# **BELGIUM**

# THEMATIC REPORT ON FOREST **ECOSYSTEMS**



Convention on Biological Diversity

# Please provide to following details on the origin of this report

Contracting Party	Belgium				
Nation	al Focal Point				
Full name of the institution:	Royal Belgian Institute of Natural Sciences (RBINS)				
Name and title of contact officer:	Dr J. Van Goethem, Head of Department				
Mailing address:	Department of Invertebrates				
	Rue Vautierstraat 29 B-1000 Brussels				
	Belgium				
Telephone:	+32-2-627 43 43				
Fax:	+32-2-627 41 41				
E-mail:	jackie.vangoethem@naturalsciences.be				
Contact officer for n	ational report (if different)				
Name and title of contact officer:	Dr Ir A. Franklin, Assistant to the National Focal Point				
Mailing address:	Department of Invertebrates Rue Vautierstraat 29				
	B-1000 Brussels				
	Belgium				
Telephone:	+32-2-627 45 87				
Fax:	+32-2-627 41 41				
E-mail:	anne.franklin@naturalsciences.be				
Submission					
Signature of officer responsible for submitting national report:	Dr J. Van Goethem				
Date of submission:	July 2002				

# **Table of contents**

Introductory note	4
Time-period covered in this report	. 4
Note on the answers in the tick boxes	. 4
Drafting of the report	. 5
Decision IV/7 on Forest Biological Diversity	6
Comments on question 1 (priority afforded to implementation)	. 6
Comments on question 2 (availability of resources)	. 6
Comments on question 3 (status and trends)	. 6
Comments on question 4 (developing countries and economies in transition) $\dots$	. 8
Programme element 1: Holistic and inter-sectoral ecosystem approaches that integrate the conservation and sustainable use of biological diversity, taking account of social and cultural a economic considerations	
Comments on question 5 (integrating FBD into an holistic approach to SFM)	. 9
Comments on question 6 (traditional knowledge)	13
Comments on question 7 (cooperation)	13
Comments on question 8 (information on networks of protected areas)	15
a) General sharing of information on forest biological diversity	15
b) Sharing of information specifically on networks of protected areas and forest ecosystems	
Programme element 2: Comprehensive analysis of the ways in which human activities, in partic	
forest-management practices, influence biological diversity and assessment of ways to minimize mitigate negative influences	ze or
forest-management practices, influence biological diversity and assessment of ways to minimize	ze or 17
forest-management practices, influence biological diversity and assessment of ways to minimize the minimizers and assessment of ways to minimize the minimizers and assessment of ways to minimize the minimizers are the minimizers.	ze or 17
forest-management practices, influence biological diversity and assessment of ways to minimize mitigate negative influences	ze or 17 17 18
forest-management practices, influence biological diversity and assessment of ways to minimize mitigate negative influences  Comments on question 9 (research)	17 18 ve 20
forest-management practices, influence biological diversity and assessment of ways to minimize mitigate negative influences  Comments on question 9 (research)  Comments on question 10 (activities for improved forest practices)  Comments on question 11 (activities to minimize negative and promote positive effects)	2e or 17 17 18 ve 20 21
forest-management practices, influence biological diversity and assessment of ways to minimize mitigate negative influences  Comments on question 9 (research)	2e or 17 17 18 20 21
forest-management practices, influence biological diversity and assessment of ways to minimize mitigate negative influences  Comments on question 9 (research)  Comments on question 10 (activities for improved forest practices)  Comments on question 11 (activities to minimize negative and promote positive effects)  Comments on question 12 (minimize impact of alien species)  Comments on question 13 (means and mechanisms to improve prioritization of research)	2e or 17 17 18 20 21 22 23
forest-management practices, influence biological diversity and assessment of ways to minimize mitigate negative influences  Comments on question 9 (research)  Comments on question 10 (activities for improved forest practices)  Comments on question 11 (activities to minimize negative and promote positive effects)  Comments on question 12 (minimize impact of alien species)  Comments on question 13 (means and mechanisms to improve prioritization of research)  Comments on question 14 (research results and synthesis reports)	2e or 17 17 18 20 21 22 23 24 on of
forest-management practices, influence biological diversity and assessment of ways to minimize mitigate negative influences  Comments on question 9 (research)  Comments on question 10 (activities for improved forest practices)  Comments on question 11 (activities to minimize negative and promote positive effects)  Comments on question 12 (minimize impact of alien species)  Comments on question 13 (means and mechanisms to improve prioritization of research)  Comments on question 14 (research results and synthesis reports)  Comments on question 15 (impact of fires and alien species)  Programme element 3: Methodologies necessary to advance the elaboration and implementation	2e or 17 17 18 20 21 22 23 24 on of
forest-management practices, influence biological diversity and assessment of ways to minimize mitigate negative influences  Comments on question 9 (research)	2e or 17 17 18 20 21 22 23 24 on of 25
forest-management practices, influence biological diversity and assessment of ways to minimiz mitigate negative influences  Comments on question 9 (research)  Comments on question 10 (activities for improved forest practices)  Comments on question 11 (activities to minimize negative and promote positive effects)  Comments on question 12 (minimize impact of alien species)  Comments on question 13 (means and mechanisms to improve prioritization of research)  Comments on question 14 (research results and synthesis reports)  Comments on question 15 (impact of fires and alien species)  Programme element 3: Methodologies necessary to advance the elaboration and implementation criteria and indicators for forest biological diversity  Comments on question 16 (indicators)	2e or 17 17 18 20 21 22 23 24 on of 25 26
forest-management practices, influence biological diversity and assessment of ways to minimiz mitigate negative influences  Comments on question 9 (research)	2e or 17 17 18 20 21 22 23 24 on of 25 26
forest-management practices, influence biological diversity and assessment of ways to minimize mitigate negative influences  Comments on question 9 (research)  Comments on question 10 (activities for improved forest practices)  Comments on question 11 (activities to minimize negative and promote positive effects)  Comments on question 12 (minimize impact of alien species)  Comments on question 13 (means and mechanisms to improve prioritization of research)  Comments on question 14 (research results and synthesis reports)  Comments on question 15 (impact of fires and alien species)  Programme element 3: Methodologies necessary to advance the elaboration and implementation criteria and indicators for forest biological diversity  Comments on question 16 (indicators)  Comments on question 17 (taxonomic studies and inventories)  Annex. Summary information on elaboration process of the report	2e or 17 17 18 20 21 22 23 24 26 on of 25 26 27

# **Introductory note**

Following the State reforms in Belgium, it was decided in 1979 to transfer the competences on forests from the federal government to regional ministries. Regionalisation became effective in 1980, and from then on, different forest policies have been developed in the three regions of Belgium (the Walloon, Flemish and Brussels Regions).

For international affairs on forest and biodiversity issues, a Belgian position is defined by means of consultations between the different authorities (federal state and the 3 regions) and sectors (forestry, environment, agriculture, etc.) through a process based on a co-operation agreement (April 5, 1995) between the Federal State and the Regions on international environmental policy. The Coordinating Committee for International Environmental Policy (CCIEP) is in charge of this consultation process. It has established several steering committees, including one for the follow up of the Convention on Biological Diversity and one for the follow up of forest-related international issues.

In this regard, this report has been prepared following a consultation process that took place through the steering committee 'Biodiversity Convention', in which both federal and regional authorities are represented. Other group members include researchers and NGOs. After completion, the report was submitted to members of the steering committee 'Forests' for comments and approval.

Preparation process for the report: see at the end of the report (consultation process, stakeholders, references and online information).

# Time-period covered in this report

The information provided covers the implementation of the provisions of the Convention on forest biological diversity until June 2002.

#### Note on the answers in the tick boxes

A cross without an abbreviation refers to an answer common to all actors. When a common answer could not be given, several crosses were used for one question, and the actor is identified by the following abbreviation:

Bxl Brussels Capital Region

Fl Flemish Region Wa Walloon Region

# **Drafting of the report**

The following persons contributed to the report:

Ir Jean-Yves ANDRÉ
Ministry of the Walloon Region (DGRNE)
Nature and Forests Division
U.C.L. - Unité des Eaux & Forêts
Place Croix du Sud 2, boîte 9
B-1348 Louvain-la-Neuve

Dr Ir Etienne BRANQUART
Belgian Biodiversity Platform
Ministry of the Walloon Region
Nature, Forests and Wood Research Centre
(CRNFB)
Avenue Maréchal Juin 23
B-5030 Gembloux

Ir Carl DE SCHEPPER Ministry of the Flemish Region (AMINAL) Flemish Forest Service Koning Albert II-laan 20, bus 8 B-1000 Brussels

Dr Ir Anne FRANKLIN Royal Belgian Institute of Natural Sciences Belgian CBD National Focal Point Rue Vautierstraat 29 B-1000 Brussels

Information material was sent by:

Ir Hugues LECOMTE
Permanent Forest Inventory
Nature, Forests and Wood Research Centre
(CRNFB)
Avenue Maréchal Juin 23
B-5030 Gembloux

Ir Bart ROELANDT Ministry of the Flemish Region (AMINAL) Flemish Forest Service Koning Albert II-laan 20 bus 8 B-1000 Brussels Dr Machteld GRYSEELS
Brussels Institute for the Management of
the Environment
Gulledelle 100
B-1200 Brussels

Ir Christian LAURENT Ministry of the Walloon Region (DGRNE) Nature and Forests Division Avenue Prince de Liège 15 B-5100 Jambes

Dr Jackie VAN GOETHEM
Royal Belgian Institute of Natural
Sciences
Belgian CBD National Focal Point
Rue Vautierstraat 29
B-1000 Brussels

Ir Kris VANDEKERKHOVE Institute for Game Management (IBW) Gaverstraat 4 B-9500 Geraardsbergen

# **Decision IV/7 on Forest Biological Diversity**

1. Wha	t is	the	relative	priority	afforded	to	implemen	tation	of	this	decision	by
you	r coi	untry	7?									
a) High			X (Fl, Wa)	b) Med	ium	Х	(Bxl)	c) Low				

# Comments on question 1 (priority afforded to implementation)

None.

2.	To what							availab	le a	dequate	for	meetin	g the
	obligation	ons a	nd r	ecomm	endati	ions r	nade?			_			
a)	Good		b) .	Adequa	ate	Х	c) Li	miting		d) Sever	-		X (Bxl)

# Comments on question 2 (availability of resources)

None.

3. Has your country assessed the status and trends of its fo diversity and identified options for its conservation and s (Decision IV/7, paragraph 12)	
a) no	
b) assessment underway (please give details below)	X (Wa, Bxl)
c) assessment completed (please give details below)	X (Fl)
d) not relevant	

# Comments on question 3 (status and trends)

The latest official forest assessment at the national level dates back to 1980 and only concerns publicly owned forests. Since then, regional forest inventories have been carried out on a periodical basis and include information on the status and trends of forest biological diversity.

# Flanders:

The Flemish Region started its first permanent inventory in 1997. This forest inventory relies upon systematic sampling according to a 1 km by 0,5 km grid for forest data, a 1 km by 1 km grid for vegetation data and a 2 km by 2 km grid for soil data. These grids match the 4 km by 4 km grid of the Flemish part of the 'European Forest Condition Survey'. The first report of the permanent inventory was published in 2001 (ref. #2). It contains a detailed phyto-sociological description and characterisation of the forest vegetation types in Flanders.

For more information, see Belgium's Voluntary Report to UNFF-2:

• § 2.1.5.1.3 - The Flemish Forest Inventory as the basis for a MAR-concept based on Criteria & Indicators for sustainable forest management.

Very general and broad options for conservation and sustainable use of forest biological diversity were taken when the Flemish Government Act on Forests (Bosdecreet, 1990) was developed and modified (e.g. importance of management plans, general protection measures). The recent "Nature Report 2001" contains a chapter on state and evolution of nature values of forests in Flanders (ref. #9). See also question 5.

#### Wallonia:

A first exhaustive forest assessment of Walloon forests was carried out between 1979 and 1983 and provided information on species composition, areas and volumes. The "Permanent Forest Inventory of Wallonia" was started in 1994 and was institutionalised by decree in 1995. It relies upon systematic sampling according to a 1 km by 0,5 km grid. One-tenth of this grid is covered each year, which means that the total grid is covered over a ten-year period. The 10% of plots inventoried each year are distributed regularly over the Walloon territory.

The objectives of the Walloon inventory were widened in 1997, in order to include the assessment of forest biodiversity and sustainable management practices. The new parameters are based on criteria and indicators of Resolution L2 of the Ministerial Conference on the Protection of Forests in Europe. They include: the area of natural and semi-natural forests, areas of specially managed forests, areas of mixed forest stands with 2-3 species, proportion of naturally regenerated stands (ref. # 11).

For more information, see Belgium's Voluntary Report to UNFF-2:

• § 3.1.4. - Wallonia. Criteria and indicators for sustainable management of forests.

Wallonia produced an assessment of the management of its forests in response of its commitment to the implementation of Helsinki and Lisbon resolutions (ref. #10). The first part of the report describes the main characteristics of forests, as well as the legal and institutional framework of forest policy in Wallonia. The second part of the report illustrates forest management as it is carried out in Wallonia, using criteria and indicators determined by the Helsinki resolutions. Objectives and targets for sustainable forest management are identified both for publicly- and privately-owned forests. See also question 5.

#### Brussels:

A forest inventory is carried out every year in the Brussels Capital Region.

Forest biodiversity is slowly but increasingly being taken into account in the forest management plans, which have for objective sustainable forest management as accepted by Belgium following the Ministerial Conference on the Protection of Forests in Europe in Helsinki in 1993.

#### Summarized information on forest resources in Belgium:

The distribution of forests in Belgium is shown in Table 1. Most of the forest area is located in the Walloon Region. The State, regions and provinces own 13% of the forests, 32% belongs to municipalities, 2% to public establishments and 53% to private individuals. Privately owned forests in Belgium are characterized by their fragmentary nature and are divided among some 120,000 owners (i.e. on average 2.7 ha per owner).

Broadleaved species account for about half the forest area, the main species being oaks (Quercus robur, Q. petraea) and beech (Fagus sylvatica). The main coniferous species are Norway spruce (Picea abies), Scots and Black pine (Pinus sylvestris, P. nigra), larch (Larix decidua) and Douglas fir (Pseudotsuga menzeisii). Norway spruce plantations account for about 75% of conifer species in Wallonia, while Scots Pine is the most frequent conifer species in Flanders (about 65%).

Table 1: Forest cover in Belgium.

	- 3 -			
	Area	Forest area	% of the	% of the
	(km²)	(km²)	area	forest area
Flemish region	13 521	1 352	9.9	19.8
Walloon region	16 845	5 448	32.3	79.9
Brussels region	162	20	12.3	0.3
Belgium	30 528	6 820	22.3	100.0

If a developing country Party or a Party with economy in transition -	
4. Has your country requested assistance through the financia projects that promote the implementation of the focused wo forest biological diversity? (Decision IV/7, paragraph 7)	
a) no	Not relevant
b) yes (please give details below)	

# Comments on question 4 (developing countries and economies in transition)

Not relevant.

# Programme element 1: Holistic and inter-sectoral ecosystem approaches that integrate the conservation and sustainable use of biological diversity, taking account of social and cultural and economic considerations

5. Has your country identified methodologies for enhancing the forest biological diversity conservation and sustainable use approach to sustainable forest management at the national Programme, paragraph 13)	into an holistic
a) no	
b) yes - limited extent (please give details below)	X (Bxl)
c) yes - significant extent (please give details below)	X (Fl, Wa)
d) not applicable	

# Comments on question 5 (integrating FBD into an holistic approach to SFM)

Conservation and sustainable use of forest biological diversity are ensured primarily through a combination of measures including:

- forest policy,
- elaboration of best practices for forest management,
- financial incentives.
- nature conservation and
- game management.

#### Flanders:

The 'Belgian Forest Act' of 1854 was replaced in 1990 by the 'Flemish Government Act on Forests' (13.06.1990). This forest law emphasises the multifunctional role of forests, stressing its economic, social and educational, shelter, ecological and scientific functions.

The Act on Forests was amended in 1997 by the Flemish decree on Nature Conservation and the Natural Environment (21.10.1997). The most important changes concern forests part of the Flemish Ecological Network (VEN), consultation between nature conservation and the forest service concerning the management plans of forests situated in sensitive and special areas (VEN, Habitat directive, Ramsar areas) and stronger limitations in case of deforestation (only for public and general interest) which can be combined with mandatory compensation by afforestation elsewhere.

Within the framework of the revision of the legislation on town and landscape planning, the Flemish government decided that forested areas should increase by 20.000 ha (10.000 ha of forests with a high ecological and nature conservation value and 10.000 ha of forests in agricultural areas). The enlargement of the forest area in Flanders is connected to the regional strategy to combat climate change and to enhance the liveability of highly urbanised areas.

The 1999 amendments of the forest decree include a new instrument to stimulate the co-operation between forest owners (private and public) and give legal bases to the Flemish Forest Inventory project and to qualitative criteria for sustainable forest management. The forest owner has to prove this by submitting a forest management plan, drawn up according to a model established by the Flemish Government. The Flemish Forest Service has to approve the management plan for private forests.

If the forest owner does not manage his forest according to the approved management plan, he can be prosecuted. If a forest owner does not submit a management plan, he can be considered in default. If there is still no management plan, the Flemish Forest Service can draw up a management plan in place of the owner and at his own expenses.

Forest reserves and shelter-forests are designated by the Flemish Government and must be primarily managed according to their special role. Forest owners can count on financial compensation for this 'loss of property rights'. Public forest owners must pay special attention to the ecological forest function and forest management must comply by some regional guidelines:

- Conservation or restoration of the natural flora and fauna;
- Promoting indigenous or site-adapted species;
- Promoting natural regeneration;
- Promoting uneven-aged and irregular formed forest stands;
- Advancing the ecological balance.

The Flemish Decree on Forest tries to stimulate the private forest owners to give a more social accepted added value to their forests. Grants can be provided for private forest owners for

- Afforestation/reforestation, in particular with indigenous and noble hard wood species, and afforestation of agricultural land;
- Opening forest roads to the public;
- Joining property among several owners (at least 5 ha) to make a common management plan (including subsidies for cleaning and thinning out).
- Having a forest area designated or recognised as a forest reserve (the grant is reduced if hunting is allowed during the hunting season).

The main objective of the Flemish forest policy is to envisage a multifunctional and a sustainable forestry. The 'Management vision for Flemish public forests' was published in 2001 (ref.  $\sharp 1$ ) and is a practical road map and manual for managing forests according to the principles developed by Pro Silva Flanders (close to nature management principles) with a strong emphasis on the ecosystem approach. It combines practical information for field management with a translation of policy relevant issues. It is supposed to give guidance to the management of the forests owned by the Flemish Region (13,6% of the total forest area in Flanders) and local communities (17% of total area). also forest This document illustrates the practical implementation of the criteria for sustainable forest management, which will be mandatory for forests that are part of the Flemish Ecological Network (VEN) and voluntary for other forests.

For further information, see the Flemish contribution to Belgium's Voluntary Report to UNFF-2, and among others:

- § 2.1.1.1 The development of The Flemish Long term Strategic Plan for Forests and the Action Plan for Forests;
- § 2.1.1.2 The development of standards for sustainable forest management in Flanders;
- § 2.1.3 Progress in implementation on forest conservation and protection of unique types of forests and fragile ecosystems.

#### Wallonia:

The Belgian Forest Act of 1854 constitutes the legal base for the management of forests in Wallonia and is supplemented by the legislation on regional planning. In 1995, Wallonia adopted its 'Environmental Plan for Sustainable Development', which gives particular attention to forest issues (including training and public participation).

Several regulations were adopted in recent years to complement the Forest Act of 1854:

- The Decree on traffic in forests of 1995 (16.02.1995) aims at limiting the unfavourable effects on the forest ecosystem of uncontrolled tourism, and regulates the access to the forest for users such as pedestrians, cyclists or riders.
- The Permanent Forest Inventory (16.02.1995) evaluates the state and changes in forests.
- The Forest Act is currently under revision in order to enhance the multifunctional role of forests. This principle is applied in the 'Circular relating to the management of forests governed by the Forest Code' (22.09.1997), which is imposed on the public forests, that is to say 50% of the Walloon forest.
- The draft revised Forest Act envisages allowing a reduction in inheritance taxes for forests that are managed according to the principles of sustainable forest management.
- A law has been established in 1999 (6.05.1999) in order to support the constitution of forest groupings for privately owned forests. Financial incentives are allowed by the Forest Act. These include among others subventions to private owners for natural regeneration (latest version 6.09.2001), pruning and thinning (latest version 14.11.2001), horse-drawn removal of timber from the forest (14.11.2001) as well as subventions to public and private owners for training and awareness activities on the multifunctional role of forests (11.05.1995).

The 1995 regional planning legislation (Code wallon de l'Aménagement du Territoire, de l'Urbanisme et du Patrimoine) is applied to woods and forests not submitted to the Forest Act. It defines the notion of 'forest belts' and the constraints that are referred to it, as well as the procedures of modification of assignment; moreover, zones with particular statute exist within forest zones (nature reserves, forest reserves, etc., see below).

The federal law on nature conservation (12.07.1973) aims to protect the fauna and flora, natural habitats, soil, water and air. It has been revised for the Walloon context in 1984. It does not specifically apply to forestry but can apply to forest habitats. It defines the status of forest reserves, nature reserves, natural parks, humid zones of great biological interest, special protection zones, etc. It also defines the protection of plant and animal species. Specific examples relating to forests and forestry include the interdiction of conifer plantations less than 6 meters away from waterways and the interdiction of exotic conifer species in natural zones, natural zones with scientific interest and nature reserves.

A new decree (Décret relatif à la conservation des sites Natura 2000 ainsi que de la faune et la flore sauvages) was adopted by the Walloon Parliament on  $6^{\rm th}$  December 2001, and entered into force on 22nd of January 2002. This decree integrates the Directive 92/43/C.E.E. in the regional legislation on nature conservation.

For an exhaustive list of forest-related legislation, check the following URL: http://mrw.wallonie.be/dgrne/legis/dnf/forets.htm.

#### Brussels:

Forests and wooded areas play an extremely important social role for the inhabitants of this highly urbanised region. A network of green spaces and waterways linked together by green corridors has been developed within the city. The 'green network' consists of forests, woods, parks and gardens while the 'blue network' is made of waterways, canals and ponds. Corridors correspond to green avenues, road and railway embankments, etc. The section of the Sonian Forest situated within Brussels' territory is the region's main forested area. It has a major social function, as well as a production role.

The basis for forest legislation is the Belgian Forest Act of 1854, which was adapted to meet constraints linked to new usages of forests. This includes among others the Regulation on access and circulation in forests (28.09.95). The basis for nature protection is the federal law on Nature conservation (12.07.1973). It has been adapted to the regional context in 1995. Within the Brussels Capital Region, forested areas submitted to these legislations are the woods and forests owned by the Region (Sonian Forest, Dieleghem Wood, Laerbeek Wood and Poelbos Wood) or by public institutions (Buysdelle Wood, Verrewinkel Wood) and regional nature reserves. The Sonian Forest accommodates five nature reserves and three forest reserves. A nature reserve has also been established within the 'Poelbos' Wood and in Uccle (Kinsendael - Kriekenput).

Special protection zones are also established, in order to protect vulnerable areas (plantations, natural regeneration, degraded areas, etc.) and to serve as refuges for the fauna.

No hunting is allowed in the Region.

In order to fulfil international engagements concerning sustainable forest management, the Brussels Institute for the Management of the Environment (BIME) has established a management plan of the Sonian Forest. The Sonian Forest is not only a production forest, but it also has a very important social function (about 750,000 visitors per year) as well as an ecological one. The management plan can be found on the BIME website: <a href="http://www.ibgebim.be/ESPACES-VERTS/BOIS/download/plan\_gestionFR.pdf">http://www.ibgebim.be/ESPACES-VERTS/BOIS/download/plan\_gestionFR.pdf</a> (French) or <a href="http://www.ibgebim.be/GROENERUIMTEN/bois/download/plan\_gestionNL.pdf">http://www.ibgebim.be/GROENERUIMTEN/bois/download/plan\_gestionNL.pdf</a> (Dutch).

For an exhaustive list of nature and forest-related legislation, check the following URL:  $\frac{\text{http://www.ibgebim.be/LEGI/ASP/NATURE\_FR.asp}}{\text{French}} \text{ (in Dutch)}.$ 

Note: the Sonian Forest is spread over the 3 Belgian Regions, and the area of the forest in each Region is managed by that Region. All together, it covers about 4,400 hectares. A new website elaborated by all 3 regions has been launched in June 2002 and is available at <a href="http://www.foret-de-soignes.be/">http://www.foret-de-soignes.be/</a> (French) and <a href="http://www.zonienwoud.be">http://www.zonienwoud.be</a> (Dutch). English summaries are also available.

6. Has your country developed methodologies to advance the	
traditional forest related knowledge into sustainable fores	t management, in
accordance with Article 8(j)? (Work Programme, paragraph 14)	
a) no	
b) yes - limited extent (please give details below)	
c) yes - significant extent (please give details below)	
d) not applicable	X

# Comments on question 6 (traditional knowledge)

Not applicable as far as Article 8(j) is concerned. However, there is a wealth of traditional knowledge relating to forests in Belgium, following several centuries of forestry practices. Some of those traditional practices are being put in practice again to a limited extent (e.g. timber extraction from little accessible forest stands using horses instead of machinery). As regards timber extraction, a new decree of the Walloon Region now grants subsidies for horse-drawn removal of timber from the forest (14.11.2001).

Researchers from the Catholic University of Leuven (K.U.L.) concentrate on 'historical ecology' in which they investigate the dynamic relationship between actual situation of forest ecosystems as a result of natural and cultural processes. Research items include the studying the impact of former land use on present forest biodiversity. This research has lead to increased insights on traditional uses of forests, trees and forest products (ref.#13). An international conference will be organised on the subject on 13-15 January 2003, with a focus on the effects of history on the species composition and richness of forests. It will show how the integration of historical work, vegetation science, zoology, ecology and others result in an added value for understanding forests, their management, conservation and expansion. See also: http://www.agr.kuleuven.ac.be/lbh/lbnl/forestbiodiv/.

7. Has your country promoted cooperation on the conservation and of forest biological resources at all levels in accordance and 16 of the Convention? (Work Programme, paragraph 15)	
a) no	
b) yes - limited extent (please give details below)	
c) yes - significant extent (please give details below)	X
d) not applicable	

# Comments on question 7 (cooperation)

# National level:

Landowners are encouraged to organise themselves in forest groupings, in order for them to solve problems of small-scale ownership. Cooperation on forest research is encouraged, i.e. by giving grants to multi-institutional projects (e.g. Xylobios research project on saproxylic insects, see question 9).

Several actions involving a participatory approach have recently been set up, or are in the process of being established, in the different Belgian regions. Examples include

- awareness activities undertaken by the Institute for Forest and Game Management in Flanders or by the NGO Forêt Wallonne in Wallonia (established and running);
- the elaboration of the Integrated Management Plan of the Saint-Hubert forest in Wallonia, (under way);
- the participatory platform for the Management of the Sonian Forest in the Brussels Capital Region (early stages of development, see question 10).

#### Regional level:

Belgium participates actively in the pan-European process on forests, the Ministerial Conference on the Protection on Forests in Europe, and signed the resolutions Helsinki (1993) and Lisbon (1998) conferences, which relate respectively to the sustainable management of forests (H1), the conservation of the biodiversity of European forests (H2) and to criteria, indicators and operational level guidelines for sustainable forest management (L2).

Belgium is also an active member of the Pan-European Biodiversity and Landscape Strategy and provides input to action theme number 9 on forest ecosystems. Within the European Union, Belgium takes actively part to the elaboration of EU policies and positions relating to forests and biodiversityl.

An important amount of cooperation is undertaken in the field of research, both on a bilateral basis and at European level (see question 9).

# Global level:

Belgium participates in a number of international initiatives related to forests, such as the Convention on Biological Diversity, the United Nations Forum on Forests (and formerly to the Inter-governmental Panel on Forests and the Inter-governmental Forum on Forests), the International Tropical Timber Organization (ITTO), the forest programme of the Food and Agriculture Organization (FAO), etc.

#### Development cooperation:

In the 1980's, major funding was attributed to afforestation, forestry research and agroforestry projects in developing countries. In the 1990's, funding of forestry projects dropped sharply, due to a shift away from large afforestation projects and political instability in funded regions (e.g. Great Lakes region in Central Africa). In 1999, following the reform of the Belgian international cooperation policy, the environment was selected as one of the three priority cross-sectoral themes. Biodiversity is now an integral part of the policy.

In 2000/2001, Belgium's contribution to GEF and UNEP was assigned to specific programmes, of which several were directly concerned with forest biodiversity conservation. Such programmes include the 'Regional Environmental Information Management Project' in the Central African Region, a project which aims at improving the management of natural resources, or the UNESCO programme 'Biodiversity Conservation in Regions

 $<sup>\</sup>underline{1}$  Although there is no common forest policy within the European Union (EU), forest biological diversity is addressed in its legislative and strategic framework concerning nature and biodiversity, forests, rural development, development co-operation and research.

of armed conflict' which supports the conservation of 5 protected areas in the Democratic Republic of Congo. An environmental strategy determining objectives and priorities for Belgium's international cooperation policy is currently in preparation and will address forests and biodiversity as priority issues.

8.	Has your country promoted the sharing of relevant technical information at all levels on networks of protected for networking modalities in all types of forest ecosystems? (I paragraph 17)	est areas and
	a) no	
	b) yes - limited extent (please give details below)	
	c) yes - significant extent (please give details below)	X
	d) not applicable	

# Comments on question 8 (information on networks of protected areas)

a) General sharing of information on forest biological diversity

See also question 7.

#### National level:

The Belgian Biodiversity Platform (BBPF), set up in 2000, is an advisory and communication body of the Belgian Federal Office for Scientific, Technical and Cultural Affairs. Its mission is to establish strong links between scientists in Belgium and abroad and to promote Belgian biodiversity research in the frame of the international trends, conventions and research programmes. One of its programmes of actions is specifically dedicated to forest ecosystems. In this context, it has set up in 2001 the 'Belgian forum on forest biodiversity', a discussion forum on forest biodiversity issues (http://www.biodiversity.be/bbpf/forum/forest/forestintro.html).

#### Regional and global levels:

Belgium takes part in many initiatives related to forests, as presented in question 7. Belgium is also part of several European and international research organisations and networks either through direct participation or through funding (IUFRO, ETFRN, EFERN, EFI, CIFOR, IPGRI, ICRAF, etc.). EU-funded projects include BEAR (forest biodiversity indicators), ECOFAC (Conservation and rational use of forest ecosystems in Central Africa) and NAT-MAN (Nature-based management of beech in Europe). For more information, see the website of the forum on forest biodiversity:

http://www.biodiversity.be/bbpf/forum/forest/forestres.html

b) Sharing of information specifically on networks of protected areas and forest ecosystems

#### National level:

At the national level, discussions on the role of integral nature reserves in forests were carried out in 2001 through the Belgian Forum on Forest Biodiversity.

In Flanders, a specific and detailed management plan has to be developed within 3 years of the registration (for state-owned forests) or the

recognition of a forest reserve (for private forests). For each reserve, a management commission has to decide on the management options. Appointed members the commission are: the chief forester of the area, the forester responsible for management, a representative of the Institute for Forest and Game Management and a representative of the Institute for Nature Conservation. Appointed members are joined by 3 to 5 additional members, appointed by the minister, that come from scientific circles or local associations which are active in the area of nature conservation and forestry. The mandate runs for six years and can be renewed. For each forest reserve, a Forestry Department official is charged its management. A yearly information with 'Bosreservaten Nieuws' is produced yearly by the Institute for Forest and Game Management. It deals specifically with scientific and management aspects of forest reserves in Flanders and is distributed free of charge to all interested stakeholders.

An information day was held on 12 June 2002 on the development of the network of protected forest areas in Flanders. It presented the aims of the network and brought together scientists, administrative authorities and field managers.

# Regional level:

Belgium participates in the MCPFE process (see question 7). MCPFE is currently working on a project concerning the 'Classification of Protected and Protective Forests and Other Wooded Land in Europe', which is linked to the IUCN categories of protected areas.

As part of the PEBLDS process (see question 7), Belgium takes an active part in promoting and establishing the Pan-European Ecological Network. In September 2000, the Walloon Region together with the Council of Europe organized an international symposium on the subject.

The Habitats and the Birds Directives are key tools also to ensure the protection of forests and their biodiversity in the European Union. They are aiming at the maintenance of biodiversity through the conservation of natural habitats, most notably also forest ecosystems, and at the establishment of a coherent ecological network of representative sites, the Natura 2000 Network.

Belgium is also a member of the 'E27-PROFOR' COST action (Protected forest areas in Europe - analysis and harmonization). The action E27 aims at providing the international community with an overview of the different forest protection categories and regimes in the different countries, in order to provide a scientifically sound 'categorization', so future comparisons between different countries could be done on more objective grounds.

Programme element 2: Comprehensive analysis of the ways in which human activities, in particular forest-management practices, influence biological diversity and assessment of ways to minimize or mitigate negative influences

9.	Has your country promoted activities for an enhanced un	nderstanding of
	positive and negative human influences on forest ecosystem	_
	managers, policy makers, scientists and other relevant stal	keholders (Work
	Programme, paragraph 29)	
	a) minimal activity	X (Bxl)
	h) ves - limited extent (please give details below)	

b) yes - limited extent (please give details below)	
c) yes - significant extent (please give details below)	X (Fl, Wa)
d) not relevant	

# **Comments on question 9 (research)**

There is a long tradition of forest- and biodiversity- related research in Belgium, both in universities and in governmental scientific institutes. A comprehensive list of those projects can be found in the catalogue 'Biodiversity Resources in Belgium' at <a href="http://www.br.fgov.be/BIODIV/">http://www.br.fgov.be/BIODIV/</a>.

#### Federal level:

Through its programme 'Scientific Support Plan to a Sustainable Development Policy' (PADD II or PODO II), the Federal Office for Scientific Technical and Cultural Affairs currently finances several projects under the heading 'Global change, ecosystems and biodiversity'. Three of those projects have relevance to forests and biodiversity:

- EV/02/12: Carbon sequestration potential in different Belgian terrestrial ecosystems: quantification and strategic exploration
- EV/H1/15: XYLOBIOS: Significances and impacts of saproxylic organisms in Belgian deciduous forests
- EV/10/16A: Linking dispersal, connectivity, and landscape structure, to produce habitat evaluation / restoration guidelines (see

http://www.belspo.be/belspo/ostc/act\_scien/fedra/prog.asp?l=uk&COD=EV)

The first workshop of the Belgian Forum on Forest Biodiversity was held on 11-12 March 2002 in the Walloon Region and examined relationships between forest management practices and saproxylic invertebrates, focusing on conservation and forest health issues.

#### Flanders:

The Institute of Forestry and Game Management, founded in 1991, is responsible for scientific research and scientific services concerning greenery, forests, fauna, fish stock and their management. Research focuses on site research and forest development, forest ecology, forest protection, selection and breeding of forest tree species, fish stock and game management. Two Flemish Universities (Ghent and Leuven) have specialized courses in forestry and conduct research on a wide variety of scientific and policy relevant issues.

See also Belgium's Voluntary Report to UNFF-2

• § 2.1.3.5. - Research at the Flemish Institute for Forestry and Game Management.

#### Wallonia:

A Framework Forest Research Agreement has been convened between the Division of Nature and Forests and the forest entities of the Universities of Gembloux and Louvain-la-Neuve. This agreement comprises a five-year research program, dealing mainly with forest practices and management research, and an annual budget of about 1 million EURO. This program deals with all aspects of forest research, with only part of the budget being allocated to forest biological diversity. In this domain, the program complements the work of the Regional Centre for Nature, Forest and Wood Research.

#### Brussels:

Both the Flemish (V.U.B.) and French-speaking (U.L.B.) counterparts of the Free University of Brussels carry out research on forest ecosystems. The Brussels Institute for the Management of the Environment (BIME) finances several research and monitoring projects on forest ecosystems within the region (i.e. bird and mammal populations, influence of exotic species, population levels of potential insect pests, etc.).

#### EU-funded research:

Research Framework Programmes. Belgium participates in a number of EU-funded research projects. For an overview of past and current projects, visit the DG Research website at <a href="http://dbs.cordis.lu/search/en/simple/EN\_PROJ\_simple.html">http://dbs.cordis.lu/search/en/simple/EN\_PROJ\_simple.html</a> (with search keywords: belgium AND forest AND biodiversity).

COST actions. COST is a programme of the European Commission DG Research that aims at bringing together scientists and specialists on a specific subject, promoting cooperation. For an overview of COST actions on forests and forestry see  $\frac{\text{http://cost.cordis.lu/src/signatories.cfm?domain=E}}{\text{7b}).}$ 

10. Has your country promoted activities to assemble management experiences and scientific, indigenous and local information at the national and local levels to provide for the sharing of approaches and tools that lead to improved forest practices with regard to forest biological diversity? (Work Programme, paragraph 30)	
a) minimal activity	X (Bxl)
b) yes - limited extent (please give details below)	
c) yes - significant extent (please give details below)	X (Fl, Wa)
d) not relevant	

# Comments on question 10 (activities for improved forest practices)

#### National level:

Efforts have been undertaken to improve the qualifications of forestry staff. The Flemish and Walloon Regions have institutions that focus on forestry research and high-level education. Training and extension services are important in the three Regions.

The Belgian Forum on Forest Biodiversity (see question 8) aims to provide and gather scientific knowledge in order to promote sustainable management of forest ecosystems and to enhance biodiversity conservation in woodland areas in Belgium and abroad. It has for objective to facilitate the exchange of information between scientists and forest managers and to provide scientific support to policy makers.

Several associations are actively encouraging improved forest practices through direct actions, research and awareness campaigns. Both WWF-Belgium and Greenpeace-Belgium have forest programmes targeting forests in Belgium and abroad. WWF activities are detailed at the following URLs <a href="http://www.wwf.be/fr/forets/index.html">http://www.wwf.be/fr/forets/index.html</a> (in French) or <a href="http://www.wwf.be/nl/forets/index.html">http://www.wwf.be/nl/forets/index.html</a> (in Dutch).

Greenpeace is currently (2001-2002) carrying out a campaign to preserve primary forests ("Save Ancient Forests"). Actions in Belgium include increasing the awareness on illegal logging in tropical areas. For further information, see http://www.greenpeace.be/.

#### Flanders:

The Educational Forestry Centre Groenendaal of the Flemish region participates in a variety of activities. Since 1979, the Flemish Forest Service is organising every first or second week of October an information campaign called "the Forest Week". Each year a specific theme is brought to the attention of forest owners, forest managers, the public at large and schools by means of excursions, expositions and other public events. In 2001, a workshop has been held on the presentation of the "management vision for public forests" (29/09/2001). The Flemish Forest Service manages 10 forest visitor centres. The Forest Service also publishes several brochures about forestry items. The Institute for Forestry and Game Management publishes an annual activity-report.

# Wallonia:

Actions directed towards private owners have been ongoing for ten years. They consist primarily in incentives (see question 5) and training (in collaboration with organizations of private owners), as well as measures supporting the co-operation between owners. The Division of Nature and Forests publishes technical reports on forests and nature for owners and managers, and for general public. Wallonia manages 10 regional centres for environmental education, one of which is more specifically dedicated to forest ecosystems (Centre Régional d'Initiation à l'Environnement de Saint-Hubert).

The NGO "Forêt Wallonne" organizes awareness events, training sessions for private owners and forest managers, school activities and publishes a bi-monthly magazine on forests and sustainable forest management in Wallonia.

#### Brussels:

The Information Centre on the Sonian Forest has been set up by the Brussels Institute for Management of the Environment (BIME), and the Free University of Brussels (V.U.B.). This Centre regularly proposes exhibits on forest-related environmental themes. Guided tours are possible, as well as guided walks in the forest (http://www.vub.ac.be/APNA/ICZO/MW.ENG/Eng.html).

The management plan of the Sonian Forest includes the creation of a participatory platform that will bring together all forest users, who will meet regularly in order to define action plans, awareness

campaigns, etc. Themes and orders of priority will be defined by the participants themselves, with particular attention to the needs of the managers of the forests. Potential themes include path usage, creation of a mountain-bike track and the preservation of forest biodiversity. As of spring 2002, the platform is in the process of being established (see <a href="http://www.foretdesoignes.net">http://www.foretdesoignes.net</a> in French or <a href="http://www.zonienwoud.net">http://www.zonienwoud.net</a> in Dutch).

11. Has your country promoted activities with the aim of provide	ding options to
minimize or mitigate negative and to promote positive human	n influences on
forest biological diversity? (Work Programme, paragraph 31)	_
a) minimal activity	X (Bxl)
b) yes - limited extent (please give details below)	
c) yes - significant extent (please give details below)	X (Fl, Wa)
d) not relevant	

# Comments on question 11 (activities to minimize negative and promote positive effects)

Activities are carried out at several levels and target many sectors. They include:

- Guidelines for sustainable forest management (see question 5).
- Promotion of indigenous and noble species (see question 5).
- Promotion of site-adapted species (see question 5).
- Promotion of natural regeneration (see question 5).
- Promotion of uneven-aged and irregularly formed forest stands (see question 5).
- Afforestation, reforestation. In Flanders, higher premium is attributed for the use of noble and indigenous tree and shrub species in afforestation and reforestation projects (see question 5).
- Sustainable ways of harvesting (horse-drawn removal of timber) (see question 5)
- Research (see question 9).
- Training programmes (see question 10).
- Awareness campaigns (see question 10).

**Certification:** In 1994, WWF-Belgium initiated a process to promote and develop Forest Stewardship Council (FSC) certification in Belgium. Since then, the work on certification has evolved into two main orientations:

- The Flemish Administration supports the Forest Stewardship Council initiative, and actively encourages the use of certified wood in public works, through its voluntary environmental agreement between the Region and the local communities (Milieu Convenant). Three domanial forests (owned by the Flemish Region) covering about 4300 ha, received a FSC certification label in 1997 (Soignies, Meerdal and Heverlee).
- The Walloon Administration favours the application of the Pan European Forest Certification label (PEFC), as is WoodNet, the association of national federations of the forest and timber industry. The 'Belgian Forest Certification Scheme' was officially endorsed on 28th February 2002 as meeting the strict requirements of the PEFC Council, and is based on the Ministerial Conference on the Protection of Forests in Europe. This scheme underwent a 10-month assessment process comprising

rigorous public consultation procedures and a thorough assessment by independent consultants (more details on http://www.pefc.org) .

See also Belgium's Voluntary Report to UNFF-2:

- § 2.1.1.2.3. The development of the standards for forest management: a more complex model of participation with governments in a supportive role (Historical process and Flemish experience with certification).
- § 3.1.5. Certification of sustainable forest management (Walloon experience).

12. Has your country promoted activities to minimize the impact of species on forest biological diversity? (Work Programme, paragramme)	
a) minimal activity	Х
b) yes - limited extent (please give details below)	
c) yes - significant extent (please give details below)	
d) not relevant	

# Comments on question 12 (minimize impact of alien species)

The issue of alien species is currently mostly dealt with on a research basis. Research is carried out for several groups, including bryophytes, vascular plants, fungi, invertebrates, birds and mammals.

#### European Community:

The European Community has adopted emergency measures requiring the treatment and marking of all new and used coniferous (e.g. pine, spruce, fir) non-manufactured wood packing material originating in the United States, Canada, China, or Japan and departing after October 1, 2001, to prevent the introduction of the pinewood nematode (Bursaphelenchus xylophilus). Hardwoods are exempt from the emergency measure. The pinewood nematode is a microscopic eelworm that causes extensive mortality in pines in Japan and China.

#### Flanders:

The issue of invasive alien species is dealt with in the management vision for Flemish forests, based on scientific field research. Research projects include the monitoring of species diversity (native and non-native) in relation to the management of nature and forest reserves.

Operational campaigns to fight *Prunus serotina* (Wild Black Cherry), an invasive from North America, are successful in many places. This species hinders the natural growth of several indigenous tree and shrubs species in former plantations of *Pinus* sp. In a management that focuses on natural processes to make forests more diverse, this invasive species is a real obstacle.

#### Wallonia:

Research on alien species is part of more general research programmes on forests. Specific programmes target the problem of native and exotic wood-boring insects pests (e.g. bark beetles). Awareness activities have been carried out to inform forest officers in state-owned forests on the risks of alien species on native biodiversity.

#### Brussels:

The Brussels Region, being a heavily urbanized area, is much concerned with the issue of alien species. As regards forest biodiversity, a research project is being carried out on the potential impact of the introduced Asian chipmunk (*Eutamias sibiricus*) on the breeding bird fauna in the Sonian Forest. *Eutamias sibiricus* was first imported as a pet in the 1960s. Nowadays, there are a few free-living populations in Belgium, including one of several thousands individuals in the Sonian Forest.

13. Has your country identified means and mechanisms to	improve the
identification and prioritisation of research activities	
influences of human activities, in particular forest managemen	nt practices, on
forest biological diversity? (Work Programme, paragraph 33)	
a) minimal activity	X (Bxl)
b) yes - limited extent (please give details below)	X
c) yes - significant extent (please give details below)	
d) not relevant	

# Comments on question 13 (means and mechanisms to improve prioritization of research)

#### Federal level:

Several initiatives help the prioritization of research:

- The first 'Federal Plan on Sustainable Development' was published in 2000 and provides a framework for federal schemes, including biodiversity.

  globe.org/ddownloads/new\_accueil\_download.htm
- The Federal Office for Scientific Technical and Cultural Affairs (OSTC) elaborates its research programmes directly in response to international and European agreements and policy. This is reflected among others in its programme 'Scientific Support Plan to a Sustainable Development Policy' (see question 9).
- The Belgian Biodiversity Platform has forest biodiversity as one of its priority themes of action (see question 8).
- The Belgian Forum on Forest Biodiversity was set up to exchange information in the field of forest biodiversity (see questions 8).

Flanders, Wallonia, Brussels: see question 9.

14. Does your country hold research results and syntheses of reposition of scientific and traditional knowledge on key forest biolosissues and, if so, have these been disseminated as widely as Programme, paragraph 34)	gical diversity
a) not relevant	
b) some relevant material, but not widely disseminated	
c) significant material that could be more widely disseminated (please give details below)	
d) yes - already widely disseminated (please give details below)	X

# Comments on question 14 (research results and synthesis reports)

# Research results and reports:

Belgium produces a wide range of publications and computerized decision support tools. Most research departments within universities have their own websites detailing project information. Researchers also regularly publish research results in international peer-reviewed journals, but also publish article in national popularization journals. Such journals are usually published by NGOs or by research institutes active in the field of nature conservation and forest management (e.g. Forêt Wallonne, Bosreservaten Nieuws, Parc & Réserves, Natuur.blad, etc.). The NGO 'Forêt Wallonne' is preparing a special issue on forest biodiversity, specifically aimed for field managers in the Walloon Region. The special issue will be published at the end of 2002.

Conferences and workshops are held on a regular basis.

#### Databases and Internet:

At the national level, two projects currently centralize forest biodiversity information and make it accessible to the public:

- The inventory of Belgian professionals researchers participating in studying, assessing, and monitoring biological diversity is available on the Internet at <a href="http://www.br.fgov.be/BIODIV">http://www.br.fgov.be/BIODIV</a> and will be available in 2002 in hardcopy. Information on forest biodiversity research and experts can be extracted through the use of appropriate keywords.
- The Belgian Forum on Forest Biodiversity has set up its website in 2001 at http://www.biodiversity.be/bbpf/forum/forest/forestintro.html.

#### Events:

Several conferences, workshops and field visits addressing biodiversity were held in the past years. See also  $\frac{\text{http://www.br.fgov.be/BIODIV/events.html}}{\text{http://www.br.fgov.be/BIODIV/events.html}}.$ 

In 2001, the main events were:

- 29.09.2001. In Flanders, a workshop has been held on the presentation of the 'Management vision for public forests'.
- First week of October 2001. This management vision was also the central theme of the large-scale information and sensitisation campaign 'the week of the forest' in Flanders.
- 24-26.10.2001. International workshop on 'Carbon sinks and biodiversity', organized by the Ministry of the Walloon Region.
- 19-20.10.2001. National symposium on 'Botanical expertise and biodiversity in Belgium', organized by the National Botanic Garden of Belgium.
- 2-4.12.2001. Meeting of the European Platform for Biodiversity Research and Strategy 'Scientific tools for in situ biodiversity conservation: monitoring, modelling and experiments', organized by the Belgian Biodiversity Platform;
- 14.12.2001. National symposium on 'Belgian Fauna: Status and trends, with particular attention to alien species', organized by the National Focal Point to the CBD.

In 2002, events include:

- 11-12.03.2002. International workshop on saproxylic insects organized by the Belgian Forum on Forest Biodiversity;
- 14.05.2002. Symposium on 'Biodiversity and Landscape', organized by the Minister of Agriculture and Rurality of the Walloon Region;

- 22.05.2002. Symposium to celebrate the International Day for Biological Diversity. 'Ten years after Rio. What future for biodiversity in Belgium?', organized by the Federal Minister for the Environment, the Federal Commissioner for Scientific Research and the Belgian CBD National Focal Point;
- 6-13.10.2002. Week of the Forest. Wood as a renewable and sustainable resource. In Flanders.

# Planned in 2003:

• 13-15.03. International IUFRO conference. 'History and Forest Biodiversity - Challenges for Conservation' organised by the Catholic University of Leuven (see question 6).

15. Has your country prepared case-studies on assessing impact alien species on forest biological diversity and their inf management of forest ecosystems and savannahs? (Work Programme	fluences on the
a) no - please indicate below whether this is due to a lack of available case-studies or for other reasons	X not relevant (fires, savannahs)
b) yes - please give below any views you may have on the usefulness of the preparation of case-studies for developing a better biological understanding of the problem and/or better management responses.	X (alien species, under elaboration)

# Comments on question 15 (impact of fires and alien species)

As far as fires and savannahs are concerned, this question is not relevant for Belgium. As far as alien species are concerned, see question 12.

# Programme element 3: Methodologies necessary to advance the elaboration and implementation of criteria and indicators for forest biological diversity

16. Has your country assessed experiences gained in national processes, identifying common elements and gaps in existing improving indicators for forest biological diversity? (W	initiatives and
paragraph 43)	
a) minimal activity	
b) yes - limited assessment made (please give details below)	X
c) yes - significant assessment made (please give details below)	
d) not relevant	

# **Comments on question 16 (indicators)**

#### National level:

Several universities and research institutes work on the issue of forest biodiversity indicators. For example, the Institute for Forest and Game Management has set up a project called 'Indicators for biodiversity in forests', within the framework of VLINA (Flemish Impulse Programme for Nature Development). The Walloon Region has integrated criteria and indicators for sustainable management developed within the framework of the Ministerial Conference for the Protection of Forests in Europe in its permanent inventory of forest resources (see question 3).

An annotated list of indicators that are currently being used by Belgium as part of its monitoring process (including indicators for forest biological diversity) can be found in the 'Report on indicators for biological diversity in Belgium' compiled for the CBD Secretariat, online at:

http://www.naturalsciences.be/bch-

cbd/belgium/contribution/indicators/indicators.htm

# Regional level:

Belgium participated in the work of several initiatives:

- The BEAR project (Biodiversity Evaluation Tools for European Forests) aimed at developing an integrated system of indicators of forest biodiversity that are applicable over a wide range of European biogeographic regions, and at the national/regional, landscape and stand level.
- In the framework of the Ministerial Conference for the Protection of Forests in Europe (MCPFE), Belgium contributed with a report on the use of criteria and indicators for sustainable forest management. This report was presented at the Third Ministerial Conference in Lisbon (1998).
- In the same framework, Belgium is involved in the work for improvement of sustainable forest management indicators, which include indicators specific to biodiversity.

#### Global level:

Belgium participated on a voluntary basis in the testing of the indicators for sustainable development, coordinated by the Commission

for Sustainable Development. The report is of this initiative is being compiled by the OSTC and should be available in 2002.

17. Has your country carried out taxonomic studies and inversity? (Work Programme, paragraph 43)	
a) minimal activity	
b) yes - limited assessment made (please give details below)	X (Bxl)
c) yes - significant assessment made (please give details below)	X (Fl, Wa)
d) not relevant	

# Comments on question 17 (taxonomic studies and inventories)

Good taxonomic tradition and a lot of inventory information exist in Belgium, including in forest ecosystems. There are regular surveys on a regular basis of many taxonomic groups, including birds, insects, mammals and plants. Biodiversity monitoring programmes and inventories are mostly carried out in the regions. They involve universities and regional institutes, together with the help of the federal scientific institutes (e.g. Botanical Garden, recently regionalized to the Flemish Region, and the Royal Belgian Institute of Natural Sciences). The two federal institutes also harbour comprehensive taxonomic expertise.

#### Flanders:

Nature and biodiversity monitoring is coordinated by the Flemish Institute of Nature Conservation and the Institute for Forestry and Game Management. Detailed information on biodiversity in Flanders can be found in the 'Nature report 2001' at http://www.instnat.be/nature\_report/publications/.

#### Wallonia:

The 'Observatory of Fauna, Flora and Habitats' coordinates the collection and analysis of biological diversity data. The Observatory works in close collaboration with a network of naturalists, scientists and officials of the Nature and Forestry Division. Forest biological diversity monitoring is carried out through the 'Permanent Inventory of Forest Resources' (see question 3). Detailed information on biodiversity in Wallonia can be found on the 'Biodiversity Information Server of Wallonia' at <a href="http://mrw.wallonie.be/dgrne/sibw/">http://mrw.wallonie.be/dgrne/sibw/</a> and in the 'State of the Walloon Environment 2000' at <a href="http://environnement.wallonie.be/eew2000">http://environnement.wallonie.be/eew2000</a>.

#### Brussels:

The Brussels Institute for Management of the Environment collects and analyses environmental data for the Brussels Capital Region. Temporal inventory have been carried out for the following groups: higher plants, bryophytes, macro fungi, mammals, herpetofauna, avifauna. Online information is available in the 'State of the Environment 1999' at http://www.ibgebim.be/obs/Carnets2000/index.htm.

# Annex. Summary information on elaboration process of the report

Please provide summary information on the process by which this report has been prepared, including information on the types of stakeholders who have been actively involved in its preparation and on material which was used as a basis for the report

#### Consultation process for the preparation of the report

**7.05.2001:** First meeting of the contact group 'Forest Biodiversity' operating under the Steering Committee 'Biodiversity Convention'.

28.06.2001: Second meeting of the contact group. Start of the drafting process for the thematic report on forest biodiversity.

July-December 2001: Belgian Presidency of EU. Little progress on the thematic report. Contact group meets four times to prepare SBSTTA-7.

November 2001: Input by the Walloon Region.

16.01.2002: Seventh meeting of the contact group. Presentation of first draft and discussion on the way forward.

January 2002: Input by the Flemish Region. Voluntary report of Belgium to UNFF-2 is provided for the report.

February 2002: Input by the Brussels Region.

March 2002: Second draft ready and sent for consultation to the contact group.

April 2002: Third draft ready and placed on the website of the Belgian Clearing-House Mechanism for public consultation by all stakeholders. The document was accessed 75 times between April and June, but no comments came through that channel.

June 2002: 8th Meeting of the contact group. Final contributions.

July 2002: Submission to and acceptance by the Steering Committee 'Biodiversity Convention'.

# Reference material used to prepare the report

- 1. Afdeling Bos & Groen (2001). Beheervisie voor openbare bossen. Ministerie van de Vlaamse Gemeenschap, 98 pp.
- 2. Afdeling Bos & Groen (2001). De bosinventarisatie van het Vlaams gewest. Resultaten van de eerste inventarisatie 1997-1999. Ministerie van de Vlaamse Gemeenschap, 486 pp.
- 3. De Schepper C., Goyvaerts K., André J.-Y., Laurent C., Lejeune X., Eds.(2001). Voluntary report by Belgium on the implementation of the IPF/IFF action proposals in the framework of the preparation for the 2nd session of the United Nations Forum on Forests (UNFF). 93 pp.
- 4. Deronde L., Lejeune X., Weyembergh G.(1992). Découvrez la Forêt de Soignes. Région de Bruxelles-Capitale, Cabinet du Ministre Didier Gosuin chargé de l'Environnement et de la Conservation de la Nature, Centre d'Information de la Forêt de Soignes, 76 pp.
- 5. Division Nature et Forêts (1998). Santé et biodiversité en forêt wallonne. Travaux de la Conservation de la Nature N°20. Actes des colloques du 7.11.1997 (Namur) et 27-28.11.2001 (Gembloux). Ministère de la Région wallonne, Direction générale des Ressources naturelles et de l'Environnement, 596 pp.
- 6. Hallet C., Malaisse F., Eds. (1996). État de l'Environnement Wallon 1995. Partie 3. Forêt et sylviculture. Direction générale des Ressources naturelles et de l'Environnement, Cellule de coordination de l'Etat de l'Environnement Wallon. 121 pp.
- 7. Instituut voor Bosbouw en Wildbeheer (2001). BosreservatenNieuws Nr. 1 (Januari 2001). 12 pp.
- 8. Instituut voor Bosbouw en Wildbeheer (2002). BosreservatenNieuws Nr. 2 (Januari 2002). 12 pp.
- 9. Kuijken E., Boeye D., De Bruyn L., De Roo K., Dumortier M., Peymen J., Schneiders A., Van Straaten D., Weyembergh G. (2001). Natuurrapport 2001. Toestand van de natuur in Vlaanderen: cijfers voor het beleid. Mededeling van het Instituut voor Natuurbehoud Nr. 18, Brussel, 366 pp.
- 10.Laurent C. (1997). La Gestion durable de la forêt en Wallonie. Édition de Juin 1997. Direction générale des Ressources naturelles et de l'Environnement, Division de la Nature et des Forêts. Ministère de la Région Wallonne. 56 pp.
- 11.Lecomte H., Koestel G., Rondeux J. (1999). La gestion forestière durable en Région wallonne: l'apport de l'inventaire permanent. Partie 2: Intégration des indicateurs à l'inventaire. Silva Belgica, 106(2): 7-14.
- 12.Rameau J.-C., Gauberville G., Drapier N. (2000). Gestion forestière et diversité biologique Wallonie et Luxembourg. Identification et gestion intégrée des habitats et espèces d'intérêt communautaire. Engref/ONF/IDF/Ministère de la Région Wallonne.
- 13.Tack, G., Van Den Bremt P., Hermy M. (1993). Bossen van Vlaanderen, een historische ecologie. Davidsfonds, Leuven. 320 pp.

# Online information (updated June 2002)

#### Federal level:

- Belgian Biodiversity Platform. http://www.biodiversity.be/bbpf/index.htm
- Belgian Clearing-House Mechanism. http://www.naturalsciences.be/bch-cbd/
- Belgian Federal Office for Scientific Technical and Cultural Affairs. http://www.belspo.be
- Belgian Forum on Forest Biodiversity. http://www.biodiversity.be/bbpf/forum/forest/forestintro.html
- Biodiversity Resources in Belgium. http://www.br.fgov.be/BIODIV
- Federal Plan for Sustainable Development. http://www.cidd.fgov.be/pub/PL200004/PL200004en.pdf
- Greenpeace Belgium. http://www.greenpeace.be
- Ministry of Social Affairs, Public Health and, Environment and Animal Welfare. http://www.minsoc.fgov.be/
- National Botanic Garden of Belgium. http://www.br.fgov.be/
- Royal Belgian Institute of Natural Sciences. http://www.naturalsciences.be/
- Royal Museum for Central Africa. http://www.africamuseum.be/
- Sonian Forest (general awareness website, by the 3 Belgian Regions). http://www.foret-de-soignes.be/ or http://www.zonienwoud.be/
- Sustainable Development in Belgium (portal). http://www.billy-globe.org/
- Woodnet, association of national federations of the forest and timber industry. http://www.woodnet.com/
- WWF Belgium. http://www.wwf.be

# Flemish Region:

- AMINAL Website of the environmental administration. http://www.mina.vlaanderen.be/
- Institute for Forestry and Game Management. http://www.ibw.vlaanderen.be/
- Institute of Nature Conservation. http://www.instnat.be
- Nature report 2001. http://www.instnat.be/nature\_report/publications/
- Natuurpunt. http://www.natuurpunt.be
- Results of the VLINA research project 'Indicators for forest biodiversity'.

  http://www.mina.vlaanderen.be/wiedoetwat/aminal/taken/natuur/bossenbiodiversiteit.htm (in Dutch)

# Walloon Region:

- Ardenne et Gaume. http://www.ardenneetgaume.be.tf/
- AVES. http://www.aves.be
- Centre de recherche de la Nature, de la forêt et du bois. http://mrw.wallonie.be/dgrne/csg/
- Environmental Plan for Sustainable Development 1995. http://mrw.wallonie.be/dgrne/pedd/c0e\_tm.htm
- Financial incentives for the private forest owner:. http://mrw.wallonie.be/dgrne/publi/dnf/forets/dnfsubv1.htm
- Forest-related legislation.
  - http://mrw.wallonie.be/dgrne/legis/dnf/menudnf.htm
- Information System on Biodiversity in Wallonia. http://mrw.wallonie.be/dgrne/sibw/
- L'Or Vert (a website in French on forest genetic resources). http://www.cape.be/studio/orvert/
- Réserves naturelles et ornithologiques de Belgique. http://www.rnob.be/
- State of the Walloon Environment 2000. http://environnement.wallonie.be/eew2000
- Website of the administration Nature and Forests Division. http://mrw.wallonie.be/dgrne/frames/dnf/afrnat.htm

#### Brussels Capital Region:

- Brussels Institute for the Management of the Environment. http://www.ibgebim.be
- Discover the Sonian Forest. <a href="http://www.ibgebim.be/ESPACES-VERTS/BOIS/Foret\_de\_Soignes/index.html">http://www.ibgebim.be/GROENERUIMTEN/bois/Foret\_de\_Soignes/index.html</a> (in Dutch)
- Information Centre of the Sonian Forest. http://www.vub.ac.be/APNA/ICZO/MW.ENG/Eng.html
- List of nature- and forest-related legislation. http://www.ibgebim.be/LEGI/ASP/NATURE\_FR.asp (in French) or http://www.ibgebim.be/LEGI/ASP/NATURE\_NL.asp (in Dutch)
- Sonian Forest Management Plan: <a href="http://www.ibgebim.be/ESPACES-VERTS/BOIS/download/plan\_gestionFR.pdf">http://www.ibgebim.be/ESPACES-VERTS/BOIS/download/plan\_gestionFR.pdf</a> (in French) or <a href="http://www.ibgebim.be/GROENERUIMTEN/bois/download/plan\_gestionNL.pdf">http://www.ibgebim.be/GROENERUIMTEN/bois/download/plan\_gestionNL.pdf</a> (in Dutch)
- Participatory platform of the Sonian Forest. <a href="http://www.foretdesoignes.net">http://www.foretdesoignes.net</a> (in French) or <a href="http://www.zonienwoud.net">http://www.foretdesoignes.net</a>
- State of the Environment 1999. http://www.ibgebim.be/obs/Carnets2000/index.htm

#### Universities:

 List of university websites in Belgium. http://belgium.fgov.be/abtb/science/en\_60201.htm#acbe

Some university links (not exhaustive):

- Catholic University of Leuven (KULeuven). History and forest biodiversity. Symposium. http://www.agr.kuleuven.ac.be/lbh/lbnl/forestbiodiv/
- Catholic University of Leuven (KULeuven). Sustainable management and biodiversity in Flemish Woods. http://cwisdb.cc.kuleuven.ac.be/research/P/3E98/project3E980392.htm
- Catholic University of Louvain (UCL). Inventaire et diagnostic écologique d'espaces protégés (réserves naturelles, sites de grand intérêt biologique et vieilles forêts feuillues). <a href="http://www.ecol.ucl.ac.be/belo/fr/eval1.html">http://www.ecol.ucl.ac.be/belo/fr/eval1.html</a>
- Catholic University of Louvain (UCL). Modelling of deforestation processes in Central Africa: case study Southern Cameroon. http://www.geo.ucl.ac.be/Recherche/Teledetection/Project3/Intro.html
- Catholic University of Louvain (UCL). Proximate causes and underlying driving forces of tropical deforestation. http://www.geo.ucl.ac.be/LUCC/pdf/02\_February\_Article\_Geist\_.pdf
- Catholic University of Louvain (UCL). Selection of sites on forest and the environment. http://www.efor.ucl.ac.be/liens\_efor.htm
- Free University of Brussels (ULB). Avenir des Peuples des Forêts Tropicales. http://www.ulb.ac.be/soco/apft/
- Free University of Brussels (ULB). Research projects of the Botany and Phytosociology Laboratory. http://www.ulb.ac.be/sciences/bota/themefr.htm
- Free University of Brussels (VUB). Research on the flora and vegetation of the Sonian Forest. <a href="http://www.vub.ac.be/APNA/ICZO/MW.ENG/Research.html">http://www.vub.ac.be/APNA/ICZO/MW.ENG/Research.html</a>
- University of Antwerp (UIA)/Zoo of Antwerp. Project BioBrasil, a Belgian-Brazilian Co-operation on Forest Biodiversity: <a href="http://www.uia.ac.be/crc/biobrasil.html">http://www.uia.ac.be/crc/biobrasil.html</a> (in English) and http://www.uia.ac.be/crc/brazoolia.html (in Dutch, for schools).