishes used in Agriculture and Food, 2007-2009 was adopted by the Government in 2007. The Convention's goals and targets to some extent have been included in several very important sectoral plans and programmes, e.g.: Rural Development Programme 2007-2013 and National Forest Policy.

Since 2009 national environmental indicators including 15 biodiversity indicators have been set in Latvian legislation. They have been elaborated according to specific national needs and conditions, but in general they are coinciding with Convention's indicators more or less covering several focal areas of the Convention. The National Monitoring Program was prepared initially in 2002, then revised and adopted with the title "Environment Monitoring Programme" in 2006 - including monitoring of biological diversity and requirements provided by the EU biodiversity legislation.

The second objective of the Convention – the sustainable use of biodiversity components is much more complicated issue because of the economical pressure. This issue to some extent is being addressed by specific regulations on protection and use of protected territories and environmental impact assessment.

The third objective of the Convention - fair and equitable sharing of benefits arising out of the utilization of genetic resources is not yet dealt with in Latvia.

(c) Areas where national implementation has been most effective or most lacking

All in all it has to be admitted that there are much more success in implementation of the first objective of the Convention - conservation of biodiversity - than in implementation of the rest of Convention's objectives.

A significant success is establishment of *Natura 2000* network in 2004 and improvement of system of national protected territories accordingly. The *Natura 2000* network was established based on the existing network of protected territories, it was reconsidered, 108 new protected territories were designated and 48 existing protected territories were amended/enlarged. The protected territories now cover 11% of state terrestrial area (not including biosphere reserve (7% of state area)).

A lot of different habitat and species habitat management and restoration activities in different protected territories have been implemented through the projects co-financed by the EU funds, informational/educational materials published, management plans elaborated. Local municipalities, land owners and other stakeholders were largely involved in implementation of these projects through elaboration of management plans for protected territories, through implementation of practical management activities etc. Also significant number of tourism infrastructure elements (information centres, nature trails, view towers, information signs etc.) were created within the EU Life and ERDF projects.

Communication of nature conservation issues can be mentioned as a less successful example since there is no communication strategy elaborated and implemented. More attention also should be paid to integration of biodiversity issues in other sectoral plans and programmes.

(d) Major obstacles encountered in implementation

Although there are several great achievements in the implementation of nature legislation and policy documents, nature conservation still is not a priority for the government. In nature conservation sector implementation of the requirements of the EU directives is the priority. Another well-known and traditional obstacle is economical pressure and the fact that nature conservation is mostly seen as a restrictive issue. It derives from lack of information on biodiversity values and benefits and insufficient communication on nature issues to the politicians and general public. This, in its turn, derives from lack of human and financial resources. Insufficient incorporation of biodiversity issues into sectoral strategies and programmes can be considered as another important obstacle and even if sometimes it has been incorporated, in reality it has been given low priority or has remained just as a declarative issue.

(e) Future priorities

One of the most important future priorities is elaboration of new National Biodiversity Programme which is also indicated in the existing Environmental Policy Concept 2009-2015. One of the most important problems in implementation of nature Conventions as well as the EU Directives is lack of appropriate information/researches on biodiversity conservation and particularly on protected territories (management efficiency, costs and benefits, ecosystem services etc.), so in the nearer future we have to focus on facilitation and development of appropriate studies/projects. More attention also should be paid to integration of biodiversity

issues in sectoral plans and programmes. Another important issue which has to be dealt with in the nearer future is education and awareness rising on biodiversity issues of general society. The main obstacle to implement all these futures priorities is lack of human and financial resources, as well as lack of political will.

Chapter I - Overview of Biodiversity Status, Trends and Threats

Overview of the country's biodiversity

The terrestrial territory of Latvia occupies 6 458 900 ha, 3.9% of that covered by inland waters, 45.7% - forests, 4.9% - bogs, 38.5% - agricultural lands [4,5].

There are 27 443 species known in Latvia so far (18 047 animal species (int.al. 62 mammal species and 223 nesting bird species), 5396 plant species and approximately 4000 fungi species) and it is being considered that only 75% of insect species and 60% of protista species are known. [5,6]

The system of nature protection in Latvia is mainly regulated by 2 laws: the Law on Species and Habitats Protection and the Law on Specially Protected Nature Territories. Based on these Laws, Cabinet of Ministers has adopted several supporting Regulations. In general, the legislation of nature conservation in Latvia corresponds to requirements of the EU Directives, Convention on Biological Diversity and other conventions. Additional specific nature protection requirements are included in sectoral (e.g. forestry, agricultural, spatial planning, building) legislation.

According to the legislation 236 animal species, 426 plant and 62 fungi species are included in the list of specially protected species, but 22 animal and plant species are included in the list of specially protected species with exploitation limits. Overall 2.7% from known species are included in the list of specially protected species. There are also 86 protected habitat types in Latvia.

Table 1. Number of threatened and protected species and habitats in Latvia

	<i>Specially protected according to the national legislation</i>	<i>Included in the Red Data Book of Latvia</i>	<i>Included in the EU Birds and Habitats Directives and represented in Latvia</i>
Species:	742	579	276
<i>Mammals</i>	31	24	34
<i>Birds</i>	99	78	152
<i>Reptiles and amphibians</i>	9	9	14
<i>Fishes</i>	9	15	14
<i>Invertebrates</i>	106	162	34
<i>Plants</i>	237	315	22
<i>Mosses</i>	129	87	6
<i>Lichens</i>	60	34	-
<i>Mushrooms</i>	62	35	-
Habitats	86	-	57

Proportion and division in categories of specially protected nature territories

As of February 1, 2010 there are 681 specially protected nature territories established in Latvia covering 11% from the country's terrestrial territory (not including North Vidzeme biosphere reserve covering alone 7% from the terrestrial territory of the country). The System of Protected territories consists of 8 categories accordingly to the goals of designation and conservation – strict nature reserves, national parks, nature reserves, nature parks, nature monuments, protected landscape areas, biosphere reserves and marine protected territories.

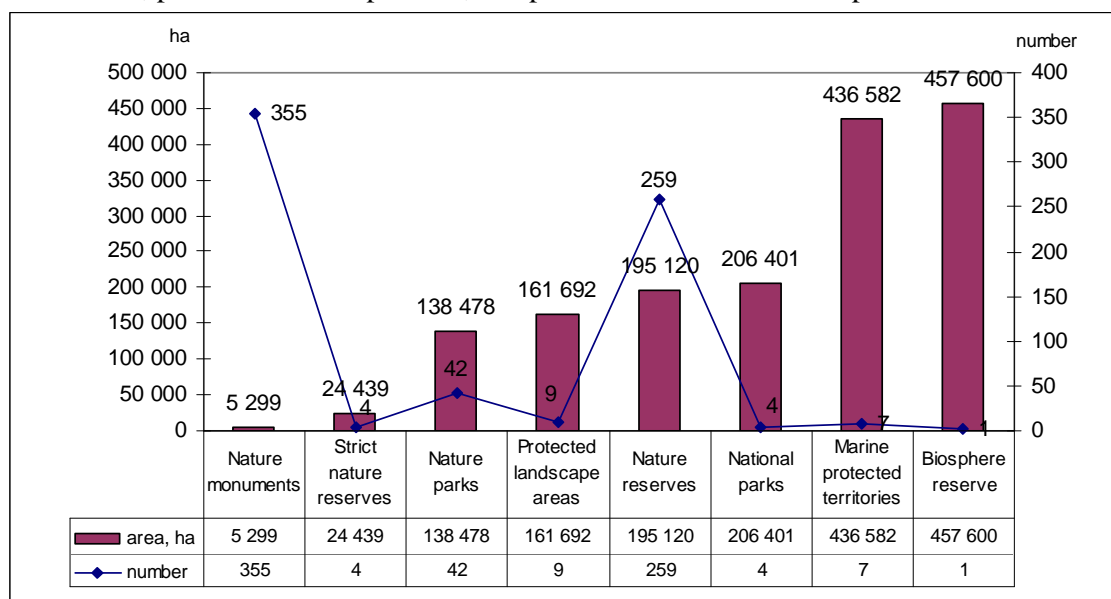


Figure 1. Number and area of specially protected territories in Latvia

Source: Latvian Environment, geology and meteorology agency (1).

In 2004 when Latvia joined the European Union, network of *Natura 2000* sites was designated in Latvia. *Natura 2000* is unified network of specially protected territories of the EU importance throughout the EU which is established to ensure the protection of species and habitats included in the EU Birds and Habitats Directives. As a basis for *Natura 2000* network the existing national system of specially protected territories was used and amended. Therefore the total number of national specially protected territories increased from 576 (as of 2003) to 674 (as of 2009), 327 sites out of them being designated as *Natura 2000* sites. 7 marine protected territories were established at the beginning of 2010 which will be designated also as *Natura 2000* sites during the 2010. *Natura 2000* sites in Latvia were designated for protection of 127 species and 58 types of habitats represented in Latvia and enlisted in the annexes of the Birds and Habitats directives¹.

Number of micro-reserves outside protected territories

For the protection of rare, as well as disperse species and habitats apart from specially protected nature territories the micro-reserves are being established in Latvia. Micro-reserves usually are established for the protection of special features in nature important for certain species – typical examples of micro-reserves are protection of nests of large birds like black stork *Ciconia nigra* and Lesser Spotted Eagle *Aquila pomarina*. The area of micro-reserves is

¹ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora; Council Directive 79/409/EEC on the conservation of wild birds

usually smaller than area of specially protected territories. Although they can be located within the protected territory, mostly micro-reserves are located outside the specially protected territories. According to the goal of designation and protection of micro-reserve certain economical activities are prohibited (e.g. forestry, land use change). There are 1050 micro-reserves established outside specially protected nature territories from 2001-2007 covering in total 22 471 ha. Micro-reserves are not forming part of the protected territories network, although serving the needs of protected species.

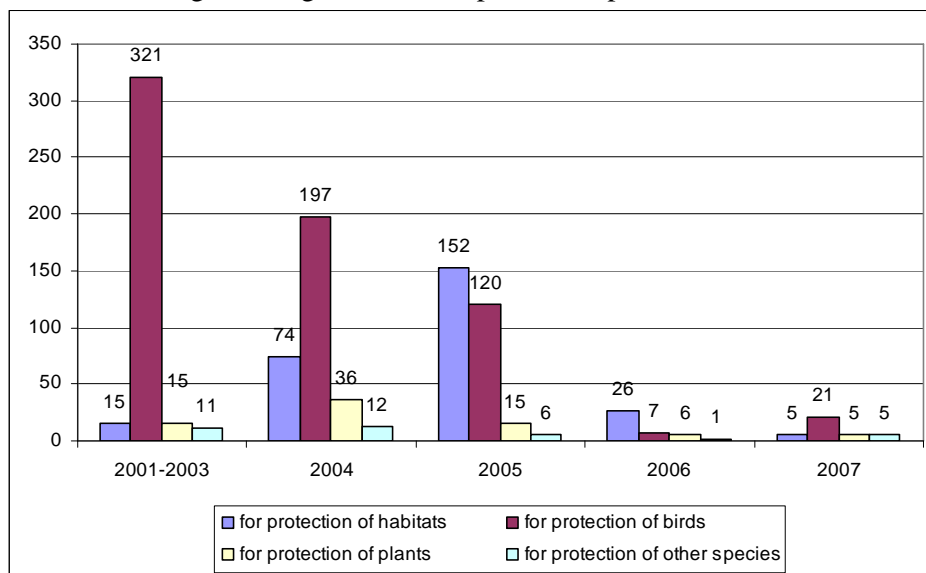


Figure 2. Number of micro-reserves established (2001-2007) outside specially protected territories.

Source: Latvian Environment, geology and meteorology agency [1]

70% of the total area of micro-reserves were established for the protection of Western Capercaillie *Tetrao urogallus* (in total 299 micro-reserves established for protection of *Tetrao urogallus* covering 15 703 ha).

Status of habitats and species of the EU importance

According to the EU Habitats Directive the conservation status of species and habitats mentioned in the Directive has to be periodically evaluated and reported to the European Commission. The results of the first evaluation (in 2009) show that only 31% of habitats and 50% of species (other than birds) of the EU importance are in favourable conservation status in Latvia (Figure 3 and 4).

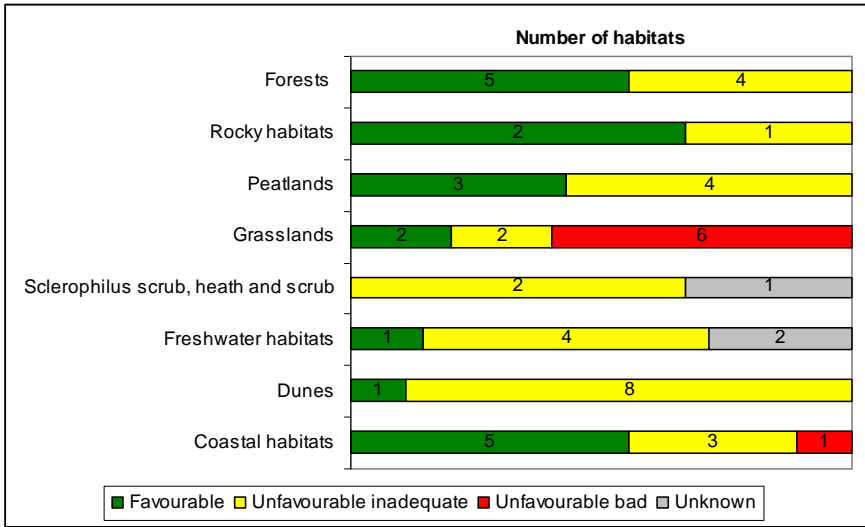


Figure 3. Conservation status by habitat category
 Source: EEA-European Topic Centre on Biological Diversity [2]

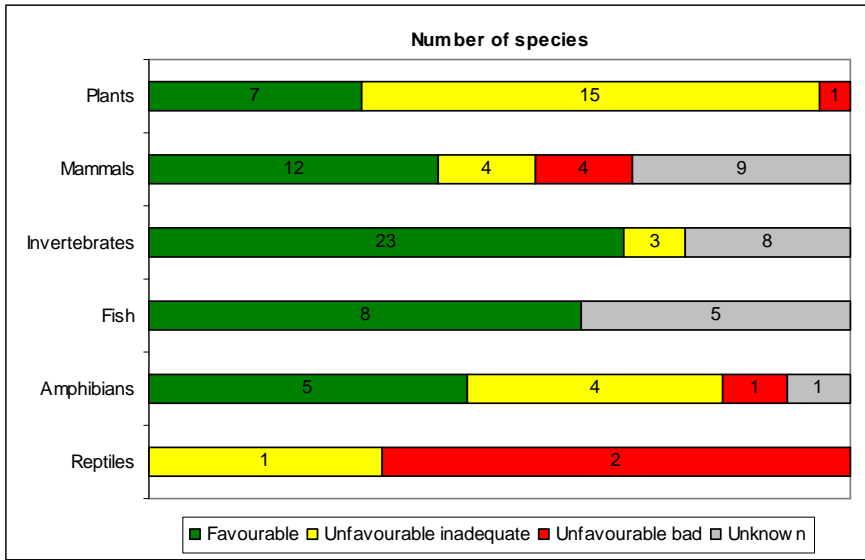


Figure 4. Conservation status by species group
 Source: EEA-European Topic Centre on Biological Diversity [2]

Major ecosystem types

Agricultural ecosystems

According to land balance data of the Republic of Latvia as of 1 January 2006, agricultural lands covers 38,5% (72.9% - arable land, 1.2% - orchards and 25.9% - grasslands (9.2% grasslands and 16.7 % pastures)) of Latvia’s terrestrial territory [4]. *Natura 2000* territories comprise 24% agricultural land [4]. More than 520 plant species (1/3 of Latvia’s flora) can be found in grasslands in Latvia. Grasslands are important for protection of different species, for example, approximately 40% of protected plant species are found in grasslands, 82% of population of corncrake *Crex crex* nests in grasslands. Natural and extensively managed grasslands are biologically the most important, but nowadays they cover only 0.3% (till the middle of 20th century - 13%) from the country’s territory [7]. These territories traditionally

were managed by grazing and mowing, the extent of which has significantly reduced. Main threats to biologically important grasslands are: polarization of agricultural landscape, overgrowing due to lack of management (in 2005, about 13.8% of the agricultural land was land which was not used for agricultural purposes), melioration (the total area of drained agricultural land is 1.6 million ha [4]) etc.

Indicators

Area of the known localities of EU importance grasslands and area of maintained grasslands of the EU importance

Grasslands of the EU importance are natural meadows and pastures with high diversity of species (including those of EU importance) and including grassland habitat types of EU importance. The favourable conservation status of species and habitats of EU importance related to natural grasslands can be only ensured by appropriate management of these grasslands. According to the existing evaluation by scientists and NGOs, there are in total 100 000 ha (target area) of grasslands of EU importance in Latvia. As of 2007, 61% (61 402 ha) of EU importance grasslands are known and only 28% (28 000 ha out of 100 000 ha) are maintained [3]. Management of the EU importance grasslands is subsidized from the EU funds and coordinated by means of the Rural Development Programme of Latvia.

Farmland Bird index

In order to evaluate ecological conditions in agricultural territories the Farmland Bird index has been developed and being calculated in Latvia since 1995.

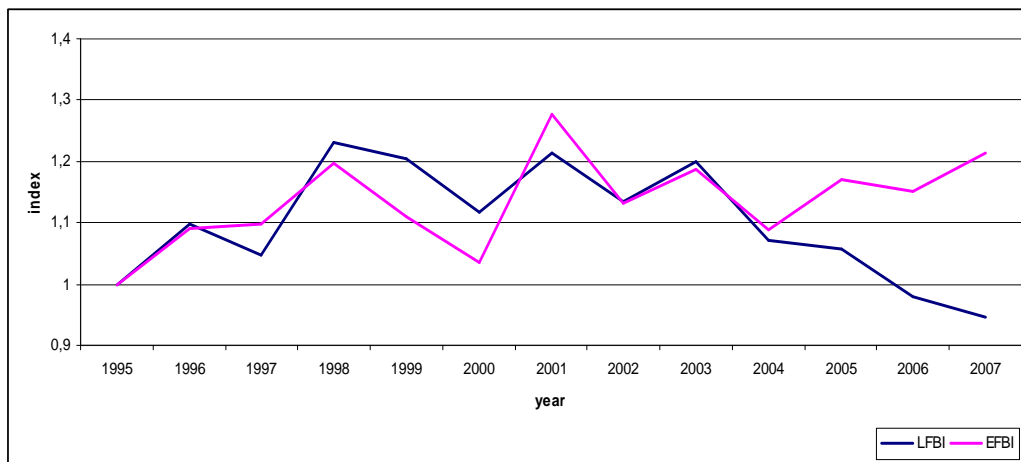


Figure 5. Farmland Bird index.

Source: Latvian Environment, geology and meteorology agency [1]

Figure 5 presents two Farmland Bird indexes differing in number and content of species. Latvian Farmland Bird index (LFBI, 12 species) does not contain several index species included in Europe Farmland Bird index (EFBI), but typically related to populated areas in Latvia (e.g. Barn Swallow *Hirundo rustica*, Common Starling *Sturnus vulgaris*, and Tree Sparrow *Passer montanus*). Whereas EFBI (13 species according to list as of 2006) does not contain several bird species typical to Latvian rural landscape and therefore included in LFBI, such as European Goldfinch *Carduelis carduelis*, Common Rosefinch *Carpodacus erythrinus*, Marsh warbler *Acrocephalus palustris* and Common Grasshopper Warbler *Locustella haevia*. Changes in Latvian Farmland Bird index were similar to changes in Europe Farmland Bird index until 2004. After 2004 LFBI is decreasing and since it is more appropriate in describing Latvian rural biodiversity, there is a concern that negative changes are related to

intensification of rural farming and insufficient activities in improvement of environment conditions in agricultural lands.

Index of population demography of indicator species: white stork

Approximately 10 000 pairs of white stork (*Ciconia ciconia*) are nesting in agricultural lands in Latvia (5% from the world's population, 9.2% from the EU population). The number of white storks in Latvia is stable and an average number of juveniles (2004-2007) is 2 juveniles per populated nest (Figure 6).

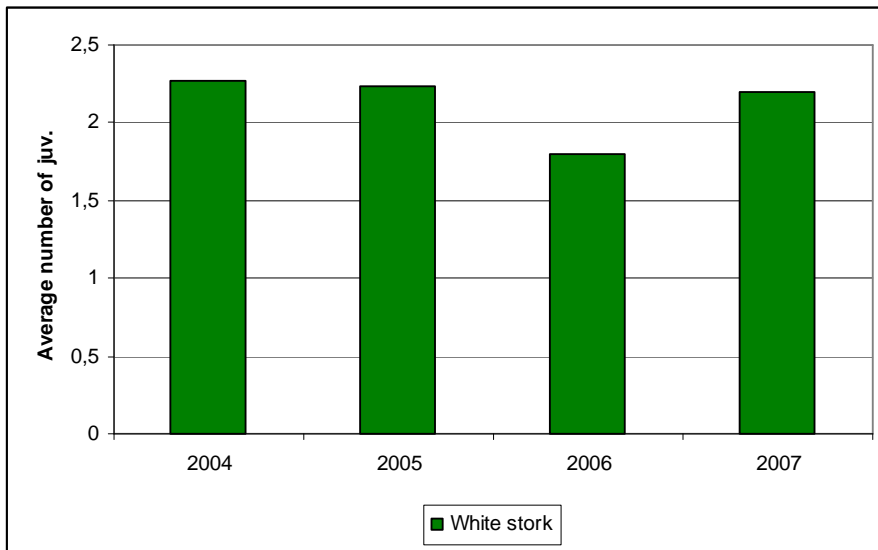


Figure 6. Average number of white storks' juveniles per populated nest.

Source: Latvian Environment, geology and meteorology agency [1]

Forests

As of 1st January 2009 forests cover 2 956 180 ha (45.7%) of the territory of Latvia (50.4% state owned, 2.5% owned by municipalities and 47% private property). Forest stands mainly comprise 3 species: pine, spruce and birch. *Natura 2000* sites comprise 334.8 thousands ha of forests (11.3% of total forest area). In total (as of 2007) various types of protected forests occupy 523.5 thousand ha or 17.7% of the total forest area [4]. 17-84% of protected species are related to forests in every group of organisms on which information is available. There are 11 protected forest habitats in Latvia.

Indicators

Forest area

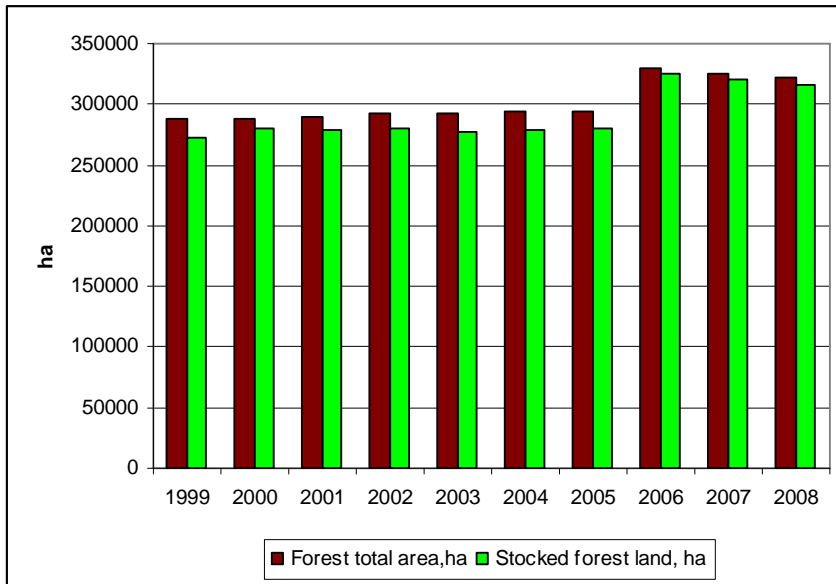


Figure 7. Forest area in Latvia
 Source: Central Statistical Bureau of Latvia (8)

Figure 7 shows that total forest area from 1999 till 2006 has increased (from 287 700 ha to 330 600 ha), but during the last two years (2007-2008) it tends to decrease. The situation in area of stocked forest land is quite similar – from 1999 till 2006 it increased from 272 800 ha to 324 600 ha, but there is reduction during 2007-2008. Stocked forest land is a part of forest area – it excludes areas where neither a forest (cutovers, perished stands, damaged stands) nor forest crops are growing (afforested areas not yet included in the forest-covered areas). Increase of the total forest area and area of stocked forest land is mainly related to overgrowing of agricultural land. Maintenance of forest biological diversity is affected by severe economic situation in the countryside. In many cases forest is seen as the only income for inhabitants of the countryside, and this approach leads to unsustainable use of forests. Other factors with negative impact on forest biodiversity: melioration (in total 50% of forest land are drained by open ditches), construction of forest roads (Figure 8), lack of natural disturbance (e.g. burning) in particular forest habitats.

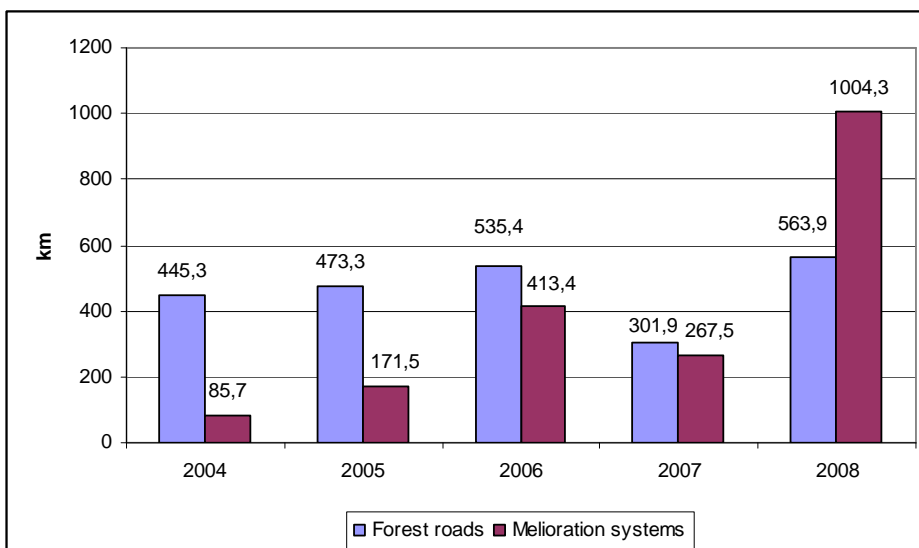


Figure 8. Total length (km) of built up and reconstructed forest roads and melioration systems from 2004-2008.

Source: State Forest Service, www.vmd.gov.lv

Forest age class structure

The stand age (on a decade long age class) for 3 dominant species - pine, spruce and birch - is given in Figures 9-11 following the area. Biologically old stands are the most important for biodiversity, respectively, pine stands starting from 140 years, spruce – 120 years, birch – 90 years. All figures show disproportion in age structure – young and middle aged stands are proportionally more than old stands. Such stand age structure does not ensure presence of uneven-aged trees in forest and continuity of plant and animal species related to them.

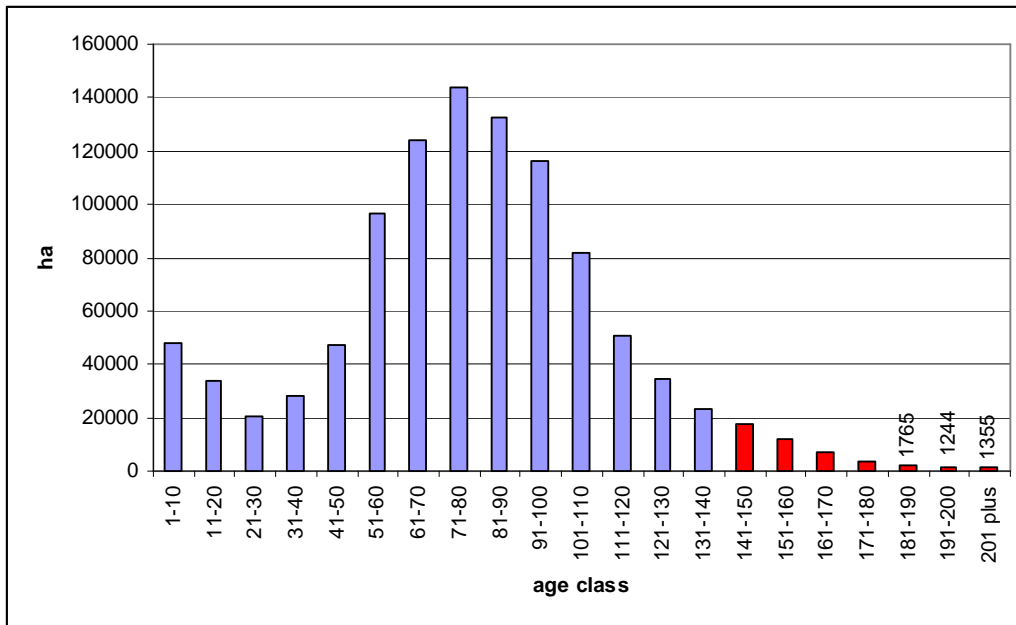


Figure 9. Area of pine stands according to age classes (as of 01.01.2009).

Source: Forest Statistics, State Forest Service

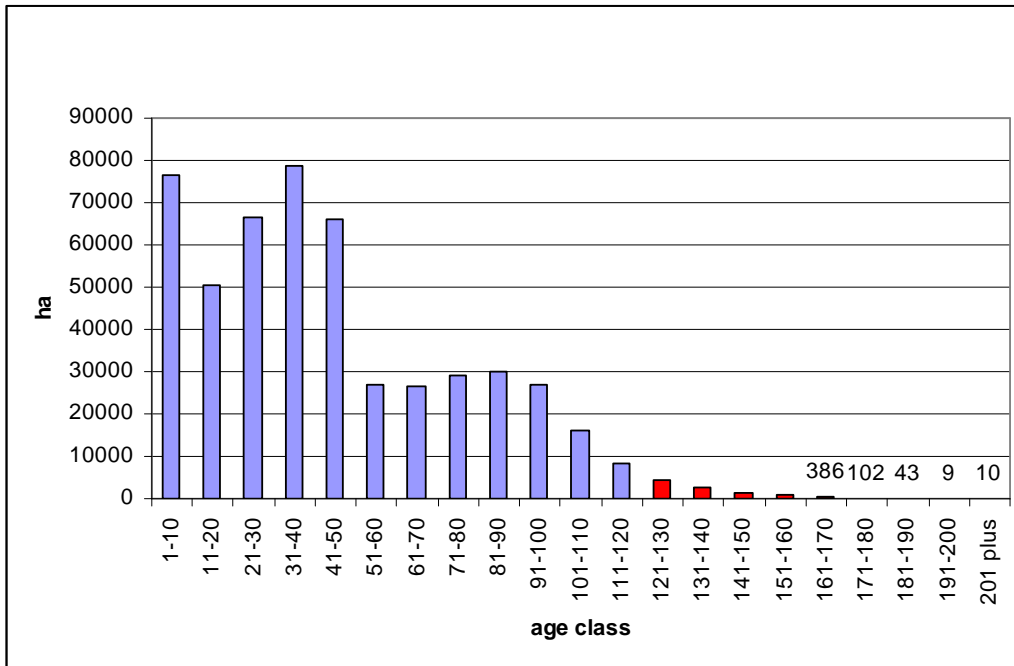


Figure 10. Area of spruce stands according to age classes (as of 01.01.2009).
 Source: Forest Statistics, State Forest Service

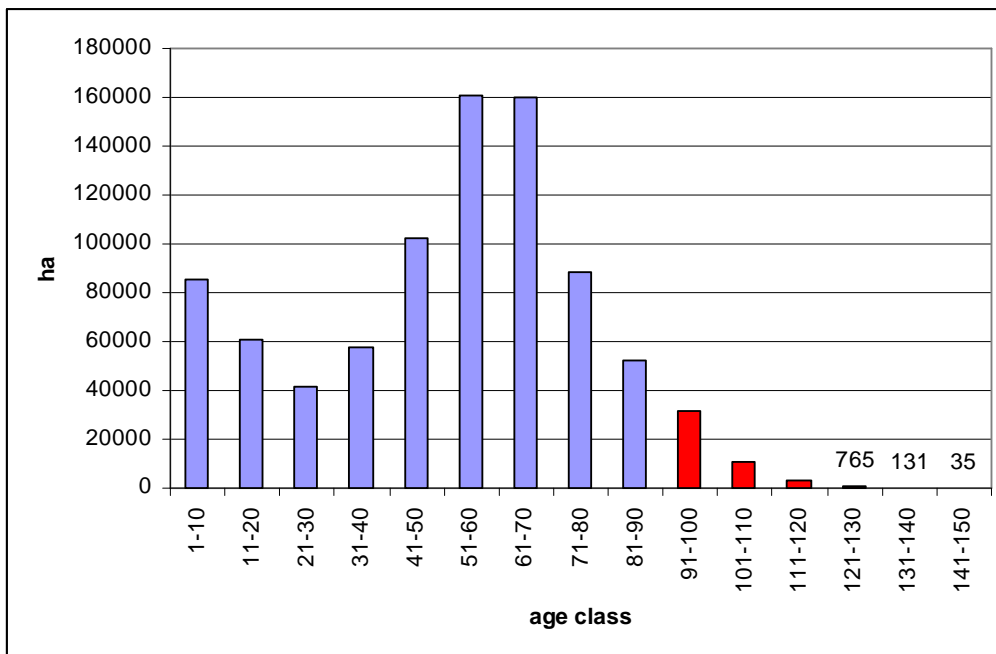


Figure 11. Area of birch stands according to age classes (as of 01.01.2009).
 Source: Forest Statistics, State Forest Service

Index of population demography of indicator species: black stork and lesser spotted eagle

Forests of Latvia are very significant nesting area for about 5% of the world and 8% of the European population of black stork (*Ciconia nigra*). The number of estimated population of black stork in Latvia to date is 500-700 pairs. Since 90-ies the population of black stork in

Latvia has decreased for approximately 45% from the initial population [1]. Intensive forest management and lack of feeding sites are the main negative factors causing decrease of population of black stork. The nesting results probably also are influenced by the presence of DDT [9]. Nesting areas of black stork are protected within specially protected territories and micro-reserves, however currently only 28% from all nesting areas are under legal protection [9].

Latvian population of Lesser spotted eagle (*Aquila pomarina*) counts about 24% of European population (20% from world's population). Forests (for nesting) and grasslands (for feeding) both are equally important ecosystems for this species and therefore the overall environmental quality can be described based on the parameters of Lesser spotted eagle's populations.

From sampling plots with long-time observations only in "Bukaisi" (Figure 12) stable dynamic of number of eagles has been stated. Apparently decrease in number of pairs in two other sampling plots shows negative trend in overall development of population during the given period. The most important reason to that is intensive forest management (starting from 2000), particularly in private forests leading to loss of old forest stands suitable for nesting. During the last years the number of lesser spotted eagle is also influenced by intensive agriculture and, in particular, development of crop farming leading to loss of grasslands suitable for feeding.

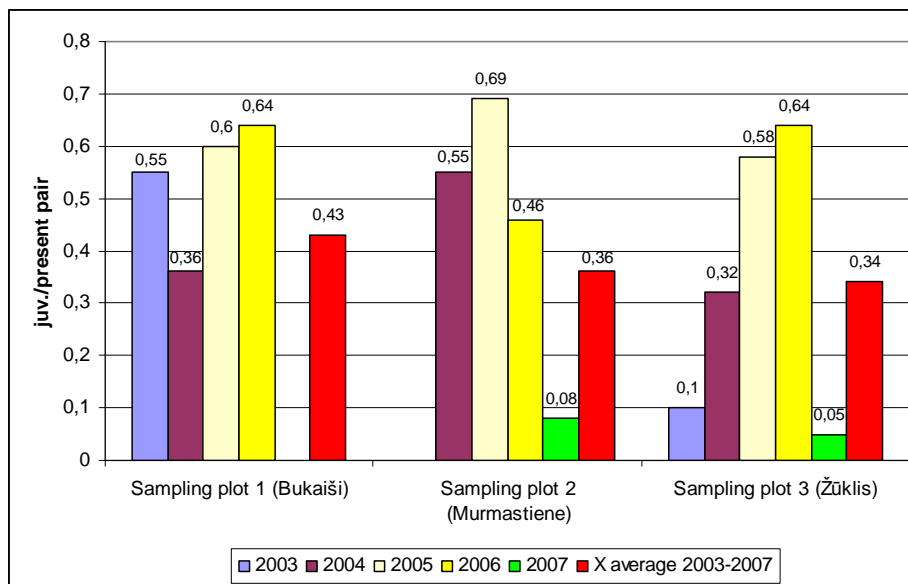


Figure 12. Nesting results of Lesser spotted eagles in 3 existing sampling plots.

Source: Latvian Environment, geology and meteorology agency [1]

Bogs

Bogs are distributed throughout the country and cover 4.9% (as of 2000) of Latvia's territory [5]. 70% out of them are being relatively intacted [13]. The rest are the bogs where peat extraction or drainage was/being done. There are 3 main types of bogs in Latvia: fens, transitional mires and raised bogs. According to legislation there are 8 specially protected bog habitats. More than 50 protected plant species can be found in Latvian bogs (43 in fens, 15 in raised bogs and 27 in transitional mires). Mainly they are orchids (15 species) and sedges (10 species). The most valuable bogs in terms of rare species are fens [13].

The main threats for biodiversity are peat extraction and overgrowing of bogs due to melioration. Peat is among the most economically significant minerals in Latvia. It is estimated that peat deposits (peatlands of more than 1 ha large and with more than 0.3 m peat) cover 10.4% of the terrestrial land of Latvia (includes not only bogs, but also some forest types, drained mires and peat extraction sites) [16]. There are no indicators elaborated or approved associated with biodiversity of bogs, but Table 1 shows amount of estimated peat deposits and extent of peat extraction from 2004-2007.

Table 1
Amount of estimated peat deposits and extent of peat extraction from 2004-2007
Source: Latvian Environment, geology and meteorology agency [1]

	2004	2005	2006	2007
	million of tonnes			
Amount of peat deposits	794.802	794.207	775.940	768.548
Extent of peat extraction	0.595	0.791	1.000	0.541

Inland waters

There are 140 lakes (larger than 1 km²) and 12 400 rivers (with total length 38 000 km) in Latvia [4]. Biodiversity in lakes has been mainly investigated in relation to their trophic condition. It is concluded that mesotrophic lakes represent greater species diversity, but oligodystrophic, dystrophic and diseytrophic bog lakes comprise more rare and protected species. 2680 algae species, 1614 invertebrate species, 40 fish and 3 lamprey species according to present estimation can be found in freshwaters in Latvia [6]. According to legislation there are 27 specially protected habitats of inland waters in Latvia.

Main threats to biodiversity in inland waters are: eutrophication, functioning of small hydro-electric power stations and poaching.

Indicators

Index of population demography of indicator species: salmon

Salmon (*Salmo salar*) is specially protected species in Latvia and EU. There are 10 salmonid rivers in Latvia, the Salaca river being the most important of them. The Salaca river is designated as a national salmon index river and therefore special monitoring of salmon and other fish species is being carried out there. The population of salmon in the Salaca is being considered as stable; the number of migrating smolts increased significantly in spring 2006 (figure 13). Poaching and loss/degradation of suitable habitats (e.g. due to activities of small hydro-electric power stations built on rivers in previous years) are some of negative impacts influencing populations of salmon in Latvia.

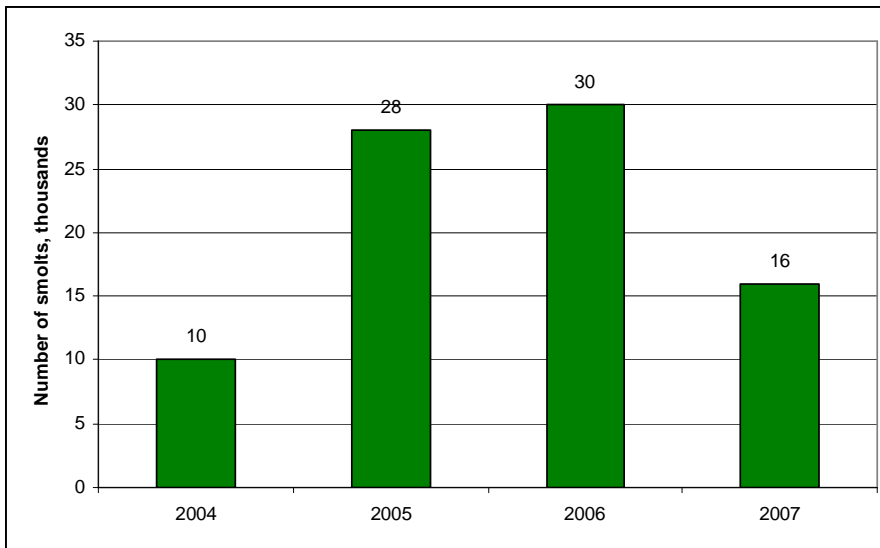


Figure 13. Number of smolts in Salaca river.

Source: Latvian Environment, geology and meteorology agency [1]

Marine and coastal areas

The total length of coastline in Latvia is about 496 km. Approximately 90% from it is covered by natural habitats, the rest is covered with buildings. Great diversity of habitats and species can be found along sea coast, for example it comprises 23 coastal habitats of EU importance. There are more than 40 territories along the Baltic sea and Riga Gulf coast in Latvia that have been designated as *Natura 2000* sites, 7 of these territories comprise also sea aquatorium. The process of designation of marine *Natura 2000* sites has started recently; 7 marine *Natura 2000* sites are planned to be designated in Latvia. Main threats to biodiversity in coastal areas are: habitat degradation (due to tourism and recreational activities, illegal car driving), habitat loss (due to housing and inappropriate management), expansion of invasive species and low environmental awareness of general public and politicians.

Two different marine areas (coastal areas and open sea areas) can be distinguished in Baltic Sea and Riga gulf ecosystem. Between these two the greatest biodiversity can be found in coastal areas where benthic algae stands grow. Main threats to biodiversity in marine areas are: eutrophication and invasive species.

Invasive species

According to information in European Network on Invasive Alien species (www.nobanis.org) there are 142 invasive species in Latvia. However information on invasive species has not been gathered systematically so far and is available only for some species (in the form of separate observations (e.g. *Percottus glehni*, signal crayfish) or studies (hogweed *Heracleum sosnowsky*, invasive species in coastal area)). The most problematic species which has caused the biggest damage is hogweed (*Heracleum sosnowsky*). It was introduced in Latvia in 1950-1960 as a cultivated plant for cattle feeding, but at the end of the 80-ties and beginning of 90-ties its distribution in Latvia went out of control. Nowadays it has spread almost all over the country invading more than 12 000 ha [17]. Hogweed is the only species included in the national legislation on invasive species. Based on the Convention of Biological diversity and several national strategic programmes, the Programme of Localization of Distribution of Hogweed 2006-2012 was adopted by the Government in 2006 and in 2008 the Regulation on Localization of Distribution of Hogweed were adopted. From 2006 till now the State Plant Protection Service is identifying and precisely surveying territories invaded with hogweed

and, as of 2008, the surveyed area was already 8341 ha [1]. Gradually, a systematic destruction campaign is being implemented: farmers whose farms were invaded by hogweed in summer of 2006 could apply for support.

Genetic diversity

By adopting the Convention on Biodiversity, Latvia has undertaken a commitment to preserve also the genetic resources.

It is important for Latvia to preserve the genetic resources of the local varieties of agricultural animals, like Latvian blue cow and Latvian brown cow, Latvian white pig, etc., as well as the genetic resources of the local plant varieties with their characteristic features [4]. The Programme on Sustainable Use and Long-term Conservation of Genetic Resources of Plants and Animals, Forest and Fishes used in Agriculture and Food, 2007-2009 was adopted by the Government in 2007. It is stated in the Programme that following number of samples of genetic resources are being maintained:

- 53 vegetables from 13 species;
- 57 field crop and grasses species;
- 459 Latvian fruits and berry bushes from 13 species;
- 100 aromatic and vulnerary plants from 13 species.

Conservation programme of genetic resources of agricultural animals is being realized by several non-governmental organizations, forest genetic resources are being maintained *in situ* as well as *ex situ*.

Conservation of genetic diversity of wild plants and animals is responsibility of several botanical gardens and zoological parks, State agency "National Botanic Garden" being the leading state scientific institution among them in the plant genetic diversity conservation, and the Riga Zoo in animal genetic diversity conservation. Microbial Strain Collection of Latvia holds over 700 cultures of microorganisms [12].

Main problems and threats in conservation of genetic resources are:

- lack of a unified legislative basis and a system of collection, description, conservation, analysis and use of genetic resources [11],
- shrinking proportion of the use of the local varieties, which endangers the gene pool of agricultural plants and animals as well as the agricultural biodiversity [4].

Chapter II - Current Status of National Biodiversity Strategies and Action Plans

Introduction

The first National Programme on Biological Diversity was adopted by the Government in 2000. It was supplemented with Action Plan containing list of detailed activities to be fulfilled in order to ensure biodiversity protection in each type of ecosystem and economic sector. Till 2003 the major part of activities enlisted in the Action Plan was fulfilled, so the Action Plan was updated. In 2004 the National Environmental Policy Plan 2004-2008 was adopted defining also policy goals in biodiversity protection. According to the national legislation on types of policy planning documents, it was replaced by the Environmental Policy Concept 2009-2015 (adopted by the Government in 2009) and since the above mentioned National Programme on Biological Diversity is considered out-of-date, the Environmental Policy Concept (EPC) is the actual and the most important environmental planning document in force also covering biodiversity protection issues.

(a) A brief description of the NBSAP, identifying the main or priority activities

The EPC can be considered as the general policy planning document in environmental field. The overall goal of environmental policy defined in the EPC is to ensure the possibility for inhabitants to live in a clean environment, fulfilling sustainable development, maintaining environmental quality and biodiversity, ensuring sustainable use of natural resources as well as ensuring public participation in the decision making processes and information on environmental quality. The EPC consists of 5 main chapters: air, water, earth, nature and climate each containing description of situation and problems, policy goals and results, and a short list of the most actual and relevant actions to be done within the planning period.

(b) An indication of whether and where targets and indicators (both global and national) adopted under the Convention have been incorporated into NBSAPs

Since the EPC is the general environmental policy planning document, it contains only one quite general policy target per sector and almost no particular biodiversity indicators except one: a Farmland Bird index. The EPC target in nature protection is to ensure balance between nature protection interests and economic interests. A few of the priority activities enlisted to achieve this goal are:

- to develop a new National Programme on Biodiversity,
- to improve network of specially protected nature territories and monitoring system,
- to ensure management of specially protected nature territories,
- to elaborate legislation for protection and sustainable development of landscape,
- to increase understanding of general public on nature values.

Since 2009 national environmental indicators including 15 biodiversity indicators have been set in Latvian legislation. They have been elaborated according to specific national needs and conditions, but in general they are coinciding with Convention's indicators more or less covering these focal areas: Status and trends of the components of biological diversity, Sustainable use, Threats to biodiversity, and to a limited extent - Ecosystem integrity and ecosystem goods and services. Most of biodiversity indicators are described in Chapter I of this report.

(c) Information on how activities under the NBSAP contribute to the implementation of the articles of the Convention and the thematic programmes and cross-cutting issues adopted under the Convention

Activities enlisted in the EPC at the moment address only some issues of the Articles 6, 7, 8, 12, 13 and 20 of the Convention. It can be considered that EPC to a limited extent covers such Convention's thematic programmes as Agricultural Biodiversity, Forest Biodiversity and Inland Waters Biodiversity and such cross-cutting issues: Protected Areas, 2010 Biodiversity Target, Biodiversity for Development, Communication, Education and Public Awareness, Identification, Monitoring, Indicators and Assessments and Sustainable use of Biodiversity. It is expected that the new National Programme on Biodiversity (due data of elaboration - 2012) could cover all the articles, thematic programmes and cross-cutting issues adopted under the Convention.

(d) An overview of progress made in implementation of priority activities or action, focusing on concrete results achieved

Since the EPC is a new document (adopted in 2009) there is no overview available of progress made in implementation of priority activities so far. Most of the policy results included in the previous policy planning document covering also biodiversity issues – National Environmental Policy Plan 2004-2008 – are achieved. For example – the network of protected territories of European importance *Natura 2000* was established, appropriate monitoring programme of *Natura 2000* site was developed and is being implemented, species conservation plans and management plans of protected territories have been and are being developed constantly.

(e) An indication of domestic and/or international funding dedicated to priority activities

It is planned to use different types of funding resources (state budget, EU funding and private sector funding) to implement the activities enlisted in EPC. It is considered that due to economical situation in country, there will be not enough financial resources for co-financing in the near future and therefore only the most prior activities will be implemented.

(f) A review of successes and obstacles encountered in implementation and lessons learned

Success

The most significant success was elaboration and adoption of the first National Biodiversity Programme (supplemented by the Action Plan) in 2000. Different other sectoral plans and programmes elaborated afterwards incorporated information and priorities set in the National Biodiversity Programme. Till 2003 the major part of activities enlisted in the Action Plan was fulfilled, so the Action Plan was updated. Currently the Programme is considered out of date since it needs to be seriously revised and a new Programme has to be elaborated (as foreseen in the National Environmental Concept 2009-2015) setting new targets and priorities according to the current situation and future plans.

Another significant success was establishment of *Natura 2000* network in 2004 and improvement of system of national protected territories accordingly. The *Natura 2000* network was established based on the existing network of protected territories, it was reconsidered and 108 new protected territories were designated, but 48 existing protected territories were amended/ enlarged. The protected territories now cover 11% of country terrestrial area (not including biosphere reserve (7% of country area)).

Establishment of compensation mechanism for forest management in protected territories for private land owners was included as one of the priority actions in the previous National Environmental Policy Plan (2004-2008). The respective law and government regulations were adopted in 2006 and system of compensations came into operation. This was a great success in nature conservation in Latvia, which also positively changed attitude of land owners towards nature protection. From 2006-2008 compensations for forestry restrictions in approximately 2300 ha were paid. Unfortunately, since the beginning of 2009 due to severe economical situation, payments are postponed.

Attraction of funding from the EU LIFE Nature and ERDF programmes can be mentioned as another great success. From 2001 (when funding from the EU LIFE programme became available for Latvia) till 2009, 15 LIFE projects were implemented. A lot of different habitat and species habitat management and restoration activities in different protected territories have been implemented through these projects, informational/educational materials published, management plans elaborated. Local municipalities, land owners and other stakeholders were largely involved in implementation of these projects through development of management plans for protected territories, through implementation of practical management activities etc. Also significant number of tourism infrastructure elements (information centres, nature trails, view towers, information signs etc.) were created within the EU LIFE and ERDF projects.

A very successful example of involvement of general public in biodiversity conservation issues is the public monitoring programme elaborated and implemented during the GEF/UNDP co-financed project “Biodiversity protection in North Vidzeme Biosphere Reserve” (2005-2009). Inhabitants of the Biosphere Reserve were invited to obtain and submit information in given questionnaires on different species (some rare, some common), agricultural activities, distribution of invasive species etc. in their property or neighborhood. There was quite a large response from inhabitants and a lot of information within the territory of the Biosphere Reserve was collected.

Obstacles

Although there are several great achievements in the implementation of nature legislation and policy documents, nature conservation still is not a priority for the government. In nature conservation sector implementation of the requirements of the EU directives is the priority. Another well-known and traditional obstacle is economical pressure and the fact that nature conservation is mostly seen as a restrictive issue. It derives from lack of information on biodiversity values and benefits and insufficient communication on nature issues to the politicians and general public. This, in its turn, derives from lack of human and financial resources. Insufficient incorporation of biodiversity issues into sectoral strategies and programmes can be considered as another important obstacle and even if sometimes it has been incorporated, in reality it has been given low priority or has remained just as a declarative issue.

(g) An analysis of the effectiveness of NBSAPs, focusing on:

(i) Whether observed changes in status and trends in biodiversity (as described in Chapter I) are a result of measures taken to implement NBSAPs and the Convention

The legislation of Latvia’s nature conservation is in correspondance with the EU nature legislation and enforcing nature conservation requirements set in the EU directives is a priority. Nevertheless, since the goals of the Convention and EU directives largely overlap, it can be concluded that by implementing the EU directives, the Convention is also being

implemented. The Convention is being more referred to in cases of conservation of genetic diversity.

The major part of activities enlisted in the first National Programme on Biological Diversity and its Action Plan was fulfilled. Also most of the policy results included in the previous policy planning document covering also biodiversity issues – National Environmental Policy Plan 2004-2008 – are achieved. Nevertheless the strategic goals of these both documents mostly have not been achieved. There are several reasons for that, e.g. – lack of political will and biodiversity issues not being set as a priority, growing economical pressure during the past 5 years which was not foreseen in the biodiversity planning documents and therefore was not accordingly dealt with (no additional evaluations, instruments and human and financial capacity foreseen etc.).

(ii) Whether the current NBSAP is adequate to address the threats to biodiversity identified in Chapter I

As it is mentioned in subparagraph a) of this Chapter, the Environmental Policy Concept 2009-2015 is the only existing general environmental planning document at the moment, which, to some extent, covers also biodiversity conservation issues. Therefore it comprises one quite general policy goal (to ensure balance between nature protection interests and economic interests) in the field of biodiversity conservation and several future activities enlisted. It is expected that the coming National Biodiversity Program due by 2012 will be more detailed and will address specifically each of the mentioned threats.

(iii) How implementation of NBSAPs may be improved, where necessary, including suggestions of possible ways and means to overcome identified obstacles

One of the most important aspects for successful implementation of NBSAP is incorporation of its targets and activities into sectoral and cross-sectoral plans and programmes. It is expected that the coming National Biodiversity Program due by 2012 will be more detailed and will include more precise description on the goals to be met and ways to achieve them. .

(h) The specific information requested in COP 8 decisions

VIII/5 (Article 8(j))

Para 2. *Invites* Parties to submit through their national reports, if appropriate, to the Executive Secretary, reports on progress in achieving national participation of indigenous and local communities, and associated capacity-building, and *requests* the Executive Secretary to compile these submissions and, as appropriate and with the assistance of Parties and of indigenous and local communities, prepare a statistical report thereon identifying, *inter alia*, participation in different bodies of the Convention, participation from different countries/continents, participation in government delegations as well as outside of government delegations, and those funded by voluntary mechanisms;

There are no indigenous communities for the purpose of the Convention in Latvia.

VIII/21 (Marine and coastal – deep seabed)

Para 3. *Concerned* about the threats to genetic resources in the deep seabed beyond national jurisdiction, *requests* Parties and *urges* other States, having identified activities and processes under their jurisdiction and control which may have significant adverse impacts on deep seabed ecosystems and species in these areas, as requested in paragraph 56 of decision VII/5, to take measures to urgently

manage such practices in vulnerable deep seabed ecosystems with a view to the conservation and sustainable use of resources, and report on measures taken as part of the national reporting process;

Latvia is not dealing with these issues.

VIII/22 (Marine and coastal – IMCAM)

Para 5. *Requests* Parties, in the course of reporting on implementation of the marine and coastal programme of work, to report on measures taken to enhance implementation of Integrated Marine and Coastal Area Management in their national reports, where relevant;

The Protection Zone Law (1997) determines types of Protection Zones of the Baltic Sea and the Gulf of Riga, coastal protection zone being one of them. It was established in order to decrease the effects of pollution in the Baltic Sea, to preserve the protective functions of the forest, to eliminate the development of erosion processes, to maintain the coastal landscapes, to ensure preservation and protection of coastal natural resources, including resources necessary for leisure and tourism and other territories important for society, and the balanced and the continuous utilisation thereof.

The Baltic Sea and the Gulf of Riga coastal protection zone is divided in the following zones:

1) the protection zone of coastal dunes the width of which shall be dependent upon the width of dune zone, but not less than 300 metres landwards, counting from the place where the natural land vegetation begins, except the following cases:

a) if the local government spatial plan has been approved in cities, the coastal dune protection zone therein shall be not less than 150 metres, including as mandatory the specially protected biotopes therein; and

b) if the borders of villages have been approved in accordance with procedures specified in Paragraph 67 of this Law and have been specified in the spatial plan of the local government, the width of the coastal dune protection zone shall be not less than 150 metres in such villages, including as mandatory the specially protected biotopes therein;

2) the sea protection zone, which includes the beach and the part of sub-continental shelf from the beginning of the continuous natural land vegetation up to the 10 metre isobath; and

3) a restricted economic activity zone up to a width of 5 kilometres, which is determined taking into account natural circumstances.

The Spatial Development Concept of the Coastal Zone (2011-2017) is being elaborated by the Ministry of Regional Development and Local Governments. The Concept:

- will include an overview of existing situation and problems in the coastal area,
- will define values of national importance in the coastal area;
- will define unified goal of conservation and development of the coastal area;
- will determine policy principles and actions to be implemented from 2011-2017.

VIII/24 (Protected areas)

Para 4. *Urges* Parties, other Governments and multilateral funding bodies to provide the necessary financial support to developing countries, in particular the least developed and small island developing States, as well as countries with economies in transition, taking into account Article 20 and Article 8 (m) of the Convention to enable them to build capacity and implement the programme of work and

undertake the reporting required, including national reports under the Convention on Biological Diversity, to enable the review of implementation of the programme of work on protected areas in line with goal 2.2 of the programme of work.

In 2006 a project (co-financed by the Republic of Latvia) on capacity building of the Ministry of Ecology and Nature Resources of the Republic of Moldova in two environmental sectors – waste management and conservation of biodiversity – was implemented.

In 2007 an international meeting (co-financed by the Republic of Latvia) “Coordination of nature conservation interests in borderland of the Republic of Latvia and Belarus” was organised.

Several international projects regarding nature conservation issues were fully or partly financed by the Republic in Latvia, for example:

- a project „Support to the Ministry of Ecology and Nature Resources of the Republic of Moldova for establishment of system of environmental impact assessment”;
- a project “Bilateral studies of nature values in protected territories “Augšdaugava”, „Braslavskije ozjora”, „Silene” and „Riči”” in borderland of Latvia and Belarus with target to establish transboundary protected territories”;
- a project “Development of cooperation and exchange of experience in implementation of environment requirements in protected territories of Autonomous Republic of Adjara”.

VIII/28 (Impact assessment)

Para 5. *Urges* Parties, other Governments and relevant organizations to apply the voluntary guidelines on biodiversity-inclusive environmental impact assessment as appropriate in the context of their implementation of paragraph 1 (a) of Article 14 of the Convention and of target 5.1 of the provisional framework of goals and targets for assessing progress towards 2010 and to share their experience, *inter alia*, through the clearing-house mechanism and national reporting;

Environmental Impact Assessment procedure in Latvia is determined by the Law “On Environmental Impact Assessment” (1997) done in conformity with respective EU directive and UN/ECE Convention on the Environmental Impact Assessment in Transboundary Context (Espoo). All plans and programmes have to be assessed as well in the conformity with the EU directive on the strategic environmental assessment. Impact of the proposed plan or project is examined with respect to several criteria out of which protected territories, species and habitats are to be evaluated as well. If a protected territory is designated also as a territory of the EU importance (*Natura 2000* site) the proposed plan or project could be approved only when no significant negative effect on *Natura 2000* site is confirmed by the adequate assessment.

Chapter III - Sectoral and cross-sectoral integration or mainstreaming of biodiversity considerations

National strategies and programmes

Latvian Sustainable Development Strategy 2030 is being elaborated and hierarchically it will be the highest national long-term development planning document. Nature as a future capital is defined as one of the directions of strategic development.

Until adoption of Latvian Sustainable Development Strategy 2030 the **Latvian Sustainable Development Concept** (2002) is in force where biodiversity and nature conservation issues are significantly reflected. The targets of the Concept adapt the targets of Rio Declaration according to the national situation. There are several overall goals of the Concept directly related to biodiversity:

- (1) to ensure adequate activities for conservation of biodiversity and ecosystems;
- (2) to ensure integration of environmental issues and to develop wide use of environmental policy instruments in other sectoral policies;
- (3) to ensure public involvement in sustainable development processes.

The particular targets of the biodiversity conservation sector are:

- to maintain and restore diversity of ecosystems and their natural structures;
- to maintain and enable diversity of local wildlife species;
- to maintain genetic diversity of wildlife species as well as cultivated plants and domestic animals;
- to facilitate conservation of traditional landscape;
- to ensure sustainable use of natural resources.

National Development Plan 2007-2013 was approved by the Government in 2006 and it is the highest medium-term development planning document. The objective of the plan is to facilitate a balanced and sustainable development of the country, as well as to ensure an increase of Latvia's competitiveness. The strategic goal of the National Development Plan (NDP) is – education and knowledge for the growth of the national economy and technological excellence. The priorities of the National Development Plan are:

- An educated and creative individual;
- Technological excellence and flexibility of companies
- Development of science and research.

The chapter “Prerequisites for sure and sustained development” of NDP presents the most important areas for the achievement of the strategic objective, the chapter “Reasonably used and well-preserved natural environment” being among them. This chapter includes also several tasks related to biodiversity:

- (1) to facilitate the preservation and reasonable use of biological diversity and protected territories;
- (2) to promote the inclusion of the protected territories into the economic development determining different prohibited zones of economic activities and substantiating the socio-economic decisions in their determination, as well as to attract financial resources for their management;
- (3) to encourage public participation in environmental protection and preservation by providing timely and true information to the local inhabitants about environmental quality and natural resources;

- (4) to facilitate the development of environmental education, as well as to foster education for sustainable development and to raise environmental awareness among the general public;
- (5) to support sustainable development of the natural environment for recreation purposes and to promote ecotourism;
- (6) to facilitate evaluation, mitigation and monitoring of the risks to nature, including climate change and industrial risks.

Declaration of the Intended Activities of the Cabinet of Ministers is the document of political guidelines. Declaration of today's Government includes several priorities directly or indirectly related to biodiversity conservation:

- (1) Development and adoption of new environmental policy guidelines by defining the main objectives and activities for the development of the environmental policy during the next seven years;
- (2) Development of a harmonised nature protection management system;
- (3) Development and adoption of river basin management plans by ensuring public discussions and by starting implementation of the plans.
- (4) Ensuring fish passes in small hydro-electric power stations.

In order to implement the Declaration the Cabinet of Ministers develops and approves the **Government Action Plan** with particular tasks, time schedule and indicated responsible institutions. Tasks related to biodiversity conservation are:

- (1) To develop and adopt the Environmental Policy Concept (adopted in 2009);
- (2) To reorganize the Nature Protection Board and 6 administrations of protected territories (completed in 2009);
- (3) To ensure public involvement in discussions of projects of river basin management plans. To synchronize criteria of environmental quality assessment and environment quality targets in transboundary river basins with Estonia and Lithuania.
- (4) To develop and adopt river basin management plans for all the largest rivers in Latvia.
- (5) To improve legislation on small hydro-electric power stations.

Cross-sectoral plans, programmes and policies

The Spatial Development Concept of the Coastal Zone (2011-2017) is being elaborated by the Ministry of Regional Development and Local Governments.

The Concept:

- will include an overview of existing situation and problems in the coastal area,
- will define values of national importance in the coastal area;
- will define unified goal of conservation and development of the coastal area;
- will determine policy principles and actions to be implemented from 2011-2017.

The Land Use Policy Concept 2008-2014 is a medium term policy planning document defining targets, principles and results of land use policy, problems to be solved and necessary actions. The Concept includes biodiversity issues to some extent, for example, issues on biodiversity conservation in agricultural lands which are not used for agricultural purposes and issues of land fragmentation (particularly forest lands) are highlighted in a descriptive part of the Concept. Conservation of biologically valuable territories is highlighted as one of the policy results.

Sectoral strategies and programmes

Environment

The Environmental Policy Concept and the Programme of Localization of Distribution of Hogweed 2006-2012 have been already described in the Chapter II of the report.

The primary goal of **The Climate Change Mitigation Programme 2005-2010** – to ensure that starting from 2008, the total amount of GHG emissions does not exceed 92% of 1990 level. The primary goal is to be achieved by implementing several activities, e.g.:

- 1) increase the share of renewable energy sources in the energy balance;
- 2) promote the implementation of environmentally sound agricultural methods that reduce direct GHG emissions;
- 3) increase CO₂ removals in forestry;

In the implementation of the climate change mitigation policy, the following activities, indirectly related to biodiversity conservation, are analysed among others in detail:

- promotion of biomass use;
- promotion of biogas use;
- support for energy generation in small hydro-electric power stations;
- support for wind power production;
- support for biofuel production and promotion of biofuel use;
- support for the construction of combined heat and power generation plants and energy efficiency projects;
- sustainable use of agricultural resources;
- development of environmentally friendly agriculture and promotion of Good agricultural practice;
- increase of forest stand productivity
- afforestation of unmanaged agricultural land;

It is highlighted in the Programme that development of small hydro-electric power stations has to be balanced with requirements of nature conservation and conservation of fish resources. It is also indicated that nature conservation requirements have to be taken into account in ecologically valuable and vulnerable territories.

Economy

The overall goal of the **Latvian National Lisbon Programme 2005-2008** is to facilitate employment and development of the country. The Programme is a policy planning document which shows how, in 2005-2008 Latvia will reach the Lisbon strategy goals on the basis of the Integrated Guidelines, approved by the European Council in July 2005. To maintain biodiversity on existing level is one of the activities included in the Programme to ensure sustainable use of natural resources. Each year a report of progress of implementation of the Programme is prepared as well as new tasks and activities added.

The Concept of Energy Sector Development 2007-2016 includes some information on restrictions for nature conservation purposes in energy development.

Communication, transportation

The Transport Development Concept 2007-2013 describes situation, problems, policy goals and actions in transport sector. Nature and biodiversity issues are not reflected in this Concept.

Agriculture

Latvian Rural Development National Strategy Plan 2007-2013 is a middle term policy planning document pursuant to the Regulation of EC on support of Rural Development by the European Agricultural Fund for Rural Development. The objective of the Plan is - prosperous people in sustainably populated countryside of Latvia - for the achievement of which the following four activity directions are identified:

- 1) Development of Capacities of Rural People;
- 2) Enhancement of Labour Generated Income in Rural Territories;
- 3) Sustainable Management of Rural Natural Resources;
- 4) Development of Rural Living Environment.

The **Rural Development Programme for Latvia 2007-2013** was prepared and adopted to achieve the objectives set out in the National Rural Development Strategy Plan, conditions and activities consistent with utilization of Community's and Latvia's financial resources. Activities in the Programme are divided in 3 axes with following objectives:

- 1) The objective of axis 1 is to improve the competitiveness of agricultural and forest management by supporting their restructuring, development and innovation as well as to improve the professional knowledge and qualifications of the population by ensuring the availability of the required advisory services.
- 2) Axis 2 measures promote improvement of environment and rural landscape by supporting activities aimed at preservation of the nature values of rural territories, attractive landscapes and biodiversity.
- 3) The objective of axis 3 is to promote improvement of the quality of life in rural areas by supporting the development of the local roads and the infrastructure required by the local initiative groups, to diversify the economic activities as well as to preserve and develop the cultural heritage of rural territories.

The Programme includes description of Latvia's biodiversity and protected territories and these issues are also recognized as one of the strengths in SWOT analysis. There are several activities (e.g. *Natura 2000* payments (both in agricultural and forest lands), payments for maintaining biodiversity in biological grasslands, preservation of genetic resources of farming animals) in the Programme directed towards biodiversity conservation. Implementation of the Rural Development Program is co-financed by the EU Rural Development Fund.

The general objective of the **Latvian Fisheries Development Plan 2007-2013** is to ensure sustainable use of fish resources for benefit of future generations and to ensure prosperity of people involved in fisheries. Short information of Latvia's protected territories is included in the Plan. A few activities of the Plan are directed towards biodiversity conservation (e.g. restoration of fish spawning areas, building and improvement of fish-passes). Implementation is co-financed by European Fishery Fund.

The Programme on Sustainable Use and Long-term Conservation of Genetic Resources of Plants and Animals, Forest and Fishes used in Agriculture and Food, 2007-2009 has been described already in the Chapter II of the report.

Forestry

Latvian Forest Policy (adopted in 1998) defines the long-term strategic and tactical goals and principles of forest sector development. The overall goal of the Policy is the sustainable management of forests and forest lands. The goal of the Policy particularly regarding biodiversity is the preservation and maintenance of biodiversity at the current level.

The 2004 - 2008 Corporate Strategy of the State Stock Company “Latvijas valsts meži” (LVM) includes LVM goal in nature conservation and environment protection which is: “to conserve biological diversity (genetic resources, rare and endangered species and ecosystems) and protect the related environmental values like soils, waters, and landscape”. Several tasks to achieve the goal are given in the Strategy, inter alia:

- In the forests under management systematically identify the sites essential for the conservation of protected species and habitats;
- Work out individual management plans for the forest areas having special management goals:
 - 8-10% of forests are managed for biodiversity conservation, excluding there any management or planning only the activities necessary for maintaining and enhancing the biodiversity;
 - 10-12% of forests are managed for protecting the environment components like waters, soils and landscape, and maintaining the forest’s recreational values and cognition opportunities essential for the public;
- Work out and by the end of 2008 implement the model for landscape ecological planning;
- Assess and within limits possible reduce the impact of management activities on the environment, reducing to the minimum the use of chemical plant protection agents in forests; starting with 2005 use in forest operations only biodegradable oils.

Tourism

The Concept of Latvian Tourism Development was elaborated for 2004-2008 and currently a new Concept for 2009-2015 is being elaborated. The target of the previous Concept was to ensure increase of tourism proportion in Latvian Gross Domestic Product. Nature and biodiversity issues were not reflected in this Concept.

Education and science

Biodiversity and nature conservation are not directly reflected in policy documents regarding education and science.

The Science and Technology Development Concept 2009 – 2013 was elaborated to set the policy targets and priorities in development of science and technology. One of the policy principles mentioned in the Concept is that development of science and technology is determinant for sustainable development of Latvian economy, prosperity and maintenance of natural resources.

One of the problems identified in the **Education Development Concept 2007-2013** is insufficient number of students in natural sciences, engineering and technologies. The task to deal with this problem is to increase the number of students financed by the state budget in natural sciences, engineering, medicine and environmental sciences

Defence

The goals of **Environment Strategy 2005-2009 of the Ministry of Defence and National Armed Forces** are: maintain high environment quality standards; reduce the pollution and sustainable use of natural resources. Regarding biodiversity conservations the targets are:

- to ensure implementation of nature conservation requirements and to ensure conservation of protected species and habitats;
- to maintain ecosystems, biodiversity and social and heritage values.

A good example of biodiversity conservation in defence sector is the LIFE Nature project “Restoration of Biological Diversity in Military Training Area and *Natura 2000* site “Ādaži”” administered and implemented by the State Agency for Defence Properties under the Ministry of Defence from 2006-2009. Project had 3 main objectives:

- Integrate nature conservation and military interests.
- Restore the Military Training Area’s *Natura 2000* values to, and maintain them at, a favourable conservation state.
- Educate military personnel and cooperate with military *Natura 2000* site managers.

The main activities implemented during the project are:

- management plan for the *Natura 2000* site “Ādaži” developed and approved;
- more than 1000 ha of dry heath habitat restored;
- 1400 ha cleaned up of unexploded ammunition;
- 1000 military personnel received training on nature conservation issues;
- Open-door event organized with more than 600 participants.

More information on the project can be found at: www.adazinatura.lv

Chapter IV - Conclusions: Progress towards the 2010 Target and Implementation of the Strategic Plan

(a) Progress Towards the 2010 Target

CBD goals and targets	Relevant CDB indicators	National indicators (indicators marked with asterisk (*) are approved by the Government, ie. included in the Regulations of the Cabinet of Ministers No. 175 “Regulations on National Environmental Indicators”)	Progress assessment
<i>Protect the components of biodiversity</i>			
Goal 1. Promote the conservation of the biological diversity of ecosystems, habitats and biomes			
<p>Target: 1.1: At least 10% of each of the world's ecological regions effectively conserved</p> <p>Target 1.2. Areas of particular importance to biodiversity protected</p>	<ul style="list-style-type: none"> ○ Coverage of protected areas; ○ Trends in extent of selected biomes, ecosystems and habitats; ○ Trends in abundance and distribution of selected species 	<ul style="list-style-type: none"> ○ Proportion and division in categories of specially protected nature territories*; ○ Number of micro-reserves outside protected territories*; ○ Status of habitats and species of the EU importance (indicator used by the EC, but not yet included in appropriate national legislation) 	<p>1) The total number of national specially protected territories has increased from 576 (as of 2003) to 674 (as of 2009) and the terrestrial area of protected territories – from 8.9% to 11% accordingly (not including biosphere reserve) Figure 1). 7 marine protected territories were established at the beginning of 2010 which will be designated also as <i>Natura 2000</i> sites during the 2010.</p> <p>2) There are 1050 micro-reserves established outside specially protected nature territories from 2001-2007 covering in total 22 471 ha (Figure 2).</p> <p>3) 31% of habitats and</p>

			50% of species (other than birds) of the EU importance are in favourable conservation status in Latvia (according to the first evaluation published in 2009, Figure 3 and 4).
Goal 2. Promote the conservation of species diversity			
Target 2.1: Restore, maintain, or reduce the decline of populations of species of selected taxonomic groups	<ul style="list-style-type: none"> ○ Trends in abundance and distribution of selected species; ○ Change in status of threatened species 	<ul style="list-style-type: none"> ○ Status of habitats and species of the EU importance ○ Latvian Farmland Bird index (LFBI)*; ○ Index of population demography of indicator species: white and black stork, lesser-spotted eagle, salmon*; ○ Index of Corncrake (<i>Crex crex</i>) nesting 	<p>1) 31% of habitats and 50% of species (other than birds) of the EU importance are in favourable conservation status in Latvia (according to the first evaluation published in 2009), Figure 3 and 4.</p> <p>2) After 2004 LFBI is decreasing and there is a concern that negative changes are related to intensification of rural farming and insufficient activities for improvement of environment condition in agricultural lands (Figure 5).</p> <p>3) The number of white stork in Latvia is stable; since 90-ies the population of black stork in Latvia has decreased for approximately 45% from the initial population; also data on population of Lesser-spotted eagle shows negative trend in overall population development (Figure 6).</p> <p>4) Latvian population of</p>

			<p>Corncrake counts about 24% of its European population and, according to monitoring data, in the past 20 year the number of Corncrake has gradually increased due to increase of favourable habitat. A rapid decline in population size is predicted in the nearest future due to habitat overgrowth, intensive farming and building expansion [1, 18].</p>
<p>Target 2.2: Status of threatened species improved</p>	<ul style="list-style-type: none"> ○ Change in status of threatened species ○ Trends in abundance and distribution of selected species; ○ Coverage of protected areas 	<ul style="list-style-type: none"> ○ Index of population demography of indicator species: white and black stork, lesser-spotted eagle, salmon*; ○ Status of habitats and species of the EU importance ○ Number of micro-reserves outside protected territories*; ○ Area of maintained grasslands of the EU importance*. 	<p>1) The number of white stork in Latvia is stable; since 90-ies the population of black stork in Latvia has decreased for approximately 45% from the initial population; also data on population of Lesser-spotted eagle shows negative trend in overall population development (Figure 6).</p> <p>2) 31% of habitats and 50% of species (other than birds) of the EU importance are in favourable conservation status in Latvia (according to the first evaluation published in 2009) (Figure 3 and 4).</p> <p>3) There are 1050 micro-reserves established outside specially protected nature territories from 2001-2007 covering in total 22 471 ha</p>

			(Figure 2). 4) Appropriate management is being carried out in 28% of all target area of grasslands of the EU importance.
Goal 3. Promote the conservation of genetic diversity			
Target 3.1: 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.	<ul style="list-style-type: none"> ○ Trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socio-economic importance ○ <i>Biodiversity used in food and medicine (indicator under development)</i> ○ Trends in abundance and distribution of selected species 	No relevant national indicators developed.	<p>The Programme on Sustainable Use and Long-term Conservation of Genetic Resources of Plants and Animals, Forest and Fishes used in Agriculture and Food, 2007-2009 was adopted by the Government in 2007. It is said in the Programme that following number of samples of genetic resources are being maintained:</p> <ul style="list-style-type: none"> ○ 53 vegetables from 13 species; ○ 57 field crop and grasses species; ○ 459 Latvian fruits and berry bushes from 13 species; ○ 100 aromatic and vulnerary plants from 13 species. <p>Microbial Strain Collection of Latvia holds over 700 cultures of microorganisms.</p> <p>Activities aimed at preservation of genetic resources of farming animals are supported by the state budget.</p> <p>The <i>ex situ</i> collection of the National Botanical Garden contains 131 species of Latvian rare and endangered plants</p>

			(56% of state protected flowering plants and ferns).
Promote sustainable use			
Goal 4. Promote sustainable use and consumption.			
Target 4.1: Biodiversity-based products derived from sources that are sustainably managed, and production areas managed consistent with the conservation of biodiversity.	<ul style="list-style-type: none"> • Area of forest, agricultural and aquaculture ecosystems under sustainable management • <i>Proportion of products derived from sustainable sources (indicator under development)</i> • Trends in abundance and distribution of selected species • Marine trophic index • Nitrogen deposition • Water quality in aquatic ecosystems 	<ul style="list-style-type: none"> • Area of agricultural land managed organically*; A range of different indicators elaborated and approved regarding inland and marine water quality, e.g.: • Percentage of aquatic objects with water of good and high quality*; • Average concentration of biogenic elements in surface water (total N and total P)*. 	<p>As of 2008 approximately 6,4% of all agricultural land (161 650 ha) was managed organically [1].</p> <p>More than a half of all forests in Latvia (including all state owned forests) are certified accordingly to the FSC scheme [14].</p> <p>Approximately 40% of inland water from 2004-2007 was of good and high quality [1].</p> <p>All territory of Latvia is subdivided in catchment areas of four significant rivers setting Daugava, Gauja, Venta and Lielupe river basin districts. Nutrient transport via these large rivers effects eutrophication process in marine water - especially in the southern part of the Gulf of Riga. The annual average concentrations of nitrogen in rivers is decreased since the beginning of nineties of previous century (a period of significant falling of industrial and agricultural production) and in</p>

			<p>general do not exceed 2 mg/l in Daugava, Gauja and Venta. In Lielupe the annual average concentrations of nitrogen is higher due to intensive agriculture activities in this region [19]. The concentration of nitrogen depends annually. However, despite a variability of the total nitrogen average concentration from year to year, a trend of the last period shows small increase of the nitrogen concentrations in all rivers. [19].</p> <p>A survey on quality of Latvian surface water is prepared annually [15].</p>
<p>Target 4.2. Unsustainable consumption, of biological resources, or that impacts upon biodiversity, reduced.</p>	<ul style="list-style-type: none"> • Ecological footprint and related concepts 	<p>Ecological footprint (indicator is not included in appropriate legislation)</p>	<p>The total ecological footprint of Latvia is 8.5 million ha or 3.96 ha per every inhabitant, which ranges Latvia in 45th place among 152 countries of the world.</p>
<p>Target 4.3: No species of wild flora or fauna endangered by international trade.</p>	<ul style="list-style-type: none"> • Change in status of threatened species 	<p>Status of habitats and species of the EU importance (indicator used by the EC, but not yet included in appropriate national legislation)</p> <p>No relevant national indicators regarding international trade have been elaborated.</p>	<p>Wild flora and fauna is not endangered by international trade and almost all plant and animal species which could be interesting for international trade are included in CITES appendixes (number of Latvian plant and animal species in CITES appendixes are 33 and 47 accordingly).</p> <p>According to the Law On Species and Habitat Protection, it</p>

			is forbidden to trade with specially protected plant and animal species.
Address threats to biodiversity			
Goal 5. Pressures from habitat loss, land use change and degradation, and unsustainable water use, reduced.			
Target 5.1. Rate of loss and degradation of natural habitats decreased.	<ul style="list-style-type: none"> • Trends in extent of selected biomes, ecosystems and habitats • Trends in abundance and distribution of selected species • Marine trophic index 	<ul style="list-style-type: none"> • Forest area*; • Changes in land cover*; • Use of agricultural land • Index of population demography of indicator species: white and black stork, lesser-spotted eagle, salmon*; • Status of habitats and species of the EU importance. 	The forest area has increased and it is mainly related with overgrowing of agricultural land (Figure 7). During 2000-2006 area of natural grasslands decreased for 14%, but area of temporary forests and shrubs increased for 18%. The area of pastures and orchards has also decreased during this period, but area of non-irrigated arable land has significantly increased (for 14%) which indicates to intensification of agriculture [1].
Goal 6. Control threats from invasive alien species			
Target 6.1. Pathways for major potential alien invasive species controlled.	<ul style="list-style-type: none"> • Trends in invasive alien species 	Distribution of invasive species (indicator is not included in appropriate legislation and information is being obtained mainly on one particular species – hogweed <i>Heracleum sosnowskyi</i>)	As of 2008, the surveyed area occupied by Hogweed was 8341 ha, but the total area might be much more (it was estimated that more than 12 000 ha were invaded with Hogweed in 2002, but precise information was lacking).
Target 6.2. Management plans in place for major alien species that threaten ecosystems, habitats or species.	<ul style="list-style-type: none"> • Trends in invasive alien species 	Distribution of invasive species (indicator is not included in appropriate legislation and information is being obtained	The Programme of Localization of Distribution of Hogweed 2006-2012 was adopted by the Government in 2006

		mainly on one particular species – Hogweed (<i>Heracleum sosnowskyi</i>)	
Goal 7: Address challenges to biodiversity from climate change, and pollution.			
Target 7.1. Maintain and enhance resilience of the components of biodiversity to adapt to climate change.	<ul style="list-style-type: none"> Connectivity/fragmentation of ecosystems 	No relevant national indicators officially elaborated and approved. Indicators of density of roads/melioration systems could be used. Several indicators of forest fragmentation have been elaborated, but not officially used.	
Target 7.2. Reduce pollution and its impacts on biodiversity.	<ul style="list-style-type: none"> Nitrogen deposition Water quality in aquatic ecosystems 	A range of different indicators elaborated and approved regarding inland and marine water quality, e.g.: <ul style="list-style-type: none"> Percentage of aquatic objects with water of good and high quality*; Average concentration of biogenic elements in surface water (total N and total P)*. 	Approximately 40% of inland water from 2004-2007 was of good and high quality [1]. Information on nitrogen concentrations provided under the Target 4.1. A survey on quality of Latvian surface water is prepared annually [15].
Maintain goods and services from biodiversity to support human well-being			
<i>Goal 8. Maintain capacity of ecosystems to deliver goods and services and support livelihoods</i>			
Target 8.1. Capacity of ecosystems to deliver goods and services maintained.	<ul style="list-style-type: none"> <i>Biodiversity used in food and medicine (indicator under development)</i> Incidence of Human-induced ecosystem failure Water quality in aquatic ecosystems Marine trophic index 	No relevant national indicators officially elaborated and approved regarding first indicators. A range of different indicators elaborated and approved	Approximately 40% of inland water from 2004-2007 was of good and high quality [1]. A survey on quality of Latvian surface water is prepared annually [15].

		<p>regarding inland and marine water quality.</p> <p>e.g.:</p> <ul style="list-style-type: none"> ○ Percentage of aquatic objects with water of good and high quality*; ○ Average concentration of biogenic elements in surface water (total N and total P)*. 	
<p>Target 8.2. Biological resources that support sustainable livelihoods, local food security and health care, especially of poor people maintained.</p>	<ul style="list-style-type: none"> • Health and well-being of communities who depend directly on local ecosystem goods and services • <i>Biodiversity used in food and medicine</i> 	Not relevant.	
Protect traditional knowledge, innovations and practices			
<i>Goal 9 Maintain socio-cultural diversity of indigenous and local communities</i>			
<p>Target 9.1. Protect traditional knowledge, innovations and practices.</p>	<ul style="list-style-type: none"> • Status and trends of linguistic diversity and numbers of speakers of indigenous languages • <i>Additional indicators to be developed</i> 	No relevant national indicators officially elaborated and approved.	
<p>Target 9.2. Protect the rights of indigenous and local communities over their traditional knowledge, innovations and practices, including their rights to benefit-sharing.</p>	<i>Indicator to be developed</i>	Not relevant to Latvia.	
Ensure the fair and equitable sharing of benefits arising out of the use of genetic resources			
<i>Goal 10. Ensure the fair and equitable sharing of benefits arising out of the use of genetic resources</i>			
<p>Target 10.1. All access to genetic resources is in line</p>	<i>Indicator to be developed</i>	No relevant national indicators officially elaborated and	

with the Convention on Biological Diversity and its relevant provisions.		approved.	
Target 10.2. Benefits arising from the commercial and other utilization of genetic resources shared in a fair and equitable way with the countries providing such resources in line with the Convention on Biological Diversity and its relevant provisions	<i>Indicator to be developed</i>	No relevant national indicators officially elaborated and approved.	
Ensure provision of adequate resources			
<i>Goal 11: Parties have improved financial, human, scientific, technical and technological capacity to implement the Convention</i>			
Target 11.1. 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.	<ul style="list-style-type: none"> Official development assistance provided in support of the Convention 	No relevant national indicators officially elaborated and approved.	
Target 11.2. 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,	<i>Indicator to be developed</i>	No relevant national indicators officially elaborated and approved.	

(b) Progress towards the Goals and Objectives of the Strategic Plan of the Convention

There is no particular plan for implementation of the Strategic Plan of the Convention, but some of its goals and objectives, based on national needs, are incorporated in the National Environmental Concept 2009-2015. For example, National Environmental Concept contains, among others, the following activities: to facilitate researches on impact of different management activities to favourable conservation status of species and habitats, to elaborate new National Biodiversity Programme, to raise public awareness on biodiversity protection issues, to facilitate involvement of local municipalities and NGOs in management of protected territories.

(c) Conclusions

An overall assessment of whether the implementation of the Convention has had an impact on improving conservation and sustainable use of biodiversity, and the fair and equitable sharing of benefits arising out of the utilization of genetic resources, in their country

Conservation of biodiversity

Based on the Convention, the National Biodiversity Programme was elaborated and approved in 2000 covering almost all of the Convention's goals and targets and including a wide list of priority activities (Action Plan). During the next few years almost all activities undertaken in the biodiversity conservation were coincident with the Programme and its Action Plan.

By accession to the European Union in 2004, Latvia faced major changes in legislation and shifted priorities towards Europe-scale approach to nature conservation. Most effort was put on approximation of the EU legislation. Protection of biodiversity gained higher profile in Latvia as a network of specially protected territories of the EU importance *Natura 2000* sites was established, stronger requirements for assessing potential impact of economical activities on species and habitats were required, and EU LIFE funding for nature conservation activities was and still is available to Latvia, among others. Since the requirements of the EU nature legislation are largely overlapping with the Convention goals and targets, we can say that by implementing EU nature legislation the Convention is being implemented as well.

To implement the provisions of the Article 7, National Monitoring Program was prepared initially in 2002, then revised and adopted with the title "Environment Monitoring Programme" in 2006 - including monitoring of biological diversity and requirements provided by the EU biodiversity legislation.

To implement the Article 18, Latvia has elaborated National Information and Cooperation Network (CHM). This information system supports thematic and cross- sectoral issues of the Convention; information on species and habitat diversity in Latvia is published on the home page <http://biodiv.lvgma.gov.lv/>.

The Convention's goals and targets to some extent have been included in several very important sectoral plans and programmes, e.g.: Rural Development Programme 2007-2013 and National Forest Policy.

The attitude of general public towards protected territories has slightly changed (has become more positive) when payments from the Rural Development Programme and national compensations for forest landowners started.

Sustainable use of biodiversity

To ensure sustainable use of biodiversity is much more complicated issue because of the economical pressure. This issue to some extent is being addressed by specific regulations on protection and use of protected territories and environmental impact assessment.

The issue on fair and equitable sharing of benefits arising out of the utilization of genetic resources is not yet dealt with in Latvia.

An analysis of lessons learned regarding implementation, highlighting examples of successful and less successful actions taken

All in all it has to be admitted that there are much more success in implementation of the first objective of the Convention - conservation of biodiversity - than in implementation of the rest of Convention's objectives – sustainable use of components of biodiversity and equitable sharing of the benefits arising out of the utilization of genetic resources.

A significant success is establishment of *Natura 2000* network in 2004 and improvement of system of national protected territories accordingly. The *Natura 2000* network was established based on the existing network of protected territories, it was reconsidered, 108 new protected territories were designated and 48 existing protected territories were amended/enlarged. The protected territories now cover 11% of state terrestrial area (not including biosphere reserve (7% of state area)).

According to the legislation a management plan for each protected territory can be prepared and every nature management activity undertaken in the territory has to be in compliance with it. A procedure of elaboration (including public involvement) and content of the management plan is also described in the legislation. The management plan includes description and analysis of nature values in each particular territory, defines nature protection targets and describes existing and possible threats and necessary management activities. By 2009 160 protected territories have management plans approved, some of them are fully implemented and a part of them are implemented partially.

Attraction of funding from the EU LIFE Nature and ERDF programmes can be mentioned as another great success. From 2001 (when funding from the LIFE programme became available for Latvia) till 2009, 15 LIFE projects were implemented. A lot of different habitat and species habitat management and restoration activities in different protected territories have been implemented through these projects, informational/educational materials published, management plans elaborated. Local municipalities, land owners and other stakeholders were largely involved in implementation of these projects through elaboration of management plans for protected territories, through implementation of practical management activities etc. Also significant number of tourism infrastructure elements (information centres, nature trails, view towers, information signs etc.) were created within the EU LIFE and ERDF projects.

Communication of nature conservation issues can be mentioned as a less successful example since there is no communication strategy elaborated and implemented. Although the attitude towards nature protection has slightly changed (has become more positive) when payments from the Rural Development Programme and national compensations for forest landowners started, and also when different large-scale projects were implemented, it is still quite negative, especially among sectoral institutions and politicians.

A summary of future priorities and capacity-building needs for further national-level implementation of the Convention

One of the most important future priorities is elaboration of new National Biodiversity Programme which is also indicated in the existing Environmental Policy Concept 2009-2015. One of the most important problems in implementation of nature Conventions as well as the EU Directives is lack of appropriate information/researches on biodiversity conservation and particularly on protected territories (management efficiency, costs and benefits, ecosystem services etc.), so in the nearer future we have to focus on facilitation and development of appropriate studies/projects. More attention also should be paid to integration of biodiversity issues in sectoral plans and programmes. Another important issue which has to be dealt with in the nearer future is education and awareness rising on biodiversity issues of general society. The main obstacle to implement all these futures priorities is lack of human and financial resources, as well as lack of political will.

Suggestions for actions that need to be taken at the regional and global levels to further enhance implementation of the Convention at the national level, including: refining existing programmes of work or developing new ones to address emerging issues; suggesting goals and objectives that may be included the future Strategic Plan of the Convention; and identifying mechanism that need to be established at various levels

The new National Programme on Biological Diversity should incorporate specified goals which would halt the loss of biodiversity and ecosystem degradation, and also would ensure its restoration till 2020. A favorable conservation status has to be ensured for rare, endangered and protected species and habitats. It has to be achieved through integration of biodiversity conservation targets in policy planning and legislative documents of all economic and other sectors and, particularly, in spatial/comprehensive plans of local and regional municipalities.

Appendix I - Information concerning reporting Party and preparation of national report

A. Reporting Party

Contracting Party	Latvia
NATIONAL FOCAL POINT	
Full name of the institution	Ministry of the Environment of the Republic of Latvia
Name and title of contact officer	Ms. Daiga Vilkaste, Director, Nature protection department; CBD focal point
Mailing address	Peldu street 25, Riga, LV-1494, LATVIA
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E-mail	Daiga.vilkaste@vidm.gov.lv
CONTACT OFFICER FOR NATIONAL REPORT (IF DIFFERENT FROM ABOVE)	
Full name of the institution	Ministry of the Environment of the Republic of Latvia
Name and title of contact officer	Ms Vija Busa, Head of Division of Protected Territories, Nature Protection Department
Mailing address	Peldu street 25, Riga, LV-1494, LATVIA
Telephone	+371 7026519
Fax	+371 7820442
E-mail	Vija.busa@vidm.gov.lv
SUBMISSION	
Signature of officer responsible for submitting national report	
Date of submission	

B. Process of preparation of national report

The report was prepared by the Nature Protection Department of the Ministry of the Environment.

Appendix II - Further sources of information

If Parties so wish, sources of information on national implementation, such as website addresses, publications, databases and national reports submitted to other related conventions, forums and organizations, may be provided below.

1. National report on environmental indicators. Latvian Environment, geology and meteorology agency, 2008.
2. Article 17 report – National Summary Latvia. <http://biodiversity.eionet.europa.eu/>
3. Larmanis V. 2008. Favourable conservation status of the EU importance grassland habitats and species in connection with Rural Development Programme of Latvia. Book: Current problems of species and habitat management in Latvia. University of Latvia, Riga, pp 91-100.
4. Rural Development Programme for Latvia 2007-2013.
5. National Programme on Biological Diversity. The Ministry of the Environment, 2000.
6. Latvian Biodiversity Clearing-House Mechanism: <http://biodiv.lvgma.gov.lv/>
7. Rusina S. 2008. Management of semi-natural grasslands for the vegetation diversity. Book: Current problems of species and habitat management in Latvia. University of Latvia, Riga, pp 57-71.
8. Statistical yearbook of Latvia. Central Statistical Bureau of Latvia. Riga, 2007.
9. Strazds M. 2009. Black stork- a bird of the year 2008. Birds in Nature 2009/1, pp 6-9.
10. European Network on Invasive Alien species (www.nobanis.org)
11. The Programme on Sustainable use and long-term Conservation of Genetic Resources of Plants and Animals, Forest and Fishes used in Agriculture and Food, 2007-2009
12. International Depository Authority [Microbial Strain Collection of Latvia:](http://mikro.daba.lv/)
<http://mikro.daba.lv/>
13. <http://latvijas.daba.lv>
14. www.fsc.lv. Information on FSC certification in Latvia.
15. www.lvgmc.lv. Web page of the State limited liability company "Latvian Environment, Geology and Meteorology Centre" collecting and processing environmental information, carrying out environmental monitoring and informing the society on the environmental situation.
16. Pakalne M. Mire habitats and their protection. In: Pakalne M. (ed.) Mire Conservation and Management in Especially Protected Nature Areas in Latvia. Jelgava Printing House, Rīga.
17. The Programme of Localization of Distribution of Hogweed 2006-2012.
18. Keiss O. 2009. 20-year survey of Corncrake *Crex crex* in Latvia. Birds in Nature 2009/2, pp 18-19.
19. State of the Environment Report 2010, Latvia, November 2009. Latvian Environment, Geology and Meteorology Centre of the Ministry of the Environment.

Appendix III - Progress towards Targets of the Global Strategy for Plant Conservation and Programme of Work on Protected Areas

I Progress towards Targets of the Global Strategy for Plant Conservation

Target 1: A widely accessible working list of known plant species, as a step towards a complete world flora

Lists of Latvian vascular plant species, lichens and bryophytes are available on Latvian CHM: <http://biodiv.lvgma.gov.lv/>. Web encyclopaedia “Nature of Latvia” (www.latvijasdaba.lv) contains information (description, distribution, conservation status, photos etc.) on approximately 1735 vascular plant species.

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

	<i>Specially protected according to the national legislation</i>	<i>Included in the Red Data Book of Latvia</i>	<i>Included in the EU Birds and Habitats Directives and represented in Latvia</i>
<i>Species:</i>	426	436	28
<i>Plants</i>	237	315	22
<i>Mosses</i>	129	87	6
<i>Lichens</i>	60	34	-

No assessment of conservation status neither of these species (except those included in the EU Habitats Directive) or all known plant species has been carried out though.

Target 3: Development of models with protocols for plant conservation and sustainable use, based on research and practical experience

No information available.

Target 4: At least 10 per cent of each of the world's ecological regions effectively conserved

As of February 1 2010 there are 681 specially protected nature territories established in Latvia covering 11% of the country’s terrestrial territory (not including North Vidzeme biosphere reserve covering 7% from the terrestrial territory of the country). The System of Protected territories consists of 8 categories accordingly to the goals of designation and conservation – strict nature reserves, national parks, nature reserves, nature parks, nature monuments, protected landscape areas, biosphere reserves and marine protected territories. With designation of *Natura 2000* sites the total number of national specially protected territories increased from 576 (as of 2003) to 674 (as of 2009). Also 77 micro-reserves have been established for plant species conservation as of 2007.

Target 5: Protection of 50 percent of the most important areas for plant diversity assured

There are no Important Plant Areas designated in Latvia so far. *Natura 2000* sites were established for conservation of 28 plant species enlisted in the EU Habitats Directive as well as they are incorporating localities of other nationally rare and protected plant species.

Designation process of protected territory for conservation of rare plant species *Ligularia sibirica* is ongoing.

Target 6: At least 30 percent of production lands managed consistent with the conservation of plant diversity

Natura 2000 territories comprise 24% agricultural land.

Grasslands of EU importance are natural meadows and pastures with high diversity of species (including those of EU importance) and including grassland habitat types of EU importance. The favourable conservation status of species and habitats of EU importance related to natural grasslands can be only ensured by appropriate management of these grasslands. According to existing evaluations by scientists and NGOs, in total there are 100 000 ha (target area) of grasslands of EU importance in Latvia. As of 2007, 61% (61 402 ha) of EU importance grasslands are known and only 28% (28 000 ha out of 100 000 ha) are maintained [3]. Management of EU importance grasslands is subsidized from the EU funds and coordinated through the Rural Development Programme 2007-2013 of Latvia.

Natura 2000 sites comprise 334,8 thousands ha of forests (11,3% of total forest area), but in total various types of protected forests occupied (as of 2007) 523.5 thousand ha or 17.7% of the total forest area.

Target 7: 60 percent of the world's threatened species conserved in situ.

National protected territories and *Natura 2000* sites were established for conservation of plant species included in the national and EU lists of protected species. No assessment of conservation status of these species (except those included in the EU Habitats Directive) has been carried out though.

Target 8: 60 percent of threatened plant species in accessible *ex situ* collections, preferably in the country of origin, and 10 per cent of them included in recovery and restoration programmes

The *ex situ* collection of the National Botanical garden contains 131 species of Latvian rare and endangered plants (56% of state protected flowering plants and ferns); in 2009 it was supplemented with 2 new species and 6 new samples of existing species of different origins. There is no recovery or restoration programmes of threatened plant species in Latvia at the time being.

Target 9: 70 percent of the genetic diversity of crops and other major socio-economically valuable plant species conserved, and associated indigenous and local knowledge maintained

The Programme on Sustainable Use and Long-term Conservation of Genetic Resources of Plants and Animals, Forest and Fish used in Agriculture and Food, 2007-2009 was adopted by the Government in 2007. It is said in the Programme that following number of samples of plant genetic resources are being maintained:

- 53 vegetables from 13 species (maintained *ex situ* mainly in one gardening research centre);
- 57 field crop and grass species (maintained *ex situ*, *in vitro* and in field collections in several institutes and scientific centres);

- 459 Latvian fruit and berry bushes from 21 species (maintained only *ex situ* (field collections) in several institutes, botanical gardens and private collections);
- 100 aromatic and vulnerary plants from 13 species (maintained *ex situ* (several species – *in situ*) mainly in one scientific institute and several species – in botanical gardens and private collections).

Target 10: Management plans in place for at least 100 major alien species that threaten plants, plant communities and associated habitats and ecosystems

According to information in European Network on Invasive Alien species (www.nobanis.org) there are 142 invasive species in Latvia. However information on invasive species has not been collected systematically so far and is available only for several species (in the form of separate observations (e.g. *Percottus glehni*, signal crayfish) or studies (Hogweed, invasive species in coastal area)). The most problematic species which has caused the most damage is hogweed *Heracleum sosnowsky*. Hogweed is the only species included in the national legislation of invasive species. Based on the Convention of Biological diversity and several national strategic programmes, the Programme of Localization of Distribution of Hogweed 2006-2012 was adopted by the Government in 2006 and in 2008 the Regulations on Localization of Distribution of Hogweed were adopted.

Target 11: No species of wild flora endangered by international trade

Wild flora is not endangered by international trade and almost all plant species which could be interesting for international trade are included in CITES appendixes (number of Latvian plants in CITES appendixes are 33).

Target 12: 30 percent of plant-based products derived from sources that are sustainably managed

As of 2008 approximately 6.4% of all agricultural land (161 650 ha) was managed organically [1].

More than half of all forests in Latvia (including all state owned forests) are certified accordingly to the FSC scheme [14].

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.

Not relevant.

Target 14: The importance of plant diversity and the need for its conservation incorporated into communication, education and public awareness programmes.

These issues are included in the different projects realised mainly by the non-governmental organisations. A good example was the project “Latvian Plant Embassy for Biodiversity Conservation” realised by the Latvian Fund for Nature in 2007. During the project people from each of Latvia’s 26 regions were invited to vote for particular plant species and at the end, so called Plant Embassy was created consisting of 26 plant species representing each region.

Natural History Museum of Latvia organises exhibitions and field excursions on plant diversity and its conservation.

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.

A few universities in Latvia offer to study biology, plant conservation being one of the subjects. Nevertheless, insufficient number of qualified and experienced experts in different nature conservation fields is major problem in Latvia.

Target 16: Networks for plant conservation activities established or strengthened at national, regional and international levels

The joint conferences and excursions of Baltic botanists are being organised since the first half of the 20th century.

II Progress towards Targets of the Programme of Work on Protected Areas

Goal 1.1. To establish and strengthen national and regional systems of protected areas integrated into a global network as a contribution to globally agreed goals.

Target: By 2010, terrestrially ^{2/} and 2012 in the marine area, a global network of comprehensive, representative and effectively managed national and regional protected area system is established as a contribution to (i) the goal of the Strategic Plan of the Convention and the World Summit on Sustainable Development of achieving a significant reduction in the rate of biodiversity loss by 2010; (ii) the Millennium Development Goals – particularly goal 7 on ensuring environmental sustainability; and (iii) the Global Strategy for Plant Conservation

Progress: As of 2004 the network of protected territories consisting of 674 territories (some of them including also marine part) was established in Latvia. 327 sites out of them are being designated as territories of EU importance (*Natura 2000* sites) covering 11% Latvia's terrestrial territory. Currently Latvia is working on amendments of several terrestrial *Natura 2000* sites as well as on establishment of 7 new marine *Natura 2000* sites – it is expected that these sites will be established in 2010.

- 1) Work on establishment of protected territories for protected plant species *Ligularia sibirica* is ongoing;
- 2) Work on reconfiguration of boundaries of 18 protected territories to correspond to respective boundaries of Important Bird Areas is ongoing;
- 3) work on establishment of marine *Natura 2000* sites is ongoing;
- 4) In 2009 12 existing nature reserves and significant areas among them were unified in one protected territory - nature reserve "Lubāna mitrājs" (with total area 51351 ha)

Goal 1.2. To integrate protected areas into broader land- and seascapes and sectors so as to maintain ecological structure and function.

Target: By 2015, all protected areas and protected area systems are integrated into the wider land- and seascape, and relevant sectors, by applying the ecosystem approach and taking into account ecological connectivity ^{5/} and the concept, where appropriate, of ecological networks.

Progress:

- 1) Latvian network of *Natura 2000* sites is a part of the EU network of *Natura 2000*;
- 2) Protection zones along the sea coast and rivers and around lakes are set in legislation. Although they were established to decrease or eliminate the effects of the anthropogenic negative impact on the objects for which the protection zones have been determined, they can serve also as connectivity corridors among protected territories
- 3) Landscape ecological plans for 2 large protected territories – North Vidzeme Biosphere reserve and Rāzna National Park have been elaborated so far.
- 4) River basin management plans for 4 largest rivers in Latvia were prepared;
- 5) A report "Maintaining forest biodiversity in Latvia's forests – are there gaps in the amount of different forest vegetation types?" was prepared in 2006. The aim of this analysis was (1) to estimate how much of different forest vegetation types are needed for the maintenance of Latvia's forest biodiversity in the long term, (2) how much there is today, and (3) to evaluate if and where there may be gaps in the area of forest needed to maintain biodiversity.

^{2/} Terrestrial includes inland water ecosystems.

^{5/} The concept of connectivity may not be applicable to all Parties.

6) According to legislation one of the targets of spatial (territorial) planning is to maintain natural and cultural heritage, landscape and biological diversity. Based on this, information on protected territories and their functional zoning, micro-reserves and high value landscape areas have to be included in each spatial plan. Spatial plans have to be elaborated in accordance with protected territories management plans.

7) Policy and planning documents in forestry and agriculture also incorporates protected territories;

8) The 2nd scientific conference of the North Vidzeme biosphere reserve was organized in 2008. The main conference theme was different aspects of the integration of biodiversity conservation requirements into planning documents at different levels: regional development plans, ecological landscape plans, municipal plans and site management plans for specially protected nature territories.

Goal 1.3. To establish and strengthen regional networks, transboundary protected areas (TBPAs) and collaboration between neighbouring protected areas across national boundaries.

Target: Establish and strengthen by 2010/2012 ^{6/} transboundary protected territories, other forms of collaboration between neighbouring protected territories across national boundaries and regional networks, to enhance the conservation and sustainable use of biological diversity, implementing the ecosystem approach, and improving international cooperation

Progress: In 2008 a transboundary Ramsar site with Estonia was established. Issues of conservation of transboundary protected territories are included in the bilateral agreements with Estonia, Lithuania and Belarus. In 2008 a project “Bilateral studies of nature values in protected territories “Augsdaugava”, „Braslavskije ozjora”, „Silene” and „Rici” in borderland of Latvia and Belarus with the target to establish transboundary protected territories” was financed by the Ministry of Environment of Latvia.

Goal 1.4. To substantially improve site-based protected area planning and management.

Target: All protected territories to have effective management in existence by 2012, using participatory and science-based site planning processes that incorporate clear biodiversity objectives, targets, management strategies and monitoring programmes, drawing upon existing methodologies and a long-term management plan with active stakeholder involvement

Progress: According to legislation a management plan for each protected territory can be prepared and any nature management activity undertaken in the territory has to be in compliance with it. A procedure of elaboration (including public involvement) and content of management plant is also described in the legislation. Management plan includes description and analysis of nature values in each particular territory, defines nature protection targets and describes existing and possible threats and necessary management activities. By 2009 160 protected territories have management plans approved, some of them are fully implemented and a part of them are implemented partially.

Nature Protection Board under the Ministry of Environment is responsible for management of protected territories. A lot of nature management activities in different protected territories are being undertaken by non-governmental institutions within different projects (e.g. Life Nature projects). According to legislation, a spatial (territorial) plan has to be elaborated in accordance with protected territories

^{6/} References to marine protected area networks to be consistent with the target in the WSSD plan of implementation.

management plans.
Goal 1.5. To prevent and mitigate the negative impacts of key threats to protected areas.
Target: By 2008, effective mechanisms for identifying and preventing, and/or mitigating the negative impacts of key threats to protected areas are in place.
Progress:
<ol style="list-style-type: none"> 1) Principles of environmental protection are set in the Environmental Protection Law including: the precautionary principle, the prevention principle, the assessment principle and the “polluter pays” principle; 2) The system of environmental impact assessment is set in legislation and is operating. The mechanism on how to apply and monitor compensatory measures for <i>Natura 2000</i> sites is in place, but not yet applied since there has not been such a case yet; 3) Elaboration of Individual Regulations of Protection and Use for Particular Nature Territory can be also considered as an activity to prevent or mitigate threats; 4) Inspectors of State Environmental Service and Nature Protection Board are monitoring and controlling activities in protected territories; 5) the Programme of Localization of Distribution of Hogweed (<i>Heracleum sosnowsky</i>) 2006-2012 was adopted by the Government in 2006 and in 2008 the Regulations on Localization of Distribution of Hogweed were adopted; 6) A lot of different habitat restoration activities have been done within different projects (e.g. Restoration of natural hydrological regime in bogs, restoration of floodplain meadows by cutting of overgrowth, restoration of natural flow of Slampe river) 7) <i>Natura 2000</i> payments, payments to forest owners in <i>Natura 2000</i> sites as well as subsidies for maintaining biodiversity in biologically valuable grasslands are available through Rural Development Programme 2007-2013; 8) Threats to the protected territory are enlisted in its management plan
Goal 2.1. To promote equity and benefit-sharing.
Target: Establish by 2008 mechanisms for the equitable sharing of both costs and benefits arising from the establishment and management of protected areas
Progress:
<ol style="list-style-type: none"> 1) According to the legislation management activities in national protected territories can be carried out also by non-governmental organisations as well as by local municipalities. Several NGOs have been established for management of particular protected territories; 2) A handbook of economical assessment of <i>Natura 2000</i> sites was published in 2005; 3) Compensations for forestry restrictions in protected territories are available since 2006.
Goal 2.2. To enhance and secure involvement of indigenous and local communities and relevant stakeholders.
Target: Full and effective participation by 2008, of indigenous and local communities, in full respect of their rights and recognition of their responsibilities, consistent with national law and applicable international obligations, and the participation of relevant stakeholders, in the management of existing, and the establishment and management of new, protected areas
Progress:
<ol style="list-style-type: none"> 1) According to the legislation, when a new protected territory is being established or an existing protected territory is being amended, local land owners and municipalities are noticed and they can freely express their

opinion.

- 2) Local land owners and municipalities can also participate in the process of elaboration of the management plan for protected territory;
- 3) Landowners, municipalities as well as all relevant stakeholders are free to participate in appropriate management of protected territories as long as it is in compliance with legislation and management plan, but due to lack of funding, negative attitude towards protected territories and overall low environmental awareness, the number of cases of participating is quite low;
- 4) Consultative boards for 9 large protected territories are established comprising representatives from relevant state institutions, local municipalities, local landowners, NGOs etc.;
- 5) The Consultative Board on Environment uniting 20 environmental and nature NGOs has been established, initiated by the Ministry of Environment. The goal of this Board is to facilitate public involvement in elaboration and implementation of environmental policy;
- 6) a system of controlling of important bird areas by volunteers was established by the Latvian Ornithological Society within the project "Involvement of society in controlling of Important Bird Areas";
- 7) a system of public monitoring was established and was carried out within the GEF/UNDP project 2005-2009 in the North Vidzeme Biosphere Reserve. A Small Grant Programme "Support for nature friendly business in North Vidzeme" (2006-2008) was also realized within the mentioned project. Within this Programme local farmers, businessman on the project basis could get up to 25% co-financing for their projects facilitating nature friendly economical activities in the North Vidzeme Biosphere Reserve
- 8) The LEADER approach through the Rural Development Programme can be sometimes inter alia used for management of protected territories. For example – society "Rural partnership Ziemeļgauja" (established based on LEADER programme) as one of its priorities has set to ensure implementation of the management plan of the protected landscape area "Ziemeļgauja" and other protected territories. 15 local municipalities located around the protected landscape area "Ziemeļgauja", 9 businessmen, 13 NGOs and 8 individual persons have united in this organization.

Goal 3.1. To provide an enabling policy, institutional and socio-economic environment for protected areas.

Target: By 2008 review and revise policies as appropriate, including use of social and economic valuation and incentives, to provide a supportive enabling environment for more effective establishment and management of protected areas and protected areas systems.

Progress: No such review and revision have been done so far, but several particular activities can be mentioned here:

- 1) *Natura 2000* payments, payments to forest owners in *Natura 2000* sites as well as agri-environmental payments for maintaining biodiversity in biologically valuable grasslands are available through Rural Development Programme 2007-2013;
- 2) Each new legislative or policy document before adoption is available on the web page of Cabinet of Ministers and everyone can express his opinion, as well as consultations with NGOs are taking place when such documents are being elaborated. The Consultative Board on Environment uniting 20 environmental and nature NGOs has been established by the Ministry of Environment. The goal of this Board is to facilitate public involvement in

<p>elaboration and implementation of environmental policy. All documents elaborated by the Ministry of Environment before submission to the Cabinet of Ministers are put in the Ministry's web page for public opinion.</p>
<p>Goal 3.2. To build capacity for the planning, establishment and management of protected areas.</p>
<p>Target: By 2010, comprehensive capacity-building programmes and initiatives are implemented to develop knowledge and skills at individual, community and institutional levels, and raise professional standards</p>
<p>Progress:</p> <ol style="list-style-type: none"> 1) State Environmental Service is organizing seminars for state and public inspectors on a regular basis; 2) Consultancy Services Centre (structural unit of State Forest Service) is organizing different seminars and issuing information materials (inter alia on nature conservation issues in forests) for forest owners and Latvian Rural Advisory and Training Centre for rural entrepreneurs; 3) In order to improve governance and management of protected territories (especially those with no administration up to that moment), the reorganization of Nature Protection Board and 6 administrations of protected territories was completed in 2009. After this process we have got Nature Protection Board with 7 regional structures responsible for administration of all protected territories in respective region as well as for conservation of protected species and habitats outside protected territories; 2) Based on the mentioned reorganization, a part of employees were retrained to fulfill duties of nature inspectors
<p>Goal 3.3. To develop, apply and transfer appropriate technologies for protected areas.</p>
<p>Target: By 2010 the development, validation, and transfer of appropriate technologies and innovative approaches for the effective management of protected areas is substantially improved, taking into account decisions of the Conference of the Parties on technology transfer and cooperation.</p>
<p>Progress: From 2009 till 2011 an ERDF co-financed project „Electronization of conservation and management activities in protected territories” is being implemented. The main target of the project is to establish information system on planning and implementation of conservation and management activities in protected territories. That would ensure unified and coordinated planning, registration and implementation of nature management activities in order to ensure conservation of specially protected species and habitats.</p>
<p>Goal 3.4. To ensure financial sustainability of protected areas and national and regional systems of protected areas.</p>
<p>Target: By 2008, sufficient financial, technical and other resources to meet the costs to effectively implement and manage national and regional systems of protected areas are secured, including both from national and international sources, particularly to support the needs of developing countries and countries with economies in transition and small island developing States.</p>
<p>Progress: Although Latvia has attracted considerable amount of funding (mainly from the EU Life, ERDF, UNDP/GEF etc.) for management of protected territories in recent years we are still lacking financial resources to manage and monitor all the protected territories properly in order to ensure favorable conservation status of each habitat and species the territory has been designated for. Agro-environment payments for maintaining biodiversity in biologically valuable grasslands are available through Rural Development Programme 2007-2013. Management activities of protected</p>

territories sometimes can be done also through LEADER programme.

Goal 3.5. To strengthen communication, education and public awareness.

Target: By 2008 public awareness, understanding and appreciation of the importance and benefits of protected areas is significantly increased

Progress:

The attitude towards protected territories has slightly changed (has become more positive) when payments from the Rural Development Programme and national compensations for forest landowners started.

A lot of different education and information materials have been published by the state institutions, NGOs (within the different projects (e.g. Life Nature)) and other organizations. Several weekly broadcasts (e.g. “Vides fakti”(Environmental facts) and “Zalais ipasums” (Green property)) are being shown on TV. Several large scale activities helping to raise public awareness on protected territories and nature protection in general were carried out within the GEF/UNDP project “Biodiversity Protection in North Vidzeme Biosphere Reserve”, for example – monitoring programme for monitoring various species and vegetation inhabiting the Reserve (the monitoring is conducted by general public and experts) and Nature Concert Hall – open air events with specially composed ambient music and nature laboratories each year dedicated to different topic (e.g. hermit beetle, forest and lichens). Several thousands of people have attended these events during 4 years.

A public opinion pool on necessity to restrict forest managements during bird nesting period was carried out in 2008. The results showed that 79% of respondents think that intensity of forestry actions has to be significantly reduced during bird nesting period and except actions that can not be undertaken in another period.

Development and popularization of sustainable and nature friendly agriculture, forest management and tourism practice in particular protected territories is also a part of several large scale projects (e.g. Life, ERAF).

Goal 4.1. To develop and adopt minimum standards and best practices for national and regional protected area systems.

Target: By 2008, standards, criteria, and best practices for planning, selecting, establishing, managing and governance of national and regional systems of protected areas are developed and adopted.

Progress:

The Regulation of the Cabinet of Ministers “On General Use and Protection of Specially Protected Nature Territories” could possibly be considered as a minimum standard for all protected territories. Individual regulations for particular territory are being elaborated based on the General Regulations.

Goal 4.2. To evaluate and improve the effectiveness of protected areas management.

Target: By 2010, frameworks for monitoring, evaluating and reporting protected areas management effectiveness at sites, national and regional systems, and transboundary protected area levels adopted and implemented by Parties

Progress: No such overall frameworks are adopted and implemented in Latvia, but:

- 1) monitoring of management effectiveness as a part of management activities is usually included in a management plan of protected territory;
- 2) monitoring of management effectiveness is mandatory within the EU Life Nature projects. Such monitoring (e.g. grassland monitoring, monitoring of lichens) in some of protected territories is being carried out also after the Life

project has been finished.
Goal 4.3. To assess and monitor protected area status and trends.
Target: By 2010, national and regional systems are established to enable effective monitoring of protected-area coverage, status and trends at national, regional and global scales, and to assist in evaluating progress in meeting global biodiversity targets
Progress: the Programme of Monitoring of <i>Natura 2000</i> Sites, was elaborated in 2007.
Goal 4.4 To ensure that scientific knowledge contributes to the establishment and effectiveness of protected areas and protected area systems.
Target: Scientific knowledge relevant to protected areas is further developed as a contribution to their establishment, effectiveness, and management
Progress: <ol style="list-style-type: none"> 1) <i>Natura 2000</i> sites can be established based on scientific information only; 3) Scientific researches are being carried out in the largest protected territories (national parks, strict nature reserves) and information used in management of respective territory; 4) Scientific researches also in some other protected territories are being carried out; 5) Several publications and compilations on the best and actual cases of management of protected habitats and species have been published.