

VOLUNTARY REPORT ON IMPLEMENTATION OF THE EXPANDED PROGRAMME OF WORK
ON FOREST BIODIVERSITY

Expanded Programme of Work on Forest Biological Diversity

Annex to Decision VI/22

Please provide the following details on the origin of this report.

Contracting Party:	Germany
<i>National Focal Point</i>	
Full name of the institution:	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
Name and title of contact officer:	
Mailing address:	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety Division N I 6 Robert-Schuman-Platz 3 53175 Bonn Germany
Telephone:	+49-228-305-2611
Fax:	+49-228-305-2694
E-mail:	Dirk.Schwenzfeier@bmu.bund.de
<i>Contact officer for national report (if different)</i>	
Name and title of contact officer:	Astrid Thyssen
Mailing address:	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety Division N II 5
Telephone:	+49-228-305-2654
Fax:	+49-228-305-2695
E-mail:	Astrid.Thyssen@bmu.bund.de
<i>Submission</i>	
Signature of officer responsible for submitting national report:	
Date of submission:	

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.

Several Federal Ministries as well as *Länder* Ministries and the Federal Agency for Nature Conservation and the Federal Agency for the Environment have contributed to the elaboration of the report.

1. Has your country identified priority goals, objectives and activities included in the expanded programme of work for implementation at the national level?	
a) no (please specify the reasons)	
b) yes (please provide a list of priorities identified)	X
Further comments on identification of priority goals, objectives and activities	
<p>The Federal Ministry of Consumer Protection, Food and Agriculture (BMVEL) and the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) have each undertaken an analysis of the relevance of the proposed activities under the specific national conditions and of the degree to which relevant activities are already covered by existing programmes and initiatives.</p> <p>In the sector strategy for the conservation and sustainable use of biological diversity in German forests (BMVEL), which became operational for the Federal and Länder forest authorities in 2000 ¹, 11 priorities were identified for the implementation of the CBD in German forests. These are:</p> <ol style="list-style-type: none"> 1) Monitoring the state of forest biological diversity 2) Reducing external threats to forest biological diversity 3) Implementing the concepts of ecological silviculture 4) Improving framework conditions of timber utilization 5) Regulating game populations 6) Carrying out conservation measures 7) Carrying out forestry measures in a way compatible with the ecosystem 8) Continuing and developing measures for the conservation, promotion and sustainable use of the genetic diversity of forest trees and shrubs 9) Developing economic incentives for the conservation and development of biodiversity in private and local forests 10) Continuing and developing public relations work and environmental education 11) Carrying out research projects on forest biological diversity.² <p>Measures have already been introduced on each of these priorities.</p> <p>Above and beyond this, the Federal and Länder Forest Acts have laid down the basic functions of forests, such as recreation, nature conservation and the sustainable use of wood.</p> <p>In addition to these ongoing activities, and as a direct response to the Expanded Programme of Work, the Federal Office for Nature Conservation on behalf of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety is preparing to support research and development projects on:</p> <ul style="list-style-type: none"> - the further development and implementation of the Ecosystem Approach in selected forest biosphere reserves (see also answer to question 5) - the effects of fragmentation of forest areas on the dispersal of wild plant and animal species and their genetic diversity (see also answer to question 11). - the analysis and development of standards for evaluation of protected forest areas (this project aims to develop recommendations on methods to evaluate the effectiveness of protected forest areas as well as on the implementation of protected forest area networks and the selection of areas) 	

¹ About 34 % of German forests are state-owned (31 % by the *Länder* and 3 % by the Federal government). The larger share of German forests is owned and managed by private parties and municipalities.

² for the full text of the strategy, see <http://www.verbraucherministerium.de>

2. From the list of priorities, did some or all of them produce the expected impacts after their implementation (i.e. a success)?	
a) no (please specify the reasons)	
b) yes (please specify success stories)	X
Further comments on impacts of implementation of priority activities	
For information on progress achieved with respect to the objectives of the Programme of Work, please compare the answers to the respective questions below.	
3. Were there any challenges/impediments to the implementation of priority activities that could have negatively affected their chance of success?	
a) yes (please specify the activities and the main challenges/impediments)	X
b) no	
Further comments on challenges/impediments to implementation of priority activities	
Problems in achieving the objectives of the Programme of Work arise in part from methodological (e.g. in the area of valuation of biodiversity) and economic constraints. The integration of forest biodiversity considerations into the policies of other sectors in order to reduce adverse external impacts still needs to be improved. Examples of major negative factors influencing biodiversity in German forests are immissions of nutrients and pollutants, and the fragmentation of forest areas.	
4. Is your country collaborating with other Governments and regional and international organizations and processes to implement regional or international activities in the expanded programme of work?	
a) no	
b) yes, limited collaboration (please provide details)	
c) yes, significant collaboration (please provide details)	X
Further comments on collaboration with other Governments and regional and international organizations and processes to implement regional or international activities in the expanded programme of work	

Germany is collaborating with other countries, organizations and processes on activities contained in the Programme of Work within the framework of, inter alia, transboundary cooperation with neighbouring states, EU activities, bilateral and multilateral development cooperation, scientific-technological cooperation and processes such as the Ministerial Conference on the Protection of Forests in Europe, the Pan-European Biological and Landscape Diversity Strategy or the FAO programmes on genetic resources.

Activities where extensive collaboration is taking place include:

- the establishment of ecological corridors on a national and regional basis (e.g. EU Habitats and Birds Directives, Convention on Migratory Species, Ramsar Convention)
 - the development and implementation of conservation strategies for endemic and threatened species for global or regional application (e.g. EU Habitats and Birds Directives, Convention on Migratory Species, Ramsar Convention)
 - regional cooperation and work on the sustainable use of timber and non-timber forest products and services, including via technology transfer and capacity-building within and between regions (e.g. activities of the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), projects in the field of scientific-technical cooperation supported by the Federal Ministry of Education and Research (BMBF))
 - providing input on ways and means to encourage and assist importing countries to prevent the entry of unsustainably harvested forest resources (Germany is supporting efforts to take action on forest law enforcement, governance and trade at EU level)
 - the development of a holistic framework for the conservation and management of forest genetic resources (e.g. participation in the European Forest Genetic Resources Programme EUFORGEN)
 - the harmonization of policies at regional and subregional levels in the area of forest biological diversity (e.g. through the Ministerial Conference on the Protection of Forests in Europe, PEBLDS, EU conservation programmes, Alpine Convention)
- the development of criteria and indicators for forest biological diversity (e.g. Ministerial Conference on the Protection of Forests in Europe)

The basic conviction behind German forest-related development cooperation is that forests make a highly significant contribution to poverty alleviation and sustainable development and that forest-dependent communities are the best protectors of forests provided they recognise their interest. Maintaining the forests' indispensable, global, ecological balancing functions is of vital importance. Since most of the underlying causes for deforestation lie outside the forest sector, sustainable and effective forest development policy must take a cross-sectoral approach and involve civil society. Since 1992, Germany has supported the UNCED process as well as implementation of the CBD through National Biodiversity Strategies and Action Plans (NBSAP) and the International Arrangement on Forests comprising the United Nations Forum on Forests (UNFF) and the Collaborative Partnership on Forests (CPF). The CBD's ecosystem approach is considered to be helpful in integrating biodiversity more effectively into cross-sectoral policies. Support is provided within the framework of the IPF/IFF Proposals for Action and the **expanded programme of work on forest biological diversity**, both of which must be integrated into Poverty Reduction Strategies or other national development strategies. Since 1992, Germany has allocated more than € 0.75 billion to implementing the CBD.

Between 1991 and 2002, Germany supported the biodiversity portfolio of the Global Environment Facility (GEF), Operational Programme No. 3 of which explicitly relates to forest ecosystems, to the tune of € 506 million. Furthermore, Germany supports the Consultative Group on International Agriculture Research (CGIAR) system and the Special

Programme for Developing Countries of the International Union of Forest Research Organizations (IUFRO).

The bulk of Germany's development assistance is bi-lateral. Taking account of national sovereignty and national demands, Germany aims to simultaneously implement projects at micro-, meso- and macro-level. Collaboration with other donors, whether formal or informal, is increasingly replacing hitherto bilateral stand-alone projects. In combination with nfps and certification, this approach enables us (i) to build ownership, (ii) to link all relevant stakeholders, horizontally and vertically and (iii) to support good governance and transparency as well as decentralization.

Germany's development assistance in the forest sector is based on the revised Sector Concept "Forests and Sustainable Development" (BMZ, Ministry for Economic Cooperation and Development, 2002). It acknowledges the potential of nfps and, together with specific social and ecological safeguards, makes them a centrepiece of development cooperation in the sector. It focuses on poverty alleviation and on safeguarding global forest functions with an emphasis on policy coherence. In that respect, **Programme Element 2** of the expanded work programme on forest biological diversity "Institutional and socio-economic enabling environment" is a crucial part of German forest biodiversity-related DC. Furthermore, as a matter of principle, Germany is applying the Ecosystem Approach Element 1, Goal 1 "applying the ecosystem approach". Generally speaking, German DC follows the basic conviction that both protection and sustainable use are needed.

As part of the activities in implementing **Element 2, Goal 1, objective 4** (2.1.4) Germany supports the development of the EU Action Plan on Forest Law Enforcement, Governance and Trade (FLEGT) to combat the illicit production of and trade in timber and wood products by supporting the establishment of administrative and legal systems and governance in wood-producing countries, and controlling the illegal trade in wood and wood products, including measures taken by wood-importing countries.

Support to developing countries vis-à-vis forest conservation and related aspects has always been and continues to be a major part of Germany's development cooperation programme. Institutional strengthening, capacity building, policy development, indigenous rights and comprehensive land-use planning, mostly within the framework of national forest programmes, are focal areas, whereby due consideration is given to regional needs. Most projects are a combination of technical and financial assistance, the latter used to finance the replication of concepts developed by technical cooperation as well as infrastructure in protected areas. An increasing number of projects are transformed into programmes at national or sub-national levels.

The total annual volume of Germany's forest-related bi-lateral development programme amounts to € 125 million, around one-quarter of which is allocated to nature conservation projects/programmes.

There are on-going efforts to support partner countries of German development cooperation in finding innovative funding sources for forest conservation, such as Debt-for-Nature-Swaps (e.g. in Peru, Madagascar).

Since 1985, Germany has supported more than 300 projects worldwide which contribute to the conservation and sustainable use of (forest) biological diversity. The following list provides an overview of Germany's current forest-relevant **technical and financial cooperation** projects:

	Africa	Latin America	Asia	Europe
Forest Biodiversity / Resource Conservation	18	21	10	2
Sustainable Use	24	18	10	1
Social Forestry / Indigenous People	11	6	2	-
Reforestation and Afforestation	10	3	35	-
Institutional Strengthening / Forest Policy	19	9	6	1
Capacity Building / Research Support	3	1	5	2
Forest Industry	2	-	3	-
Total	87	58	36	6

Through these programmes and projects, Germany contributes to the implementation of the entire "expanded work programme on forest biological diversity". International initiatives such as the NFP Facility and the Programme on Forests (PROFOR II,) hosted by the FAO and the World Bank respectively, are also supported.

Areas of technical cooperation include (*inter alia*):

- Nature and resource conservation through the management of protected areas and buffer zones (in response to Programme Element 1). Examples include management of the Pendjari National Park in Benin (€ 5.3 million, 1999-2005), the conservation of tropical forests in Gran Sumaco in Ecuador (€ 5.5 million, 1995-2005), and resource conservation and rural development in the Bosawas region in Nicaragua (€ 11.7 million, 1994-2004).
- Sustainable use of forest resources and social forestry as well as protection of the cultural identity and strengthening of indigenous people through the development of sustainable and participatory use concepts (in response to Programme Element 1). Examples include the following projects: Integrated forestry in Adaba-Dodola, Ethiopia (€ 5.7 million 1990-2003), Integrated management of local agricultural and forest resources in Benin (€ 10.6 million, 1991-2003), and the

sustainable use of land and forests of the Rio San Juan in Nicaragua (€ 5.6 million, 1997-2005).

- Improvement of capacity in partner countries through institution building, advisory services and training (in response to Programme Element 2). Examples include the "Churia Forest Development Project" in Nepal (€ 11.25 million 1992 - 2007), "Advisor to the Ministry of Environment and Forestry" in Cameroon (€ 1.28 million, 1997 - 2004), and the support of the development of a national forest programme in Colombia (€ 2.1 million, 1997-2005).
- Knowledge and technology transfer in the fields of forest ecosystem characterization, surveys and monitoring (in response to Programme Element 3). Examples are the project on land use planning and resource management in Oromiya, Ethiopia (€ 5.7 million, 1996-2006); Management of the Pendjari National Park, Benin (€ 4.1 million, 1999-2005); Strengthening the National System of Protected Areas in Peru (€ 8.5 million, 1991-2006); Monitoring and Information System for the San Bei Forest Shelter Belt Development Programme (€ 3.1 million, 1998-2005).

Germany co-operates with international NGOs (IUCN, WRI, WWF) in projects focusing on issues such as protected area management or environmental education and awareness-raising (such as the establishment of a rainforest information centre in Malaysia).

German development co-operation is devoting increasing attention to the support of regional processes and partners in the field of sustainable forest development, with a particular focus on three regions:

- Congo Basin: Germany is partner to the Congo Basin Forest Partnership (CBFP) launched as a Type II Initiative at WSSD. Germany supports the secretariat of the Conference of Ministers in Charge of Forests in Central Africa (COMIFAC).
- Southeast Asia: Germany supports the ASEAN secretariat with the establishment of a special forest unit and the development of a regional forest programme for Southeast Asia.
- Amazon Basin: Germany supports the linking of experiences of all countries in the Amazon Basin and the development of a regional forest programme.

Besides these focal areas, Germany also maintains about ten regional projects in Africa (e.g. Southern African Wildlife College), Asia (Mekong River Commission, and ICIMOD) and Latin America (Caribbean Institute of Environmental Protection, CEHI and ICIMOD).

Financial cooperation comes into play when investment capital is needed for forest protection and SFM but cannot be raised by the

executing institution and when it is not possible (due to risk assessment, for example) or expedient to obtain it from the private sector. Examples include the "Afforestation Programme Yangtze" in China (€ 57.53 million 1995 - 2010) and a number of reforestation projects in Vietnam (€ 25.56 million 1995 - 2006).

Financial cooperation is also important for many nature conservation projects, such as "Protection of the Mata Atlantica" in Brazil (€ 27.6 million 2002 - 2006), Rio Plátano Biosphere Reserve in Honduras (€ 7.4 million 1997 - 2003), and National Parks in Madagascar (€ 10.23 million 1997 - 2007; € 9.2 million 1993 - 2005). In the latter case, the NGOs CI and WWF Madagascar are executing three projects on behalf of the German development bank KfW <Reconstruction Loan Corporation>.

Programmes are often executed as a combination of technical and financial cooperation, e.g. in Benin "sustainable forest management" (FC € 12.2 million (1998 - 2006) and TC € 2.8 million), Integrated Forest Fire Management in Indonesia (TC € 6.75 million 1993 - 2003, FC € 9.77 million 1997 - 2002) as well as "Management of Forest and Rural Resources" in Guinea (FC approximately € 20 million (1994 - 2003) and TC € 2.8 million)

One of the most important examples of German development cooperation in the context of SFM is the Pilot Programme PPG 7 in Brazil. Since 1992, Germany has contributed approximately 45 % of the total programme budget with funding in excess of € 250 million.

The following supra-regional sectoral projects offer specific conceptual inputs on selected aspects of the conservation and sustainable use of forest biological resources at all levels within German development co-operation;

- The project entitled "*Implementing the Biodiversity Convention*" is intended to help accelerate implementation of the Convention in development co-operation areas where Germany is involved, and to promote the further development of the Convention itself, its tools and bodies. The project promotes both large individual projects and small-scale activities. The emphasis is on projects with an innovative (pilot) character, as well as model projects. Some individual projects deal also with aspects of the conservation of forest diversity and sustainable use of forest biological resources.
- "IWRP-Services" is a sector project targeting International Forest-Related Processes. It works to improve the efficiency of these processes to facilitate implementation on the ground. The strategy is framed around three components: (i) to use and transmit knowledge: lending support to Germany's Federal Ministry for Economic Co-operation and Development in shaping international forest-related

processes on the basis of experiences accumulated in development co-operation projects. (ii) to build new knowledge: processing information and learning experiences derived from national forest programmes and incorporating it into international forest-related processes. (iii) to secure sustainability: incorporating concepts and instruments of international forest-related processes into German development co-operation projects and concepts.

- The "Protected Area Management (ABS) / Livelihood Systems and Tropical Forest Areas (LISTRA)" project aims to support and distribute the innovative strategies of NGOs for protected areas. In co-operation with projects supported by German development organisations, NGOs and other key players are encouraged to accept responsibility for the management of protected areas.

Programme Element 1: Conservation, Sustainable Use and Benefit-sharing

5. Has your country developed practical methods, guidelines and/or indicators to apply the ecosystem approach in relation to sustainable forest management?	
a) no (please specify the reasons)	
b) relevant methods, guidelines and indicators under development	X
c) some methods, guidelines and indicators developed (please provide details)	
d) a comprehensive set of methods, guidelines and indicators developed (please provide details)	
Further comments on the practical methods, guidelines and indicators to apply the ecosystem approach in relation to sustainable forest management	
<p>In 2001, Germany conducted a research and development project examining the current state of forest use in Germany with regard to its compatibility with the principles of the ecosystem approach.³ The findings of the study showed that, although many aspects of the ecosystem approach may be considered to have been met by the current practice of sustainable forest management in Germany, the wording of the principles and guidelines is too general to serve as concrete guidance for further action. Another study conducted by the Federal Research Centre for Forestry and Forest Products, Hamburg, endeavoured to compare the ecosystem approach versus sustainable forest management.⁴</p> <p>As a consequence of and in response to the Expanded Programme of Work, the Federal Agency for Nature Conservation is preparing to support a research and development project on the further development and implementation of the Ecosystem Approach in selected forest biosphere reserves. This project aims to specify the requirements for implementation of the Ecosystem Approach within the context of forestry and to give advice on the establishment of an international network of forest areas for piloting and demonstrating the ecosystem approach as required in the programme of work.</p>	

³ The report is available in printed form from the German Federal Agency for Nature Conservation (BfN) and in electronic form at <http://www.bfn.de/09/wald.pdf> under the title "Sustainable forest management in Germany: The Ecosystem Approach of the Biodiversity Convention reconsidered"

6. Has your country taken any measures to prevent the introduction of invasive alien species that threaten ecosystems, and mitigate their negative impacts on forest biodiversity in accordance with international law?	
a) no	
b) relevant measures under development	X
c) yes, some measures taken (please outline the measures)	X
d) yes, comprehensive measures taken (please outline the measures)	
Further comments on the measures taken	
<p>Concerning measures under development:</p> <p>A research and development project supported by the Federal Agency for Nature Conservation on "Basic requirements for the development of a national strategy on invasive alien species" is currently under way. The aim of the project is to provide essential information on, <i>inter alia</i>, ecological, legal and economic issues and the interests of important stakeholders and to give recommendations for the development of a national strategy on invasive alien species which will provide a framework for the cooperation of all relevant players, taking into account existing international and European requirements.</p> <p>An information instrument offering facts on 30 species of invasive plants is currently being elaborated and will soon be published on the Web under the name "NeoFlora".</p> <p>Concerning measures taken:</p> <p>At present, the Federal Act on Nature Conservation contains regulations governing the release of species into the wild in an area to which they are alien. However, the definition given in the Act of "alien" excludes species which have already become invasive in the area under consideration. Provisions on importing certain groups of potentially invasive species into Germany are laid down in EC Regulation 338/97 (Regulation on the protection of species of wild fauna and flora by regulating trade therein). The measures taken by the German authorities with respect to quarantine pests under the framework of the IPPC are also important in this context.</p> <p>The Federal State of Rhineland-Palatinate has commissioned a diploma thesis to investigate the influence of <i>Reynontria</i> sp. on forest plants in the department of Kusel (Rhineland-Palatinate).</p>	

⁴ The report is available in printed form from the Federal Research Centre for Forestry and Forestry Products (BfH) and in electronic form at <http://www.biodiv.org> under the title "Ecosystem Approach versus Sustainable Forest Management – Attempt at a comparison" by Hermann Ellenberg

7. Has your country taken any measures to mitigate the impact of pollution on forest biodiversity?	
a) no	
b) under consideration	
c) relevant measures under development	
d) yes, some measures taken (please provide details)	
e) yes, comprehensive measures taken (please provide details)	X
Further comments on the measures taken to mitigate the impact of pollution on forest biodiversity	
<p>In order to reduce inputs of pollutants and eutrophication in German forests, a large number of measures have been taken at national level over the past few decades, including the introduction and further development of the Federal Immission Control Act (BImSchG), the Ordinance on Large Combustion Plants (GFAVO) and tax benefits for the use of catalytic converters in cars.</p> <p>Within the framework of the UNECE Convention on Long-range Transboundary Air Pollution and EU regulations, Germany has signed and ratified various protocols or adopted regulations aimed at reducing emissions of different pollutants. As such, measures have been taken to mitigate emissions of air pollutants, especially the new German regulation on national emission rates which represents an important step against acidification and eutrophication. At the time of signature the aspect "Forest Biodiversity" was not regarded as the driving force behind this process, but of course reduced emissions will also have a positive effect on the biodiversity of forest ecosystems.</p> <p>With respect to sulphur dioxide, there have been decisive improvements in air quality, while nitrogen inputs in forests have thus far shown very little decrease. The consequences of past air pollution which has accumulated and altered soil conditions will constitute a critical burden for years to come (cf. the German National Report to the third session of UNFF).</p> <p>In order to mitigate existing strains from pollution on forests, under certain circumstances compensatory fertilization (application of lime) is carried out with support from the Länder forest authorities and within the framework of the "Joint Task for the Improvement of Agricultural Structures and Coastal Protection". The ongoing efforts to promote ecological silviculture also contribute to the stabilisation of forest ecosystems because of the beneficial effects on soil quality by increasing the share of broad-leaved trees and avoiding clear-cuts.</p>	
8. Has your country taken any measures to mitigate the negative impacts of climate change on forest biodiversity?	
a) no	
b) relevant research and monitoring programmes under development	X
c) some research and monitoring activities being undertaken but no measures taken	
d) yes, some measures taken (please outline the measures)	X
e) yes, comprehensive measures taken (please outline the measures)	
Further comments on the measures taken to mitigate the negative impacts of climate change on forest biodiversity	

Concerning research and monitoring:

Research into the possible effects of climate change on forests and their biodiversity is being carried out in Germany by universities as well as private and state research institutions.

In-depth study of the impacts on forests and forestry in Germany and of options for action is the subject of the project "Forests and forestry in Germany in the context of global change (1997-2001)", funded by the Federal Ministry of Education and Research.

Research areas under the DEKLIM (German Climate Impact Programme) fund with an emphasis on "research into the impacts of climate change" include: the climate sensitivity of the ecosphere and of particularly affected socio-economic systems, incorporation of socio-economic response patterns into existing climate models, study of methods for protection against climate changes and their impacts (research on the impact of measures), analysis of the resilience of different systems when faced with unexpected climate changes, and the relevant framework conditions at regional and global levels (climate-relevant resilience and governance research).

Numerous Länder and the Federal Government have launched forest-management programmes aimed at promoting the cultivation of semi-natural forests and thereby increasing the percentages of deciduous forest. These programmes are designed to improve the capability of forests to adapt to future climate conditions in Germany (warmer and especially dryer in summer), as semi-natural, deciduous forest is better able to cope with the climate as well as more frequent pests and diseases than, for example, spruce or pine monocultures.

The monitoring activities initiated under the International Cooperative Programme on Assessment and Monitoring of Air Pollution Effects on Forests (ICP) include indicators which allow conclusions to be drawn vis-à-vis the effects of climate on the condition and development of European forests. Germany takes a leading role in the planning and coordination of this programme.

Concerning measures taken:

According to the sector strategy for the conservation and sustainable use of biological diversity in German forests, silvicultural measures which help to maintain and/or increase the adaptability of forests are to be continued. Such measures may include the transformation of species- and structure-poor stands into more diverse and stable forest ecosystems, as required by the concept of ecological silviculture.

In addition to adaptation measures, Germany is pursuing an active policy to reduce emissions of climate-damaging gases as a contribution towards implementation of the Framework Convention on Climate Change.

9. Has your country taken any measures to prevent and mitigate the adverse effects of forest fires and fire suppression (where fire is a natural disturbance agent)?	
a) no	X (with respect to effects of fire suppression)
b) relevant measures being considered	
c) relevant measures under development	
d) yes, some measures undertaken (please specify)	
e) yes, many measures being undertaken (please specify)	X (with respect to prevention of forest fires)
Further comments on the measures to prevent and mitigate the adverse effects of forest fires and fire suppression	
<p>For climatic reasons, Germany is not faced with particularly serious fire problems. The main fire problem areas are located in the northern part of the country where poor soils are associated with continental climate features. Technical equipment and the capacity to prevent and deal with forest fires are considered to be good.</p> <p>The Federal State of Mecklenburg-West Pomerania has adopted specific action plans against forest fires. Besides organisational measures in case of fire, it also outlines precautionary principles and associated training measures. Since fire is not a prominent feature of natural disturbance regimes in all German forests, the effects of fire suppression on biological diversity are considered to be minimal. Nevertheless, the use of prescribed fire for conservation purposes has been discussed, with in the context of cultural landscapes with the aim of preventing the succession of open landscapes towards enclosed forest.</p> <p>(cf. also the information provided on the subject in the FAO country profile of Germany)</p>	
10. Is your country mitigating effects of the loss of natural disturbances necessary to maintain biodiversity in regions where these no longer occur?	
a) no	
b) monitoring and assessment of effects ongoing	X
c) potential measures identified	
d) yes, some adopted and being implemented (please provide details)	X
e) yes, comprehensive measures adopted and being implemented (please provide further details)	
Further comments on measures adopted to mitigate effects of the loss of natural disturbances necessary to maintain biodiversity in regions where these no longer occur	

There is a certain lack of knowledge regarding the potential natural disturbance regimes in German forests. As a consequence of a high population density and centuries of multiple and often non-sustainable usage, large areas of primary forest are virtually absent throughout Middle Europe. Therefore, it is not possible to make any direct observations on forest dynamics beyond human influence.

Natural disturbances which are considered to be of importance for the maintenance of biodiversity include windthrow, flooding (in alluvial forests), earthslides and avalanches (in mountain forests) and possibly insect gradations following other disturbance events.

The facilitation of natural forest dynamics without human interference is a key objective in some of Germany's protected areas, especially national parks. However, problems in adhering to this objective may arise even in these areas because of conflicts with owners of surrounding land (as in the case of insect calamities) or questions of visitor safety (as in the case of tolerating standing dead wood close to footpaths and other infrastructure). Research and monitoring activities conducted in protected areas constitute an important step towards enhancing understanding of the role of natural disturbances in forest ecosystems and of possible ways to mitigate the consequences of their loss.

In forests outside of protected areas, natural disturbance cycles normally conflict with the economic interests of forest owners or state forest authorities. However, many of the principles of ecological silviculture serve to mitigate the loss of disturbances, e.g. by promoting and using natural processes (such as natural regeneration of stands) within the framework of forest management, prolonging regeneration stages by applying single stem cutting or cutting small areas only, or by integrating ageing and disintegration stages as well as a share of dead wood into managed forests.

In accordance with Germany's federal system, the *Länder* have the right to lay down forest management rules which are binding for state authorities and recommended on a voluntary basis for the management of private and local forests. In the past decades, all *Länder* have adopted management rules which take into account principles of ecological silviculture, although the details of such provisions vary.

11. Is your country preventing and mitigating losses of forest biodiversity due to fragmentation and conversion to other land uses?

a) no	
b) potential measures identified	
c) yes, some measures undertaken	X
b) yes, comprehensive measures undertaken	

Conversion of forest area to other forms of land use is strictly regulated by the Federal Forest Act, which requires a permit from the competent authority prior to any clearance activities. The percentage of forested area in Germany has been stable or slightly increasing over the last decades.

Fragmentation, on the other hand, ranks as a major adverse external impact, according to the sector strategy for the conservation and sustainable use of biological diversity in German forests. Among the legal instruments relevant to the problem of slowing down fragmentation and land depletion are the Federal Act on Environmental Impact Assessment and the so-called intervention provision (*Eingriffsregelung*) of the Federal Nature Conservation Act.

An effort towards reducing the effects of fragmentation on German ecosystems was made with the inclusion in 2002 of a provision to create a nationwide biotope network into the revised Federal Nature Conservation Act.

In order to improve the knowledge base for measures to counteract the consequences of fragmentation, the Federal Office for Nature Conservation is preparing to support a research and development project into the effects of fragmentation of forest areas on the dispersal of wild plant and animal species and their genetic diversity. The project aims to analyse the current level of fragmentation of forests in Germany and to develop recommendations for the improvement of biotope networks and corridors and the closing of gaps in the system of genetic resource protection areas.

12. Is your country restoring forest biological diversity in degraded secondary forests and in forests established on former forestlands and other landscapes?

a) no	
b) potential measures identified	
c) yes, some measures implemented in some areas (please provide details)	
d) yes, comprehensive measures implemented in major areas (please provide details)	X

Further comments on the measures to restore forest biological diversity in degraded secondary forests and in forests established on former forestlands and other landscapes

In their present state, the bulk of Germany's forests can be regarded as forests established on former forestlands. This is the result of a long history of human use. After centuries of intensive exploitation in the form of logging, charcoal production, grazing and extraction of firewood and litter, managed forestry was introduced about 250 years ago in order to restore the productive potential of the stands, many of which were severely degraded. This entailed afforestation with fast-growing conifer species (esp. pine and spruce), which were also suitable for the establishment of closed stands on degraded soils.

Today beech only accounts for a calculated percentage of 14 % of Germans forest tree species, oak for around 9 % of the area, and other deciduous trees for 11 %. Spruce (and other coniferous trees), pine and larch, however, account for 35 and 31% respectively of the forest stand area (including other coniferous tree species).

During the past three decades, measures have been taken in forestry to initiate the transformation of stands towards a higher share of deciduous species.

With the introduction by the *Länder* of ecological management rules for the state forest authorities (cf. question 10), efforts to restore forest ecosystems to a more natural state have been intensified. In order to promote the introduction of ecological silviculture in private and local forests as well, the local forest authorities play an advisory role. Certain measures contributing to ecological silviculture are included among the activities which are eligible for financial support within the framework of the "Joint Task for the Improvement of Agricultural Structures and Coastal Protection"

13. Is your country promoting forest management practices that further the conservation of endemic and threatened species?

a) no	
b) relevant forest management practices under development	
c) yes, some practices adopted and promoted (please provide details)	
d) yes, some practices being implemented (please provide details)	X

Further comments on the forest management practices that further the conservation of endemic and threatened species

Legal requirements calling for management practices to be supportive of species conservation exist with respect to certain types of protected areas, e.g. under the EU Habitats and Birds Directives, the Federal Nature Conservation Act (especially with regard to nature conservation areas and legally protected biotopes) and *Länder* legislation on protected forest areas (in those cases where management is not excluded). For further information of forest protected areas, see question 14 and Germany's first national report to the CBD.

Some *Länder* Forest Acts also include specific provisions that promote the integration of species conservation into forest management, *inter alia* by allowing for the designation of special purpose forest areas (sometimes called biotope protection forest) where management must meet certain requirements exceeding the basic legal standard. In the case of private forests, such requirements are to be compensated for.

In the concepts of ecological silviculture adopted by the *Länder* (cf. question 10), conservation measures such as the promotion of rare species of trees and shrubs, the mapping of valuable biotopes or the preservation of trees carrying the nests of predatory birds or breeding cavities of various animals are normally encouraged or required.

Financial incentives for species conservation measures in private forests are offered *inter alia* by the *Länder* in the form of contractual arrangements. However, most of the funds available for "conservation by contract" are still earmarked for the agricultural sector. The Federal Agency for Nature Conservation has recently funded a research and development project on "Contractual nature conservation in forests" aimed at investigating the possibilities for promoting the application of this instrument in the forestry sector.

The species protection programmes initiated by the nature conservation authorities of the *Länder* also include measures that are carried out in forests. They are normally implemented through cooperation between forest and nature conservation authorities, by contractual arrangements or in cooperation with nature conservation associations.

The large-scale nature conservation projects funded by the Federal Government provide another source of funding. Although the main focus of this programme has so far been the conservation of grassland biotopes, many of the project areas also include forests.

14. Is your country ensuring adequate and effective protected forest area networks?

a) no	
b) networks of protected areas being planned	
c) some protected areas established but networks not in place	
d) networks of protected areas taking shape	X
e) major networks of protected areas established	

The German system of protected areas has developed over a long period of time and is made up of sites under various categories defined by national law, EU regulations and international protection instruments. With respect to forests, the most important protection categories laid down in the Federal Nature Conservation Act are those of national park, nature conservation area, landscape reserve, nature park, legally protected biotope and biosphere reserve. In addition to these categories, protected forest areas have also been established under forest legislation primarily in the state forests of the *Länder*. The designations and management goals of these areas, which can be summed up under the term "protected forest areas", vary between the *Länder*. Often, the areas in question are comparatively small and excluded from forest management completely.

Habitat protection under the European Union's nature conservation policy is based mainly on the Birds and Habitats Directives.

For further information on the various protection categories, please refer to Germany's first national report to the CBD.

The creation of protected areas has in the past often been guided by the availability of suitable sites. This practice has resulted in deficits concerning the representativeness and connectivity of the protected area network. Another problem is that many areas (especially in the categories "nature conservation area" and "woodland protection area") are too small to ensure effective conservation of the ecosystems and species for which they were established.

In order to improve the effectiveness of area conservation in Germany, some new elements were introduced into the revised Federal Nature Conservation Act in 2002. One of them is the provision on creating a biotope network covering a minimum of 10 % of the national territory. Details concerning the implementation of this provision have yet to be worked out as it is integrated into the *Länder* Nature Conservation Acts. Concerning the eligibility of sites for area protection, new possibilities have been opened up in the revision of the Federal Nature Conservation Act by including sites which do not currently fulfil the requirements of a certain protection category (e.g. nature conservation area, national park), but which have the potential of developing into such a state.

Some efforts to close identified gaps in the system of protected areas are under way, for example with respect to the creation of large-scale conservation areas (such as national parks) for beech forest ecosystems, which are the most widespread ecosystem type of natural vegetation in Germany and for whose protection Germany has a special responsibility.

The completion of the Natura 2000 network is another major process which is expected to contribute significantly to the representativeness of Germany's network of protected areas.

Management plans and monitoring programmes are an important tool for ensuring the effective management of protected areas. Both instruments are already being applied or under development in the sites under the broader categories of protected areas, such as national parks and biosphere reserves. For Natura 2000 sites, management plans are recommended and monitoring measures required. The research and monitoring activities carried out in protected forest areas also contribute to the scientific basis for devising appropriate management regimes for protected forest areas.

15. Is your country promoting sustainable use of forest resources to enhance the conservation of forest biological diversity?	
a) no	
b) relevant policy and programme under development	
c) yes, some policies and programmes in place (please provide details)	
d) yes, comprehensive policies and programmes in place (please provide details)	X
Further comments on the policies and programmes for promoting sustainable use of forest resources to enhance the conservation of forest biodiversity	
<p>Since nearly all of Germany's forest areas, including a large portion of the protected areas, are under some form of forestry management, promoting sustainable use is in fact one of the basic prerequisites in order to enhance the conservation of forest biodiversity. The principle of sustainability with regard to the use, protection (e.g. soil and climate protection, protection of the water balance) and recreational functions of forests is given high priority in the Federal Forest Act as well as in the Forest Acts of the <i>Länder</i>. According to § 11 of the Federal Forest Act, all forest management must be conducted in an orderly and sustainable manner.</p> <p>In 1999, Germany established a process to develop a National Forest Programme. This programme is not defined as an operational political programme, but rather represents an ongoing dialogue aimed at achieving a social consensus on sustainable forest management. A wide range of institutions representing different stakeholders were invited to participate in the elaboration of the programme.</p> <p>Other relevant policies and programmes, such as the sector strategy for the conservation and sustainable use of biological diversity in German forests, the forest management rules of the <i>Länder</i> and the provision of incentives for activities supporting sustainable use in private and local forests, have already been described above.</p> <p>The implementation of voluntary independent forest certification schemes as a further way of encouraging sustainable use and conservation of forest biodiversity is welcomed by the German government. More than 60 % of the forest area in Germany has already been certified according to the certification schemes of the Pan-European Forest Certification and the Forest Stewardship Council (FSC). However, because of the expenditure involved in verifying the chain of custody, certified finished products still account for a fairly low share of the marked, thus restricting the benefits derived by forestry enterprises participating in the programme.</p> <p>The Federal government is striving towards a certification of federal forests according to FSC criteria. The Federal <i>Länder</i> are following varying policies concerning the certification of state forests, with some promoting the PEFC scheme while others prefer to promote FSC certification.</p> <p>By the end of the current legislation period (2006), Federal public procurement will have adapted the standard of FSC for tropical timber, provided that these guidelines are in line with WTO regulations and public procurement law.</p> <p>A research and development project supported by the Federal Agency for Nature Conservation is currently analysing practical and legal aspects relevant to the envisaged restriction of federal public procurement of wood to certified sources.</p>	

16. Is your country preventing losses caused by unsustainable harvesting of timber and non-timber forest resources?	
a) no	
b) potential measures identified	
c) some measures undertaken (please provide details)	
d) comprehensive measures undertaken (please provide details)	X
Further comments on the measures to prevent losses caused by unsustainable harvesting of timber and non-timber forest resources	
<p>Concerning timber harvesting, reference has already been made to the legal provisions on sustainability contained in the Federal Forest Act and the Forest Acts of the <i>Länder</i>.</p> <p>Among the most important non-timber forest resources utilized in Germany are game animals (e. g. boar, deer) and forest reproductive materials (<i>forstliches Vermehrungsgut</i>). The use of game is regulated under the Federal Hunting Law in combination with the Ordinance on Hunting Seasons. The populations of most species which are subject to hunting regulations are considered to be in a good conservation status. Conflicts between game management and sustainable forest management may arise when the populations of certain species (especially deer) are too high, thus causing problems for forest regeneration. According to the sector strategy for the conservation and sustainable use of biological diversity in German forests, hunting methods adapted to forests with increasingly diverse structures as well as methods to determine the minimum hunting quota for relevant species on the basis of ecological indicators are to be developed.</p> <p>The production and circulation of forest reproductive materials intended for silvicultural use are regulated by the newly amended Law on Forest Propagation Materials (<i>Forstvermehrungsgutgesetz</i>). Enterprises which produce and circulate such materials must be officially registered.</p> <p>The enforcement of laws governing the unsustainable harvesting of timber and non-timber forest resources in Germany is considered to be fairly good. Practices which are in violation of current regulations will be reported and brought to prosecution by the responsible forestry and conservation authorities.</p>	
17. Is your country taking any measure to enable indigenous and local communities to develop and implement adaptive community-management systems to conserve and sustainably use forest biological diversity?	
a) no	
b) not applicable	X
c) relevant policy and programme under development	
d) yes, some policies and programmes in place (please specify)	
Further comments on the policies and programmes to enable indigenous and local communities to develop and implement adaptive community-management systems to conserve and sustainably use forest biological diversity	

18. Has your country developed effective and equitable information systems and strategies and promoted implementation of those strategies for <i>in situ</i> and <i>ex situ</i> conservation and sustainable use of forest genetic diversity?	
a) no	
b) relevant information system and strategy under development	
c) relevant information system in place	X
d) relevant strategies in place (please provide details)	X
e) relevant information system and strategies in place (please provide details)	
Further comments on the strategies for <i>in situ</i> and <i>ex situ</i> conservation and sustainable use of forest genetic diversity	
<p>Concerning information systems:</p> <p>A prototype database providing information on measures carried out by various institutions for the conservation of genetic resources of tree and shrub species in Germany has been developed by the Federal and State Working-Group "Forest Genetic Resources and Forest Reproductive Material" and the Centre for Biological Diversity (IBV) at the German Centre for Documentation and Information in Agriculture (ZADI). The database can be accessed at http://www.genres.de/fgrdeu/ .</p>	
<p>Concerning strategies and their implementation:</p> <p>A revised version of the forest gene conservation concept from 1987 was drawn up in 2000 by the Federal and State Working-Group "Forest Genetic Resources and Forest Reproductive Material". The "Concept for the Conservation and Sustainable Utilization of Forest Genetic Resources in the Federal Republic of Germany" may be viewed on the Internet at http://www.genres.de/fgrdeu/concept/concept_content.htm . One priority of the concept is the conservation of genetic diversity <i>in situ</i> where it can be integrated into forest management practices, especially in semi-natural forestry. Other elements include the registration and evaluation of forest genetic resources, specific conservation measures for endangered, valuable and rare tree and woody shrub species, research programmes, the development of a long-term genetic monitoring system and cooperation within the framework of international conservation programmes (e.g. IUFRO, IPGRI, EUFORGEN). The progress of these conservation tasks to be carried out by the institutions of the Federal Government and the Federal States and the results obtained in research will be reported upon over a four-year period.</p> <p>Germany is actively participating in the work of the European Forest Genetic Resources Programme (EUFORGEN), which has been established under the process of the Ministerial Conferences on the Protection of Forests in Europe. EUFORGEN operates through networks which bring together scientists and managers to exchange information, discuss needs and develop conservation methods for priority tree species. Among the outputs produced by EUFORGEN Networks are long-term conservation strategies and guidelines for genetic conservation and use of various tree species.</p>	

19. Is your country promoting the fair and equitable sharing of benefits resulting from the utilization of forest genetic resources and associated traditional knowledge?	
a) no	
b) relevant policies and programmes under development	
c) some policies and programmes in place (please specify)	X
d) comprehensive policies and programmes in place (please specify)	
Further comments on the policies and programmes for promoting the fair and equitable sharing of benefits resulting from the utilization of forest genetic resources and associated traditional knowledge	
<p>Germany has been promoting the issue of fair and equitable sharing of benefits in the course of international negotiations, and has strongly supported the development of the Bonn Guidelines. The Federal Office for Nature Conservation is currently preparing to support a research and development project contributing to the follow-up process in the implementation of the Bonn Guidelines. The aim of the project is to analyze options for further action with particular regard to the ultimate goal of maintaining biological diversity, while taking into account ongoing negotiations under the CBD.</p> <p>At national level, Germany has nominated a focal point on Access and Benefit-Sharing issues based at the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (contact: Almuth.Ostermeyer@bmu.bund.de). A website facilitating access to information on access and benefit-sharing in Germany is currently under preparation and will be linked to the German clearing-house mechanism.</p> <p>Within the framework of its research support initiative BioTEAM, the Federal Ministry of Education and Research is funding a joint interdisciplinary pilot project which is intended to elaborate a workable model solution for fair and equitable benefit-sharing based on the example of the use of plant genetic resources in cooperation with the indigenous communities of an Ecuadorian rainforest area.</p> <p>The Deutsche Gesellschaft für Technische Zusammenarbeit GmbH (GTZ) has supported several projects contributing to the implementation of access and benefit-sharing regulations in Bolivia, the Philippines and South Africa.</p>	

If your country wishes to provide additional information on implementation of this programme element, please do this in the following space.

--

Programme Element 2: Institutional and Socio-economic Enabling Environment

20. Is your country improving the understanding of the various causes of forest biodiversity losses?	
a) no	
b) a limited analysis being undertaken	
c) a thorough analysis being undertaken	
d) yes, some analyses completed and results available (please outline some findings from these analyses)	X
e) yes, comprehensive analysis completed and results available (please provide some findings from these analyses)	
Further comments on the analysis of the various causes of forest biodiversity losses	
<p>There is a large body of literature on the influence of external factors and management measures affecting the state of forest ecosystems and their biodiversity. Research on these subjects has been carried out <i>inter alia</i> at universities, Federal and <i>Länder</i> research institutions and private institutions. One of the main fields of interest over the past decades has been research into the so-called "new types of forest damage" and the influence of air-borne pollutants on forest ecosystems. Basic information on the functioning of forest ecosystems and their reaction to external factors has been gleaned during the course of large-scale ecosystem research projects such as the Solling project or the works of the Bayreuth Institute for Terrestrial Ecosystem Research (BITÖK).</p> <p>However, our understanding of the causes of forest biodiversity losses is far from complete. A modular project was funded in 1996-1999 by the Federal Ministry of Food, Agriculture and Forestry (now: Federal Ministry of Consumer Protection, Food and Agriculture) to investigate "Key factors influencing forest biodiversity". Given that the information base with regard to environmental factors was already comparatively good, the project focussed <i>inter alia</i> on the influence of silvicultural measures and the consequences of high populations of game for the regeneration of tree species. Some of the findings from this project are included in the CBD Technical Series No. 3 ("Assessment, conservation and sustainable use of forest biodiversity", available at http://www.biodiv.org/doc/publications/cbd-ts-03.pdf). The full report has been published by the Federal Research Centre for Forestry and Forest Products.⁵</p> <p>The follow-up project "On forest biological diversity in Germany" (2001-2003) builds on the results of the first stage while also making allowance for methodological constraints encountered during the course of studies (for example, with regard to the recording of rare plant species in investigations carried out on conventional-sized sample plots). A list of publications (mostly in German) which have emerged from this project is available at http://www.rrz.uni-hamburg.de/OekoGenetik/biodiversitaet/ .</p> <p>Regarding potential threats to endangered forest biotope types in their entirety, the red list of endangered types of biotope in the Federal Republic of Germany names among others the following factors: afforestation with non-autochthonous species, management intensification, immissions of air-borne nutrients and pollutants, and drainage of moist sites.</p>	

⁵ Scholz, F., Degen, B. (eds.): "Wichtige Einflussfaktoren auf die Biodiversität in Wäldern", Mitt. Bundesforschungsanst. Forst-Holzwirtschaft Nr. 195, Hamburg, 1999.

21. Has your country integrated biodiversity conservation and sustainable use into forest and other sector policies and programmes?	
a) no	
b) under consideration	
c) yes, integrated into policies and programmes in some sectors (please provide details)	X
d) yes, integrated into policies and programmes in major sectors (please provide details)	
Further comments on the integration of biodiversity conservation and sustainable use into forest and other sector policies and programmes	
<p>Biodiversity conservation and sustainable use have been integrated into programmes and policies within the forestry sector, e.g. by means of the sector strategy for the conservation and sustainable use of biological diversity in German forests or the National Forest Programme (see above).</p> <p>Integration into other sectors still needs to be improved. At present, the main instruments for ensuring the consideration of biodiversity aspects in the activities of other sectors include the Federal Act on Environmental Impact Assessment, the so-called intervention provision (<i>Eingriffsregelung</i>) of the Federal Nature Conservation Act and the presentation of conservation requirements in landscape planning as one of the sectoral contributions to overall spatial planning. The forthcoming introduction of Strategic Environmental Assessments for spatially relevant plans and programmes may help to promote the consideration of consequences for biodiversity at an earlier stage of planning, thus improving possibilities for an alignment of sectoral goals.</p>	
22. Has your country developed good governance practices, reviewed and revised and implemented forest and forest-related laws, tenure and planning systems, to provide a sound basis for conservation and sustainable use of forest biodiversity?	
a) no	
b) review under way	
c) review and revision completed	
d) some good governance practices and related laws developed and implemented (please provide details)	
e) a comprehensive set of practices and laws developed and implemented (please provide details)	X
Further comments on the practices and laws developed and implemented to provide a sound basis for conservation and sustainable use of forest biodiversity	

Germany's legal system, combined with the opportunities for public participation in planning processes, provides a reliable framework which is generally conducive to efforts aimed at conservation and sustainable use of forest biodiversity. The system of land tenure, with approximately half of the forest area being owned by private persons while the other half is under the authority of the state, municipalities and other public-law corporations, is not a matter of dispute. According to § 1 of the Federal Forest Act, one of the aims of this Act is to strike the balance between the interests of the general public (which include the conservation and sustainable use of biodiversity) and the concerns of forest owners.

Other provisions of the Federal Forest Act, the *Laender* Forest Acts and the Federal Nature Conservation Act contributing to the conservation and sustainable use of forest biodiversity have already been mentioned above, as well as the forest management rules laid down by the *Länder* (cf. questions 11, 13, 14, 15, 16 and 21).

The new Federal Nature Conservation Act also contains provisions governing good silvicultural practices.

23. Is your country promoting forest law enforcement and addressing related trade?	
a) no	
b) review under way	
c) potential measures identified	
d) yes, some measures in place to strengthen law enforcement and address related trade	X
e) yes, comprehensive measures in place to strengthen law enforcement and address related trade	

At national level, forest law enforcement is not considered to pose a serious problem. Concerning international trade, Germany is working to ensure the provenance of imported wood from legal sources within the scope of CITES regulations and by supporting voluntary independent forest certification (cf. also question 15).

At European Union level, an action plan on "Forest Law Enforcement, Government and Trade" has recently been proposed by the Commission.

The Federal Ministry for Economic Cooperation and Development (BMZ) has included support to partner countries in efforts to combat illegal logging and trade in illegally harvested wood, and to install effective law enforcement mechanisms, amongst the desired future priorities for German development cooperation in the forest sector (cf. the BMZ Forest Sector Concept as of 2002). Several ongoing projects by the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) address issues relating to forest law enforcement, *inter alia* by assisting partner countries in their efforts to establish favourable framework conditions for law compliance and to adapt existing forest legislation.

24. Is your country mitigating the economic failures and distortions that lead to decisions that result in loss of forest biodiversity?	
a) no	
b) review under way	
c) potential measures identified	
d) yes, some measures taken (please provide details)	X
e) yes, comprehensive measures taken (please provide details)	

Further comments on the measures taken to mitigate economic failures and distortions that lead to decisions that result in loss of forest biodiversity

Voluntary measures (i.e. measures above and beyond statutory provisions) by private forest owners to conserve and develop biological diversity are not always encouraged by adequate incentives at present. At the same time, financial resources to compensate forest owners for envisaged restrictions to be imposed for the sake of conserving biodiversity (e.g. in connection with area protection) are not always available to the desirable degree. From an economic perspective, this may be ascribed to the fact that the social and conservational functions of forests in Germany do not have a market value.

In order to remedy this situation, efforts are being made to improve the system of incentives, e.g. by promoting the application of contractual arrangements for conservation in forestry (cf. question 13), by changes made to the set of measures eligible for support under the "Joint Task for the Improvement of Agricultural Structures and Coastal Protection" (cf. also question 12) and by encouraging voluntary independent forest certification (cf. question 15).

At international level, efforts to promote forest law enforcement and address related trade (cf. question 23) can be regarded as a way to reduce market distortions created by the competition presented by illegally harvested wood as compared to wood from sustainably managed sources.

The development of methods for the economic valuation of forest biodiversity and the goods and services provided by forests is an important basis for further deliberations on how to reduce economic failures and distortions resulting in loss of biodiversity. Within the framework of the interdisciplinary research project "On forest biological diversity in Germany" (cf. also question 20), investigations are being conducted vis-à-vis how the German public values measures of ecological silviculture versus the costs they imply for the forest owner. Studies on the valuation of several non-market goods and services have also been carried out in recent years. For some of these services, benefits have been researched at nation-wide level.

Germany is taking part in the work of the Task Force on Forest Accounting under the Statistical Office of the European Union (EUROSTAT), which includes investigations concerning the value of environmental and recreational functions of forests.

25. Is your country increasing public support and understanding of the value of forest biodiversity and its goods and services at all levels?

a) no	
b) relevant programme under development	
c) yes, some programmes in place	X
d) yes, comprehensive programmes in place	

According to § 6 (3) of the revised Federal Nature Conservation Act, the *Länder* are required to ensure that information on the importance of nature and landscape and the tasks of nature conservation is included in the work of educational and information-providing institutions at all levels. More specifically, the value of forest biodiversity is addressed in the public awareness programmes of, *inter alia*, the *Länder* Forest Administrations, large-scale protected areas such as biosphere reserves and national parks, and the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, as well as the Federal Ministry of Consumer Protection, Food and Agriculture.

The extension services offered to private forest owners by local forest authorities also represent an important tool in promoting the understanding of and support for concerns regarding the conservation and sustainable use of biodiversity.

If your country wishes to provide additional information on implementation of this programme element, please do this in the following space.

--

Programme Element 3: Knowledge, Assessment and Monitoring

26. Has your country reviewed and adopted a minimum forest classification system, based on harmonized and accepted forest definitions and addressing key forest biodiversity elements?	
a) no	X
b) review under way	
c) review completed	
d) a forest classification system adopted	
27. Has your country developed national forest ecosystem classification systems and maps that use agreed international standards and protocols?	
a) no	X
b) early stages of development	
c) advanced stages of development	
d) yes, classification systems in place	
28. Has your country developed specific forest ecosystems surveys in priority areas for conservation and sustainable use of forest biodiversity?	
a) no	
b) under consideration	
c) relevant surveys being planned	
d) relevant surveys completed (please provide details)	
e) results of relevant surveys available (please provide details)	
Further comments on the surveys of specific forest ecosystems in priority areas for conservation and sustainable use of forest biodiversity	
<p><i>What is meant by "specific forest ecosystem surveys"?</i></p> <p><i>What is meant by "minimum forest classification system"?</i></p>	

29. Is your country advancing the development and implementation of international, regional and national criteria and indicators based on key regional, subregional and national measures within the framework of sustainable forest management?	
a) no	
b) relevant programme under development	
c) some criteria and indicators developed (please provide details)	X
d) comprehensive indicators developed (please provide details)	
Further comments on the development and implementation of criteria and indicators	
<p>Germany is taking part in several regional processes contributing to the development of criteria and indicators for sustainable forest management. Within the process of the Ministerial Conferences for the Protection of Forests in Europe, there are ongoing efforts to develop criteria and indicators to monitor the further development of sustainable forest management in Europe. In this context, maintenance and enhancement of forest biological diversity has been defined as one of the criteria for assessing sustainability. At an expert level meeting in October 2002, the MCPFE established a revised indicator set, with nine indicators specifically designed to assess forest biodiversity.</p> <p>The Pan-European monitoring programme on the condition of forests initiated under the International Cooperative Programme on Assessment and Monitoring of Air Pollution Effects on Forests (ICP) (cf. also question 8) is generating a large pool of data which may be used to gain information on various issues of international forest policy. A joint ICP Forests and European Commission Working Group on Biodiversity Assessment in Forests has been formed to investigate the possibility of including aspects of forest biodiversity assessment in the ongoing monitoring activities.</p> <p>At national level, the parameters to be recorded in the second stage of the National Forest Inventory (2001-2002) were extended to include additional aspects relevant to biodiversity such as structural diversity, occurrence of dead wood, forest communities in need of special protection as well as the extent and quality of forest edge structures.</p>	
30. Has your country conducted key research programmes on the role of forest biodiversity and ecosystem functioning?	
a) no	
b) research programs under development	
c) yes, some research programs conducted	X
d) yes, comprehensive research programs conducted	
<p>Aspects of the relationship between forest biodiversity and ecosystem functioning are touched upon inter alia in the modular project "On forest biological diversity in Germany" funded by the Federal Ministry of Consumer Protection, Food and Agriculture (cf. question 20), as well as in the research programme "Forest management of the future" funded by the Federal Ministry of Education and Research (1998-2003), which aims to investigate the consequences of the transformation of managed forests according to ecological criteria.</p>	

31. Is your country enhancing and improving the technical capacity at the national level to monitor forest biodiversity, benefiting from the opportunities offered through the Clearing House Mechanism of CBD?	
a) no	X
b) capacity building programme under development	
c) yes, some programmes in place (please provide details)	
d) yes, comprehensive programmes in place (please provide details)	
Further comments on the programmes to enhance and improve the technical capacity at the national level to monitor forest biodiversity	
Capacity for the monitoring of forest biological diversity in Germany is considered to be adequate in terms of both access to technical equipment and availability of trained specialists. Limiting factors are seen with respect to financial resources and as a result of the need to coordinate existing monitoring activities carried out by different players on varying geographical scales (e.g. at <i>Laender</i> level or in individual protected areas).	

If your country wishes to provide additional information on implementation of this programme element, please do this in the following space.

--

- - - - -