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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.

This information has been compiled in cooperation between Ministry of Environment, Swedish Environmental Protection Agency and National Board of Forestry. Many essential topics for this report are discussed in the sector council – a broad composed body with, in principle, all stakeholders for the Swedish forest participating. But particular this voluntary report has not been an issue at meetings.

Due to the lack of time for this report it has been compiled during September 2003.

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

Expanded Programme of Work on Forest Biological Diversity

Annex to Decision VI/22

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)	X
b) yes (please provide a list of priorities identified)	
Further comments on identification of priority goals, objectives and activities	
<p>During the last years Sweden has focused on the work with, and implementation of Environmental Quality Objectives and therefore we have not chosen any specific priority goals, objectives and activities in the expanded programme of work. But many of our efforts, to some extent, overlap with the programme of work.</p> <p>In April 1999 the Swedish Parliament adopted fifteen environmental quality objectives, describing what quality and state of the environment and the natural and cultural resources of Sweden are ecologically sustainable in the long term. To guide efforts to achieve these objectives, in spring 2001 the Government proposed interim targets for each quality objective. In a series of decisions in the course of 2001 and 2002, Parliament adopted a total of sixty-nine such targets, indicating the direction and timescale of the action to be taken.</p> <p>The environmental quality objective for the forest is called Sustainable Forests and it is written as follows:</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>"The value of forests and forest land for biological production must be protected, at the same time as biological diversity and cultural heritage and recreational assets are safeguarded." (The objective is intended to be achieved within one generation, by 2020.)</p> </div> <p>The interim targets in forest are:</p> <ol style="list-style-type: none"> 1. A further 900 000 hectares of forest land of high conservation value will be excluded from forest production by the year 2010. 2. By 2010 the amount of dead wood, the area of mature forest with a large deciduous element and the area of old forest will be maintained and increased by: <ul style="list-style-type: none"> • increasing the quantity of hard dead wood by at least 40 % throughout the country and considerably more in areas where biological diversity is particularly at risk; • increasing the area of mature forest with a large deciduous element by at least 10 %; • increasing the area of old forest by at least 5 %; • increasing the area regenerated with deciduous forest 3. By 2010 forest land will be managed in such a way as to avoid damage to ancient monuments and to ensure that damage to other known valuable cultural remains is negligible; 4. By 2004 action programmes will have been prepared and introduced and introduced for threatened species that are in need of targeted measures. 	

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)	X
b) yes (please specify success stories)	
Further comments on impacts of implementation of priority activities	
See the answer under question number one.	
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)	
b) no	X
Further comments on challenges/impediments to implementation of priority activities	
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)	X
c) yes, significant collaboration (please provide details)	
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	
As a member of The European Union we participate in the area protection network called Natura 2000, based on two directives - the bird directive and habitat directive.	
We also collaborate within the pan European minister process.	

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	
c) some methods, guidelines and indicators developed (please provide details)	x
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	

In the forest law is the general nature considerations for the biodiversity and other values regulated, e.g. nesting trees, groups of trees and single eternity trees are left after final felling or other cutting. We do regularly follow-up activities on implementation level of the law.

The Greener Forest concept is a way to show how forest owners voluntary can implement the Swedish forest policy (based on xxx) on the own property. To examples could be to invest in a Green management plan with long term classification of each stand; or voluntary set a side woodland key habitats - habitats with red-listed species and of great biodiversity preservation importance.

Overall Swedish legislation on forestry strongly supports Sustainable Forest Management (SFM). However, because the forest legislation is a basic minimum legislation, the achievement of SFM is dependent on how the forest owners cope with the responsibility to take necessary actions voluntarily beyond the minimum requirements of the legislation. So far, this has not been a major problem, although some negative developments have occurred. There has been no systematic analysis on how other legislation, such as tax legislation, may impact upon SFM. However, the evidence to date is that tax legislation is not, at least, an impeding factor for SFM.

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	
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

Introduction of invasive alien species is not a significant problem in Swedish forest ecosystems. Nevertheless, we have a distinct legislation aiming to avoid import of timber, plants or animals causing damage to our forest ecosystems. To some extent we have the same legislation in European Union.

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

We have been for decades combating the impact of pollution in all ecosystems, forests included. Three of the existing environmental quality objectives focus on pollution oriented problems: Reduced Climate Impact, Clean Air and Natural Acidification Only.

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	
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	
See number seven.	
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
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)	
Further comments on the measures to prevent and mitigate the adverse effects of forest fires and fire suppression	
In general, we have no problems with huge forest fires and adverse effects of that. Instead, the present problem in the forest ecosystems in Sweden is the lack of natural disturbance by, for example, fire and water. The amount of forest fires is not in line with the ecological need. That situation cause a critical situation for species adapted to structural elements created by forest fire.	
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	
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	
In a small scale we practice prescribed burning in some nature reserves in the boreal region. In accordance to a certification scheme (the present FSC-standard in Sweden) some large forest owners practice prescribed burning by there own cost with the aim to promote the biodiversity.	
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	
b) yes, comprehensive measures undertaken	X
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	X
c) yes, some measures implemented in some areas (please provide details)	
d) yes, comprehensive measures implemented in major areas (please provide details)	
Further comments on the measures to restore forest biological diversity in degraded secondary forests and in forests established on former forestlands and other landscapes	
Restoration of valuable features for biodiversity, in stands or landscapes where intensive land use has coursed species-poor forests, is a component in the forest policy and it is expressed in the green plan management.	
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	
In the field of area-protection is occurrence of threatened species a strong criteria in the selection of areas for protection.	
We have not many endemic species in Sweden	
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	
e) major networks of protected areas established	X
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	
The Swedish model for maintenance of biodiversity and sustainable use of forest resources is based on general consideration in all forestry operations and area protection, formal and voluntary, on 5-10 percent of the total forest area.	

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-timbering forest resources	
<p>The main legislation on Swedish forestry is the Forestry Act (SFS 1979; Skogsstyrelsen 1994) and the Environmental Code (SFS 1998). The Forestry Act is a framework legislation. Binding rules are set by the NBF through regulations. The number of binding rules is relatively few, but those rules that do exist are fundamental, for example, the obligation on forest regeneration. There is a minimalistic approach to forest legislation and regulations. This means that the fulfilment of rules alone is not sufficient for achieving SFM and forest owners have engaged in additional voluntary commitments. Some rules are process-oriented. For example, when planned harvesting will affect forest stands that are valuable for reindeer husbandry, consultations with the Sami people involved must take place.</p> <p>Since the 1970s the environmental requirements in the forest legislation have developed continuously. At present there are minimum rules on how environmental and cultural heritage considerations should be taken into account in forest operations. The introduction of new methods and techniques in forest management must be preceded by an Environmental Impact Analysis.</p> <p>Another important tool is to establish nature reserves. But we also practice nature conservation agreements between the society and land owners. A third tool in the conservation work is legal habitat protection, suitable for small areas with very high biodiversity values.</p> <p>We also regulate the game population, e.g. elk, based on the legislation.</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	
c) relevant policy and programme under development	
d) yes, some policies and programmes in place (please specify)	x
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	

In the northern area with the Sami people and the reindeer herding, the forest management is undertaken consideration to the reindeer management through local participation in a multi-stakeholder approach. The indigenous Sami people have the traditional right to herd their animals over vast areas in northern Sweden, although they have no ownership rights. On the one hand forestry often negatively affects grazing conditions, while on the other hand the reindeer may damage young forest stands. The Sami people have also been involved in conflicts on hunting, fishing, agriculture and erosion of the sensitive high mountain vegetation, chiefly lichens. These conflicts have been ongoing for 50-100 years.

The right to hunt and use game belongs to the owner of the land. This right is often released to a team of hunters as a business deal. If the game populations are too large relative to the amount of fodder on the land then serious game damage to trees and vegetation may occur. Despite constant or even declining moose populations in the 1990s, the damage to young pine stands has increased, indicating a need for smaller populations. This is mainly due to the reduction of the annual harvest area and changes of harvesting methods. The hunters are normally unwilling to accept smaller moose populations. Locally such conflicts can be serious.

Of course, the traditional right of the Sami people and the right of the hunters could be seen as an impeding factor for SFM. But considering the broad scope of the SFM concept it is not: balancing the interests of the different users of the forests is part of the forest policy process as well as national policy processes on the Sami people, reindeer and hunting.

18. Has your country developed effective and equitable information systems and strategies and promoted implementation of those strategies for *in situ* and *ex situ* conservation and sustainable use of forest genetic diversity?

a) no	
b) relevant information system and strategy under development	x
c) relevant information system in place	
d) relevant strategies in place (please provide details)	
e) relevant information system and strategies in place (please provide details)	

Further comments on the strategies for *in situ* and *ex situ* conservation and sustainable use of forest genetic diversity

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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	x (?)
b) relevant policies and programmes under development	
c) some policies and programmes in place (please specify)	
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

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

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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	
We have started to apply strategies based on modern conservation biology and landscape ecology in the area protection. The conservation work in the future will be concentrated to rich areas with many valuable habitats and important circumstances/features for high biological diversity. The strategy will also be to focus on large nature reserves.	
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)	
d) yes, integrated into policies and programmes in major sectors (please provide details)	x
Further comments on the integration of biodiversity conservation and sustainable use into forest and other sector policies and programmes	
It is integrated in the forest policy, decided by the Parliament, and it consists on two goals of equal importance - one environmental goal and one production goal. A set of Forest sector Objectives are under progress in the sector council. (A multi-stakeholder approach). The process is under superintendence by the National Board of Forestry.	
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)	x
e) a comprehensive set of practices and laws developed and	

implemented (please provide details)	
Further comments on the practices and laws developed and implemented to provide a sound basis for conservation and sustainable use of forest biodiversity	
See under number one.	
23. Is your country promoting forest law enforcement and addressing related trade?	
a) no	
b) review under way	
c) potential measures identified	x
d) yes, some measures in place to strengthen law enforcement and address related trade	
e) yes, comprehensive measures in place to strengthen law enforcement and address related trade	
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	x
d) yes, some measures taken (please provide details)	
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	
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	

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

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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	
b) review under way	
c) review completed	
d) a forest classification system adopted	x
27. Has your country developed national forest ecosystem classification systems and maps that use agreed international standards and protocols?	
a) no	
b) early stages of development	
c) advanced stages of development	
d) yes, classification systems in place	x
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)	x
Further comments on the surveys of specific forest ecosystems in priority areas for conservation and sustainable use of forest biodiversity	
<p>Woodland Key Habitats are areas where redlisted animals and plants exist, or could be expected to exist. The term serves as a stamp of quality for various valuable forest types, e.g. old fire-influenced pine wood, hillsides, swamps with spruce and black alder, old and mature broadleaf trees and wooded pastures.</p> <p>Today the Woodland key habitat concept is widely recognised as a practical instrument for conservation within the Swedish forest sector. The concept has also been included in different forest certification standards.</p> <p>The National Board of Forestry was 1993 requested by the Government to start a survey of woodland key habitats. The result from the survey on the private owned small-scaled forest properties is available on Internet. www.svo.se/wkh</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>The question is indeed very complex and it is difficult to deliver an answer. At national level: We develop Forest Sector Objectives (it is a fusion of relevant Government policies, e.g. Forest Long term Targets, Forest Interim targets.) The National Board of Forestry plan to decide these new Forest Sector Objectives in January 2004.</p>	
<p>30. Has your country conducted key research programmes on the role of forest biodiversity and ecosystem functioning?</p>	
a) no	
b) research programs under development	
c) yes, some research programs conducted	
d) yes, comprehensive research programs conducted	x
<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?</p>	
a) no	
b) capacity building programme under development	
c) yes, some programmes in place (please provide details)	x
d) yes, comprehensive programmes in place (please provide details)	
<p>Further comments on the programmes to enhance and improve the technical capacity at the national level to monitor forest biodiversity</p>	

Some examples:

The Swedish National Forest Inventory (the Swedish NFI) is carried out by [the Department of Forest Resource Management and Geomatics, Swedish University of Agricultural Sciences](#) in Umeå. The Swedish NFI has been undertaken since 1923.

The main purpose with the NFI is to describe the state of and changes in forest resources in Sweden - growth and cuttings for instance. However, there are numerous fields of application. For example, the NFI is a powerful resource for environmental monitoring. The NFI is a part of the Official Statistics of Sweden.

The inventory includes 13.500 sample plots and 10.400 of these plots are inventoried in the field during the period of the year when the ground is bare. All types of land are included in the survey. However, the most detailed information concerns forest land.

Since 1983 there has been a strengthened organization between the Swedish NFI and the Swedish Forest Soil Inventory. This new umbrella organization is called The Swedish National Inventory of Forests (RIS).

Polytax. A program to monitor environmental concern and regeneration quality during the phase of regeneration felling was started in 1999. In this inventory, called Polytax, sites that is to be subjects of regeneration felling is inventoried at three different occasions, before felling, one year after felling and at the time when the regeneration should be established. The biological, social and cultural value of the site is described before cutting. The inventory then follows up to which extent these values are taken into consideration during and if the value is preserved after the logging and regeneration operations. At the time when the regeneration should be established, a detailed description of regeneration success, regeneration method and regenerated tree species are done. The inventory is designed to give results at a national and regional scale, with good accuracy.

Woodland key habitat (WKH) survey. And specific monitoring of WKH. Woodland Key Habitats are areas where red-listed animals and plants exist, or could be expected to exist. The term serves as a stamp of quality for various valuable forest types, e.g. old fire-influenced pine wood, hillsides, swamps with spruce and black alder, old and mature broadleaf trees and wooded pastures.

Today the Woodland key habitat concept is widely recognised as a practical instrument for conservation within the Swedish forest sector. The concept has also been included in different forest certification standards.

Until the end of 2001 around 46 000 key habitats on small private woodlots had been registered. Together they cover almost 1 410 square kilometers. The average area is 3,1 hectares with a median value of 1,4 hectares.

Today around 25 % of the key habitats are known. With continued surveys more of the key habitats will be found. The knowledge provided by the survey will be an important tool in our efforts to achieve environmentally adapted forestry for many years to come.

We are unsure on how to answer at "benefiting from the opportunities offered through the Clearing House Mechanism of CBD".

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

The formulation of forest and environment policy goals has gradually developed towards more quantitative goals, or targets. As a consequence, follow-up planning has been more straightforward and more systematic. Indicators are now being introduced to make

the follow-up process more transparent and easily comprehensible for politicians, the forest sector, the general public and others.

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